<u>District I</u> 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 361796

	APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE						
Operator Name and Address		2. OGRID Number					
Avant Operating, LLC		330396					
1515 Wynkoop Street		3. API Number					
Denver, CO 80202		30-015-54871					

4. Property Code 5. Property Name 6. Well No. 335623 LITTLE BETTY 20 701H

7 Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
Α	20	21S	28E		1240	N	150	E	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	20	21S	28E	D	330	N	100	W	Eddv

9. Pool Information

97208 LONE TREE DRAW; WOLFCAMP

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3224
16. Multiple	17. Proposed Depth	18. Formation	19. Contractor	20. Spud Date
N	14501	Wolfcamp		5/2/2024
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

			Ziii iopooca Gaoini	g and comont i rogiam		
Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	14.75	10.75	40.5	400	175	0
Int1	9.875	7.625	29.7	7761	910	0
Prod	6.75	5.5	20	14501	720	n

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

	22000000		
Туре	Working Pressure	Test Pressure	Manufacturer
Pipe	10000	5000	CAMERON

knowledge and be	Signature:			OIL CONSERVATIO	ON DIVISION
Printed Name:	Electronically filed by Sarah Ferre	eyros	Approved By:	Ward Rikala	
Title:	itle: Director of Regulatory				
Email Address: sarah@avantnr.com			Approved Date:	3/26/2024	Expiration Date: 3/26/2026
Date:	3/19/2024	Phone: 720-854-9020	Conditions of Appr	oval Attached	

<u>DISTRICT 1</u> 1625 N. French Dr., Hobbs, N.M. 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 <u>DISTRICT II</u> 811 S. First St., Artesia, N.M. 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 DISTRICT III 1000 Rio Brazos Rd., Aztec, N.M. 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, N.M. 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

UL or lot no. Section Township Range

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, N.M. 87505

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

☐ AMENDED REPORT

150' FEL

50' FEL

100' FEL

525' FEL

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	*Pool Code	⁸ Pool Code ³ Pool Name					
30-015-54871	97208	97208 LONE TREE DRAW; WOI					
⁴ Property Code	⁵ Property	Name	• Well Number				
335623	LITTLE BE	LITTLE BETTY 20					
OGRID No.	⁸ Operator	Operator Name Ele					
330396	AVANT OPERA	AVANT OPERATING, LLC					

¹⁰ Surface Location

Feet from the North/South line | Feet from the | East/West line | County

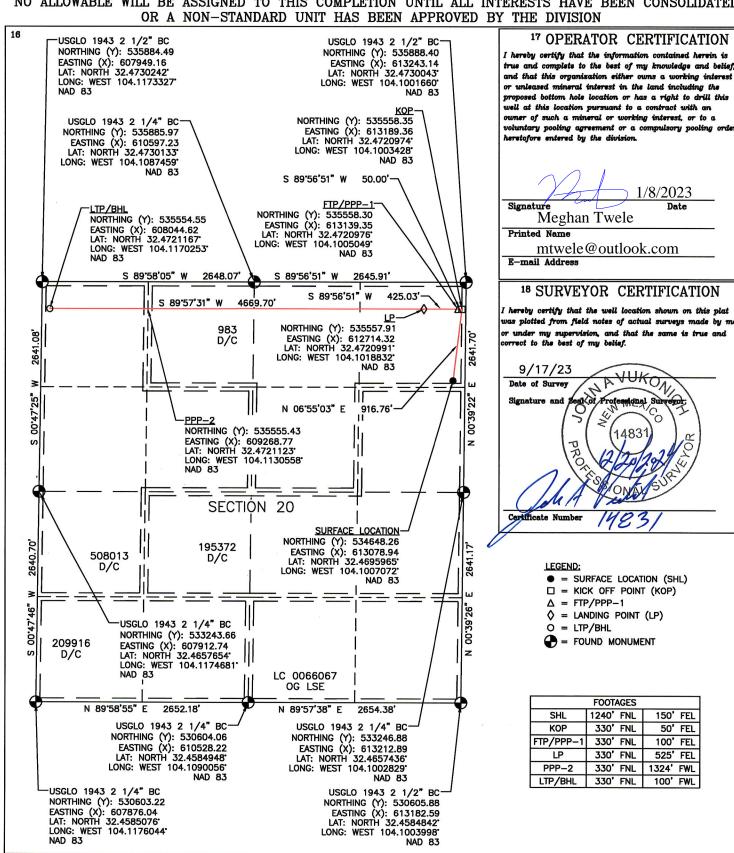
	200000			200 1011	1000 110111 1110		1000 110111 0110	Dasey west into	County	
Α	20	21 S	28 E		1240	NORTH	150	EAST	EDDY	
			11 Rotte	m Hole	Location If	Different Fro	m Surface			

Lot Idn

Bottom Hole Location if Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	20	21 S	28 E		330	NORTH	100	WEST	EDDY
18 Dedicated Acre	S				18 Joint or Infill	¹⁴ Consolidation Code	15 Order No.		
SECT	TON 20:		TOTAL	: 480 Ac.					

