Form 3160-3 (June 2015) UNITED STATES DEPARTMENT OF THE IN BUREAU OF LAND MANA APPLICATION FOR PERMIT TO DI	VTERIO AGEMEN RILL OF	R NT R REENTER		FORM 2 OMB No Expires: Jai 5. Lease Serial No. NMLC070286 6. If Indian, Allotee	APPROV 0. 1004-0 nuary 31 or Tribe	/ED 1137 , 2018	
1a. Type of work: ✓ DRILL □ RE 1b. Type of Well: ✓ Oil Well □ Gas Well ○ Ott 1c. Type of Completion: □ Hydraulic Fracturing ✓ Sir	EENTER her ngle Zone	Multiple Zone		 7. If Unit or CA Agr 8. Lease Name and V ANVIL FED COM 701H 	eement, Well No.	Name and No.	
2. Name of Operator				9. API Well No.	0154	48628	
3a. Address 1621 18th Street, Suite 200, Denver, CO 80202	3b. Phone (720) 710	No. (include area cod)-8999	e)	10. Field and Pool, c WC-015 G-07 S203	or Explor 3032G/	atory WOLFCAMP	
 4. Location of Well (Report location clearly and in accordance w At surface LOT 1 / 168 FNL / 1068 FEL / LAT 32.52210 At proposed prod. zone NWNW / 50 FNL / 330 FWL / LAT 	vith any Sta 02 / LONG T 32.5515	nte requirements.*) 5 -103.984436 501 / LONG -103.984	705	11. Sec., T. R. M. or SEC 4/T21S/R29E/	Blk. and /NMP	Survey or Area	
14. Distance in miles and direction from nearest town or post office 15 miles	ce*			12. County or Parish EDDY	l	13. State NM	
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. Spacin 320.0	ing Unit dedicated to this well			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 30 feet	19. Propo 10040 fe	sed Depth et / 20824 feet	20. BLM/ FED: NM	BIA Bond No. in file			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3386 feet	22. Appro	oximate date work will 20	start*	23. Estimated duration 90 days			
	24. Att	achments					
The following, completed in accordance with the requirements of (as applicable)	Onshore C	Dil and Gas Order No. 1	l, and the H	Iydraulic Fracturing ru	ale per 4	3 CFR 3162.3-3	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office) 	n Lands, th).	 4. Bond to cover th Item 20 above). 5. Operator certifice 6. Such other site sp BLM. 	e operation cation. pecific infor	s unless covered by an mation and/or plans as	existing may be r	bond on file (see	
25. Signature (Electronic Submission)	Nar BRI	ne (Printed/Typed) AN WOOD / Ph: (72	0) 710-89	99	Date 08/10/2	2020	
Title President							
Approved by (Signature) (Electronic Submission)	Nar Coc	ne <i>(Printed/Typed)</i> ly Layton / Ph: (575)	234-5959		Date 06/18/2	2021	
Title Assistant Field Manager Lands & Minerals Application approval does not warrant or certify that the applicant applicant to conduct operations thereon. Conditions of approval, if any, are attached.	Offi Car t holds lega	ice Isbad Field Office al or equitable title to th	nose rights	in the subject lease wh	nich wou	ld entitle the	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, m of the United States any false, fictitious or fraudulent statements of	ake it a cri or represent	me for any person know tations as to any matter	wingly and within its	willfully to make to a jurisdiction.	ny depai	tment or agency	



(Continued on page 2)

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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

Page 2 of 44

WELL LOCATION AND ACREAGE DEDICATION PLAT

1	API Number	r		² Pool Code	2		_								
	30-015-			97963		VVC-015	G-04 S203032	G; WOL	FCAIM						
⁴ Property C	ode		⁶ Well Number												
			ANVIL FED COM 701												
⁷ OGRID N	No.		⁸ Operator Name ⁹ Elevation												
325830)		ASCENT ENERGY, LLC. 3,383'												
	¹⁰ Surface Location														
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/	/West line	County					
1	4	21 S	29 E		168	NORTH	1,068	EAS	T	EDDY					
		•	11 Bo	ttom Hol	le Location I	f Different Fror	n Surface								
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/	/West line	County					
D	28	20 S	30 E		50	NORTH	330	WES	ST	EDDY					
¹² Dedicated Acres	¹³ Joint of	r Infill ¹⁴	Consolidation	Code ¹⁵ Or	der No.										
320															

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.

16	_ выт	00'				¹⁷ OPERATOR CERTIFICATION
SEC. 20	В.п.с.		SEC. 21	SHL (NAD83 NME)	LTP (NAD83 NME)	I hereby certify that the information contained herein is true and complete
	E 770' -		F	Y = 553,847.6	Y = 564,492.7	
SEC 20	330,		SEC. 28	X = 648,874.3	X = 648,756.6	to the best of my knowledge and bellef, and that this organization either
SEC. 28			P	LAT. = 32.522102 °N	LAT. = 32.551364 °N	owns a working interest or unleased mineral interest in the land including
				LONG. = 103.984436 °W	LONG. = 103.984705 °W	the proposed bottom hole location or has a right to drill this well at this
			1 1	FTP (NAD83 NME)	BHL (NAD83 NME)	logation nursuant to a contract with an owner of such a minaral or workin
+	+		+ $ +$ $ +$ $+$ $ +$	Y = 554,115.0	Y = 564,542.7	tocation pursuant to a contract with an owner of such a mineral of working
1	1		10^{1} AZ.=339 43 20	X = 648,800.8	X = 648,756.4	interest, or to a voluntary pooling agreement or a compulsory pooling
1	1			LAT. = 32.522838 °N	LAT. = 32.551501 °N	order heretofore entered by the division.
1	1			LONG. = 103.984672 W	LONG. = 103.984705 W	A ALAR
	D		G	CORNER COORDIN	ATES (NAD83 NME)	10-19-20
+	+			A - Y = 554,014.3 N ,	X = 648,471.3 E	Signatura
	1			B-Y = 556,658.4 N ,	X = 648,460.0 E	Signature
	1			C-F= 559,500.1 N ,	X = 648,430.2 E	Corv Walk
	1			D-1 - 301,940.0 N ,	X = 648,437.5 E	
+	+	_	+	E - Y = 564,534.3 N ,	X = 649,750.2 E	Printed Name
				G - Y = 561,942,3 N	X = 649,763.4 E	
		→ 330		H - Y = 559.300.0 N	X = 649.776.8 F	cory@permitswest.com
				I - Y = 556 660 3 N	X = 6497854F	E-mail Address
1				J - Y = 554.016.8 N	X = 649.794.7 E	
	+ 4					
	SEC. 32		SEC. 33	SHL (NAD27 NME)	LTP (NAD27 NME)	¹⁸ SURVEYOR CERTIFICATION
	1	- I	T20S R30E	Y = 553,786.1	Y = 564,431.1	I have by cortify that the well logation shown on this
	1			X = 607,694.4	X = 607,577.0	Thereby certify that the well tocation shown on this
				LAT. = 32.521982 °N	LAT. = 32.551244 °N	plat was plotted from field notes of actual surveys
+	+	- +		LONG. = 103.983933 °W	LONG. = 103.984201 °W	
	1		I. I.	FTP (NAD27 NME)	BHL (NAD27 NME)	made by me or under my supervision, and that the
	T. Contraction		I.	Y = 554,053.5	Y = 564,481.1	same is true and correct to the best of my belief
	1			X = 607,620.9	X = 607,576.8	sume is true and correct to the best of my bellef.
+	+ B		L'	LAT. = 32.522718 °N	LAT. = 32.551382 °N	10.0(.2020
1			-			
				LONG. = 103.984169 °W	LONG. = 103.984201 °W	
				LONG. = 103.984169 °W CORNER COORDIN	LONG. = 103.984201 °W ATES (NAD27 NME)	Date of Survey
	 			LONG. = 103.984169 °W CORNER COORDIN. A - Y = 553,952.9 N ,	LONG. = 103.984201 °W ATES (NAD27 NME) X = 607,291.4 E	Date of Survey
	 			LONG. = 103.984169 °W CORNER COORDIN. A - Y = 553,952.9 N , B - Y = 556,596.9 N ,	LONG. = 103.984201 °W ATES (NAD27 NME) X = $607,291.4 \text{ E}$ X = $607,280.2 \text{ E}$ (072,280.2 E)	Date of Survey Signatue and Seal of Desferring Servery
	 +		 +	LONG. = 103.984169 *W CORNER COORDIN. A - Y = 553,952.9 N , B - Y = 556,596.9 N , C - Y = 559,238.5 N ,	LONG. = 103.984201 °W ATES (NAD27 NME) X = 607,291.4 E X = 607,280.2 E X = 607,270.5 E Y = 607,270.5 E	Date of Survey Signatue and Seal of Professional Surveyor:
	 +		<u>CRID AZ.=335'58'03"</u>	LONG. = 103.984169 *W CORNER COORDIN. A - Y = 553,952.9 N , B - Y = 556,596.9 N , C - Y = 559,238.5 N , D - Y = 561,884.5 N ,	LONG. = 103.984201 °W ATES (NAD27 NME) X = 607,280.2 E X = 607,270.5 E X = 607,270.5 E X = 607,278.3 E Y = 607,258.3 E	Date of Survey Signatue and Seal of Professional Surveyor: 23786
 + 	 +		(<u>RID_AZ.=335'58'03"</u> FORIZ. DIST.=266.89'	LONG. = 103.984169 *W CORNER COORDIN. A - Y = 553,952.9 N , B - Y = 556,596.9 N , C - Y = 559,238.5 N , D - Y = 561,884.5 N , E - Y = 564,532.6 N , E - Y = 564,532.6 N ,	LONG. = 103.984201 °W ATES (NAD27 NME) X = 607,291.4 E X = 607,291.4 E X = 607,270.5 E X = 607,258.3 E X = 607,258.3 E X = 607,246.6 E X = 608.570 6 E	Date of Survey Signatue and Seal of Professional Surveyor: 23786
- - +	 + F.T.P.		(<u>RID_AZ.=335`58'03"</u> FORIZ. DIST.=266.89'	LONG. = 103.984169 *W CORNER COORDIN. A - Y = 553,952.9 N , B - Y = 556,596.9 N , C - Y = 559,238.5 N , D - Y = 561,884.5 N , E - Y = 564,532.6 N , F - Y = 564,526.5 N , G - Y = 551.880.7 N	LONG. = 103.984201 °W ATES (NAD27 NME) X = 607,291.4 E X = 607,280.2 E X = 607,270.5 E X = 607,258.3 E X = 607,246.6 E X = 608,570.6 E X = 608,570.6 E	Date of Survey Signatue and Seal of Professional Surveyor: 23786
 + 	 F.T.P.	5.H	(RID_AZ.=335'58'03" FORIZ. DIST.=266.89'	LONG. = 103.984169 *W CORNER COORDIN A - Y = 553,952.9 N , B - Y = 556,596.9 N , C - Y = 559,238.5 N , D - Y = 561,884.5 N , E - Y = 564,532.6 N , F - Y = 564,526.5 N , G - Y = 561,880.7 N , H - Y = 559,238.5 N	LONG. = 103.984201 °W ATES (NAD27 NME) X = 607,291.4 E X = 607,280.2 E X = 607,270.5 E X = 607,258.3 E X = 607,246.6 E X = 608,570.6 E X = 608,571.7 E	Date of Survey Signatue and Seal of Professional Surveyor: 23786
	F.T.P.	S.H	(RID_AZ.=335'58'03" FORIZ. DIST.=266.89'	LONG. = 103.984169 *W CORNER COORDIN A -Y = 553,952.9 N , B -Y = 556,596.9 N , C -Y = 559,238.5 N , D -Y = 564,532.6 N , F -Y = 564,532.6 N , G -Y = 561,880.7 N , H -Y = 559,238.5 N , H -Y = 559,238.5 N ,	LONG. = 103.984201 °W ATES (NAD27 NME) X = 607,291.4 E X = 607,280.2 E X = 607,270.5 E X = 607,258.3 E X = 607,246.6 E X = 608,570.6 E X = 608,583.7 E X = 608,597.1 E X = 608,69.5 F	Date of Survey Signatue and Seal of Professional Surveyor: 23786 Bort Survey
SEC. 4	F.T.P.	I I I S.H	(RID AZ.=335'58'03" FORIZ. DIST.=266.89' 	LONG. = 103.984169 *W CORNER COORDIN A Y = 553,952.9 N , B - Y = 556,596.9 N , C - Y = 559,238.5 N , D - Y = 564,532.6 N , F - Y = 564,526.5 N , G - Y = 561,880.7 N , H - Y = 559,238.5 N , J - Y = 555,598.7 N ,	LONG. = 103.984201 °W ATES (NAD27 NME) X = 607,291.4 E X = 607,291.4 E X = 607,270.5 E X = 607,270.5 E X = 607,258.3 E X = 608,570.6 E X = 608,597.1 E X = 608,597.1 E X = 608,597.1 E X = 608,605.6 E X = 608,605.6 E	Date of Survey Signatue and Seal of Professional Surveyor: 23786 Barrssional Surveyor: MARK DRI LON HARD 2256
SEC. 4 T21S R291	+ + F.T.P. - 330' - A E		CRID AZ.=335'58'03" FORIZ. DIST.=266.89'	LONG. = 103.984169 *W CORNER COORDIN A · Y = 553,952.9 N , B · Y = 556,596.9 N , C · Y = 559,238.5 N , D · Y = 564,532.6 N , F · Y = 564,526.5 N , G · Y = 564,526.5 N , H · Y = 559,238.5 N , I · Y = 556,598.7 N , J · Y = 553,955.3 N ,	LONG. = 103.984201 °W ATES (NAD27 NME) X = 607,291.4 E X = 607,280.2 E X = 607,270.5 E X = 607,270.5 E X = 607,270.5 E X = 607,270.6 E X = 608,570.6 E X = 608,597.1 E X = 608,605.6 E X = 608,614.8 E	Date of Survey Signatue and Seal of Professional Surveyor: MARK DILLON HARP 23786 Cartificate Number DB DC DC DC DC DC DC DC DC DC DC

