Form 3160-3 (June 2015)	7				APPROVI b. 1004-01 nuary 31,	37
UNITED STATES DEPARTMENT OF THE II BUREAU OF LAND MANA	NTERIOR			5. Lease Serial No.		
APPLICATION FOR PERMIT TO D		EENTER		6. If Indian, Allotee	or Tribe N	Vame
1b. Type of Well: Oil Well Gas Well On	EENTER ther ngle Zone	Multiple Zone		7. If Unit or CA Agr 8. Lease Name and V		ame and No.
2. Name of Operator [325830]				9. API Well No. <b>3</b>	0-025	-48801
3a. Address	3b. Phone No.	(include area coa	le)	10. Field and Pool, o	or Explora	tory [96399]
4. Location of Well (Report location clearly and in accordance v At surface At proposed prod. zone	vith any State re	quirements.*)		11. Sec., T. R. M. or	Blk. and	Survey or Area
14. Distance in miles and direction from nearest town or post offi	ce*			12. County or Parish	1	13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acre	s in lease	17. Spacin	g Unit dedicated to the	his well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed I	Depth	20. BLM/	BIA Bond No. in file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approxima	ate date work will	start*	23. Estimated durati	on	
	24. Attachr	ments				
The following, completed in accordance with the requirements of (as applicable)	Onshore Oil ar	d Gas Order No.	1, and the H	ydraulic Fracturing r	ule per 43	CFR 3162.3-3
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office</li> </ol>	n Lands, the	Item 20 above).  5. Operator certific	cation.	s unless covered by an		`
25. Signature	Name (F	Printed/Typed)			Date	
Title						
Approved by (Signature)	Name (F	Printed/Typed)			Date	
Title	Office					
Application approval does not warrant or certify that the applicant applicant to conduct operations thereon.  Conditions of approval, if any, are attached.	t holds legal or	equitable title to t	hose rights i	n the subject lease wh	hich woul	d 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					ny depart	ment or agency
GCP Rec 04/20/2021	- WIT	H CONDIT	IONS	K 05/06	Z 5/2021	
SL (Continued on page 2)	ARD ALT	II (		*(Inc	struction	ns on page 2)

#### **INSTRUCTIONS**

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

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

### NOTICES

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

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

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

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

The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

### **Additional Operator Remarks**

### **Location of Well**

0. SHL: NWNW / 155 FNL / 631 FWL / TWSP: 20S / RANGE: 33E / SECTION: 16 / LAT: 32.579983 / LONG: -103.674818 ( TVD: 0 feet, MD: 0 feet ) PPP: NWSW / 2640 FSL / 330 FWL / TWSP: 20S / RANGE: 33E / SECTION: 21 / LAT: 32.558639 / LONG: -103.675778 ( TVD: 8747 feet, MD: 16137 feet ) PPP: SWNW / 1321 FNL / 330 FWL / TWSP: 20S / RANGE: 33E / SECTION: 21 / LAT: 32.562269 / LONG: -103.675781 ( TVD: 8737 feet, MD: 14816 feet ) PPP: NWNW / 0 FSL / 330 FWL / TWSP: 20S / RANGE: 33E / SECTION: 21 / LAT: 32.565897 / LONG: -103.675783 ( TVD: 8726 feet, MD: 13496 feet ) PPP: NWNW / 100 FNL / 330 FWL / TWSP: 20S / RANGE: 33E / SECTION: 16 / LAT: 32.580134 / LONG: -103.675794 ( TVD: 8284 feet, MD: 8315 feet ) BHL: SWSW / 50 FSL / 330 FWL / TWSP: 20S / RANGE: 33E / SECTION: 21 / LAT: 32.551521 / LONG: -103.675772 ( TVD: 8770 feet, MD: 18908 feet )

#### **BLM Point of Contact**

Name: Gavin Mickwee Title: Land Law Examiner Phone: (575) 234-5972 Email: gmickwee@blm.gov

### **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.



<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 Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 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, NM 87505

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

☐ AMENDED REPORT

Released to Imaging: 5/6/2021 11:57:25 AM

WELL LOCATION AND ACREAGE DEDICATION PLAT

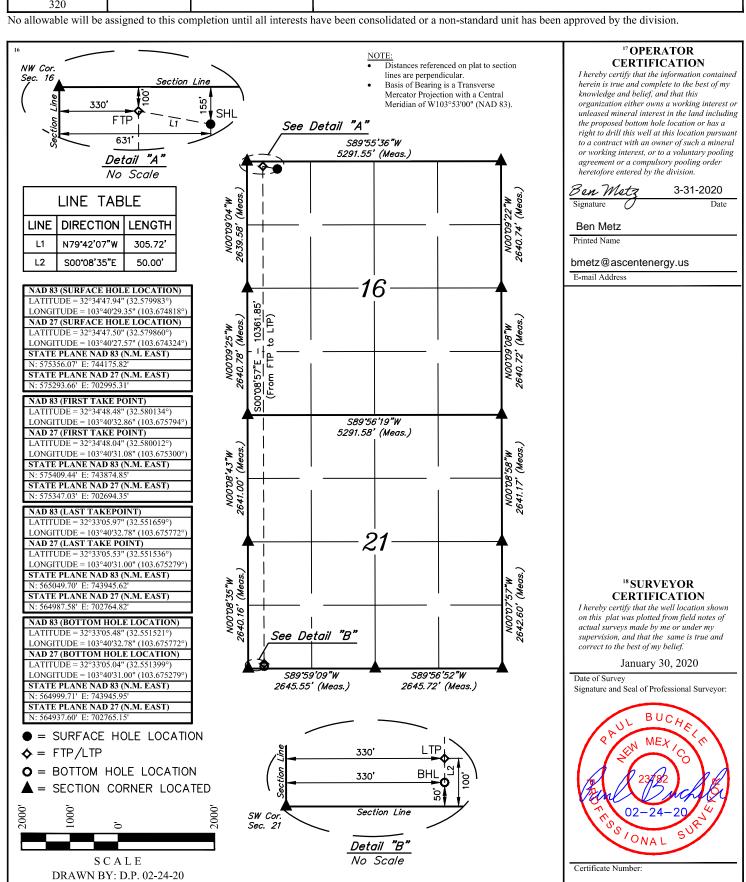
30-025-48801	r	<sup>2</sup> Pool Code <b>96399</b>	TEAS;BONE SPŘÍNG, WES	ST .	
<sup>4</sup> Property Code 330652			operty Name PRESS FED COM	<sup>6</sup> Well Number 301H	
<sup>7</sup> OGRID No. 325830			perator Name ENT ENERGY	<sup>9</sup> Elevation 3530.1'	

### <sup>10</sup> Surface Location

Lot Idn

D	16	20S	33E		155	NORTH	631	WEST	LEA
			u Dattam He		olo Logation I	f Different From	Surface		
	<sup>11</sup> Bottom F			Dolloin 11	ole Location I	t 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

SOUTH 330 WEST LEA 320



District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

### State of New Mexico Energy, Minerals and Natural Resources Department

Submit Original to Appropriate District Office

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

### GAS CAPTURE PLAN

Date: 4-21-2020	
□ Original	Operator & OGRID No.: Ascent Energy, LLC (325830)
☐ Amended - Reason for Amendment:	

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

### Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Pony Express Fed Com 301H	03-025 <b>30-025-48801</b>	D-16-20S-33E	155' FNL, 631' FWL	200	~30 days	Flare until well clean, then connect
Pony Express Fed Com 302H	03-025	D-16-20S-33E	355' FNL, 705' FWL	200	~30 days	Flare until well clean, then connect
Pony Express Fed Com 401H	03-025	D-16-20S-33E	355' FNL, 655' FWL	200	~30 days	Flare until well clean, then connect
Pony Express Fed Com 501H	03-025	D-16-20S-33E	155' FNL, 656' FWL	200	~30 days	Flare until well clean, then connect
Pony Express Fed Com 601H	03-025	D-16-20S-33E	155' FNL, 681' FWL	200	~30 days	Flare until well clean, then connect
Pony Express Fed Com 701H	03-025	D-16-20S-33E	155' FNL, 706' FWL	200	~30 days	Flare until well clean, then connect
Pony Express Fed Com 705H	03-025	D-16-20S-33E	355' FNL, 680' FWL	200	~30 days	Flare until well clean, then connect

### **Gathering System and Pipeline Notification**

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from the production facility has not yet been dedicated. One possible outlet is 3 Bear Energy. 3Bear has an existing gas pipeline in NW Section 11, T20S R33E. Ascent Energy, LLC and 3Bear Energy have agreements in place to extend the gas pipeline to the Silver & Pony Express drill pads. Ascent Energy, LLC will provide (periodically) to 3Bear a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Ascent Energy, LLC and 3Bear will have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at 3Bear Processing Plant at a yet to be determined location. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

#### Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on 3Bear system at that time. Based on current information, it is Ascent Energy, LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

### **Alternatives to Reduce Flaring**

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation On lease
  - o Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas On lease
  - o Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal On lease
  - o Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

## Onshore Order 1 8 Point Drilling Plan

### 1. Geologic Formations/Estimated Tops

Formation	Lithology	MD	TVD	Mineral Resources
Upper Permian	Sandstone	0	0	Useable Water
Rustler	Anhydrite	1220	1220	None
Salado	Salt	1550	1550	None
Base Salado Salt	Salt	2860	2850	None
Tansil	Limestone	2901	2890	None
Yates	Carbonates	3039	3025	Natural Gas, Oil, CO2
Capitan Reef	Limestone	3305	3285	Useable Water
Delaware – Mt. Group	Sandstone	5223	5195	Natural Gas, Oil, CO2
Cherry Canyon	Sandstone	5283	5255	Natural Gas, Oil, CO2
Brushy Canyon	Sandstone	6623	6595	Natural Gas, Oil, CO2
Bone Spring	Limestone	8168	8140	Natural Gas, Oil, CO2
Bone Spring - Avalon	Shale	8295	8265	Natural Gas, Oil, CO2
Bone Spring – Leonard B	Limestone,	8893	8670	Natural Gas, Oil, CO2
	Shale			
TD	Shale	18908	8770	Natural Gas, Oil, CO2

Notable Zones: Leonard B is the target formation.

Closest water well (CP 00317) is 7163' NW. Depth to water is 325', total depth is 680'.

### 2. Blowout Prevention Equipment

a. Pressure Rating: 5,000'b. Rating Depth: 15,000'

- c. Equipment: A 15,000′, 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.
- d. Testing Procedures: After surface casing is set and the BOP is nippled up, the BOP pressure tests will be made with a third-party 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.

### e. Requesting Variance:

- i. Variance is requested to use a co-flex line between the BOP and choke manifold instead of using a 4" 0. D. steel line. Choke and kill line data book are attached. If this hose is unavailable, then a hose of equal or higher rating will be used.
- ii. Variance is requested to use a speed head (aka, multi-bowl wellhead). Diagram is attached. After running the 13.375" surface casing, a 13.625" BOP/BOPE system with a >5000 psi WP will be installed on the wellhead system. It will be pressure tested to 250 psi low, followed by a test to 5000-psi high. Pressure test will be repeated at least every 30 days as required by Onshore Order 2.
- iii. Ascent requests a variance to run a multi-bowl speed head for setting the Intermediate 1, Intermediate 2, and Production Strings. Speed head will be installed by the vendor's representative(s). Well head welding will be monitored by the vendor's representative.