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED



Form APD Conditions

Permit 361796

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240

Phone: (575) 393-6161 Fax: (575) 393-0720 <u>District II</u>
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

<u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
Avant Operating, LLC [330396]	30-015-54871
1515 Wynkoop Street	Well:
Denver, CO 80202	LITTLE BETTY 20 #701H

OCD Reviewer	Condition
ward.rikala	Notify OCD 24 hours prior to casing & cement
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104
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
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing
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
ward.rikala	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

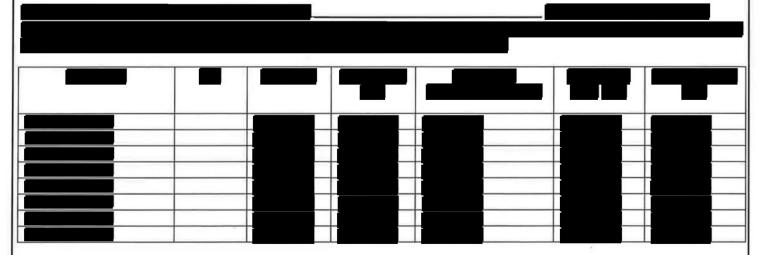
I. Operator:	Avant Operating, LLC	OGRID: 330396	Date: 03/15/2024
--------------	----------------------	----------------------	------------------

II. Type: \square Original \square Amendment due to \square 19.15.27.9.D(6)(a) NMAC \square 19.15.27.9.D(6)(b) NMAC \square 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



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.

Beginning April 1, 2022, an operat	EFFECT or that is not in complian	— Enhanced Plan IVE APRIL 1, 2022 ce with its statewide natural gas ca	pture requirement for the applicable
☐ Operator certifies that it is not r capture requirement for the applicab		section because Operator is in comp	pliance with its statewide natural gas
IX. Anticipated Natural Gas Prod	uction:		
Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF
	or planned interconnect o	of the natural gas gathering system(s)	ated pipeline route(s) connecting the , and the maximum daily capacity of d.
XII. Line Capacity. The natural gaproduction volume from the well pri			100% of the anticipated natural gas
XIII. Line Pressure. Operator denote the description of the descript			
☑ Attach Operator's plan to manage	e production in response to	the increased line pressure.	
XIV. Confidentiality: Operator Section 2 as provided in Paragraph (for which confidentiality is asserted)	2) of Subsection D of 19.1	5.27.9 NMAC, and attaches a full de	

(h)

(i)

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: power generation on lease; (a) power generation for grid; (b) compression on lease; (c) liquids removal on lease; (d) reinjection for underground storage; (e) reinjection for temporary storage; (f) (g) reinjection for enhanced oil recovery;

Section 4 - Notices

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

other alternative beneficial uses approved by the division.

fuel cell production; and

- (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: VP of Geosciences E-mail Address: John@avantnr.com Date: 03/15/24 Phone: 678-988-6644 OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form) Approved By: Title: Approval Date: Conditions of Approval:
Title: VP of Geosciences E-mail Address: John@avantnr.com Date: 03/15/24 Phone: 678-988-6644 OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form) Approved By: Title: Approval Date:
E-mail Address: John@avantnr.com Date: 03/15/24 Phone: 678-988-6644 OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form) Approved By: Title: Approval Date:
Date: 03/15/24 Phone: 678-988-6644 OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form) Approved By: Title: Approval Date:
Phone: 678-988-6644 OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form) Approved By: Title: Approval Date:
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form) Approved By: Title: Approval Date:
(Only applicable when submitted as a standalone form) Approved By: Title: Approval Date:
(Only applicable when submitted as a standalone form) Approved By: Title: Approval Date:
Title: Approval Date:
Approval Date:
Conditions of Approval:

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.