Red	eived	bv	OCD :	6/25/20	21 4:49	:40 PM
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nis Natural Gas Manager		Oil C 1220 Sa	onservation D South St. Fran	ivisio				
nis Natural Gas Manager	N		nta Fe, NM 87	cis D 505	n r.			
is Natural Gas Manager	1	ATURAL G	AS MANA	GEN	IENT PL	AN		
	ment Plan m	nust be submitted v	vith each Applica	tion fo	or Permit to Dri	ll (APD) for a i	new or	r recompleted well.
		<u>Section</u> <u>I</u>	n 1 – Plan D Effective May 25	escr. , 2021	iption			
Operator:Ascent	Energy, LI	.C	OGR	RID: _	325830		Date:	_06/_01/2021
. Type: ⊠ Original □	Amendmen	t due to □ 19.15.2	7.9.D(6)(a) NMA	AC □ 1	9.15.27.9.D(6)	(b) NMAC 🗆 (Other.	
Other, please describe:								
I. Well(s): Provide the f recompleted from a sin	following in gle well pac	formation for each l or connected to a	new or recomple central delivery j	eted wo	ell or set of we	lls proposed to	be dri	lled or proposed to
Well Name	API	ULSTR	Footages		Anticipated Oil BBL/D	Anticipated Gas MCF/D	I	Anticipated Produced Water BBL/D
nvil Fed Com 401H	1	-4-21S-29E	144' FNL & 1032'	FEL	~1000	~3000	~20	00
nvil Fed Com 501H	1	-4-21S-29E	173' FNL & 1038'	FEL	~1000	~3000	~20	00
nvil Fed Com 601H	1	-4-21S-29E	179' FNL & 1009'	FEL	~1000	~3000	~20	00
nvil Fed Com 701H	1	-4-218-29E -4-218-29E	168' FNL & 1068'	FEL	~1000	~3000	~20	00
7. Central Delivery Point Anticipated Schedule: Toposed to be recomplete	nt Name: Provide the ed from a sir	ANVIL DCP e following inform ngle well pad or co	CDP ation for each new nnected to a cent	w or re ral deli	completed wel very point.	[See 1	19.15.2 propo	27.9(D)(1) NMAC
Well Name	API	Spud Date	TD Reached Date	Con	Completion mencement D	ate Initial F Back D	'low Date	First Production Date
nvil Fed Com 401H		<u>1/1/2022</u>	2/28/2022	<u>3/15/</u>	/2022	5/1/2022		5/15/2022
nvil Fed Com 501H		1/1/2022	1/30/2022	3/15/	2022	5/1/2022		5/15/2022
nvil Fed Com 601H		<u>11/1/2021</u>	<u>11/30/2021</u>	<u>3/15/</u>	2022	<u>5/1/2022</u>		<u>5/15/2022</u>
nvil Fed Com 701H		<u>11/1/2021</u>	<u>12/30/2021</u>	<u>3/15/</u>	2022	<u>5/1/2022</u>		5/15/2022
nvii Fea Com /02H								
I. Separation Equipme	nt: 🛛 Attac	ch a complete descr	ription of how Op	perator	will size separa	ation equipmen	t to op	otimize gas capture
II. Operational Practic	es: 🛛 Atta	ch a complete des	cription of the ac	ctions (Operator will t	ake to comply	with t	he requirements (

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 <u>EFFECTIVE APRIL 1, 2022</u>

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.

 \Box 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	Available Maximum Daily Capacity
			Start Date	of System Segment Tie-in

XI. Map. \Box 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 \Box will \Box 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 \Box does \Box 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: \Box 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:

 \Box 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

 \Box 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. \Box 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. \Box 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: John Romano electronically signed

Printed Name: John Romano

Title: Vice President of Production & Facilities

E-mail Address: jromano@ascentenergy.us

Date: 6/15/2021

Phone: 337.300.9204

OIL CONSERVATION DIVISION

(Only applicable when submitted as a standalone form)

Approved By:

Title:

Approval Date:

Conditions of Approval:

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

Ascent Energy will sufficiently size the 3-phase test separator with the capability and flexibility of handling gas volumes over 3 times the anticipated IP gas rate. Below is a schematic of the 48"x15' 3 phase 1440 psi ASME code test separator skid outfitted with 3" Daniels Senior Meter run. The 1440 psi pressure rating allows for large flexibility in operating pressure to handle large gas volumes. If the operating pressure in the vessel is raised to 1000 psi it can handle over 15 mmcfd. Our anticipated peak flowback rates will be between 3-4 mmcfd. The size of the vessel along with 3" oil/water outlets, and 3" senior meter run is sufficiently sized to be able to separate large volumes of gas and liquids.

The Daniels Senior meter run allows the orifice plate to be changed without shutting in or blowing down further reducing emissions.