### 3. Casing

Interval	Hole Size	lı	nterval MD	1	nterval TVD	Csg OD	Weight	Grade	Conn Type	Conn	New/ Used	DF Collapse	DF Burst	DF Tension
Surface	17.5	0'	1,245'	0'	1,245'	13.375	54.5	J-55	STC	API	New	1.82	3.72	3.06
1st Int	12.25	0'	2,999'	0'	2,990'	9.625	40.0	J-55	LTC	API	New	1.65	2.00	2.06
2nd Int	8.75	0'	5,223'	0'	5,195'	7.625	29.7	HCP-110	EZGO FJ3	Non-API	New	3.79	2.47	2.39
Production	6.75	0'	18,908'	0'	8,770'	5.5	20.0	HCP-110	EZGO HT	Non-API	New	2.79	2.78	1.81

<sup>\*</sup>Casing Assumption Worksheet to be attached

#### Variance:

- A variance is requested to waive centralizer requirements for the 7.625" casing.
   An expansion additive will be used in the cement slurry for the entire length of the 8.75" hole to maximize cement bond and zone isolation.
- Variance is also requested to waive centralizers requirements for the 5.5 " casing. An expansion additive will be used in the cement slurry for the entire length of the 6.75" hole to maximize cement bond and zone isolation.



### 4. Cement

Section	Depth	Туре	Cmt Top	Excess	Ft <sup>3</sup>	Sacks	BBLS	Wt. ppg	Yld Ft³/sk	Slurry Description
Surface	13.375	Lead	0	100%	993	575	177	13.5	1.728	Class C
Surface	1245'	Tail	745'	100%	695	550	124	14.8	1.332	Class C
1 et let	9.625	Lead	0	100%	924	535	165	12.7	1.728	Class C
1st Int	2999'	Tail	1999'	100%	626	485	112	14.8	1.332	Class C
2nd Int	7.625	Lead	0	50%	465	230	83	12.7	2.039	Class C
2nd Int	5223'	Tail	3923'	50%	196	155	35	14.8	1.368	Class C
Dradustian	5.5	Lead	0	25%	572	200	102	11	2.887	TXI Nine Lite Cement
Production	18,908'	Tail	5,500'	25%	4,234	2880	754	13.2	1.472	35/65 Poz H

### 5. Circulating Medium (Mud Program)

- a. Mud System Type: Closed loop
- b. Air/Gas Drilling: No
- c. What will be on location to control well or mitigate other conditions: All necessary additives (e.g., barite, bentonite, LCM) to maintain mud properties and meet minimum lost circulation and weight increase needs will be on site at all times. Mud program may change due to hole conditions.
- d. Describe the mud monitoring system: Electronic Pason mud monitor system complying with Onshore Order 1 will be used. 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. A closed loop system will be used.

Inter	val	Туре	Weight	Viscosity	Water Loss
0'	1,245'	Fresh Water	8.4-9.6	34-38	N/C
1,245'	2,999'	Brine Water	10	28-34	N/C
2,999'	5,223'	Fresh Water	8.4-8.6	28-34	N/C
5,223' 18,908'		OBM	9-9.5	40-45	N/C

### 6. Test, Logging & Coring

- a. List of production tests including testing procedures, equipment and safety measures: 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.
- b. Open/cased hole logs run in the well: No open hole logs
- c. Coring operations description for the well: No core, drill stem test, or open hole log is planned.



### 7. Anticipated Pressure

- a. Anticipated bottom hole pressure: Maximum expected bottom hole pressure is 3000 psi.
- b. Anticipated bottom hole temperature: Expected bottom hole temperature is 148° F.
- c. Abnormal pressures, temperatures, or potential geologic hazards: No abnormal pressure or temperature is expected.
- d. Hydrogen sulfide drilling operations plan required: Yes
  - i. H<sub>2</sub>S monitoring and detection equipment will be used from surface casing point to TD.
  - ii. Ascent does not anticipate that there will be enough H2S from the surface to the Bone Spring formations to meet the BLM's Onshore Order 6 requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Ascent has an H2S safety package on all wells and an "H2S Drilling Operations Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be safely flared. All personnel will be familiar with all aspects of safe operation of equipment being used.

### 8. Other Information

- a. Anticipated spud date is upon approval. It is expected it will take 3 months to drill and complete the well.
- b. 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 pre-set wells. Ascent will have supervision on the spudder rig to ensure compliance with all BLM and NMOCD regulations.
- c. Ascent requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event the wells are batch drilled, after drilling surface, 1<sup>st</sup> intermediate, and 2<sup>nd</sup> intermediate hole sections and



cementing 2<sup>nd</sup> 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.

### 9. Lessee's or Operator's Representative

# Permit Matters Drilling, Completions, Production & Operational Matters

UELS, LLC

85 S 200 E

1125 17<sup>th</sup> St., Suite 410

Vernal, UT 84078

Denver, CO 80202

Amy Doebele- Permit Agent

Gema Volek- Drilling Manager

785-312-2092

adoebele@uintahgroup.com

gvolek@ascentenergy.us



## **ASCENT ENERGY**

LEA COUNTY, NEW MEXICO (NAD 83) (GRID) SEC. 16 T20S R33E N.M.P.M. (GRID) PONY EXPRESS FED COM 301H

ORIGINAL WELLBORE 30 March, 2020

Plan: PROPOSAL #1

Name

**T** 6000-

7000-

KOP (10°/100ft BUR)

FTP - PE FED COM 301H

1500

Vertical Section at 284.53° (600 usft/in)

Project: LEA COUNTY, NEW MEXICO (NAD 83) (GRID)

Longitude

Site: SEC. 16 T20S R33E N.M.P.M. (GRID) Well: PONY EXPRESS FED COM 301H

Wellbore: ORIGINAL WELLBORE

Design: PROPOSAL #1

WELLBORE TARGET DETAILS (LAT/LONG)

+E/-W

Latitude

PONY EXPRESS FED COM 401H

PONY EXPRESS FED COM 705H

West(-)/East(+) (100 usft/in)

+N/-S

					ANN	IOTATION	S	
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 155ft FNL & 631ft FWL of Sec 16
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	START NUDGE (2°/100ft BUR)
2600.00	12.00	284.53	2595.62	15.71	-60.60	-16.12	62.60	EOB TO 12° INC
3494.19	12.00	284.53	3470.27	62.37	-240.56	-64.00	248.51	END OF TANGENT
4094.19	0.00	0.00	4065.89	78.08	-301.16	-80.13	311.12	EOD TO VERTICAL
8145.35	0.00	0.00	8117.06	78.08	-301.16	-80.13	311.12	KOP (10°/100ft BUR)
8315.24	16.99	179.61	8284.47	53.08	-300.99	-55.13	336.56	FTP: 100ft FNL & 330ft FWL of Sec 16
9040.65	89.53	179.61	8690.00	-490.16	-297.29	488.13	879.37	HZ LP: 643.24ft FNL & 330ft FWL of Sec 21
18858.10	89.54	179.61	8769.60 -	10307.06	-230.24	10305.25	10696.50	LTP: 100ft FSL & 330ft FWL of Sec 21
18908.10	89.54	179.61	8770.00 -	10357.06	-229.90	10355.25	10746.50	BHL: 50ft FSL & 330ft FWL of Sec 21

TVD

PROPOSED LOCAL COORDINATES:

SHL: 155ft FNL & 631ft FWL of Sec 16

FTP: 100ft FNL & 330ft FWL of Sec 16

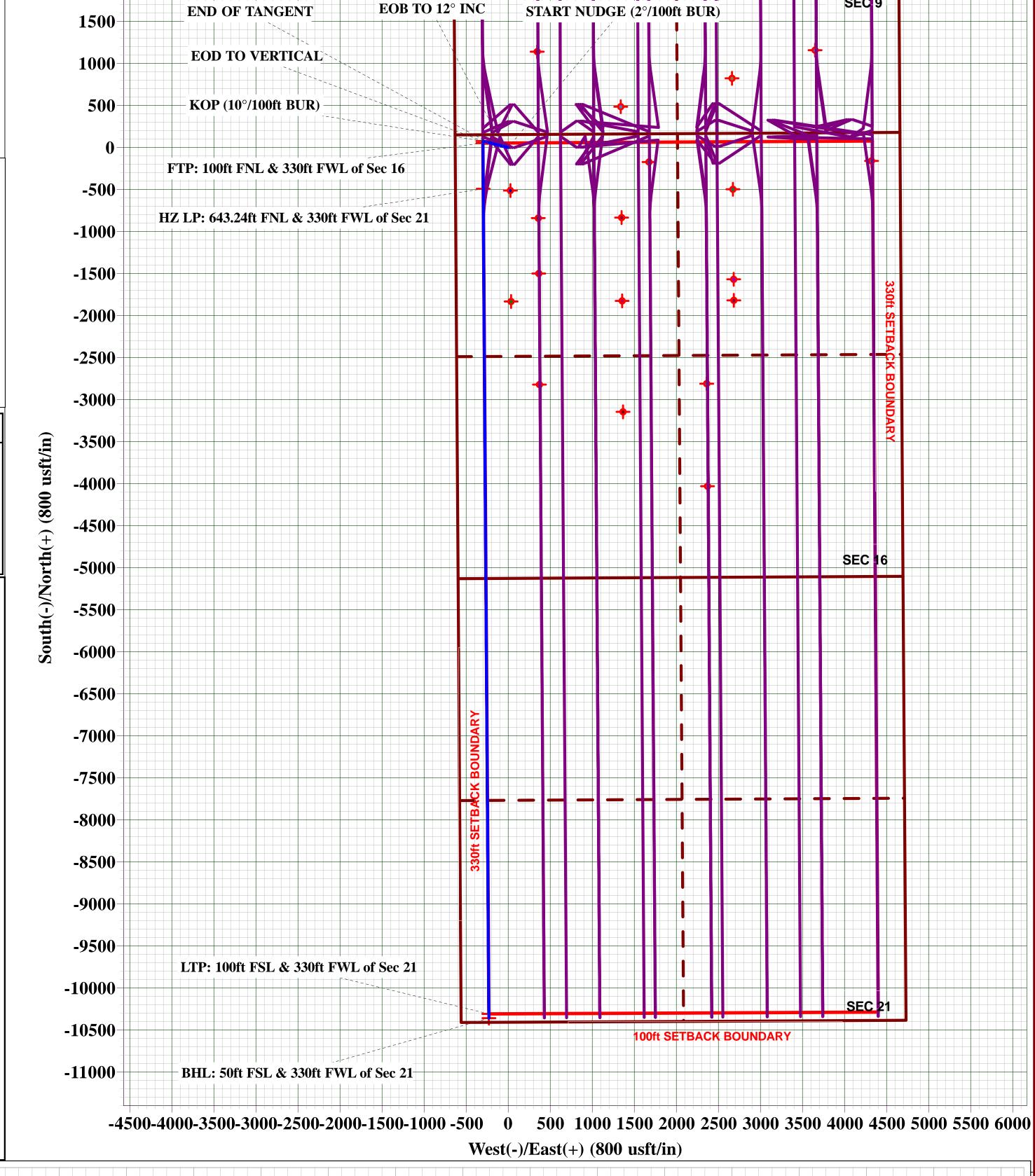
HZ LP: 643.24ft FNL & 330ft FWL of Sec 16