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 (I) 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

Inten	t	As Dril	led									
API#	:											
Ope	rator Nai	me:				Property N	ame:					Well Number
Kick (Off Point	(KOP)										
UL	Section	Township	Range	Lot	Feet	From N	I/S	Feet	F	rom E/W	County	
Latitu	ıde				Longitu	ıde					NAD	
First -	Take Poir	nt (FTP)	Range	Lot	Feet	From N	I/S	Feet	F	rom E/W	County	
Latitu		,	80		Longitu						NAD	
Last T	āke Poin	t (LTP)										
UL	Section	Township	Range	Lot	Feet	From N/S	Feet		From E/\	W Cour	nty	
Latitu	ude			<u> </u>	Longitu	ıde	I	I		NAD		
Is this	s well the	defining v	vell for th	ie Hori	zontal S _l	pacing Unit?]			
Is this	s well an	infill well?										
	ll is yes p ng Unit.	lease provi	de API if	availal	ole, Ope	rator Name	and v	vell nu	umber fo	or Defini	ing well fo	or Horizontal
API#	;											
Ope	rator Nai	me:	I			Property N	ame:					Well Number
												<u> </u>

KZ 06/29/2018



WELL DETAILS: Little Betty 20 701H

Ground Elev: 3224.0 KB: 3250.5

+N/-S +E/-W Northing Easting Latittude Longitude 0.0 0.0 534648.28 613078.96 32.4695965°N 104.1007072°W

PROJECT DETAILS: Eddy County, NM (NAD 83)

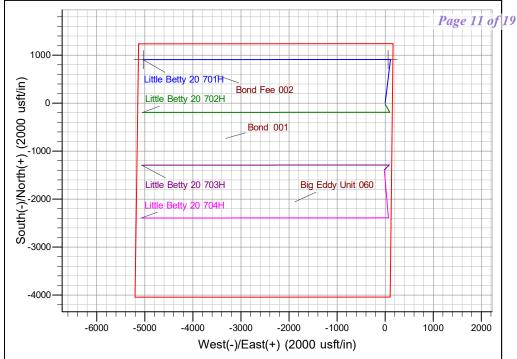
Geodetic System: US State Plane 1983

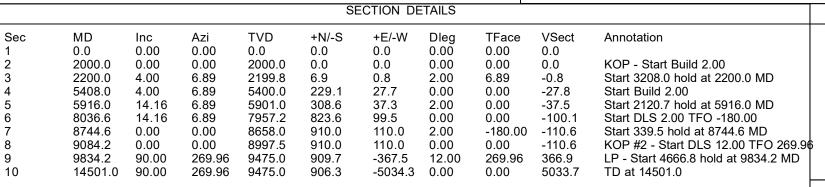
Datum: North American Datum 1983

Ellipsoid: GRS 1980

Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level





M Azimuths to Grid North
True North: -0.12°
Magnetic North: 8.70°

Magnetic Field
Strength: 49508.1nT
Dip Angle: 60.57°
Date: 12/31/2004
Model: IGRF2000

Start DLS 2.00 TFO -180.00 Vertical Depth (1500 usff/in)

Vertical Depth (1500 usff/in)

Vertical Depth (1500 usff/in) Top of SBSG SD Start 339.5 hold at 8744.6 MD KOP #2 - Start DLS 12.00 TFO 269.96 Top of TBSG SD TD at 14501.0 LP - Start 4666.8 hold at 9834.2 MD Top WFMP Little Betty 20 701H LTP/BHL True -1500 -750 750 1500 2250 3000 3750 4500 5250 6000 7500 8250 9000 9750 10500 11250 12000 6750 Vertical Section at 269.96° (1500 usft/in)



Avant Operating, LLC

Eddy County, NM (NAD 83) Little Betty 20 Pad 1 Little Betty 20 701H

OH

Plan: Plan 0.1

Standard Planning Report

26 February, 2024





Planning Report



EDM 5000.16 Single User Db Database: Company: Avant Operating, LLC Project: Eddy County, NM (NAD 83) Little Betty 20 Pad 1 Site: Well: Little Betty 20 701H

Wellbore: ОН Plan 0.1 Design:

Local Co-ordinate Reference: TVD Reference: MD Reference:

Survey Calculation Method:

North Reference:

Well Little Betty 20 701H WELL @ 3250.5usft (3250.5) WELL @ 3250.5usft (3250.5)

269.96

Minimum Curvature

Project Eddy County, NM (NAD 83)

US State Plane 1983 Map System: North American Datum 1983 Geo Datum: New Mexico Eastern Zone Map Zone:

System Datum: Mean Sea Level

0.0

Little Betty 20 Pad 1 Site

Northing: 534,648.28 usft Site Position: Latitude: 32.4695965°N From: Lat/Long Easting: 613,078.96 usft Longitude: 104.1007072°W

Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 "

0.0

Plan 0.1 (OH)

Well Little Betty 20 701H

32.4695965°N **Well Position** +N/-S 0.0 usft Northing: 534,648.28 usft Latitude: +E/-W 0.0 usft Easting: 613,078.96 usft Longitude: 104.1007072°W

Position Uncertainty 0.0 usft Wellhead Elevation: usft **Ground Level:** 3,224.0 usft