VII. Operational Practices: \boxtimes After 3 phase 1440 psi test separator we'll have a 125 psi ASME code 8'x20' heater treater as a second separation mechanism tied into a flash gas sales meter sending heater treater flash gas to sales. Oil will then dump from the heater treater into our oil tanks. The oil/water tank vent piping will have necessary PVRV's (pressure valve/relief valve) and oil/water storage tanks will be 16 oz. The tank vent piping will be sized properly to handle vent gas (6" piping). This vent piping will have a VRU (vapor recovery unit) designed to capture tank vent gas and send to sales. The VRU will be equipped with a recycling system to keep it constantly running to be able to handle slug flow. Additionally, there will be a high pressure/low pressure combo flare that will be oversized to handle 150% of expected IP gas rates at a 98.5% combustion efficiency.

The oil/water tanks will also be equipped with pressure transmitters to ensure the tank pressures are not exceeded in a further effort to minimize venting.

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

The tank battery will be equipped with bypasses to service meters while still producing to sales. In the event a flare line, flame arrestor, or anything in the flare system needs to be serviced, we will shut the wells in and service once gas is blown down to flare. This will minimize any venting. Additionally, the VRU will have bypasses to send tank vent gas to flare if VRU is down or being serviced. The flare will be an HP/LP combo flare designed with air assist to ensure 98.5% combustion efficiency. Lease operators will be visiting the location daily to check and maintain all equipment ensuring all scrubbers, flame arrestors, and flare ignitor is functioning properly.



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

APD ID: 10400060044

Operator Name: ASCENT ENERGY LLC

Well Name: ANVIL FED COM

Well Type: OIL WELL

Submission Date: 08/10/2020

Highlighted data reflects the most recent changes

06/25/2021

Drilling Plan Data Report

Show Final Text

Well Work Type: Drill

Well Number: 701H

Section 1 - Geologic Formations

Formation			True Vertical	Measured			Producing
ID	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	Formation
812850	QUATERNARY	3383	0	0	OTHER : None	NONE	N
812851	RUSTLER ANHYDRITE	3208	175	175	ANHYDRITE	NONE	N
812852	SALADO	2938	445	445	SALT	NONE	N
812853	BASE OF SALT	2066	1317	1317	SALT	NONE	N
812854	TANSILL	1878	1505	1505	LIMESTONE	NONE	N
812855	YATES	1753	1630	1630	SANDSTONE, SHALE	NATURAL GAS, OIL	N
812856	CAPITAN REEF	1468	1915	1915	LIMESTONE	USEABLE WATER	N
812857	DELAWARE SAND	-622	4005	4033	SANDSTONE	NATURAL GAS, OIL	N
812858	CHERRY CANYON	-687	4070	4098	SANDSTONE	NATURAL GAS, OIL	N
812859	BRUSHY CANYON	-1622	5005	5033	SANDSTONE	NATURAL GAS, OIL	N
812860	BONE SPRING LIME	-3242	6625	6653	LIMESTONE, SANDSTONE	NATURAL GAS, OIL	N
812861	AVALON SAND	-3337	6720	6748	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	N
812862	BONE SPRING 1ST	-4284	7667	7695	LIMESTONE, SANDSTONE	NATURAL GAS, OIL	N
812863	BONE SPRING 2ND	-4562	7945	7973	LIMESTONE, SANDSTONE	NATURAL GAS, OIL	N
812864	BONE SPRING 2ND	-4997	8380	8408	SANDSTONE	NATURAL GAS, OIL	N
812865	BONE SPRING 3RD	-5377	8760	8788	LIMESTONE, SANDSTONE	NATURAL GAS, OIL	N
812866	BONE SPRING 3RD	-6172	9555	9583	SANDSTONE	NATURAL GAS, OIL	N
812867	WOLFCAMP	-6557	9940	10051	SHALE	NATURAL GAS, OIL	Y

Well Name: ANVIL FED COM

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 15000

Equipment: A 15,000 a 5,000 psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. The wellhead will be a multi-bowl speed head.

Requesting Variance? YES

Variance request: Ascent requests a variance to run a multi-bowl speed head for setting the Intermediate 1, Intermediate 2, and Production Strings. Ascent requests a variance to drill this well using a co-flex line between the BOP and choke manifold (instead of the 4" OD steel line). Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Ascent requests a variance to have the option of batch drilling this well with other wells on the same pad. In the even the wells are batch drilled, after drilling surface, 1st intermediate, and 2nd intermediate hole sections and cementing 2nd intermediate casing, a 10M dry hole cap with bleed off valve will be installed. The rig will then walk to another well on the pad. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test. 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. Ascent requests a variance to wave the centralizer requirement for the run 7-5/8" EZGO FJ3 casing inside 8.75" hole. Variance is also requested to wave any centralizer requirements for the 5-1/2" EZGO HT casing the 6-3/4" hole size. Ascent requests approval to possibly utilize a spudder rig to drill and set casing for the surface interval on this well. The spudder rig will be possibly utilized in order to reduce cost and save time. The wellhead will be installed and tested as soon as the surface casing is cut off per the existing COAs. A blind flange with the same pressure rating as the wellhead will be installed on the well. Once the spudder rig is removed, Ascent will secure the wellhead area by placing a guard rail around the cellar. Pressure will be monitored and a means for intervention will be maintained while the drilling rig is not over the well. Spudder rig operations are expected to take 2-3 days per well. Three wells on the pad will have surface casing set by the spudder rig as a part of this operation. The BLM will be notified 24 hours prior to commencing spudder rig operations. Within 90 days of the departure of the spudder rig, drilling operations will recommence on these wells. This rig will have a BOP stack equal or greater to the pressure rating required in the COAs. The BLM will be notified 24 hours before the larger rig moves on the preset wells. Ascent will have supervision on the spudder rig to ensure compliance with all BLM and NMOCD regulations. Testing Procedure: After surface casing is set and the BOP is nippled up, the BOP pressure tests will be made with a thirdparty tester to 250 psi low, 5000 psi high, and the annular preventer will be tested to 2,500 psi. The BOP will be tested in this manner after nipple-up if any break of the stack occurs as wells as every 30 days.

Choke Diagram Attachment:

5M_BOPE_Choke_Diagram_12.03.2020_20210318095251.pdf

BOP Diagram Attachment:

5M_BOPE_Choke_Diagram_12.03.2020_20210318095256.pdf

Well Name: ANVIL FED COM

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	24	20.0	NEW	API	N	0	245	0	245	3386	3141	245	J-55	133	BUTT	12.2 6	21.1 7	DRY	10.4 1	DRY	10.4 1
2	INTERMED IATE	17.5	13.375	NEW	API	N	0	1605	0	1605	3386	1781	1605	J-55	68	ST&C	2.34	3.64	DRY	3.23	DRY	3.23
3	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	4033	0	4005	3383	-619	4033	J-55	40	LT&C	2.36	1.67	DRY	2.31	DRY	2.31
4	INTERMED IATE	8.75	7.625	NEW	NON API	N	0	10051	0	9940	3383	-6554	10051	HCP -110	29.7	OTHER - EZGO HT	1.67	1.61	DRY	1.42	DRY	1.42
5	PRODUCTI ON	6.75	5.5	NEW	NON API	N	0	20824	0	10040	3383	-6654	20824	HCP -110	20	OTHER - EZGO HT	2.52	1.6	DRY	1.66	DRY	1.66

Casing Attachments

Casing ID: 1

String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Anvil_701H_Casing_Design_Assumptions_v2_20210330100536.pdf

Well Name: ANVIL FED COM

Well Number: 701H

Casing Attachments

Casing ID: 2 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Anvil_701H_Casing_Design_Assumptions_v2_20210330100631.pdf

Casing ID: 3 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Anvil_701H_Casing_Design_Assumptions_v2_20210330100522.pdf

Casing ID:4String Type: INTERMEDIATE

Inspection Document:

Spec Document:

7.625_P110_HC_EZGO_HT_Spec_Sheet_20200809143204.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Anvil_701H_Casing_Design_Assumptions_v2_20210330100554.pdf

Well Name: ANVIL FED COM

Well Number: 701H

Casing Attachments

Casing ID: 5 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Anvil_701H_Casing_Design_Assumptions_v2_20210330100608.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	145	130	1.73	14	221	100	Class C	None
SURFACE	Tail		145	245	205	1.33	15	192	100	Class C	None
INTERMEDIATE	Lead	1555	0	355	50	2.32	13	107	10	Class C	None
INTERMEDIATE	Tail		355	1655	350	1.33	15	448	10	Class C	None
INTERMEDIATE	Lead		0	605	480	2.32	13	1105	250	Class C	None
INTERMEDIATE	Tail		605	1605	810	1.33	15	1042	50	Class C	None
INTERMEDIATE	Lead	1555	1655	2733	465	2.2	13	1013	200	Class C	None
INTERMEDIATE	Tail		2733	4033	400	1.33	15	509	25	Class C	None
INTERMEDIATE	Lead		0	4055	250	1.78	12	443	100	50/50 Poz H	None
INTERMEDIATE	Tail		4055	1005 1	805	1.14	15	904	50	25/75 Poz H	None
PRODUCTION	Lead		0	9000	340	2.48	11	836	10	TXI Nine Lite	None

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Well Number: 701H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Tail		9000	2082 4	845	1.47	13	1234	25	35/65 Poz H	None

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 Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: All necessary mud products (e. g., barite, cedar bark) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions.

Describe the mud monitoring system utilized: Electronic Pason mud monitor system complying with Onshore Order 1 will be used.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (Ibs/cu ft)	Gel Strength (lbs/100 sqft)	Н	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1005 1	2082 4	OIL-BASED MUD	10	10.5							
0	245	OTHER : Fresh water	8.4	9.6							
245	1605	OTHER : Brine water	10	10							
1605	4033	OTHER : Fresh water	8.4	8.6							
4033	1005 1	OIL-BASED MUD	8.8	9.2							

Well Name: ANVIL FED COM

Well Number: 701H

Section 6 - Test, Logging, Coring

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

Electric Logging Program: No open-hole logs are planned at this time for the pilot hole.