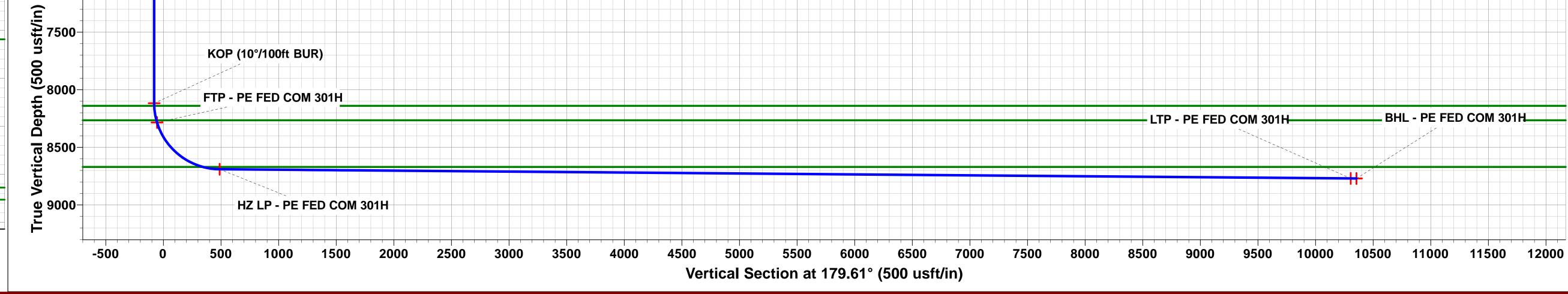
LTP: 100ft FSL & 330ft FWL of Sec 21

BHL: 50ft FSL & 330ft FWL of Sec 21

PONY EXPRESS FED COM \$02H

-103.675794 8117.06 78.08 -301.16 32.580203 **KOP - PE FED COM 301H** 53.08 -300.99 32.580134 -103.675794 8284.47 FTP - PE FED COM 301H **HZ LP - PE FED COM 301H** 8690.00 -490.16 -297.29 32.578641 -103.675793 32.551658 -103.675772 -10307.06 -230.24 LTP - PE FED COM 301H 8769.60 -10357.06 -229.90 32.551521 -103.675772 8770.00 **BHL - PE FED COM 301H** 1000-SILVER FED COM 601H 400 SILVER FED COM 501 SILVER FED COM 701H SILVER FED COM 401H START NUDGE (2°/100ft BUR) usft/in) **EOB TO 12° INC** (100 PONY EXPRESS FED COM 301H PONY EXPRESS FED COM 501H **END OF TANGENT EOD TO VERTICAL** PONY EXPRESS FED COM 701H PONY EXPRESS FED COM 601H





Page 14

Database: Database 1

Company: ASCENT ENERGY

Project: LEA COUNTY, NEW MEXICO (NAD 83)

(GRID)

Site: SEC. 16 T20S R33E N.M.P.M. (GRID)

Well: PONY EXPRESS FED COM 301H

Wellbore: ORIGINAL WELLBORE Design: PROPOSAL #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

**Survey Calculation Method:** 

Well PONY EXPRESS FED COM 301H

KB 25' @ 3555.00usft KB 25' @ 3555.00usft

Grid

Minimum Curvature

LEA COUNTY, NEW MEXICO (NAD 83) (GRID) **Project** 

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

New Mexico Eastern Zone

System Datum: Mean Sea Level

Using geodetic scale factor

SEC. 16 T20S R33E N.M.P.M. (GRID) Site

Site Position: Northing: 575,356.07 usft Latitude: 32.579983 Easting: 744,175.82 usft Longitude: -103.674818 From: Map **Position Uncertainty:** 0.00 usft Slot Radius: 1.10ft **Grid Convergence:** 0.35°

Well PONY EXPRESS FED COM 301H

**Well Position** +N/-S 0.13 usft Northing: 575,356.20 usft Latitude: 32.579983 +E/-W 0.05 usft Easting: 744,175.87 usft Longitude: -103.674818 **Position Uncertainty** 0.00 usft Wellhead Elevation: usft Ground Level: 3,530.00 usft

Wellbore **ORIGINAL WELLBORE** 

Magnetics Declination **Dip Angle** Field Strength **Model Name Sample Date** (°) (nT) (°) 47,822.55251175 IGRF2020 2020-03-19 6.77 60.25

Design PROPOSAL#1

**Audit Notes:** 

Version: Phase: **PROTOTYPE** Tie On Depth: 0.00

Depth From (TVD) Vertical Section: +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.00 0.00 0.00 179.61

Plan Section	ns										
MD (usft)	Inc (°)	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	-3,555.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	-1,555.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	12.00	284.53	2,595.62	-959.38	15.71	-60.60	2.00	2.00	0.00	284.53	
3,494.19	12.00	284.53	3,470.27	-84.73	62.37	-240.56	0.00	0.00	0.00	0.00	
4,094.19	0.00	0.00	4,065.89	510.89	78.08	-301.16	2.00	-2.00	0.00	180.00	
8,145.35	0.00	0.00	8,117.06	4,562.06	78.08	-301.16	0.00	0.00	0.00	0.00	KOP - PE FED COI
9,040.65	89.53	179.61	8,690.00	5,135.00	-490.16	-297.29	10.00	10.00	0.00	179.61	
18,908.10	89.54	179.61	8,770.00	5,215.00	-10,357.06	-229.90	0.00	0.00	0.00	-13.65	BHL - PE FED COM

Database: Database 1

Company: ASCENT ENERGY

Project: LEA COUNTY, NEW MEXICO (NAD 83)

(GRID)

Site: SEC. 16 T20S R33E N.M.P.M. (GRID)
Well: PONY EXPRESS FED COM 301H

Wellbore: ORIGINAL WELLBORE

Design: PROPOSAL #1

**Local Co-ordinate Reference:** 

TVD Reference:
MD Reference:

North Reference:

**Survey Calculation Method:** 

Well PONY EXPRESS FED COM 301H

KB 25' @ 3555.00usft KB 25' @ 3555.00usft

Grid

Planned Surve	ey 💮									
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	155ft FNL &	631ft FWL of	Sec 16							
0.00 100.00 200.00 300.00 400.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 100.00 200.00 300.00 400.00	<b>3,555.00</b> 3,455.00 3,355.00 3,255.00 3,155.00	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 0.00 0.00
500.00 600.00 700.00 800.00 900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	500.00 600.00 700.00 800.00 900.00	3,055.00 2,955.00 2,855.00 2,755.00 2,655.00	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 0.00 0.00
1,000.00 1,100.00 1,200.00	0.00 0.00 0.00	0.00 0.00 0.00	1,000.00 1,100.00 1,200.00	2,555.00 2,455.00 2,355.00	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
RSTLI		0.00	4 000 00	2 225 22	0.00	0.00	0.00	0.00	0.00	0.00
<b>1,220.00</b> 1,300.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>1,220.00</b> 1,300.00	<b>2,335.00</b> 2,255.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00
1,400.00 1,500.00	0.00 0.00	0.00 0.00	1,400.00 1,500.00	2,155.00 2,055.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
SALD	-		4.550.00							2.22
<b>1,550.00</b> 1,600.00 1,700.00	<b>0.00</b> 0.00 0.00	<b>0.00</b> 0.00 0.00	<b>1,550.00</b> 1,600.00 1,700.00	<b>2,005.00</b> 1,955.00 1,855.00	<b>0.00</b> 0.00 0.00	<b>0.00</b> 0.00 0.00	<b>0.00</b> 0.00 0.00	<b>0.00</b> 0.00 0.00	<b>0.00</b> 0.00 0.00	<b>0.00</b> 0.00 0.00
1,800.00 1,900.00	0.00 0.00	0.00 0.00	1,800.00 1,900.00	1,755.00 1,655.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
STAR	T NUDGE (2	2°/100ft BUR)								
<b>2,000.00</b> 2,100.00 2,200.00	<b>0.00</b> 2.00 4.00	<b>0.00</b> 284.53 284.53	<b>2,000.00</b> 2,099.98 2,199.84	<b>1,555.00</b> 1,455.02 1,355.16	<b>0.00</b> 0.44 1.75	<b>0.00</b> -1.69 -6.76	<b>0.00</b> -0.45 -1.80	<b>0.00</b> 2.00 2.00	<b>0.00</b> 2.00 2.00	<b>0.00</b> 0.00 0.00
2,300.00 2,400.00 2,500.00	6.00 8.00 10.00	284.53 284.53 284.53	2,299.45 2,398.70 2,497.47	1,255.55 1,156.30 1,057.53	3.94 7.00 10.92	-15.19 -26.99 -42.13	-4.04 -7.18 -11.21	2.00 2.00 2.00	2.00 2.00 2.00	0.00 0.00 0.00
	O 12° INC									
<b>2,600.00</b> 2,700.00	<b>12.00</b> 12.00	<b>284.53</b> 284.53	<b>2,595.62</b> 2,693.44	<b>959.38</b> 861.56	<b>15.71</b> 20.93	<b>-60.60</b> -80.72	<b>-16.12</b> -21.48	<b>2.00</b> 0.00	<b>2.00</b> 0.00	<b>0.00</b> 0.00
2,800.00 2,900.00	12.00 12.00	284.53 284.53	2,791.25 2,889.07	763.75 665.93	26.15 31.36	-100.85 -120.98	-26.83 -32.19	0.00 0.00	0.00 0.00	0.00 0.00
TANSI										
<b>2,900.95</b> 3,000.00	<b>12.00</b> 12.00	<b>284.53</b> 284.53	<b>2,890.00</b> 2,986.88	<b>665.00</b> 568.12	<b>31.41</b> 36.58	<b>-121.17</b> -141.10	<b>-32.24</b> -37.54	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00
3,038.97		284.53	2 025 00	530.00	38.62	-148.94	-30.62	0.00	0.00	0.00
1	12.00		3,025.00				-39.63	0.00		0.00
3,100.00 3,200.00 3,300.00	12.00 12.00 12.00	284.53 284.53 284.53	3,084.70 3,182.51 3,280.33	470.30 372.49 274.67	41.80 47.02 52.24	-161.23 -181.35 -201.48	-42.90 -48.25 -53.61	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
	AN_REEF_									
<b>3,304.78</b> 3,400.00	<b>12.00</b> 12.00	<b>284.53</b> 284.53	<b>3,285.00</b> 3,378.14	<b>270.00</b> 176.86	<b>52.49</b> 57.45	<b>-202.44</b> -221.61	<b>-53.86</b> -58.96	<b>0.00</b> 0.00	<b>0.00</b> 0.00	<b>0.00</b> 0.00
END C	F TANGEN	IT								
<b>3,494.19</b> 3,500.00	<b>12.00</b> 11.88	<b>284.53</b> 284.53	<b>3,470.27</b> 3,475.96	<b>84.73</b> 79.04	<b>62.37</b> 62.67	<b>-240.56</b> -241.73	<b>-64.00</b> -64.31	<b>0.00</b> 2.00	<b>0.00</b> -2.00	<b>0.00</b> 0.00
3,600.00	9.88	284.53	3,574.15	-19.15	67.41	-260.00	-69.18	2.00	-2.00	0.00