0.12° **Grid Convergence:**

ОН Wellbore **Model Name** Declination Magnetics Sample Date Dip Angle Field Strength (°) (°) (nT) IGRF2000 49,508.11884324 12/31/2004 8.83 60.57

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

0.0

Plan Survey Tool Program Date 2/26/2024 **Depth From** Depth To (usft) (usft) Survey (Wellbore) **Tool Name** Remarks 0.0 14,501.0

B001Mb_MWD+HRGM OWSG MWD + HRGM



Planning Report



Database: EDM 5000.16 Single User Db Company: Avant Operating, LLC Project: Eddy County, NM (NAD 83)
Site: Little Betty 20 Pad 1
Well: Little Betty 20 701H

Wellbore: OH
Design: Plan 0.1

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

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	
2,200.0	4.00	6.89	2,199.8	6.9	0.8	2.00	2.00	0.00	6.89	
5,408.0	4.00	6.89	5,400.0	229.1	27.7	0.00	0.00	0.00	0.00	
5,916.0	14.16	6.89	5,901.0	308.6	37.3	2.00	2.00	0.00	0.00	
8,036.6	14.16	6.89	7,957.2	823.6	99.5	0.00	0.00	0.00	0.00	
8,744.6	0.00	0.00	8,658.0	910.0	110.0	2.00	-2.00	-0.97	-180.00	
9,084.2	0.00	0.00	8,997.5	910.0	110.0	0.00	0.00	0.00	0.00	
9,834.2	90.00	269.96	9,475.0	909.7	-367.5	12.00	12.00	-12.01	269.96	
14,501.0	90.00	269.96	9,475.0	906.3	-5,034.3	0.00	0.00	0.00	0.00	Little Betty 20 701H L

Planning Report



Database: EDM 5000.16 Single User Db Company: Avant Operating, LLC Project: Eddy County, NM (NAD 83)
Site: Little Betty 20 Pad 1
Well: Little Betty 20 701H

Wellbore: OH
Design: Plan 0.1

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

nned 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
300.0 400.0	0.00 0.00	0.00 0.00	300.0 400.0	0.0 0.0	0.0 0.0	0.0 0.0	0.00 0.00	0.00 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
1,181.0	0.00	0.00	1,181.0	0.0	0.0	0.0	0.00	0.00	0.00
CAPITAN RE	EF								
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
1,800.0	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									
2,100.0	2.00	6.89	2,100.0	1.7	0.2	-0.2	2.00	2.00	0.00
2,200.0	4.00	6.89	2,199.8	6.9	8.0	-0.8	2.00	2.00	0.00
	hold at 2200.0 N								
2,300.0	4.00	6.89	2,299.6	13.9	1.7	-1.7	0.00	0.00	0.00
2,400.0	4.00	6.89	2,399.4	20.8	2.5	-2.5	0.00	0.00	0.00
2,500.0	4.00	6.89	2,499.1	27.7	3.3	-3.4	0.00	0.00	0.00
2,600.0	4.00	6.89	2,598.9	34.6	4.2	-4.2	0.00	0.00	0.00
2,700.0	4.00	6.89	2,698.6	41.6	5.0	-5.1	0.00	0.00	0.00
2,800.0	4.00	6.89	2,798.4	48.5	5.9	-5.9	0.00	0.00	0.00
2,900.0	4.00	6.89	2,898.1	55.4	6.7	-6.7	0.00	0.00	0.00
2,995.1	4.00	6.89	2,993.0	62.0	7.5	-7.5	0.00	0.00	0.00
CHERRY CA	NYON								
3,000.0	4.00	6.89	2,997.9	62.3	7.5	-7.6	0.00	0.00	0.00
3,100.0	4.00	6.89	3,097.6	69.3	8.4	-8.4	0.00	0.00	0.00
3,200.0	4.00	6.89	3,197.4	76.2	9.2	-9.3	0.00	0.00	0.00
3,300.0	4.00	6.89	3,297.2	83.1	10.0	-10.1	0.00	0.00	0.00
3,400.0	4.00	6.89	3,396.9	90.0	10.9	-10.9	0.00	0.00	0.00
3,500.0	4.00	6.89	3,496.7	97.0	11.7	-11.8	0.00	0.00	0.00
3,600.0	4.00	6.89	3,596.4	103.9	12.6	-12.6	0.00	0.00	0.00
3,700.0	4.00	6.89	3,696.2	110.8	13.4	-13.5	0.00	0.00	0.00
3,800.0	4.00	6.89	3,795.9	117.7	14.2	-14.3	0.00	0.00	0.00
3,900.0	4.00	6.89	3,895.7	124.7	15.1	-15.2	0.00	0.00	0.00
4,000.0	4.00	6.89	3,995.5	131.6	15.9	-16.0	0.00	0.00	0.00
4,100.0	4.00	6.89	4,095.2	138.5	16.7	-16.8	0.00	0.00	0.00
4,200.0	4.00	6.89	4,195.0	145.4	17.6	-17.7	0.00	0.00	0.00
4,300.0	4.00	6.89	4,294.7	152.4	18.4	-18.5	0.00	0.00	0.00
4,390.5	4.00	6.89	4,385.0	158.6	19.2	-10.5	0.00	0.00	0.00
BRUSHY CA		0.00	1,000.0	.00.0	10.2	-10.0	0.00	0.00	0.00
4,400.0	4.00	6.89	4,394.5	159.3	19.2	-19.4	0.00	0.00	0.00
4,500.0	4.00	6.89	4,494.2	166.2	20.1	-20.2	0.00	0.00	0.00