GR will be collected while drilling through the MWD tools from 9.625 casing shoe to TD.

A 2-person mud logging program will be used from 9.625 casing shoe to TD. List of open and cased hole logs run in the well: GAMMA RAY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No DSTs or cores are planned at this time.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4000

Anticipated Surface Pressure: 1791

Anticipated Bottom Hole Temperature(F): 180

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Anvil_Pad1_H2S_plan_v2_20201022161649.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Anvil_701H_Horizontal_Plan_v2_20201021105827.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Anvil_CoFlex_Certs_20200809145757.pdf Anvil_speedhead_20200809145832.pdf Anvil_701H_Anticollision_Report_20201021105842.pdf Anvil_701H_Drill_Plan_v3_20210318095323.pdf

Other Variance attachment:

Received by OCD: 6/25/2021 4:49:40 PM

ASCENT ENERGY

EDDY COUNTY, NEW MEXICO (NAD 83 - GRID) SEC. 4 T21S R29E N.M.P.M. (GRID) ANVIL FED COM 701H

ORIGINAL WELLBORE 12 October, 2020

Plan: PROPOSAL #2



						ANNO	IATION5			
	MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Dep	Annotation	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 168ft FN	L & 1068ft FEL of S
	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	START NUDG	E (2°/100ft BUR)
	2600.00	12.00	193.10	2595.62	-60.97	-14.19	-60.91	62.60	EOB TO 12° IN	
	3506.59	12.00	193.10	3482.40	-244.56	-56.92	-244.32	251.09	END OF TANG	SENT
	4106.59	0.00	0.00	4078.03	-305.53	-71.11	-305.23	313.70	EOD TO VERT	ICAL
	9495.10	0.00	0.00	9466.54	-305.53	-71.11	-305.23	313.70	KOP (10°/100f	t BUR)
1	0395.10	90.00	359.76	10039.50	267.42	-73.51	267.72	886.65	FTP: 100ft FSL	- & 330ft FWL of S
2	0773.70	90.00	359.75	10039.50	10645.92	-117.71	10646.32	11265.25	LTP: 100ft FNL	_ & 330ft FWL of S
2	0823.71	90.00	359.77	10039.50	10695.93	-117.91	10696.33	11315.26	BHL: 50ft FNL	& 330ft FWL of Se
							WELL	BORE T	ARGET DET	AILS (LAT/LO
	Name	е				TVD		±N/-S	τΕ/- W	L atitud
KOP - A	NVIL FED) COM	701H ((P2)		0/66 5/	<u>م</u>	205 52	-71 11	22 52126
			701U /	/ D2)		9400.54		505.55		32.32120
				Γ <i>Ζ</i>)		0039.50) 2	267.42	-73.51	32.52283
LIP - Ar	NVIL FED	COIVI	701H (I	P2)	1	0039.50) 106	645.93	-117.71	32.55136
BHL - A	NVIL FED	COM	701H (P2)	1	0039.50) 106	695.93	-117.91	32.55150
1000-										
								200-		
								200		
1500										



Database: Company: Project: Site: Well: Wellbore: Design:	Database 1 ASCENT EI EDDY COU GRID) SEC. 4 T21 ANVIL FED ORIGINAL PROPOSAI	Database 1 ASCENT ENERGY EDDY COUNTY, NEW MEXICO (NAD 83 - GRID) SEC. 4 T21S R29E N.M.P.M. (GRID) ANVIL FED COM 701H ORIGINAL WELLBORE PROPOSAL #2 EDDY COUNTY, NEW MEXICO (NAD 83 - C				dinate Refer ace: ce: ence: ulation Metl	rence: V k k hod: N	Well ANVIL FED COM 701H KB 25' @ 3404.50usft KB 25' @ 3404.50usft Grid Minimum Curvature		
Project	EDDY COUN	NTY, NEW ME	EXICO (NAD 8	83 - GRID)	RID)					
Map System: Geo Datum: Map Zone:	US State Plar North America New Mexico E	ne 1983 an Datum 198 Eastern Zone	3	Sys	stem Datur	n:	Me Usi	an Sea Level	cale factor	
Site	SEC. 4 T215	8 R29E N.M.P	P.M. (GRID)							
Site Position: From: Position Uncertain	Map nty:	0.00 usft	Northing: Easting: Slot Radius	:	553,850. 648,987. 1.	⁹⁹ usft La 43usft Lo 10ft Gr	titude: ongitude: id Conver	gence:		32.522111 -103.984069 0.19 °
Well	ANVIL FED (COM 701H								
Well Position	+N/-S -3.39 usft Northing: +E/-W -113.13 usft Easting:		J:	55 64	3,847.60 us 8,874.30 us	ft Lati ft Lon	tude: gitude:		32.522102 -103.984436	
Position Uncertain	nty 0.00 usft V		Wellhead	d Elevation:	Elevation: usft			und Level:		3,379.50 usft
Wellbore ORIGINAL WELLBORE										
Magnetics	Model Na	ime S	Sample Date	I	Declinatior (°)	ı	Dip Aı (°)	ngle	Field	Strength (nT)
	IGRF202	20	2020-10-08		6.84		60.1	3	47,698	96382648
Design	PROPOSAL	#2								
Audit Notes:										
Version:			Phase:	PROTO	DTYPE	Tie O	n Depth:		0.00	
Vertical Section:		Depth F	rom (TVD)	+	N/-S	+E/-W	1	Dire	ection	
		(u	isft)	(1	usft)	(usft)	1	0.0	(°)	
		0	.00	l	5.00	0.00		35	9.76	
Plan Sections										
MD Inc (usft) (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usf	Build Rate (°/100usf	Turn Rate (°/100usf	TFO (°)	Target
0.00 0.00	0.00	0.00	-3,404.50	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00 0.00	0.00	2,000.00	-1,404.50	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00 12.00) 193.10	2,393.02	-000.00 77 90	-00.97	-14.19	2.00	2.00	0.00	193.10	
4.106.59 0.00	0.00	4.078.03	673.53	-305.53	-71.11	2.00	-2.00	0.00	180.00	
9,495.10 0.00	0.00	9,466.54	6,062.04	-305.53	-71.11	0.00	0.00	0.00	0.00	KOP - ANVIL FED (
10,395.10 90.00	359.76	10,039.50	6,635.00	267.42	-73.51	10.00	10.00	-0.03	359.76	FTP - ANVIL FED C
	350.75	10.039.50	6.635.00	10,645.93	-117.71	0.00	0.00	0.00	-84.59	LTP - ANVIL FED C
20,773.70 90.00	5 555.75	,	-,							
20,773.7090.0020,774.3290.00) 359.75) 359.77	10,039.50	6,635.00	10,646.54	-117.71	3.00	0.00	3.00	90.00	

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Database: Company: Project: Site: Well: Wellbore:	Database 1 ASCENT ENERGY EDDY COUNTY, NEW MEXICO (NAD 83 - GRID) SEC. 4 T21S R29E N.M.P.M. (GRID) ANVIL FED COM 701H ORIGINAL WELLBORE	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:	Well ANVIL FED COM 701H KB 25' @ 3404.50usft KB 25' @ 3404.50usft Grid Minimum Curvature
Wellbore: Design:	ORIGINAL WELLBORE PROPOSAL #2		
Planned Survey			

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
SHL: 1	168ft FNL &	1068ft FEL o	f Sec 4							
0.00 100.00 RSTL	0.00 0.00	0.00 0.00	0.00 100.00	3,404.50 3,304.50	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
174.50 200.00 300.00	0.00 0.00 0.00	0.00 0.00 0.00	174.50 200.00 300.00	3,230.00 3,204.50 3,104.50	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
400.00	0.00	0.00	400.00	3,004.50	0.00	0.00	0.00	0.00	0.00	0.00
SALD	0 00	0.00	444 50	2 060 00	0.00	0.00	0.00	0.00	0.00	0.00
500.00 600.00 700.00	0.00 0.00 0.00	0.00 0.00 0.00	500.00 600.00 700.00	2,904.50 2,804.50 2,704.50	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
800.00 900.00 1,000.00 1,100.00 1,200.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	800.00 900.00 1,000.00 1,100.00 1,200.00	2,604.50 2,504.50 2,404.50 2,304.50 2,204.50	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
1,300.00	0.00	0.00	1,300.00	2,104.50	0.00	0.00	0.00	0.00	0.00	0.00
BASE	_SALADO_	SALTS								
1,316.50 1,400.00 1,500.00	0.00 0.00 0.00	0.00 0.00 0.00	1,316.50 1,400.00 1,500.00	2,088.00 2,004.50 1,904.50	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
1 504 50	IL 0.00	0.00	1 504 50	1 000 00	0.00	0.00	0.00	0.00	0.00	0.00
1,504.50	0.00	0.00	1,504.50	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
YATES	5.00	0.00	1,000.00	1,004.00	0.00	0.00	0.00	0.00	0.00	0.00
1,629.50 1,700.00 1,800.00 1,900.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	1,629.50 1,700.00 1,800.00 1,900.00	1,775.00 1,704.50 1,604.50 1,504.50	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
CAPIT	AN_REEF_	TOP								
1,914.50 STAR	0.00 T NUDGE (2	0.00 2°/100ft BUR)	1,914.50	1,490.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00 2,100.00 2,200.00 2,300.00 2,400.00 2,500.00	0.00 2.00 4.00 6.00 8.00 10.00	0.00 193.10 193.10 193.10 193.10 193.10	2,000.00 2,099.98 2,199.84 2,299.45 2,398.70 2,497.47	1,404.50 1,304.52 1,204.66 1,105.05 1,005.80 907.03	0.00 -1.70 -6.80 -15.29 -27.15 -42.39	0.00 -0.40 -1.58 -3.56 -6.32 -9.87	0.00 -1.70 -6.79 -15.27 -27.13 -42.35	0.00 2.00 2.00 2.00 2.00 2.00	0.00 2.00 2.00 2.00 2.00 2.00	0.00 0.00 0.00 0.00 0.00 0.00
EOB 1	TO 12° INC									
2,600.00 2,700.00 2,800.00	12.00 12.00 12.00	193.10 193.10 193.10	2,595.62 2,693.44 2,791.25	808.88 711.06 613.25	-60.97 -81.22 -101.47	-14.19 -18.90 -23.62	-60.91 -81.14 -101.37	2.00 0.00 0.00	2.00 0.00 0.00	0.00 0.00 0.00
2,900.00 3,000.00 3,100.00 3,200.00 3,300.00	12.00 12.00 12.00 12.00 12.00	193.10 193.10 193.10 193.10 193.10	2,889.07 2,986.88 3,084.70 3,182.51 3,280.33	515.43 417.62 319.80 221.99 124.17	-121.72 -141.97 -162.22 -182.47 -202.72	-28.33 -33.04 -37.76 -42.47 -47.18	-121.60 -141.83 -162.06 -182.29 -202.52	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
3,400.00 3,500.00	12.00 12.00	193.10 193.10	3,378.14 3,475.96	26.36 -71.46	-222.97 -243.22	-51.90 -56.61	-222.75 -242.98	0.00 0.00	0.00 0.00	0.00 0.00