Database: Database 1

Company: ASCENT ENERGY

Project: LEA COUNTY, NEW MEXICO (NAD 83)

(GRID)

Site: SEC. 16 T20S R33E N.M.P.M. (GRID)
Well: PONY EXPRESS FED COM 301H

Wellbore: ORIGINAL WELLBORE

Design: PROPOSAL #1

**Local Co-ordinate Reference:** 

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**Survey Calculation Method:** 

Well PONY EXPRESS FED COM 301H

KB 25' @ 3555.00usft KB 25' @ 3555.00usft

Grid

<b>Planned Surve</b>	y									
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)
3,700.00 3,800.00	7.88 5.88	284.53 284.53	3,672.95 3,772.22	-117.95 -217.22	71.28 74.29	-274.95 -286.55	-73.15 -76.24	2.00 2.00	-2.00 -2.00	0.00 0.00
3,900.00 4,000.00	3.88 1.88	284.53 284.53	3,871.85 3,971.72	-316.85 -416.72	76.43 77.69	-294.79 -299.66	-78.43 -79.73	2.00 2.00	-2.00 -2.00	0.00 0.00
EOD T	O VERTICA	<b>AL</b>								
<b>4,094.19</b> 4,100.00 4,200.00	<b>0.00</b> 0.00 0.00	<b>0.00</b> 0.00 0.00	<b>4,065.89</b> 4,071.71 4,171.71	<b>-510.89</b> -516.71 -616.71	<b>78.08</b> 78.08 78.08	<b>-301.16</b> -301.16 -301.16	<b>-80.13</b> -80.13 -80.13	<b>2.00</b> 0.00 0.00	<b>-2.00</b> 0.00 0.00	<b>0.00</b> 0.00 0.00
4,300.00 4,400.00 4,500.00 4,600.00 4,700.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	4,271.71 4,371.71 4,471.71 4,571.71 4,671.71	-716.71 -816.71 -916.71 -1,016.71 -1,116.71	78.08 78.08 78.08 78.08 78.08	-301.16 -301.16 -301.16 -301.16 -301.16	-80.13 -80.13 -80.13 -80.13	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
4,800.00 4,900.00 5,000.00 5,100.00 5,200.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	4,771.71 4,871.71 4,971.71 5,071.71 5,171.71	-1,216.71 -1,316.71 -1,416.71 -1,516.71 -1,616.71	78.08 78.08 78.08 78.08 78.08	-301.16 -301.16 -301.16 -301.16 -301.16	-80.13 -80.13 -80.13 -80.13	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
	ELAWARE									
5,223.29	0.00	0.00	5,195.00	-1,640.00	78.08	-301.16	-80.13	0.00	0.00	0.00
	RY_CANYO									
<b>5,283.29</b> 5,300.00 5,400.00 5,500.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	<b>5,255.00</b> 5,271.71 5,371.71 5,471.71	<b>-1,700.00</b> -1,716.71 -1,816.71 -1,916.71	<b>78.08</b> 78.08 78.08 78.08	-301.16 -301.16 -301.16 -301.16	<b>-80.13</b> -80.13 -80.13 -80.13	0.00 0.00 0.00 0.00	<b>0.00</b> 0.00 0.00 0.00	<b>0.00</b> 0.00 0.00 0.00
5,600.00 5,700.00 5,800.00 5,900.00 6,000.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	5,571.71 5,671.71 5,771.71 5,871.71 5,971.71	-2,016.71 -2,116.71 -2,216.71 -2,316.71 -2,416.71	78.08 78.08 78.08 78.08 78.08	-301.16 -301.16 -301.16 -301.16 -301.16	-80.13 -80.13 -80.13 -80.13	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
6,100.00 6,200.00 6,300.00 6,400.00 6,500.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	6,071.71 6,171.71 6,271.71 6,371.71 6,471.71	-2,516.71 -2,616.71 -2,716.71 -2,816.71 -2,916.71	78.08 78.08 78.08 78.08 78.08	-301.16 -301.16 -301.16 -301.16 -301.16	-80.13 -80.13 -80.13 -80.13	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
6,600.00	0.00	0.00	6,571.71	-3,016.71	78.08	-301.16	-80.13	0.00	0.00	0.00
	HY_CANYO	N								
<b>6,623.29</b> 6,700.00 6,800.00 6,900.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	<b>6,595.00</b> 6,671.71 6,771.71 6,871.71	<b>-3,040.00</b> -3,116.71 -3,216.71 -3,316.71	<b>78.08</b> 78.08 78.08 78.08	<b>-301.16</b> -301.16 -301.16 -301.16	<b>-80.13</b> -80.13 -80.13 -80.13	<b>0.00</b> 0.00 0.00 0.00	<b>0.00</b> 0.00 0.00 0.00	<b>0.00</b> 0.00 0.00 0.00
7,000.00 7,100.00 7,200.00 7,300.00 7,400.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	6,971.71 7,071.71 7,171.71 7,271.71 7,371.71	-3,416.71 -3,516.71 -3,616.71 -3,716.71 -3,816.71	78.08 78.08 78.08 78.08 78.08	-301.16 -301.16 -301.16 -301.16 -301.16	-80.13 -80.13 -80.13 -80.13	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
7,500.00 7,600.00 7,700.00 7,800.00 7,900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	7,471.71 7,571.71 7,671.71 7,771.71 7,871.71	-3,916.71 -4,016.71 -4,116.71 -4,216.71 -4,316.71	78.08 78.08 78.08 78.08 78.08	-301.16 -301.16 -301.16 -301.16 -301.16	-80.13 -80.13 -80.13 -80.13	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
8,000.00	0.00	0.00	7,971.71	-4,416.71	78.08	-301.16	-80.13	0.00	0.00	0.00

Database: Database 1

Company: ASCENT ENERGY

Project: LEA COUNTY, NEW MEXICO (NAD 83)

(GRID)

Site: SEC. 16 T20S R33E N.M.P.M. (GRID)
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Wellbore: ORIGINAL WELLBORE

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**Survey Calculation Method:** 

Well PONY EXPRESS FED COM 301H

KB 25' @ 3555.00usft KB 25' @ 3555.00usft

Grid

<b>Planned Surve</b>	У									
							Vertical	Dogleg	Build	Turn
MD	Inc	Azi	TVD	SS	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
8.100.00	0.00	0.00	8,071.71	-4,516.71	78.08	-301.16	-80.13	0.00	0.00	0.00
-,	10°/100ft BI		0,011111	.,0.0	. 5.55		00.10	0.00	0.00	3.00
8,145.35	0.00	0.00	8,117.06	-4,562.06	78.08	-301.16	-80.13	0.00	0.00	0.00
BSPG_	LIME									
8,168.30	2.29	179.61	8,140.00	-4,585.00	77.62	-301.16	-79.67	10.00	10.00	0.00
8,200.00	5.46	179.61	8,171.62	-4,616.62	75.48	-301.14	-77.52	10.00	10.00	0.00
AVLN										
8,294.99	14.96	179.61	8,265.00	-4,710.00	58.65	-301.03	-60.70	10.00	10.00	0.00
8,300.00	15.46	179.61	8,269.84	-4,714.84	57.34	-301.02	-59.38	10.00	10.00	0.00
		330ft FWL of		4 720 47	E2.00	200.00	EE 12	40.00	40.00	0.00
<b>8,315.24</b> 8,400.00	<b>16.99</b> 25.46	<b>179.61</b> 179.61	<b>8,284.47</b> 8,363.41	<b>-4,729.47</b> -4,808.41	<b>53.08</b> 22.42	<b>-300.99</b> -300.78	<b>-55.13</b> -24.47	<b>10.00</b> 10.00	<b>10.00</b> 10.00	<b>0.00</b> 0.00
8,500.00	35.46	179.61	8,449.49	-4,894.49	-28.22	-300.76	26.17	10.00	10.00	0.00
8,600.00	45.46	179.61	8,525.47	-4,970.47	-93.03	-300.00	90.99	10.00	10.00	0.00
8,700.00	55.46	179.61	8,589.05	-4,970.47 -5,034.05	-93.03 -170.05	-300.00	168.01	10.00	10.00	0.00
8,800.00	65.46	179.61	8,638.28	-5,083.28	-256.95	-298.88	254.91	10.00	10.00	0.00
LEONA	ARD_B									
8,893.45	74.81	179.61	8,670.00	-5,115.00	-344.74	-298.28	342.70	10.00	10.00	0.00
8,900.00	75.46	179.61	8,671.68	-5,116.68	-351.07	-298.24	349.03	10.00	10.00	0.00
9,000.00	85.46	179.61	8,688.22	-5,133.22	-449.56	-297.57	447.52	10.00	10.00	0.00
			WL of Sec 21							
9,040.65	<b>89.53</b> 89.53	179.61	<b>8,690.00</b>	<b>-5,135.00</b>	<b>-490.16</b>	<b>-297.29</b> -296.89	488.13 5.47.47	10.00	10.00	0.00
9,100.00 9,200.00	89.53	179.61 179.61	8,690.49 8,691.31	-5,135.49 -5,136.31	-549.51 -649.50	-296.69 -296.21	547.47 647.47	0.00 0.00	0.00 0.00	0.00 0.00
9,300.00	89.53	179.61	8,692.13	-5,137.13	-749.50	-295.53	747.47	0.00	0.00	0.00
9,400.00	89.53	179.61	8,692.94	-5,137.94	-849.49	-294.85	847.46	0.00	0.00	0.00
9,500.00	89.53	179.61	8,693.76	-5,138.76	-949.48	-294.16	947.46	0.00	0.00	0.00
9,600.00	89.53	179.61	8,694.58	-5,139.58	-1,049.48	-293.48	1,047.46	0.00	0.00	0.00
9,700.00	89.53	179.61	8,695.40	-5,140.40	-1,149.47	-292.80	1,147.45	0.00	0.00	0.00
9,800.00	89.53	179.61	8,696.22	-5,141.22	-1,249.47	-292.12	1,247.45	0.00	0.00	0.00
9,900.00	89.53	179.61	8,697.04	-5,142.04	-1,349.46	-291.44	1,347.45	0.00	0.00	0.00
10,000.00	89.53	179.61	8,697.86	-5,142.86	-1,449.46	-290.76 -290.08	1,447.44	0.00	0.00	0.00
10,100.00 10,200.00	89.53 89.53	179.61 179.61	8,698.68 8,699.50	-5,143.68 -5,144.50	-1,549.45 -1,649.45	-290.08 -289.40	1,547.44 1,647.44	0.00 0.00	0.00 0.00	0.00 0.00
10,300.00	89.53	179.61	8,700.31	-5,145.31	-1,749.44	-288.72	1,747.43	0.00	0.00	0.00
10,400.00	89.53	179.61	8,701.13	-5,146.13	-1,849.43	-288.04	1,847.43	0.00	0.00	0.00
10,500.00	89.53	179.61	8,701.95	-5,146.95	-1,949.43	-287.35	1,947.43	0.00	0.00	0.00
10,600.00	89.53	179.61	8,702.77	-5,147.77	-2,049.42	-286.67	2,047.42	0.00	0.00	0.00
10,700.00	89.53	179.61	8,703.58	-5,148.58	-2,149.42	-285.99	2,147.42	0.00	0.00	0.00
10,800.00	89.53	179.61	8,704.40	-5,149.40	-2,249.41	-285.31	2,247.42	0.00	0.00	0.00
10,900.00	89.53	179.61	8,705.22	-5,150.22	-2,349.41	-284.63	2,347.41	0.00	0.00	0.00
11,000.00	89.53	179.61	8,706.03	-5,151.03	-2,449.40	-283.95	2,447.41	0.00	0.00	0.00
11,100.00 11,200.00	89.53 89.53	179.61 179.61	8,706.85 8,707.67	-5,151.85 -5,152.67	-2,549.39 -2,649.39	-283.27 -282.58	2,547.41 2,647.40	0.00 0.00	0.00 0.00	0.00 0.00
11,300.00	89.53	179.61	8,707.07	-5,152.07 -5,153.48	-2,749.38	-281.90	2,747.40	0.00	0.00	0.00
11,400.00	89.53	179.61	8,709.30	-5,154.30	-2,849.38	-281.22	2,847.40	0.00	0.00	0.00
11,500.00	89.53	179.61	8,710.11	-5,154.30 -5,155.11	-2,649.36 -2,949.37	-281.22 -280.54	2,947.40	0.00	0.00	0.00
11,600.00	89.53	179.61	8,710.93	-5,155.93	-3,049.37	-279.86	3,047.39	0.00	0.00	0.00
11,700.00	89.53	179.61	8,711.74	-5,156.74	-3,149.36	-279.17	3,147.39	0.00	0.00	0.00
11,800.00	89.53	179.61	8,712.56	-5,157.56	-3,249.35	-278.49	3,247.38	0.00	0.00	0.00
11,900.00	89.53	179.61	8,713.37	-5,158.37	-3,349.35	-277.81	3,347.38	0.00	0.00	0.00
12,000.00	89.53	179.61	8,714.19	-5,159.19	-3,449.34	-277.13	3,447.38	0.00	0.00	0.00