Planning Report



Database: EDM 5000.16 Single User Db Company: Avant Operating, LLC Project: Eddy County, NM (NAD 83)
Site: Little Betty 20 Pad 1
Well: Little Betty 20 701H

Wellbore: OH
Design: Plan 0.1

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

anned Survey									
Measured Depth (usft)	i Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,600	.0 4.00	6.89	4,594.0	173.1	20.9	-21.0	0.00	0.00	0.00
4,700	0.0 4.00	6.89	4,693.7	180.1	21.8	-21.9	0.00	0.00	0.00
4,800		6.89	4,793.5	187.0	22.6	-21.3	0.00	0.00	0.00
4,900		6.89	4,893.3	193.9	23.4	-23.6	0.00	0.00	0.00
5,000		6.89	4,993.0	200.8	24.3	-24.4	0.00	0.00	0.00
5,100	0.0 4.00	6.89	5,092.8	207.8	25.1	-25.3	0.00	0.00	0.00
5,200	0.0 4.00	6.89	5,192.5	214.7	25.9	-26.1	0.00	0.00	0.00
5,300		6.89	5,292.3	221.6	26.8	-26.9	0.00	0.00	0.00
5,400		6.89	5,392.0	228.5	27.6	-27.8	0.00	0.00	0.00
5,408		6.89	5,400.0	229.1	27.7	-27.8	0.00	0.00	0.00
		0.09	3,400.0	229.1	21.1	-21.0	0.00	0.00	0.00
Start Bui									
5,500	0.0 5.84	6.89	5,491.7	236.9	28.6	-28.8	2.00	2.00	0.00
5,600	7.84	6.89	5,591.0	248.7	30.1	-30.2	2.00	2.00	0.00
5,700		6.89	5,689.8	264.0	31.9	-32.1	2.00	2.00	0.00
5,700		6.89	5,690.0	264.0	31.9	-32.1	0.00	0.00	0.00
Top of B									
5,800	0.0 11.84	6.89	5,788.0	282.7	34.2	-34.4	2.00	2.00	0.00
5,900	0.0 13.84	6.89	5,885.5	304.7	36.8	-37.0	2.00	2.00	0.00
5.016	14.16	6.89	5,901.0	308.6	37.3	-37.5	2.00	2.00	0.00
5,916			5,901.0	300.0	31.3	-37.5	2.00	2.00	0.00
	20.7 hold at 5916.0 N								
6,000		6.89	5,982.4	329.0	39.8	-40.0	0.00	0.00	0.00
6,100	0.0 14.16	6.89	6,079.4	353.3	42.7	-42.9	0.00	0.00	0.00
6,200	0.0 14.16	6.89	6,176.4	377.6	45.6	-45.9	0.00	0.00	0.00
6,300	.0 14.16	6.89	6,273.3	401.8	48.6	-48.8	0.00	0.00	0.00
0.400	11.10	6.89	0.070.0	426.1	51.5	-51.8	0.00	0.00	0.00
6,400			6,370.3				0.00		
6,500		6.89	6,467.3	450.4	54.4	-54.7	0.00	0.00	0.00
6,600		6.89	6,564.2	474.7	57.4	-57.7	0.00	0.00	0.00
6,700		6.89	6,661.2	499.0	60.3	-60.6	0.00	0.00	0.00
6,800	0.0 14.16	6.89	6,758.1	523.3	63.2	-63.6	0.00	0.00	0.00
6,900	0.0 14.16	6.89	6,855.1	547.6	66.2	-66.5	0.00	0.00	0.00
6,922		6.89	6,877.0	553.0	66.8	-67.2	0.00	0.00	0.00
		0.00	0,011.0	000.0	00.0	01.2	0.00	0.00	0.00
Top of FI		0.00	0.050.4	574.0	00.4	00.5	0.00	0.00	0.00
7,000		6.89	6,952.1	571.8	69.1	-69.5	0.00	0.00	0.00
7,100		6.89	7,049.0	596.1	72.0	-72.5	0.00	0.00	0.00
7,108		6.89	7,057.0	598.1	72.3	-72.7	0.00	0.00	0.00
Top of SI	BSG Shale								
7 000	0 4440	6.00	7 440 0	600.4	75.0	75.4	0.00	0.00	0.00
7,200		6.89	7,146.0	620.4	75.0	-75.4	0.00	0.00	0.00
7,300		6.89	7,242.9	644.7	77.9	-78.4	0.00	0.00	0.00
7,400		6.89	7,339.9	669.0	80.8	-81.3	0.00	0.00	0.00
7,500		6.89	7,436.9	693.3	83.8	-84.3	0.00	0.00	0.00
7,600	0.0 14.16	6.89	7,533.8	717.6	86.7	-87.2	0.00	0.00	0.00
7,661	.0 14.16	6.89	7,593.0	732.4	88.5	-89.0	0.00	0.00	0.00
		0.03	7,000.0	702.4	00.0	-03.0	0.00	0.00	0.00
Top of SI			7.000.0						2
7,700		6.89	7,630.8	741.8	89.6	-90.2	0.00	0.00	0.00
7,800		6.89	7,727.8	766.1	92.6	-93.1	0.00	0.00	0.00
7,900		6.89	7,824.7	790.4	95.5	-96.1	0.00	0.00	0.00
8,000	0.0 14.16	6.89	7,921.7	814.7	98.4	-99.0	0.00	0.00	0.00
0.000	6 4440	6.00	7.057.0	000 6	00.5	100 1	0.00	0.00	0.00
8,036		6.89	7,957.2	823.6	99.5	-100.1	0.00	0.00	0.00
	S 2.00 TFO -180.00								
8,100		6.89	8,018.8	838.3	101.3	-101.9	2.00	-2.00	0.00
8,113	3.5 12.62	6.89	8,032.0	841.3	101.7	-102.2	2.00	-2.00	0.00
Top of Ti	BSG Carb								