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Database: Company: Project:	Data ASC EDD GRII	base 1 ENT ENERGY Y COUNTY, N))	/ NEW MEXICO	(NAD 83 -	Local Co-or TVD Referen MD Referen	dinate Refere nce: ce:	ence:	Well ANVIL FED COM 701H KB 25' @ 3404.50usft KB 25' @ 3404.50usft			
Site: Well: Wellbore:	SEC	. 4 T21S R29E IL FED COM 7 GINAL WELLB	E N.M.P.M. (GF 701H 30RE	RID)	North Refer	ence: sulation Meth	od:	Grid Minimum Curvatur	e		
Design:	PRO	POSAL #2									
Planned Survey	/										
			-				Vertica	al Dogleg	Build	Turn	
(usft)	Inc (°)	Azi (°)	(usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Sectio (usft)	n Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)	
3,506.59	12.00	193.10	3,482.40	-77.90	-244.56	-56.92	-244.3	2 0.00	0.00	0.00	
3,600.00	10.13	193.10	3,574.07	-169.57	-262.02	-60.98	-261.7	6 2.00	-2.00	0.00	
3,700.00	0.13	193.10	3,072.00	-200.30	-211.40	-04.30	-211.2	0 2.00 R 2.00	-2.00	0.00	
3,900.00	4.13	193.10	3,871.61	-367.52	-209.57	-69.42	-209.2	8 2.00 8 2.00	-2.00	0.00	
4,000.00	2.13	193.10	3,971.46	-566.96	-303.60	-70.66	-303.3	0 2.00	-2.00	0.00	
TOP_D 4.033.06	ELAWARE 1.47	SAND 193.10	4.004.50	-600.00	-304.61	-70.90	-304.3	1 2.00	-2.00	0.00	
CHERR	Y_CANYC)N	ijee nee	000100		10100	00 110	. 2100	2100	0100	
4,098.06	0.17	193.10	4,069.50	-665.00	-305.52	-71.11	-305.2	2 2.00	-2.00	0.00	
4,100.00	0.13	193.10	4,071.44	-666.94	-305.52	-71.11	-305.2	2 2.00	-2.00	0.00	
EOD TO 4.106.59	D VERTICA	AL 0.00	4.078.03	-673.53	-305.53	-71.11	-305.2	3 2.00	-2.00	2 532 60	
4,200.00	0.00	0.00	4,171.44	-766.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
4,300.00	0.00	0.00	4,271.44	-866.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
4,400.00	0.00	0.00	4,371.44	-966.94	-305.53	-/1.11	-305.2	3 0.00	0.00	0.00	
4,500.00	0.00	0.00	4,471.44 4 571 44	-1,066.94	-305.53	-71.11 -71 11	-305.2	3 0.00	0.00	0.00	
4,700.00	0.00	0.00	4,671.44	-1,266.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
4,800.00	0.00	0.00	4,771.44	-1,366.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
4,900.00	0.00	0.00	4,871.44	-1,466.94	-305.53	-/1.11	-305.2	3 0.00	0.00	0.00	
5,000.00 BRUSH	0.00 IY CANYO	0.00 N	4,971.44	-1,566.94	-305.53	-/1.11	-305.2	3 0.00	0.00	0.00	
5,033.06	0.00	0.00	5,004.50	-1,600.00	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
5,100.00	0.00	0.00	5,071.44	-1,666.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
5,200.00	0.00	0.00	5,171.44 5.271.44	-1,766.94 -1.866.94	-305.53	-71.11 -71.11	-305.2	3 0.00 3 0.00	0.00	0.00	
5 400 00	0.00	0.00	5 371 44	-1 966 94	-305 53	-71 11	-305.2	3 0.00	0.00	0.00	
5,500.00	0.00	0.00	5,471.44	-2,066.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
5,600.00	0.00	0.00	5,571.44	-2,166.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
5,700.00	0.00	0.00	5,671.44 5 771 44	-2,266.94 -2 366 94	-305.53 -305.53	-71.11 -71 11	-305.2	3 0.00 3 0.00	0.00	0.00	
5 900 00	0.00	0.00	5 871 11	-2 /66 0/	-305 53	-71 11	-305.2	3 0.00	0.00	0.00	
6,000.00	0.00	0.00	5,971.44	-2,566.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
6,100.00	0.00	0.00	6,071.44	-2,666.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
6,200.00	0.00	0.00	6,171.44 6 271 44	-2,766.94 -2 866 94	-305.53	-71.11 -71 11	-305.2	3 0.00 3 0.00	0.00	0.00	
6,000.00	0.00	0.00	6 271 14	2,000.04	305.53	71.11	205.2	3 0.00	0.00	0.00	
6,500.00	0.00	0.00	6,471.44	-2,900.94 -3,066.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
6,600.00	0.00	0.00	6,571.44	-3,166.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
BSPG_ 6.653.06		0.00	6 624 50	-3 220 00	-305 53	-71 11	-305.2	3 0.00	0.00	0.00	
6,700.00	0.00	0.00	6,671.44	-3,266.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
AVLN											
6,748.06	0.00	0.00	6,719.50	-3,315.00	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
6,800.00	0.00	0.00	6,771.44	-3,366.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
7,000.00	0.00	0.00	6,971.44 6,971.44	-3,566.94	-305.53	-71.11	-305.2	3 0.00 3 0.00	0.00	0.00	
7,100.00	0.00	0.00	7,071.44	-3,666.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
7,200.00	0.00	0.00	7,171.44	-3,766.94	-305.53	-71.11	-305.2	3 0.00	0.00	0.00	
7,300.00	0.00	0.00 0.00	7,271.44 7.371 44	-3,866.94 -3,966 94	-305.53 -305.53	-71.11 -71 11	-305.2	3 0.00 3 0.00	0.00 0.00	0.00	
.,	2.00	0.00	.,	0,000.04	200.00		000.2	- 0.00	0.00	0.00	