Database: Database 1

Company: ASCENT ENERGY

Project: LEA COUNTY, NEW MEXICO (NAD 83)

(GRID)

Site: SEC. 16 T20S R33E N.M.P.M. (GRID)
Well: PONY EXPRESS FED COM 301H

Wellbore: ORIGINAL WELLBORE

Design: PROPOSAL #1

**Local Co-ordinate Reference:** 

TVD Reference: MD Reference:

North Reference:

**Survey Calculation Method:** 

Well PONY EXPRESS FED COM 301H

KB 25' @ 3555.00usft KB 25' @ 3555.00usft

Grid

Planned Surve	ey .									
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)
12,100.00	89.53	179.61	8,715.00	-5,160.00	-3,549.34	-276.45	3,547.37	0.00	0.00	0.00
12,200.00	89.53	179.61	8,715.82	-5,160.82	-3,649.33	-275.76	3,647.37	0.00	0.00	0.00
12,300.00	89.53	179.61	8,716.63	-5,161.63	-3,749.33	-275.08	3,747.37	0.00	0.00	0.00
12,400.00	89.53	179.61	8,717.45	-5,162.45	-3,849.32	-274.40	3,847.36	0.00	0.00	0.00
12,500.00	89.53	179.61	8,718.26	-5,163.26	-3,949.32	-273.72	3,947.36	0.00	0.00	0.00
12,600.00	89.53	179.61	8,719.07	-5,164.07	-4,049.31	-273.04	4,047.36	0.00	0.00	0.00
12,700.00	89.53	179.61	8,719.89	-5,164.89	-4,149.30	-272.35	4,147.35	0.00	0.00	0.00
12,800.00	89.53	179.61	8,720.70	-5,165.70	-4,249.30	-271.67	4,247.35	0.00	0.00	0.00
12,900.00	89.53	179.61	8,721.51	-5,166.51	-4,349.29	-270.99	4,347.35	0.00	0.00	0.00
13,000.00	89.53	179.61	8,722.33	-5,167.33	-4,449.29	-270.31	4,447.34	0.00	0.00	0.00
13,100.00	89.53	179.61	8,723.14	-5,168.14	-4,549.28	-269.62	4,547.34	0.00	0.00	0.00
13,200.00	89.53	179.61	8,723.95	-5,168.95	-4,649.28	-268.94	4,647.34	0.00	0.00	0.00
13,300.00	89.53	179.61	8,724.76	-5,169.76	-4,749.27	-268.26	4,747.33	0.00	0.00	0.00
13,400.00	89.53	179.61	8,725.57	-5,170.57	-4,849.26	-267.58	4,847.33	0.00	0.00	0.00
13,500.00	89.53	179.61	8,726.39	-5,171.39	-4,949.26	-266.89	4,947.33	0.00	0.00	0.00
13,600.00	89.54	179.61	8,727.20	-5,172.20	-5,049.25	-266.21	5,047.32	0.00	0.00	0.00
13,700.00	89.54	179.61	8,728.01	-5,173.01	-5,149.25	-265.53	5,147.32	0.00	0.00	0.00
13,800.00	89.54	179.61	8,728.82	-5,173.82	-5,249.24	-264.84	5,247.32	0.00	0.00	0.00
13,900.00	89.54	179.61	8,729.63	-5,174.63	-5,349.24	-264.16	5,347.31	0.00	0.00	0.00
14,000.00	89.54	179.61	8,730.44	-5,175.44	-5,449.23	-263.48	5,447.31	0.00	0.00	0.00
14,100.00	89.54	179.61	8,731.25	-5,176.25	-5,549.22	-262.80	5,547.31	0.00	0.00	0.00
14,200.00	89.54	179.61	8,732.06	-5,177.06	-5,649.22	-262.11	5,647.30	0.00	0.00	0.00
14,300.00	89.54	179.61	8,732.87	-5,177.87	-5,749.21	-261.43	5,747.30	0.00	0.00	0.00
14,400.00	89.54	179.61	8,733.68	-5,178.68	-5,849.21	-260.75	5,847.30	0.00	0.00	0.00
14,500.00	89.54	179.61	8,734.49	-5,179.49	-5,949.20	-260.06	5,947.29	0.00	0.00	0.00
14,600.00	89.54	179.61	8,735.30	-5,180.30	-6,049.20	-259.38	6,047.29	0.00	0.00	0.00
14,700.00	89.54	179.61	8,736.11	-5,181.11	-6,149.19	-258.70	6,147.29	0.00	0.00	0.00
14,800.00	89.54	179.61	8,736.92	-5,181.92	-6,249.19	-258.01	6,247.28	0.00	0.00	0.00
14,900.00	89.54	179.61	8,737.73	-5,182.73	-6,349.18	-257.33	6,347.28	0.00	0.00	0.00
15,000.00	89.54	179.61	8,738.54	-5,183.54	-6,449.17	-256.65	6,447.28	0.00	0.00	0.00
15,100.00	89.54	179.61	8,739.35	-5,184.35	-6,549.17	-255.96	6,547.27	0.00	0.00	0.00
15,200.00	89.54	179.61	8,740.16	-5,185.16	-6,649.16	-255.28	6,647.27	0.00	0.00	0.00
15,300.00	89.54	179.61	8,740.97	-5,185.97	-6,749.16	-254.60	6,747.27	0.00	0.00	0.00
15,400.00	89.54	179.61	8,741.77	-5,186.77	-6,849.15	-253.91	6,847.27	0.00	0.00	0.00
15,500.00	89.54	179.61	8,742.58	-5,187.58	-6,949.15	-253.23	6,947.26	0.00	0.00	0.00
15,600.00	89.54	179.61	8,743.39	-5,188.39	-7,049.14	-252.54	7,047.26	0.00	0.00	0.00
15,700.00	89.54	179.61	8,744.20	-5,189.20	-7,149.14	-251.86	7,147.26	0.00	0.00	0.00
15,800.00	89.54	179.61	8,745.00	-5,190.00	-7,249.13	-251.18	7,247.25	0.00	0.00	0.00
15,900.00	89.54	179.61	8,745.81	-5,190.81	-7,349.12	-250.49	7,347.25	0.00	0.00	0.00
16,000.00	89.54	179.61	8,746.62	-5,191.62	-7,449.12	-249.81	7,447.25	0.00	0.00	0.00
16,100.00	89.54	179.61	8,747.42	-5,192.42	-7,549.11	-249.13	7,547.24	0.00	0.00	0.00
16,200.00	89.54	179.61	8,748.23	-5,193.23	-7,649.11	-248.44	7,647.24	0.00	0.00	0.00
16,300.00	89.54	179.61	8,749.04	-5,194.04	-7,749.10	-247.76	7,747.24	0.00	0.00	0.00
16,400.00	89.54	179.61	8,749.84	-5,194.84	-7,849.10	-247.07	7,847.23	0.00	0.00	0.00
16,500.00	89.54	179.61	8,750.65	-5,195.65	-7,949.09	-246.39	7,947.23	0.00	0.00	0.00
16,600.00	89.54	179.61	8,751.46	-5,196.46	-8,049.08	-245.71	8,047.23	0.00	0.00	0.00
16,700.00	89.54	179.61	8,752.26	-5,197.26	-8,149.08	-245.02	8,147.22	0.00	0.00	0.00
16,800.00	89.54	179.61	8,753.07	-5,198.07	-8,249.07	-244.34	8,247.22	0.00	0.00	0.00
16,900.00	89.54	179.61	8,753.87	-5,198.87	-8,349.07	-243.65	8,347.22	0.00	0.00	0.00
17,000.00	89.54	179.61	8,754.68	-5,199.68	-8,449.06	-242.97	8,447.21	0.00	0.00	0.00
17,100.00	89.54	179.61	8,755.48	-5,200.48	-8,549.06	-242.28	8,547.21	0.00	0.00	0.00
17,200.00	89.54	179.61	8,756.29	-5,201.29	-8,649.05	-241.60	8,647.21	0.00	0.00	0.00
17,300.00	89.54	179.61	8,757.09	-5,202.09	-8,749.05	-240.91	8,747.20	0.00	0.00	0.00

Database: Database 1

Company: ASCENT ENERGY

Project: LEA COUNTY, NEW MEXICO (NAD 83)

(GRID)

Site: SEC. 16 T20S R33E N.M.P.M. (GRID)
Well: PONY EXPRESS FED COM 301H

Wellbore: ORIGINAL WELLBORE

Design: PROPOSAL #1

**Local Co-ordinate Reference:** 

TVD Reference:
MD Reference:

North Reference:

**Survey Calculation Method:** 

Well PONY EXPRESS FED COM 301H

KB 25' @ 3555.00usft KB 25' @ 3555.00usft

Grid

Planned Surve	ey 💮									
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)
17,400.00	89.54	179.61	8,757.89	-5,202.89	-8,849.04	-240.23	8,847.20	0.00	0.00	0.00
17,500.00	89.54	179.61	8,758.70	-5,203.70	-8,949.03	-239.55	8,947.20	0.00	0.00	0.00
17,600.00	89.54	179.61	8,759.50	-5,204.50	-9,049.03	-238.86	9,047.19	0.00	0.00	0.00
17,700.00	89.54	179.61	8,760.31	-5,205.31	-9,149.02	-238.18	9,147.19	0.00	0.00	0.00
17,800.00	89.54	179.61	8,761.11	-5,206.11	-9,249.02	-237.49	9,247.19	0.00	0.00	0.00
17,900.00	89.54	179.61	8,761.91	-5,206.91	-9,349.01	-236.81	9,347.18	0.00	0.00	0.00
18,000.00	89.54	179.61	8,762.72	-5,207.72	-9,449.01	-236.12	9,447.18	0.00	0.00	0.00
18,100.00	89.54	179.61	8,763.52	-5,208.52	-9,549.00	-235.44	9,547.18	0.00	0.00	0.00
18,200.00	89.54	179.61	8,764.32	-5,209.32	-9,649.00	-234.75	9,647.17	0.00	0.00	0.00
18,300.00	89.54	179.61	8,765.12	-5,210.12	-9,748.99	-234.07	9,747.17	0.00	0.00	0.00
18,400.00	89.54	179.61	8,765.93	-5,210.93	-9,848.98	-233.38	9,847.17	0.00	0.00	0.00
18,500.00	89.54	179.61	8,766.73	-5,211.73	-9,948.98	-232.70	9,947.16	0.00	0.00	0.00
18,600.00	89.54	179.61	8,767.53	-5,212.53	-10,048.97	-232.01	10,047.16	0.00	0.00	0.00
18,700.00	89.54	179.61	8,768.33	-5,213.33	-10,148.97	-231.33	10,147.16	0.00	0.00	0.00
18,800.00	89.54	179.61	8,769.13	-5,214.13	-10,248.96	-230.64	10,247.15	0.00	0.00	0.00
LTP: 1	00ft FSL &	330ft FWL of	Sec 21							
<b>18,858.10</b>	<b>89.54</b>	<b>179.61</b>	<b>8,769.60</b>	<b>-5,214.60</b>	<b>-10,307.06</b>	<b>-230.24</b>	<b>10,305.25</b> 10,347.15	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
18,900.00	89.54	179.61	8,769.94	-5,214.94	-10,348.96	-229.96		0.00	0.00	0.00
18,908.10	50ft FSL & 3 89.54	330ft FWL of 179.61	Sec 21 8,770.00	-5,215.00	-10,357.06	-229.90	10,355.25	0.00	0.00	0.00

Formations						
	MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,220.00	1,220.00	RSTLR		0.00	
	1,550.00	1,550.00	SALDO		0.00	
	2,900.95	2,890.00	TANSIL		0.00	
	3,038.97	3,025.00	YATES		0.00	
	3,304.78	3,285.00	CAPITAN_REEF_TOP		0.00	
	5,223.29	5,195.00	TOP_DELAWARE_SAND		0.00	
	5,283.29	5,255.00	CHERRY_CANYON		0.00	
	6,623.29	6,595.00	BRUSHY_CANYON		0.00	
	8,168.30	8,140.00	BSPG_LIME		0.00	
	8,294.99	8,265.00	AVLN		0.00	
	8,893.45	8,670.00	LEONARD_B		0.00	

Database: Database 1

Company: ASCENT ENERGY

Project: LEA COUNTY, NEW MEXICO (NAD 83)

(GRID)

**Site:** SEC. 16 T20S R33E N.M.P.M. (GRID)

Well: PONY EXPRESS FED COM 301H

Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

**Local Co-ordinate Reference:** 

TVD Reference:
MD Reference:

North Reference:

**Survey Calculation Method:** 

Well PONY EXPRESS FED COM 301H

KB 25' @ 3555.00usft KB 25' @ 3555.00usft

Grid

Plan Annotations				
MD (usft)	TVD (usft)	Local Coo +N/-S (usft)	ordinates +E/-W (usft)	Comment
0.00	0.00	0.00	0.00	SHL: 155ft FNL & 631ft FWL of Sec 16
2,000.00	2,000.00	0.00	0.00	START NUDGE (2°/100ft BUR)
2,600.00	2,595.62	15.71	-60.60	EOB TO 12° INC
3,494.19	3,470.27	62.37	-240.56	END OF TANGENT
4,094.19	4,065.89	78.08	-301.16	EOD TO VERTICAL
8,145.35	8,117.06	78.08	-301.16	KOP (10°/100ft BUR)
8,315.24	8,284.47	53.08	-300.99	FTP: 100ft FNL & 330ft FWL of Sec 16
9,040.65	8,690.00	-490.16	-297.29	HZ LP: 643.24ft FNL & 330ft FWL of Sec 21
18,858.10	8,769.60	-10,307.06	-230.24	LTP: 100ft FSL & 330ft FWL of Sec 21
18,908.10	8,770.00	-10,357.06	-229.90	BHL: 50ft FSL & 330ft FWL of Sec 21

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: Ascent Energy LEASE NO.: NMNM108967

**LOCATION:** Section 16, T.20 S., R.33 E., NMPM

**COUNTY:** Lea County, New Mexico

WELL NAME & NO.: Pony Express Fed Com 301H

**SURFACE HOLE FOOTAGE:** 155'/N & 631'/W **BOTTOM HOLE FOOTAGE** 50'/S & 330'/W

COA

H2S	• Yes	O No	
Potash	O None	Secretary	<b>⊙</b> R-111-P
Cave/Karst Potential	• Low	© Medium	C High
Cave/Karst Potential	Critical		
Variance	O None	• Flex Hose	Other
Wellhead	Conventional	<ul><li>Multibowl</li></ul>	C Both
Other	✓ 4 String Area		□WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	<b>☑</b> COM	□ Unit

### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Morrow** 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 13-3/8 inch surface casing shall be set at approximately \_1250\_ feet (a minimum of 25 feet (Lea 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.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of

- <u>24 hours in the Potash Area</u> 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 9-5/8 inch 1st Intermediate 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 or potash.

- ❖ 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.
- 3. The minimum required fill of cement behind the **7-5/8** inch 2<sup>nd</sup> Intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Excess** calculates to 24%. Additional cement maybe required.

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 5-1/2 inch production casing is:
  - Cement should tie-back at least 50 feet (3207 ft) on top of Capitan Reef top. 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.

### 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 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. When the Communitization Agreement number is known, it shall also be on the sign.

### **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 CountyCall 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. Operator is approve 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. Operator is approve 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 2<sup>nd</sup> 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.

#### A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. 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. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing 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 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.

ZS 011921

Ascent Energy, LLC
PONY EXPRESS PAD 1
NWNW SEC 16, T20S, R33E, N.M.P.M.
Lea County, New Mexico

### H<sub>2</sub>S Drilling Operations Plan

- 1. All personnel will be trained in H<sub>2</sub>S working conditions as required by Onshore Order 6 before drilling out of the surface casing.
- Two briefing areas will be established. Each briefing area will be ≥150' from the wellhead, perpendicular from one another, and easily entered and exited. See H<sub>2</sub>S page 4 for more details.
- 3. H<sub>2</sub>S Safety Equipment/Systems:
  - a. Well Control Equipment
    - i. Flare line will be ≥150' from the wellhead and ignited by a flare gun
    - ii. Beware of SO<sub>2</sub> created by flaring
    - iii. Choke manifold will have a remotely operated choke
    - iv. Mud gas separator
  - b. Protective Equipment for Personnel
    - i. Every person on site will wear a personal H<sub>2</sub>S and SO<sub>2</sub> 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.
    - ii. 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.
    - iii. Four work/escape packs will be on the rig floor. Each pack will have a sufficiently long hose to allow unimpaired work activity.
    - iv. Four emergency escape packs will be in the doghouse for emergency evacuation.
    - v. Hand signals will be used when wearing protective breathing apparatus.
    - vi. Stokes litter or stretcher
    - vii. Two full OSHA compliant body harnesses
    - viii. A 100' long x 5/8" OSHA compliant rope
    - ix. One 20-pound ABC fire extinguisher
  - c. H2S Detection & Monitoring Equipment
    - i. Every person on site will wear a personal H<sub>2</sub>S and SO<sub>2</sub> 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.
    - ii. A stationary detector with three sensors will be in the doghouse

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iii.

flow line or where drilling fluids are discharged.

- iv. Visual alarm will be triggered at 10 ppm.
- v. Audible alarm will be triggered at 10 ppm.
- vi. Calibration will occur at least every 30 days. Gas sample tubes will be kept in the safety trailer.

Sensors will be installed on the rig floor, bell nipple, and at the end of the

### d. Visual Warning System

- i. A color-coded H<sub>2</sub>S condition sign will be set at each pad entrance.
- ii. Color-coded condition flag will be installed to indicate current H<sub>2</sub>S conditions.
- iii. Two wind socks will be installed that will be visible from all sides.

### e. Mud Program

- i. A water based mud with a pH of > 10 will be maintained to control corrosion,  $H_2S$  gas returns to the surface, and minimize sulfide stress cracking and embritlement.
- ii. Drilling mud containing  $H_2S$  gas will be degassed at an optimum location for the rig configuration.
- iii. This gas will be piped into the flare system.
- iv. Enough mud additives will be on location to scavenge and/or neutralize  $H_2S$  where formation pressures are unknown.

### f. Metallurgy

- i. All equipment that has the potential to be exposed to H<sub>2</sub>S will be suitable for H<sub>2</sub>S service.
- ii. 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).

### g. Communication from well site

- Cell phones and/or two-way radios will be used to communicate from the well site.
- 4. A remote-controlled choke, mud-gas separator, and a rotating head will be installed before drilling or testing any formation expected to contain H<sub>2</sub>S.

Ascent Energy, LLC PONY EXPRESS PAD 1 NWNW SEC 16, T20S, R33E, N.M.P.M. Lea County, New Mexico

### **Ascent Emergency Contact Numbers**

**Company Personnel to be Notified** 

Ascent Emergency Contact	(303) 281-9951
Gema Volek (Vice President of Drilling)	Cell: (785) 312-2092
Matt Ward (Chief Operations Officer)	Cell: (303) 506-6647
Dean Gimbel (Vice President Completions)	Cell: (303) 945-1323

### **Local and 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
NM Oil Conservation (Hobbs)	(575) 370-3186
NM oil Conservation (Santa Fe)	(505) 476-3440
NM Department of Transportation (Roswell)	(575) 637-7201

### **Federal Agencies**

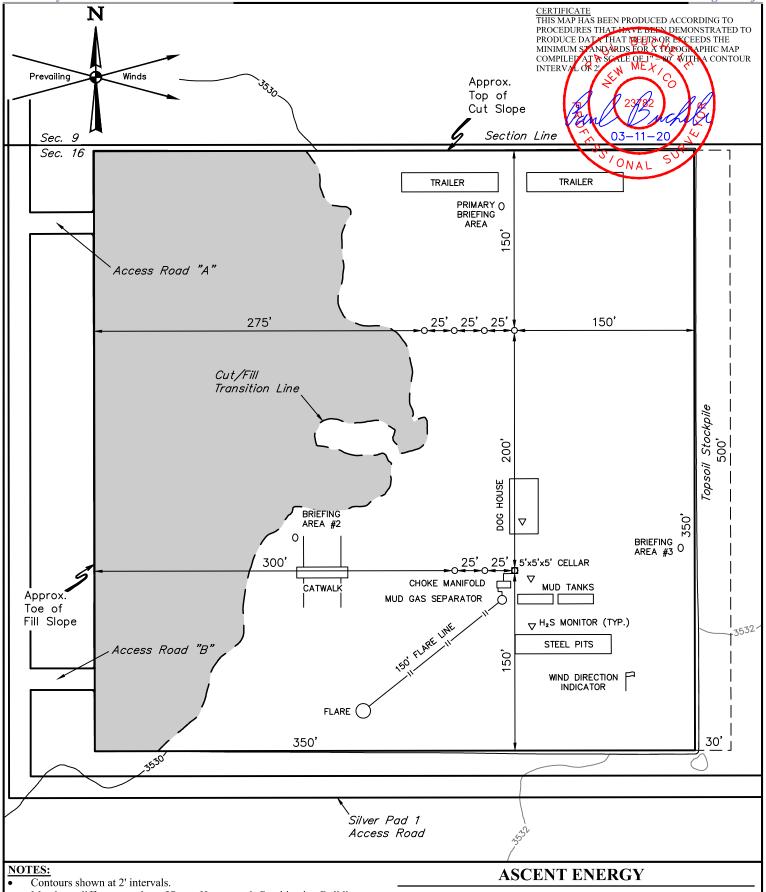
BLM Carlsbad Field Office	(575) 234-5972
BLM Hobbs Field Station	(575) 393-3612
National Response Center	(800) 424-8802
United States Environmental Protection Agency	(800) 887-6063
(USEPA Region 6 Dallas)	(214) 665-6444

### **Air Evacuation**

Med Flight Air Ambulance (Albuquerque)	(800) 842-4431
Lifeguard (Albuquerque)	(888) 866-7256

### **Veterinarians**

Dal Paso Animal Hospital (Hobbs)	(575) 397-2286
Hobbs Animal Clinic And Pet Care (Hobbs)	(575) 392-5563
Great Plains Veterinary Clinic and Hospital (Hobbs)	(505) 392-5513



• May have different number of Pump Houses and Combination Buildings.