Planning Report



Database: EDM 5000.16 Single User Db Company: Avant Operating, LLC
Project: Eddy County, NM (NAD 83)
Site: Little Betty 20 Pad 1
Well: Little Betty 20 701H

Wellbore: OH
Design: Plan 0.1

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

nned 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)
8,300.0	8.89	6.89	8,215.2	875.8	105.8	-106.4	2.00	-2.00	0.00
8,400.0	6.89	6.89	8,314.2	889.5	107.5	-108.1	2.00	-2.00	0.00
8,500.0		6.89	8,413.7	899.7	107.3	-100.1	2.00	-2.00	0.00
8,600.0		6.89	8,513.4	906.4	100.7	-110.2	2.00	-2.00	0.00
8,700.0		6.89	8,613.4	909.7	109.5	-110.2	2.00	-2.00	0.00
8,744.6		0.00	8,658.0	910.0	110.0	-110.6	2.00	-2.00	-15.44
	5 hold at 8744.6 MI		0,000.0	310.0	110.0	-110.0	2.00	-2.00	-10.44
8,800.0		0.00	8,713.4	910.0	110.0	-110.6	0.00	0.00	0.00
		0.00	8,813.4		110.0	-110.6	0.00	0.00	0.00
8,900.0			8,848.0	910.0	110.0	-110.6	0.00	0.00	
8,934.6		0.00	0,040.0	910.0	110.0	-110.6	0.00	0.00	0.00
Top of TB		0.00	0.042.4	010.0	110.0	110.6	0.00	0.00	0.00
9,000.0 9,084.2		0.00 0.00	8,913.4 8,997.5	910.0 910.0	110.0 110.0	-110.6 -110.6	0.00 0.00	0.00 0.00	0.00 0.00
	2 0.00 Start DLS 12.00 TF		0,551.3	310.0	110.0	-110.0	0.00	0.00	0.00
			9,013.4	910.0	400.7	-110.3	12.00	12.00	-568.20
9,100.0		269.96	9,013.4 9,112.2		109.7 96.0	-110.3 -96.6			-568.20 0.00
9,200.0 9,280.		269.96 269.96	9,112.2	910.0 910.0	96.0 70.3	-96.6 -71.0	12.00 12.00	12.00 12.00	0.00
		209.90	৬, 100.0	910.0	70.3	-7 1.0	12.00	12.00	0.00
•	sal TBSG Target 25.90	269.96	9,206.1	910.0	62.0	-62.6	12.00	12.00	0.00
9,300.0 9,381.5		269.96 269.96	9,206.1 9,276.0	910.0 910.0	62.0 20.4	-62.6 -21.0	12.00 12.00	12.00 12.00	0.00
		209.90	9,210.0	910.0	20.4	-21.0	12.00	12.00	0.00
Top WFMI	7								
9,400.0		269.96	9,290.8	909.9	9.3	-9.9	12.00	12.00	0.00
9,497.4	49.59	269.96	9,361.1	909.9	-58.0	57.3	12.00	12.00	0.00
	y 20 701H FTP (co								
9,500.0		269.96	9,362.8	909.9	-60.0	59.3	12.00	12.00	0.00