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COMPASS 5000.15 Build 90

Database: Company: Project:	Data ASC EDD GRII	base 1 ENT ENERGY Y COUNTY, N	/ NEW MEXICO	(NAD 83 -	Local Co-or TVD Referen MD Referen	dinate Refere nce: ce:	ence:	Well ANVIL FED COM 701H KB 25' @ 3404.50usft KB 25' @ 3404.50usft			
Site: Well: Wellbore:	SEC	4 T21S R298 IL FED COM 3 GINAL WELLE	E N.M.P.M. (GF 701H 30RE	RID)	North Refer Survey Calc	ence: sulation Meth	od:	Grid Minimum Curvature			
Design:	PRO	PUSAL #2									
Planned Survey	y										
							Vertic	al Dogleg	Build	Turn	
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Sectio (usft	on Rate t) (°/100usft)	Rate (°/100usft)	Rate (°/100usft)	
7,500.00 7,600.00	0.00 0.00	0.00 0.00	7,471.44 7,571.44	-4,066.94 -4,166.94	-305.53 -305.53	-71.11 -71.11	-305.2 -305.2	23 0.00 23 0.00	0.00 0.00	0.00 0.00	
1ST_B	SPG_SND										
7,695.06	0.00	0.00	7,666.50	-4,262.00	-305.53	-71.11 71.11	-305.2	23 0.00	0.00	0.00	
7,700.00	0.00	0.00	7,671.44	-4,266.94	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
7,900.00	0.00	0.00	7,871.44	-4,466.94	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
2ND_B	SPG										
7,973.06	0.00	0.00	7,944.50	-4,540.00	-305.53	-/1.11	-305.2	23 0.00	0.00	0.00	
8,000.00	0.00	0.00	7,971.44	-4,566.94	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
8,200.00	0.00	0.00	8,171.44	-4,000.94	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
8,300.00	0.00	0.00	8,271.44	-4,866.94	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
8,400.00	0.00	0.00	8,371.44	-4,966.94	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
2ND_B	SPG_SND										
8,408.06	0.00	0.00	8,379.50	-4,975.00	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
8,500.00	0.00	0.00	8,471.44 8 571 44	-5,066.94 -5 166 94	-305.53	-71.11	-305.4	23 0.00	0.00	0.00	
8,700.00	0.00	0.00	8,671.44	-5,266.94	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
3RD_B	SPG										
8,788.06	0.00	0.00	8,759.50	-5,355.00	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
8,800.00	0.00	0.00	8,771.44	-5,366.94	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
8,900.00	0.00	0.00	8,871.44	-5,466.94	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
9,000.00	0.00	0.00	8,971.44	-5,566.94	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
9,200.00	0.00	0.00	9,071.44	-5,000.94	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
9,200,00	0.00	0.00	0 271 44	-5 866 94	-305 53	-71 11	-305 (23 0.00	0.00	0.00	
9,400.00	0.00	0.00	9,371.44	-5,966.94	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
KOP (1	0°/100ft Bl	JR)									
9,495.10	0.00	0.00	9,466.54	-6,062.04	-305.53	-71.11	-305.2	23 0.00	0.00	0.00	
9,500.00	0.49	359.76	9,471.43	-6,066.93	-305.51	-71.11	-305.4	21 9.99	9.99	0.00	
9,583.41	8.83	359.76	9,554.50	-6,150.00	-298.74	-71.14	-298.4	44 10.00	10.00	0.00	
9,600.00	10.49	359.76	9,570.85	-6,166.35	-295.96	-71.15	-295.6	65 10.00	10.00	0.00	
9,700.00	20.49	359.76	9,667.10	-6,262.60	-269.28	-71.26	-268.9	98 10.00	10.00	0.00	
9,800.00	30.49	359.76	9,757.25	-6,352.75	-226.30	-71.44	-226.0	00 10.00	10.00	0.00	
9,900.00	40.49 50.49	359.76	9,838.57	-6,434.07	-168.32	-71.68	-168.0	02 10.00 60 10.00	10.00	0.00	
WC A	00.10	000.10	0,000.00	0,00 1.00	01.10	11.00	00.0	10.00	10.00	0.00	
10,051.47	55.64	359.76	9,939.50	-6,535.00	-55.98	-72.15	-55.6	8 10.00	10.00	0.00	
10,100.00	60.49	359.76	9,965.17	-6,560.67	-14.80	-72.33	-14.5	10.00	10.00	0.00	
10,200.00	70.49	359.76	10,006.60	-6,602.10	76.07	-72.71	76.3	7 10.00	10.00	0.00	
10,300.00	80.49	359.76	10,031.62	-6,627.12	172.75	-/3.11	173.0	Jb 10.00	10.00	0.00	
10.395.10	90.00	359.76	3ec 33 10,039.50	-6,635.00	267.42	-73.51	267.7	72 10.00	10.00	0.00	
10 400 00	90.00	350 76	10 030 50	-6 635 00	272 32	-73 53	272 6	0.01	0.01	0.00	
10,400.00	90.00	359.76	10,039.50	-6,635.00	372.32	-73.94	372.6	62 0.00	0.00	0.00	
10,600.00	90.00	359.76	10,039.50	-6,635.00	472.31	-74.36	472.6	62 0.00	0.00	0.00	
10,700.00	90.00	359.76	10,039.50	-6,635.00	572.31	-74.78	572.6	62 0.00	0.00	0.00	
10,800.00	90.00	359.76	10,039.50	-6,635.00	672.31	-75.20	672.6	0.00	0.00	0.00	
10,900.00	90.00	359.76	10,039.50	-6,635.00	772.31	-75.62	772.6	62 0.00	0.00	0.00	
11,000.00	90.00	559.70	10,039.00	-0,035.00	012.31	-70.04	072.0	0.00	0.00	0.00	

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COMPASS 5000.15 Build 90

Database: Company: Project: Site:	Database 1 ASCENT ENERGY EDDY COUNTY, NEW MEXICO (NAD 83 - GRID) SEC. 4 T21S B29E N M PM. (GRID)	Local Co-ordinate Reference: TVD Reference: MD Reference:	Well ANVIL FED COM 701H KB 25' @ 3404.50usft KB 25' @ 3404.50usft
Well: Wellbore: Design:	ANVIL FED COM 701H ORIGINAL WELLBORE PROPOSAL #2	Survey Calculation Method:	Minimum Curvature

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,100.00	90.00	359.76	10,039.50	-6,635.00	972.31	-76.46	972.62	0.00	0.00	0.00
11,200.00	90.00	359.76	10,039.51	-6,635.01	1,072.31	-76.88	1,072.62	0.00	0.00	0.00
11,300.00	90.00	359.76	10,039.51	-6,635.01	1,172.31	-77.30	1,172.62	0.00	0.00	0.00
11,400.00 11,500.00 11,600.00 11,700.00 11,800.00	90.00 90.00 90.00 90.00 90.00	359.76 359.76 359.76 359.76 359.76	10,039.51 10,039.51 10,039.51 10,039.51 10,039.51 10,039.51	-6,635.01 -6,635.01 -6,635.01 -6,635.01 -6,635.01	1,272.31 1,372.31 1,472.31 1,572.31 1,672.30	-77.72 -78.13 -78.55 -78.97 -79.39	1,272.62 1,372.62 1,472.62 1,572.62 1,672.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
11,900.00 12,000.00 12,100.00 12,200.00 12,300.00	90.00 90.00 90.00 90.00 90.00	359.76 359.76 359.76 359.76 359.76	10,039.51 10,039.51 10,039.51 10,039.51 10,039.51 10,039.51	-6,635.01 -6,635.01 -6,635.01 -6,635.01 -6,635.01	1,772.30 1,872.30 1,972.30 2,072.30 2,172.30	-79.82 -80.24 -80.66 -81.08 -81.50	1,772.62 1,872.62 1,972.62 2,072.62 2,172.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
12,400.00 12,500.00 12,600.00 12,700.00 12,800.00	90.00 90.00 90.00 90.00 90.00	359.76 359.76 359.76 359.76 359.76	10,039.51 10,039.51 10,039.51 10,039.51 10,039.51 10,039.51	-6,635.01 -6,635.01 -6,635.01 -6,635.01 -6,635.01	2,272.30 2,372.30 2,472.30 2,572.30 2,672.30	-81.92 -82.34 -82.76 -83.18 -83.60	2,272.62 2,372.62 2,472.62 2,572.62 2,672.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
12,900.00	90.00	359.76	10,039.51	-6,635.01	2,772.29	-84.03	2,772.62	0.00	0.00	0.00
13,000.00	90.00	359.76	10,039.51	-6,635.01	2,872.29	-84.45	2,872.62	0.00	0.00	0.00
13,100.00	90.00	359.76	10,039.51	-6,635.01	2,972.29	-84.87	2,972.62	0.00	0.00	0.00
13,200.00	90.00	359.76	10,039.52	-6,635.02	3,072.29	-85.29	3,072.62	0.00	0.00	0.00
13,300.00	90.00	359.76	10,039.52	-6,635.02	3,172.29	-85.72	3,172.62	0.00	0.00	0.00
13,400.00	90.00	359.76	10,039.52	-6,635.02	3,272.29	-86.14	3,272.62	0.00	0.00	0.00
13,500.00	90.00	359.76	10,039.52	-6,635.02	3,372.29	-86.56	3,372.62	0.00	0.00	0.00
13,600.00	90.00	359.76	10,039.52	-6,635.02	3,472.29	-86.98	3,472.62	0.00	0.00	0.00
13,700.00	90.00	359.76	10,039.52	-6,635.02	3,572.29	-87.41	3,572.62	0.00	0.00	0.00
13,800.00	90.00	359.76	10,039.52	-6,635.02	3,672.29	-87.83	3,672.62	0.00	0.00	0.00
13,900.00	90.00	359.76	10,039.52	-6,635.02	3,772.29	-88.25	3,772.62	0.00	0.00	0.00
14,000.00	90.00	359.76	10,039.52	-6,635.02	3,872.28	-88.68	3,872.62	0.00	0.00	0.00
14,100.00	90.00	359.76	10,039.52	-6,635.02	3,972.28	-89.10	3,972.62	0.00	0.00	0.00
14,200.00	90.00	359.76	10,039.52	-6,635.02	4,072.28	-89.52	4,072.62	0.00	0.00	0.00
14,300.00	90.00	359.76	10,039.52	-6,635.02	4,172.28	-89.95	4,172.62	0.00	0.00	0.00
14,400.00	90.00	359.76	10,039.52	-6,635.02	4,272.28	-90.37	4,272.62	0.00	0.00	0.00
14,500.00	90.00	359.76	10,039.52	-6,635.02	4,372.28	-90.80	4,372.62	0.00	0.00	0.00
14,600.00	90.00	359.76	10,039.52	-6,635.02	4,472.28	-91.22	4,472.62	0.00	0.00	0.00
14,700.00	90.00	359.76	10,039.52	-6,635.02	4,572.28	-91.64	4,572.62	0.00	0.00	0.00
14,800.00	90.00	359.76	10,039.52	-6,635.02	4,672.28	-92.07	4,672.62	0.00	0.00	0.00
14,900.00	90.00	359.76	10,039.52	-6,635.02	4,772.28	-92.49	4,772.62	0.00	0.00	0.00
15,000.00	90.00	359.76	10,039.52	-6,635.02	4,872.28	-92.92	4,872.62	0.00	0.00	0.00
15,100.00	90.00	359.76	10,039.52	-6,635.02	4,972.27	-93.34	4,972.62	0.00	0.00	0.00
15,200.00	90.00	359.76	10,039.52	-6,635.02	5,072.27	-93.77	5,072.62	0.00	0.00	0.00
15,300.00	90.00	359.76	10,039.52	-6,635.02	5,172.27	-94.19	5,172.62	0.00	0.00	0.00
15,400.00	90.00	359.76	10,039.52	-6,635.02	5,272.27	-94.62	5,272.62	0.00	0.00	0.00
15,500.00	90.00	359.76	10,039.52	-6,635.02	5,372.27	-95.05	5,372.62	0.00	0.00	0.00
15,600.00	90.00	359.76	10,039.52	-6,635.02	5,472.27	-95.47	5,472.62	0.00	0.00	0.00
15,700.00	90.00	359.76	10,039.52	-6,635.02	5,572.27	-95.90	5,572.62	0.00	0.00	0.00
15,800.00	90.00	359.76	10,039.52	-6,635.02	5,672.27	-96.32	5,672.62	0.00	0.00	0.00
15,900.00	90.00	359.76	10,039.52	-6,635.02	5,772.27	-96.75	5,772.62	0.00	0.00	0.00
16,000.00	90.00	359.76	10,039.52	-6,635.02	5,872.27	-97.18	5,872.62	0.00	0.00	0.00
16,100.00	90.00	359.76	10,039.52	-6,635.02	5,972.27	-97.60	5,972.62	0.00	0.00	0.00
16,200.00	90.00	359.76	10,039.52	-6,635.02	6,072.26	-98.03	6,072.62	0.00	0.00	0.00
16,300.00	90.00	359.76	10,039.52	-6,635.02	6,172.26	-98.46	6,172.62	0.00	0.00	0.00