PONY EXPRESS PAD 1 NW 1/4 NW 1/4, SECTION 16, T20S, R33E, N.M.P.M. LEA COUNTY, NEW MEXICO

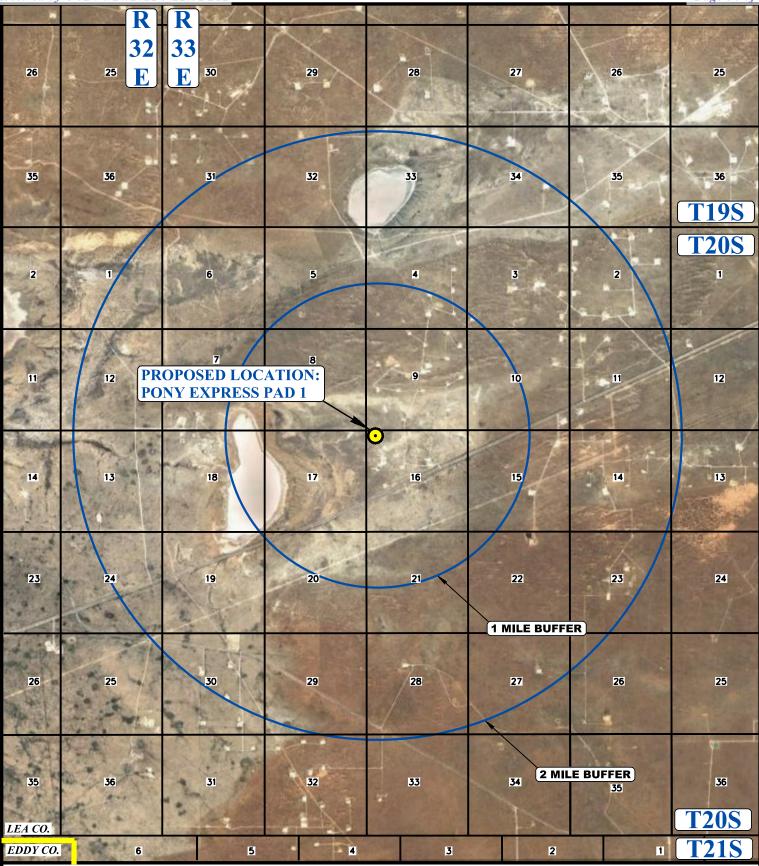
 SURVEYED BY
 M.D., R.C.
 01-30-20
 SCALE

 DRAWN BY
 R.J.
 03-11-20
 1" = 80'

 TYPICAL RIG LAYOUT
 FIGURE #3



UELS, LLC Corporate Office \* 85 South 200 East Vernal, UT 84078 \* (435) 789-1017



N

LEGEND:



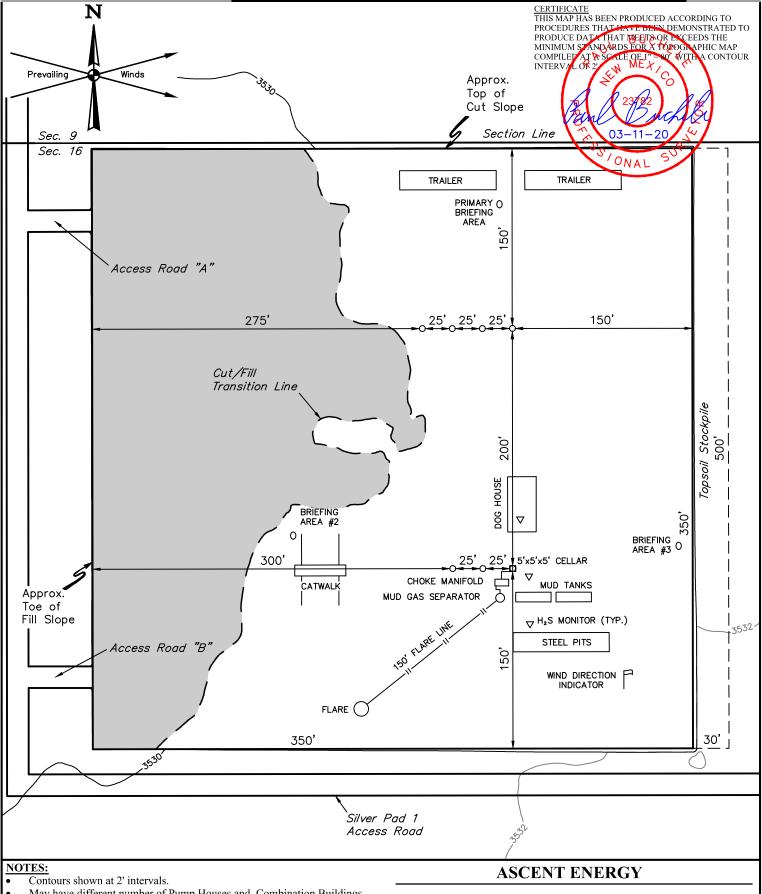


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### **ASCENT ENERGY**

PONY EXPRESS PAD 1 NW 1/4 NW 1/4, SECTION 16, T20S, R33E, N.M.P.M. LEA COUNTY, NEW MEXICO

SURVEYED BY	R.C., M.D.	01-31-20	SCALE		
DRAWN BY	V.L.D.	03-17-20	1:60,000		
2 MILE RADIUS MAP					



May have different number of Pump Houses and Combination Buildings.

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PONY EXPRESS PAD 1 NW 1/4 NW 1/4, SECTION 16, T20S, R33E, N.M.P.M. LEA COUNTY, NEW MEXICO

SURVEYED BY	M.D., R.C.	01-3	30-20	SCALE
DRAWN BY	R.J.	03-1	1-20	1'' = 80'
TYPICAL RIG LAYOU			FIG	<b>URE #3</b>

## Onshore Order No.1 Surface Use Plan of Operations

Pony Express Fed Com 301H

SHL: 155' FNL, 631' FWL SEC. 16, T20S, R33E

Pony Express Fed Com 401H

SHL: 355' FNL, 655' FWL SEC. 16, T20S, R33E

Pony Express Fed Com 601H

SHL: 155' FNL, 681' FWL SEC. 16, T20S, R33E

Pony Express Fed Com 302H

SHL: 355' FNL, 705' FWL SEC. 16, T20S, R33E

Pony Express Fed Com 501H

SHL: 155' FNL, 656' FWL SEC. 16, T20S, R33E

Pony Express Fed Com 701H

SHL: 155' FNL, 706' FWL SEC. 16, T20S, R33E

Pony Express Fed Com 705H

SHL: 355' FNL, 680' FWL SEC. 16, T20S, R33E

This surface use plan of operations provides site specific information for the above referenced wells located on the Pony Express 1 Pad within the proposed Lone Ranger Drill Island.

**1.** Existing Roads \*See Pony Express Pad 1 & Pony Express West CTB TOPO A & B – Access Road Map(s)

Existing roads providing access to the well site are shown on Topo Maps A and B. Non-state roads will be maintained as needed to Gold Book standards. This includes pulling ditches, preserving the crown, and cleaning culverts. This will be done at least once a year, and more often as needed.

Proceed in a westerly, then southwesterly direction from Hobbs, New Mexico along Highway 180 approximately 33.3 miles to the junction of this road and an existing road to the northwest; turn right then proceed in a northwesterly then westerly, then northerly direction approximately 0.6 miles to the beginning of the proposed Silver 1 Pad access road "A" to the west; follow road flags in a westerly, then northerly direction approximately 2,252' to the beginning of the proposed access road "A" to the east; follow road flags in an easterly direction approximately 62' to the proposed location. Total distance from Hobbs, New Mexico to the proposed well location is approximately 34.3 miles.

2. New Roads \*See Pony Express Pad 1 & Pony Express West CTB TOPO B - Access Road Map & R-O-W Plats

There will be 194' of new resource roads that will be crowned and ditched. The proposed construction width will be 30' with a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 30', maximum grade = 3%, maximum cut/fill = 3'. No culvert, cattle guard, or vehicle turn out is needed. Upgrading will consist of filling potholes with caliche.

- a. Road "A" Dimensions (Permanent road): 62'
- b. Road "B" Dimensions (Permanent road): 62'
- c. Road "C" Dimensions (Permanent road to CTB): 70'

New road access erosion control: Crowned and ditched



- **3.** Location of Existing Wells \*See Pony Express Pad 1 Topo C: Well Proximity Map. Existing oil, gas, water and P&A wells within a mile of the proposed wellbore. No SWD or injection well is within a mile radius.
- **4.** <u>Location of Existing and/or Proposed Production Facilities</u> \*See Pony Express Pad 1 Figure 3-4 & Pony Express West CTB Figure 1

Flare(s) will be set on the southernmost bottom of the well pad. Separators and treaters will be placed in the southeast corner of the well pad. A central tank battery (CTB) will be built southeast of the well pad. Tanks will be on the east side of the CTB.

A 693' long x 3' wide x 3' deep trench will run between the well pad and CTB. Trench will hold 4" 0.D. steel, HDPE, or composite oil line, fuel gas and gas sale lines, and SWD line. (There will be one trench per well. Trenches will be 3' apart. There will be 8 wells on the pad.)

A 274' long above ground powerline will run between the well pad and CTB

- 5. <u>Location and Types of Water Supply</u> \*See Water Transportation Map Water will be trucked from the 3Bear Libby water station on private land, located NE1/4 Section 26, T20S, R34E.
- 6. <u>Construction Materials</u> \*See Construction Materials Source Map NM One Call (811), offset operators will be notified before construction starts, if necessary. Top 4" of soil and brush will be stockpiled east of the well pad. V-door will face east. Closed loop drilling system will be used. Top 4" of soil and brush will be piled east of the CTB. Caliche will be hauled from an existing caliche pit on private (Berry) land in E2N34 35-20S-34E.