9,600.0		269.96	9,418.7	909.8	-142.6	142.0	12.00	12.00	0.00
9,700.0	73.90	269.96	9,456.3	909.8	-235.1	234.5	12.00	12.00	0.00
9,800.0	85.90	269.96	9,473.8	909.7	-333.4	332.7	12.00	12.00	0.00
9,834.2		269.96	9,475.0	909.7	-367.5	366.9	12.00	12.00	0.00
LP - Start	4666.8 hold at 983								
9,900.0		269.96	9,475.0	909.6	-433.3	432.7	0.00	0.00	0.00
10,000.0		269.96	9,475.0	909.5	-533.3	532.7	0.00	0.00	0.00
10,100.0		269.96	9,475.0	909.5	-633.3	632.7	0.00	0.00	0.00
		269.96		909.4	-733.3			0.00	0.00
10,200.0			9,475.0		-733.3 -833.3	732.7 832.7	0.00	0.00	
10,300.0 10,400.0		269.96 269.96	9,475.0 9,475.0	909.3 909.3	-833.3 -933.3	932.7 932.7	0.00 0.00	0.00	0.00 0.00
10,500.0		269.96	9,475.0 9,475.0	909.3	-933.3 -1,033.3	1,032.7	0.00	0.00	0.00
10,600.0		269.96	9,475.0 9,475.0	909.2	-1,033.3 -1,133.3	1,032.7	0.00	0.00	0.00
10,700.0		269.96	9,475.0	909.0	-1,233.3	1,232.7	0.00	0.00	0.00
10,800.0		269.96	9,475.0	909.0	-1,333.3	1,332.7	0.00	0.00	0.00
10,900.0		269.96	9,475.0	908.9	-1,433.3	1,432.7	0.00	0.00	0.00
11,000.0		269.96	9,475.0	908.8	-1,533.3	1,532.7	0.00	0.00	0.00
11,100.0	90.00	269.96	9,475.0	908.7	-1,633.3	1,632.7	0.00	0.00	0.00
11,200.0		269.96	9,475.0	908.7	-1,733.3	1,732.7	0.00	0.00	0.00
11,300.0	90.00	269.96	9,475.0	908.6	-1,833.3	1,832.7	0.00	0.00	0.00
11,400.0		269.96	9,475.0	908.5	-1,933.3	1,932.7	0.00	0.00	0.00
11,500.0		269.96	9,475.0	908.5	-2,033.3	2,032.7	0.00	0.00	0.00
11,600.0	90.00	269.96	9,475.0	908.4	-2,133.3	2,132.7	0.00	0.00	0.00
11,700.0	90.00	269.96	9,475.0	908.3	-2,233.3	2,232.7	0.00	0.00	0.00
11,800.0		269.96	9,475.0	908.2	-2,333.3	2,332.7	0.00	0.00	0.00
11,900.0		269.96	9,475.0	908.2	-2,433.3	2,432.7	0.00	0.00	0.00
11,000.0		269.96	9,475.0	908.1	-2,533.3	2,532.7	0.00	0.00	0.00
12,000.0) 90.00								

Planning Report



Database: EDM 5000.16 Single User Db Company: Avant Operating, LLC Project: Eddy County, NM (NAD 83)
Site: Little Betty 20 Pad 1
Well: Little Betty 20 701H