2020-10-12 12:58:01PM

COMPASS 5000.15 Build 90

Database: Company: Project: Site: Well:	Database 1 ASCENT ENERGY EDDY COUNTY, NEW MEXICO (NAD 83 - GRID) SEC. 4 T21S R29E N.M.P.M. (GRID) ANVIL FED COM 701H	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:	Well ANVIL FED COM 701H KB 25' @ 3404.50usft KB 25' @ 3404.50usft Grid Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,400.00 16,500.00 16,600.00 16,700.00 16,800.00	90.00 90.00 90.00 90.00 90.00	359.76 359.76 359.76 359.76 359.75	10,039.52 10,039.52 10,039.52 10,039.52 10,039.52	-6,635.02 -6,635.02 -6,635.02 -6,635.02 -6,635.02	6,272.26 6,372.26 6,472.26 6,572.26 6,672.26	-98.88 -99.31 -99.74 -100.17 -100.59	6,272.62 6,372.62 6,472.62 6,572.62 6,672.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
16,900.00 17,000.00 17,100.00 17,200.00 17,300.00	90.00 90.00 90.00 90.00 90.00	359.75 359.75 359.75 359.75 359.75 359.75	10,039.52 10,039.52 10,039.52 10,039.52 10,039.52	-6,635.02 -6,635.02 -6,635.02 -6,635.02 -6,635.02	6,772.26 6,872.26 6,972.26 7,072.26 7,172.25	-101.02 -101.45 -101.88 -102.31 -102.73	6,772.62 6,872.62 6,972.62 7,072.62 7,172.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
17,400.00 17,500.00 17,600.00 17,700.00 17,800.00	90.00 90.00 90.00 90.00 90.00	359.75 359.75 359.75 359.75 359.75 359.75	10,039.52 10,039.52 10,039.52 10,039.52 10,039.52 10,039.52	-6,635.02 -6,635.02 -6,635.02 -6,635.02 -6,635.02	7,272.25 7,372.25 7,472.25 7,572.25 7,672.25	-103.16 -103.59 -104.02 -104.45 -104.88	7,272.62 7,372.62 7,472.62 7,572.62 7,672.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
17,900.00 18,000.00 18,100.00 18,200.00 18,300.00	90.00 90.00 90.00 90.00 90.00	359.75 359.75 359.75 359.75 359.75 359.75	10,039.52 10,039.51 10,039.51 10,039.51 10,039.51 10,039.51	-6,635.02 -6,635.01 -6,635.01 -6,635.01 -6,635.01	7,772.25 7,872.25 7,972.25 8,072.25 8,172.25	-105.31 -105.74 -106.17 -106.60 -107.03	7,772.62 7,872.62 7,972.62 8,072.62 8,172.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
18,400.00 18,500.00 18,600.00 18,700.00 18,800.00	90.00 90.00 90.00 90.00 90.00	359.75 359.75 359.75 359.75 359.75 359.75	10,039.51 10,039.51 10,039.51 10,039.51 10,039.51 10,039.51	-6,635.01 -6,635.01 -6,635.01 -6,635.01 -6,635.01	8,272.24 8,372.24 8,472.24 8,572.24 8,672.24	-107.46 -107.89 -108.32 -108.75 -109.18	8,272.62 8,372.62 8,472.62 8,572.62 8,672.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
18,900.00 19,000.00 19,100.00 19,200.00 19,300.00	90.00 90.00 90.00 90.00 90.00	359.75 359.75 359.75 359.75 359.75 359.75	10,039.51 10,039.51 10,039.51 10,039.51 10,039.51 10,039.51	-6,635.01 -6,635.01 -6,635.01 -6,635.01 -6,635.01	8,772.24 8,872.24 8,972.24 9,072.24 9,172.24	-109.61 -110.04 -110.47 -110.90 -111.33	8,772.62 8,872.62 8,972.62 9,072.62 9,172.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
19,400.00 19,500.00 19,600.00 19,700.00 19,800.00	90.00 90.00 90.00 90.00 90.00	359.75 359.75 359.75 359.75 359.75 359.75	10,039.51 10,039.51 10,039.51 10,039.51 10,039.51 10,039.51	-6,635.01 -6,635.01 -6,635.01 -6,635.01 -6,635.01	9,272.24 9,372.23 9,472.23 9,572.23 9,672.23	-111.77 -112.20 -112.63 -113.06 -113.49	9,272.62 9,372.62 9,472.62 9,572.62 9,672.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
19,900.00 20,000.00 20,100.00 20,200.00 20,300.00	90.00 90.00 90.00 90.00 90.00	359.75 359.75 359.75 359.75 359.75	10,039.51 10,039.51 10,039.50 10,039.50 10,039.50 10,039.50	-6,635.01 -6,635.01 -6,635.00 -6,635.00 -6,635.00	9,772.23 9,872.23 9,972.23 10,072.23 10,172.23	-113.93 -114.36 -114.79 -115.22 -115.66	9,772.62 9,872.62 9,972.62 10,072.62 10,172.62	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
20,400.00 20,500.00 20,600.00 20,700.00 LTP: 1	90.00 90.00 90.00 90.00 00ft FNL &	359.75 359.75 359.75 359.75 359.75 330ft FWL o t	10,039.50 10,039.50 10,039.50 10,039.50 f Sec 28	-6,635.00 -6,635.00 -6,635.00 -6,635.00	10,272.23 10,372.22 10,472.22 10,572.22	-116.09 -116.52 -116.96 -117.39	10,272.62 10,372.62 10,472.62 10,572.62	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
20,773.70 20,774.32 20,800.00	90.00 90.00 90.00	359.75 359.77 359.77 330ft EWL of	10,039.50 10,039.50 10,039.50	-6,635.00 -6,635.00 -6,635.00	10,645.92 10,646.54 10,672.22	-117.71 -117.71 -117.81	10,646.32 10,646.94 10,672.62	0.00 2.97 0.00	0.00 0.00 0.00	0.00 2.97 0.00
20,823.71	90.00	359.77	10,039.50	-6,635.00	10,695.93	-117.91	10,696.33	0.00	0.00	0.00

2020-10-12 12:58:01PM

Database: Company:	Database 1 ASCENT ENERGY	Local Co-ordinate Reference:	Well ANVIL FED COM 701H
Due le et		TVD Reference.	
Project:	GRID)	MD Reference:	KB 25' @ 3404.50ustt
Site:	SEC. 4 T21S R29E N.M.P.M. (GRID)	North Reference:	Grid
Well:	ANVIL FED COM 701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
174 50	174 50	RSTIR	Litilology	0.00	()	
444 50	444 50	SALDO		0.00		
1 316 50	1 316 50	BASE SALADO SALTS		0.00		
1,510.50	1,510.50			0.00		
1,504.50	1,504.50	TANSIL		0.00		
1,629.50	1,629.50	YATES		0.00		
1,914.50	1,914.50	CAPITAN_REEF_TOP		0.00		
4,033.06	4,004.50	TOP_DELAWARE_SAND		0.00		
4,098.06	4,069.50	CHERRY_CANYON		0.00		
5,033.06	5,004.50	BRUSHY_CANYON		0.00		
6,653.06	6,624.50	BSPG_LIME		0.00		
6,748.06	6,719.50	AVLN		0.00		
7,695.06	7,666.50	1ST_BSPG_SND		0.00		
7,973.06	7,944.50	2ND_BSPG		0.00		
8,408.06	8,379.50	2ND_BSPG_SND		0.00		
8,788.06	8,759.50	3RD_BSPG		0.00		
9,583.41	9,554.50	3RD BSPG S		0.00		
10,051.47	9,939.50	WC A		0.00		