Wellbore: OH
Design: Plan 0.1

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

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)
12,200.0	90.00	269.96	9,475.0	907.9	-2,733.3	2,732.7	0.00	0.00	0.00
12,300.0	90.00	269.96	9,475.0	907.9	-2,833.3	2,832.7	0.00	0.00	0.00
12,400.0	90.00	269.96	9,475.0	907.8	-2,933.3	2,932.7	0.00	0.00	0.00
12,500.0	90.00	269.96	9,475.0	907.7	-3,033.3	3,032.7	0.00	0.00	0.00
12,600.0	90.00	269.96	9,475.0	907.6	-3,133.3	3,132.7	0.00	0.00	0.00
12,700.0	90.00	269.96	9,475.0	907.6	-3,233.3	3,232.7	0.00	0.00	0.00
12,800.0	90.00	269.96	9,475.0	907.5	-3,333.3	3,332.7	0.00	0.00	0.00
12,900.0	90.00	269.96	9,475.0	907.4	-3,433.3	3,432.7	0.00	0.00	0.00
13,000.0	90.00	269.96	9,475.0	907.4	-3,533.3	3,532.7	0.00	0.00	0.00
13,100.0	90.00	269.96	9,475.0	907.3	-3,633.3	3,632.7	0.00	0.00	0.00
13,200.0	90.00	269.96	9,475.0	907.2	-3,733.3	3,732.7	0.00	0.00	0.00
13,300.0	90.00	269.96	9,475.0	907.1	-3,833.3	3,832.7	0.00	0.00	0.00
13,400.0	90.00	269.96	9,475.0	907.1	-3,933.3	3,932.7	0.00	0.00	0.00
13,500.0	90.00	269.96	9,475.0	907.0	-4,033.3	4,032.7	0.00	0.00	0.00
13,600.0	90.00	269.96	9,475.0	906.9	-4,133.3	4,132.7	0.00	0.00	0.00
13,700.0	90.00	269.96	9,475.0	906.8	-4,233.3	4,232.7	0.00	0.00	0.00
13,800.0	90.00	269.96	9,475.0	906.8	-4,333.3	4,332.7	0.00	0.00	0.00
13,900.0	90.00	269.96	9,475.0	906.7	-4,433.3	4,432.7	0.00	0.00	0.00
14,000.0	90.00	269.96	9,475.0	906.6	-4,533.3	4,532.7	0.00	0.00	0.00
14,100.0	90.00	269.96	9,475.0	906.5	-4,633.3	4,632.7	0.00	0.00	0.00
14,200.0	90.00	269.96	9,475.0	906.5	-4,733.3	4,732.7	0.00	0.00	0.00
14,300.0	90.00	269.96	9,475.0	906.4	-4,833.3	4,832.7	0.00	0.00	0.00
14,400.0	90.00	269.96	9,475.0	906.3	-4,933.3	4,932.7	0.00	0.00	0.00
14,500.0	90.00	269.96	9,475.0	906.3	-5,033.3	5,032.7	0.00	0.00	0.00
14,501.0	90.00	269.96	9,475.0	906.3	-5,034.3	5,033.7	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Little Betty 20 701H LTP - plan hits target cent - Point	0.00 er	0.00	9,475.0	906.3	-5,034.3	535,554.53	608,044.62	32.4721167°N	104.1170253°W
Little Betty 20 701H FTP - plan misses target of Point	0.00 center by 164.	0.00 3usft at 949	9,475.0 7.4usft MD (9	910.0 9361.1 TVD, 9	60.4 909.9 N, -58.0	535,558.31 E)	613,139.37	32.4720976°N	104.1005049°W



Planning Report



Database: EDM 5000.16 Single User Db
Company: Avant Operating, LLC
Project: Eddy County, NM (NAD 83)
Site: Little Betty 20 Pad 1
Well: Little Betty 20 701H

Wellbore: OH
Design: Plan 0.1

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

Formations							
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,181.0	1,181.0	CAPITAN REEF				
	2,995.1	2,993.0	CHERRY CANYON				
	4,390.5	4,385.0	BRUSHY CANYON				
	5,700.2	5,690.0	Top of BSGL				
	6,922.6	6,877.0	Top of FBSG SD				
	7,108.2	7,057.0	Top of SBSG Shale				
	7,661.0	7,593.0	Top of SBSG SD				
	8,113.5	8,032.0	Top of TBSG Carb				
	8,934.6	8,848.0	Top of TBSG SD				
	9,280.1	9,188.0	Top of basal TBSG Target				
	9,381.5	9,276.0	Top WFMP				

Plan Annotations				
Measure Depth (usft)	d Vertical Depth (usft)	Local C +N/-S (usft)	oordinates +E/-W (usft)	Comment
2,00	2,000.0	0.0	0.0	KOP - Start Build 2.00
2,20	0.0 2,199.8	6.9	0.8	Start 3208.0 hold at 2200.0 MD
5,40	5,400.0	229.1	27.7	Start Build 2.00
5,91	5,901.0	308.6	37.3	Start 2120.7 hold at 5916.0 MD
8,03	3.6 7,957.2	823.6	99.5	Start DLS 2.00 TFO -180.00
8,74	4.6 8,658.0	910.0	110.0	Start 339.5 hold at 8744.6 MD
9,08	4.2 8,997.5	910.0	110.0	KOP #2 - Start DLS 12.00 TFO 269.96
9,83	1.2 9,475.0	909.7	-367.5	LP - Start 4666.8 hold at 9834.2 MD
14,50	1.0 9,475.0	906.3	-5,034.3	TD at 14501.0