Plan Annotations

Local Coordinates					
(MD (usft)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Comment
	0.00	0.00	0.00	0.00	SHL: 168ft FNL & 1068ft FEL of Sec 4
2,0	00.00	2,000.00	0.00	0.00	START NUDGE (2°/100ft BUR)
2,6	600.00	2,595.62	-60.97	-14.19	EOB TO 12° INC
3,5	506.59	3,482.40	-244.56	-56.92	END OF TANGENT
4,1	106.59	4,078.03	-305.53	-71.11	EOD TO VERTICAL
9,4	495.10	9,466.54	-305.53	-71.11	KOP (10°/100ft BUR)
10,	,395.10	10,039.50	267.42	-73.51	FTP: 100ft FSL & 330ft FWL of Sec 33
20,	773.70	10,039.50	10,645.92	-117.71	LTP: 100ft FNL & 330ft FWL of Sec 28
20,	,823.71	10,039.50	10,695.93	-117.91	BHL: 50ft FNL & 330ft FWL of Sec 28

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Ascent Energy LLC
LEASE NO.:	NMNM070286
WELL NAME & NO.:	Anvil Federal Com 701H
SURFACE HOLE FOOTAGE:	168'/N & 1068'/E
BOTTOM HOLE FOOTAGE	50'/N & 330'/W
LOCATION:	Section 4, T.21 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

COA

H2S	• Yes	O No	
Potash	O None	Secretary	• R-111-P
Cave/Karst Potential	O Low	O Medium	• High
Cave/Karst Potential	Critical		
Variance	O None	Flex Hose	O Other
Wellhead	Conventional	Multibowl	© Both
Other	4 String Area	Capitan Reef	□ WIPP
Other	Fluid Filled	Cement Squeeze	Pilot Hole
Special Requirements	U Water Disposal	COM	🗆 Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **unknown** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

- 1. The **20 inch** surface casing shall be set at approximately **350 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - 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.

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Approval Date: 06/18/2021

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of 24 hours in the Potash Area 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.
- 2. The minimum required fill of cement behind the **13-3/8 inch** intermediate 1 casing and shall be set at approximately **1,602 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 or potash.

- In <u>High Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- ✤ In <u>R111 Potash Areas</u> if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing string must come to surface.
- In <u>Capitan Reef Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- Special Capitan Reef requirements. If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
 (Use this for 3 string wells in the Capitan Reef, if 4 string well ensure FW based mud used across the capitan interval)
 - Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
 - Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

Page 2 of 9 ANVIL FEDERAL COM #701H 3. The minimum required fill of cement behind the **9-5/8 inch** intermediate 2 casing and shall be set at approximately **4,002 feet** is:

Option 1:

• 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.

Option 2:

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

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - 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.

- 4. The minimum required fill of cement behind the **7-5/8 inch** intermediate 3 casing 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.

- 5. The minimum required fill of cement behind the **5-1/2 inch** production casing is:
 - Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 200 feet** into the previous casing, whichever is greater. 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.

THE PRODUCTION CASING HAS AN EXCESS OF 14%. ADDITIONAL CEMENT MAY BE NEEDED.

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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. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface, intermediate 1, intermediate 2, and intermediate 3 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 OOGO2.III.A.2.i 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.
- 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. <u>When the Communitization Agreement number is known, it shall also be on the sign.</u>

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)
 - Eddy County Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
 - Lea County Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612
- 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 Onshore Oil and Gas Order No. 2 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.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

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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.
- <u>Wait on cement (WOC) for Potash Areas:</u> 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, 2) until cement has been in place at least <u>24 hours</u>. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. <u>Wait on cement (WOC) for Water Basin:</u> 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 <u>8 hours</u>. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity 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 Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 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 OOGO2.III.A.2.i 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

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Approval Date: 06/18/2021

lead when specified), 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 plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 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 water basin (8 hours) or potash (24 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 Onshore Order No. 2.

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.

YJ (06/07/2021)



- a. All personnel will be trained in H_2S working conditions as required by Onshore Order 6 before drilling out of the surface casing.
- b. Two briefing areas will be established. Each briefing area will be $\geq 150'$ from the wellhead, perpendicular from one another, and easily entered and exited. See H₂S page 5 for more details.
- c. H₂S Safety Equipment/Systems:
 - i. Well Control Equipment
 - Flare line will be ≥ 150 ' from the wellhead and ignited by a flare gun.
 - Beware of SO₂ created by flaring.
 - Choke manifold will have a remotely operated choke.
 - Mud gas separator
 - ii. Protective Equipment for Personnel
 - Every person on site will wear a personal H_2S and SO_2 monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.
 - One self-contained breathing apparatus (SCBA) 30-minute rescue pack will be at each briefing area. Two 30-minute SCBA packs will be stored in the safety trailer.
 - Four work/escape packs will be on the rig floor. Each pack will have a sufficiently long hose to allow unimpaired work activity.
 - Four emergency escape packs will be in the doghouse for emergency evacuation.
 - Hand signals will be used when wearing protective breathing apparatus.
 - Stokes litter or stretcher
 - Two full OSHA compliant body harnesses
 - A 100' long x 5/8" OSHA compliant rope
 - One 20-pound ABC fire extinguisher
 - iii. H₂S Detection & Monitoring Equipment
 - Every person on site will wear a personal H_2S and SO_2 monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.

- A stationary detector with three sensors will be in the doghouse.
- Sensors will be installed on the rig floor, bell nipple, and at the end of the flow line or where drilling fluids are discharged.
- Visual alarm will be triggered at 10 ppm.
- Audible alarm will be triggered at 10 ppm.
- Calibration will occur at least every 30 days. Gas sample tubes will be kept in the safety trailer.
- iv. Visual Warning System
- A color-coded H_2S condition sign will be set at each pad entrance.
- Color-coded condition flag will be installed to indicate current $\rm H_2S$ conditions.
- Two wind socks will be installed that will be visible from all sides.
- v. Mud Program
- A water based mud with a pH of ≥ 10 will be maintained to control corrosion, H₂S gas returns to the surface, and minimize sulfide stress cracking and embrittlement.
- Drilling mud containing H_2S gas will be degassed at an optimum location for the rig configuration.
- This gas will be piped into the flare system.
- Enough mud additives will be on site to scavenge and/or neutralize H_2S where formation pressures are unknown.
- vi. Metallurgy
- All equipment that has the potential to be exposed to H_2S will be suitable for H_2S service.
- Equipment that will meet these metallurgical standards include the drill string, casing, wellhead, BOP assembly, casing head and spool, rotating head, kill lines, choke, choke manifold and lines, valves, mud-gas separators, DST tools, test units, tubing, flanges, and other related equipment (elastomer packings and seals).
- vii. Communication from well site
- Cell phones and/or two-way radios will be used to communicate from the well site.

d. A remote-controlled choke, mud-gas separator, and a rotating head will be installed before drilling or testing any formation expected to contain H_2S .

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Company Personnel to be Notified	
Dean Gimbel, Vice President Completions	Office: (720) 710-8995
	Mobile: (303) 945-1323
Matt Ward, Chief Operations Officer	Mobile: (303) 506-6647
Ascent Emergency Contact Number	(303) 281-9951
Local & County Agencies	
Monument Fire Department	911 or (575) 393-4339
Hobbs Fire Marshal	(575) 391-8185
Lea County Sheriff (Lovington)	911 or (575) 396-3611
Lea County Emergency Management (Lovington)	(575) 396-8602
Lea Regional Medical Center Hospital (Hobbs)	(575) 492-5000
State Agencies	
NM State Police (Hobbs)	(575) 392-5588

()	(0,0)0020000
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 Field Office	(575) 234-5972
BLM Hobbs Field Station	(575) 393-3612
National Response Center	(800) 424-8802
US EPA Region 6 (Dallas)	(800) 887-6063
	(214) 665-6444

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<u>Veterinarians</u>	
Dal Paso Animal Hospital (Hobbs)	(575) 397-2286
Hobbs Animal Clinic & Pet Care (Hobbs)	(575) 392-5563
Great Plains Veterinary Clinic & Hospital (Hobbs)	(575) 392-5513
Residents within 2 miles	
No residents are within 2 miles.	
<u>Air Evacuation</u>	
Med Flight Air Ambulance (Albuquerque)	(800) 842-4431
Lifeguard (Albuquerque)	(888) 866-7256



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103.95° W



Schematic Closed Loop Drilling Rig*

- 1. Pipe Rack
- 2. Drill Rig
- 3. House Trailers/ Offices
- 4. Generator/Fuel/Storage
- 5. Overflow-Frac Tank
- 6. Skids
- 7. Roll Offs
- 8. Hopper or Centrifuge
- 9. Mud Tanks
- 10. Loop Drive
- 11. Generator (only for use with centrifuge)

*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available





Above: Centrifugal Closed Loop System



Closed Loop Drilling System: Mud tanks to right (1)

Hopper in air to settle out solids (2) Water return pipe (3) Shaker between hopper and mud tanks (4) Roll offs on skids (5)







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

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COMMENTS

Action 33914

COMMENTS		
Operator:	OGRID:	
ASCENT ENERGY, LLC.	325830	
1125 17th St	Action Number:	
Denver, CO 80202	33914	
	Action Type:	
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)	

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO Review 6/28/2021	6/28/2021

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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

CONDITIONS

Operator:	OGRID:
ASCENT ENERGY, LLC.	325830
1125 17th St	Action Number:
Denver, CO 80202	33914
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created	Condition	Condition
By		Date
kpickford	Notify OCD 24 hours prior to casing & cement	6/28/2021
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	6/28/2021
kpickford	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	6/28/2021
	zones and shall immediately set in cement the water protection string	
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	6/28/2021
kpickford	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	6/28/2021
	solids must be contained in a steel closed loop system	

CONDITIONS

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Action 33914