#### 7. Methods of Handling Waste

All trash will be placed in a portable trash cage. It will be hauled to the Lea County landfill. There will be no trash burning. Contents (drill cuttings, mud, salts, and other chemicals) of the mud tanks will be hauled to state approved disposal site at R360's state approved (NM-01-0006) disposal site at Halfway, NM. Human waste will be disposed of in chemical toilets and hauled to the Hobbs wastewater treatment plant. **Reserve pit:** No reserve pit planned.

### 8. Ancillary Facilities

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



> Well Site Layout \*See Pony Express Pad 1 Figures 1-3 & Pony Express West CTB Figures 1 & 2

Also see Rig Layout (Figure #3) for depictions of the well pad, trash cage, access onto the location, parking, living facilities, and rig orientation.

10. Plans for Final Surface Reclamation \*See Pony Express Pad 1 Figure 4

**Interim Reclamation:** Once the last well has been drilled, then the pad will be interim reclaimed to a reduced working surface area. The reclaimed area will be recontoured and reseeded to match preconstruction grades.

**Final Reclamation:** Once the last well is plugged, then the pad, CTB, and new road will be reclaimed within 6 months of plugging. Disturbed areas will be recontoured to match pre-construction grades. Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with BLM requirements. Road will be blocked. Noxious weeds will be controlled.

APPROXIMATE SURFACE DISTURBANCE AREAS	DISTANCE	ACRES
WELL SITE DISTURBANCE	NA	6.118
CTB SITE DISTURBANCE	NA	3.253
10' WIDE POWER LINE R-O-W DISTURBANCE	274'	0.063
10' WIDE POWER LINE TO CTB R-O-W DISTURBANCE	90'	0.021
30' WIDE FLOWLINE R-O-W DISTURBANCE	693'	0.477
30' WIDE ROAD "A" PERMANENT ROAD R-O-W DISTURBANCE	62'	0.043
30' WIDE ROAD "B" PERMANENT ROAD R-O-W DISTURBANCE	62'	0.043
30' WIDE ROAD "C" PERMANENT ROAD TO CTB R-O-W DISTURBANCE	70'	0.048
TOTAL SURFACE USE AREA:		10.066

### 11. Surface Ownership

Well site:

**Surface owner:** State of New Mexico

**Contact/Office location:** 

State of New Mexico

P.O. Box 1148

Santa Fe, NM 87504

505-827-5760

Roads (New/Existing):

Surface owner: State of New Mexico

**Contact/Office location:** 

State of New Mexico

P.O. Box 1148

Santa Fe, NM 87504

505-827-5760



### 12. Additional Information

An onsite inspection was conducted for Pony Express Pad 1 on January 29, 2020. In attendance at the inspection were the following individuals:

	0
Name	Agency/Company
Jeffery Roberts	Bureau of Land Management
Chaz Sartin	Bureau of Land Management
Jim Rutley	Bureau of Land Management
Ben Metz	Ascent Energy, LLC
Gema Volek	Ascent Energy, LLC
Amy Doebele	UELS, LLC
Bryan Bergstresser	UELS, LLC
Shane Lobdell	UELS, LLC
Michael Daniels	UELS, LLC

### Field representative will be:

Gema Volek Drilling Manager Ascent Energy, LLC 1125 17<sup>th</sup> St., Suite 410 Denver, CO 80202 Office: (720) 710-8999 Cell: (785) 312-2092



Database: Database 1

Company: ASCENT ENERGY

Project: LEA COUNTY, NEW MEXICO (NAD 83)

(GRID)

Site: SEC. 16 T20S R33E N.M.P.M. (GRID)
Well: PONY EXPRESS FED COM 301H

Wellbore: ORIGINAL WELLBORE

Design: PROPOSAL #1

**Local Co-ordinate Reference:** 

TVD Reference:
MD Reference:

North Reference:

**Survey Calculation Method:** 

Well PONY EXPRESS FED COM 301H

KB 25' @ 3555.00usft KB 25' @ 3555.00usft

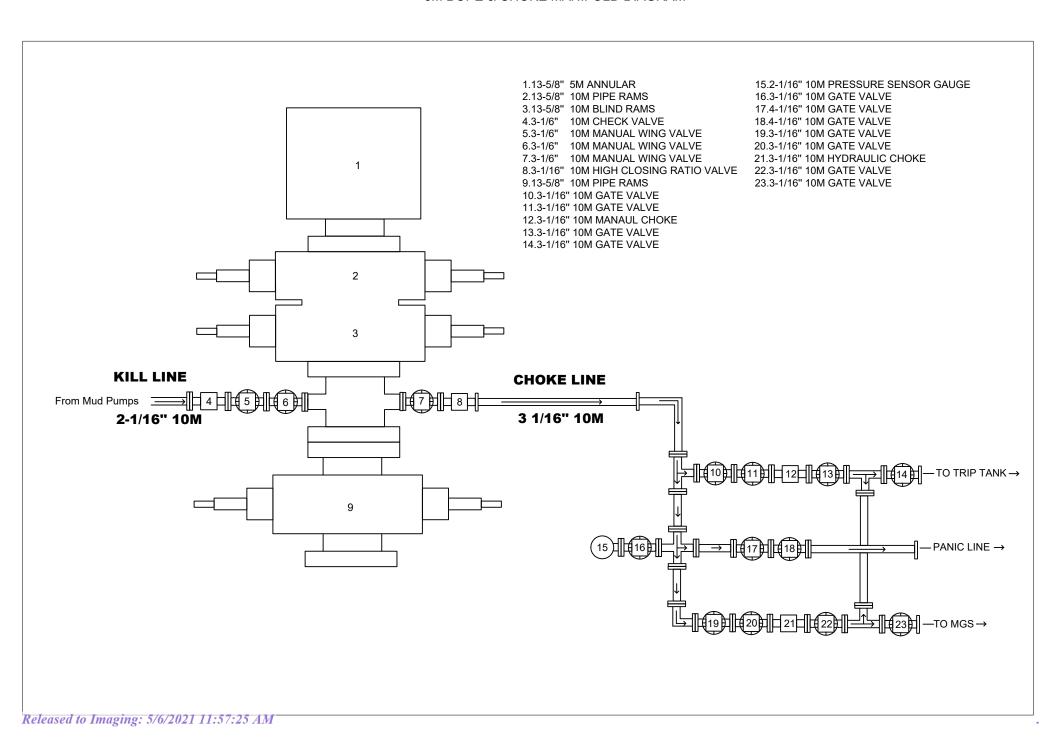
Grid

Planned Surve	ey .									
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)
17,400.00	89.54	179.61	8,757.89	-5,202.89	-8,849.04	-240.23	8,847.20	0.00	0.00	0.00
17,500.00	89.54	179.61	8,758.70	-5,203.70	-8,949.03	-239.55	8,947.20	0.00	0.00	0.00
17,600.00	89.54	179.61	8,759.50	-5,204.50	-9,049.03	-238.86	9,047.19	0.00	0.00	0.00
17,700.00	89.54	179.61	8,760.31	-5,205.31	-9,149.02	-238.18	9,147.19	0.00	0.00	0.00
17,800.00	89.54	179.61	8,761.11	-5,206.11	-9,249.02	-237.49	9,247.19	0.00	0.00	0.00
17,900.00	89.54	179.61	8,761.91	-5,206.91	-9,349.01	-236.81	9,347.18	0.00	0.00	0.00
18,000.00	89.54	179.61	8,762.72	-5,207.72	-9,449.01	-236.12	9,447.18	0.00	0.00	0.00
18,100.00	89.54	179.61	8,763.52	-5,208.52	-9,549.00	-235.44	9,547.18	0.00	0.00	0.00
18,200.00	89.54	179.61	8,764.32	-5,209.32	-9,649.00	-234.75	9,647.17	0.00	0.00	0.00
18,300.00	89.54	179.61	8,765.12	-5,210.12	-9,748.99	-234.07	9,747.17	0.00	0.00	0.00
18,400.00	89.54	179.61	8,765.93	-5,210.93	-9,848.98	-233.38	9,847.17	0.00	0.00	0.00
18,500.00	89.54	179.61	8,766.73	-5,211.73	-9,948.98	-232.70	9,947.16	0.00	0.00	0.00
18,600.00	89.54	179.61	8,767.53	-5,212.53	-10,048.97	-232.01	10,047.16	0.00	0.00	0.00
18,700.00	89.54	179.61	8,768.33	-5,213.33	-10,148.97	-231.33	10,147.16	0.00	0.00	0.00
18,800.00	89.54	179.61	8,769.13	-5,214.13	-10,248.96	-230.64	10,247.15	0.00	0.00	0.00
LTP: 1	00ft FSL &	330ft FWL of	Sec 21							
18,858.10	89.54	179.61	8,769.60	-5,214.60	-10,307.06	-230.24	10,305.25	0.00	0.00	0.00
18,900.00	89.54	179.61	8,769.94	-5,214.94	-10,348.96	-229.96	10,347.15	0.00	0.00	0.00
BHL: 5	50ft FSL &	330ft FWL of	Sec 21							
18,908.10	89.54	179.61	8,770.00	-5,215.00	-10,357.06	-229.90	10,355.25	0.00	0.00	0.00
-			-	-	<u> </u>		-			

Formations						
	MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,220.00	1,220.00	RSTLR		0.00	
	1,550.00	1,550.00	SALDO		0.00	
	2,900.95	2,890.00	TANSIL		0.00	
	3,038.97	3,025.00	YATES		0.00	
	3,304.78	3,285.00	CAPITAN_REEF_TOP		0.00	
	5,223.29	5,195.00	TOP_DELAWARE_SAND		0.00	
	5,283.29	5,255.00	CHERRY_CANYON		0.00	
	6,623.29	6,595.00	BRUSHY_CANYON		0.00	
	8,168.30	8,140.00	BSPG_LIME		0.00	
	8,294.99	8,265.00	AVLN		0.00	
	8,893.45	8,670.00	LEONARD_B		0.00	

### **Ascent Energy**

### 5M BOPE & CHOKE MANIFOLD DIAGRAM





## Blowout Prevention and Control Well Kick: Shut-In Procedures

### **Primary Kick Indicators**

If any primary kick indicators are observed, report them IMMEDIATEALY TO THE DRILLER and initiate the proper shut-in procedures.

- 1. Increase flow rate.
- 2. Pit volume gain.
- 3. Well flows with pump off.
- 4. Hole not taking proper amount of mud on trips.

### If a kick occurs while drilling:

- 1. Raise the Kelly until a tool joint is above the rotary table.
- 2. Stop the mud pumps.
- 3. Open the hydraulic gate valve.
- 4. Close the annular preventer.
- 5. Close the hydraulic choke.
- 6. Notify the Drill Site Manager and Drilling Manager.
- 7. Read and record:
  - a. Shut-in drill pipe pressure,
  - b. Shut-in annulus pressure, and
  - c. Pit gain.
- 8. Prepare the well-killing spreadsheet.

### If a kick occurs during a trip:

- 1. Set the top tool joint on the slips.
- 2. Install and make up a full-opening, full opened safety valve in the fill pipe.
- 3. Close the safety valve.
- 4. Open the hydraulic gate valve.
- 5. Close the annular preventer.
- 6. Close the hydraulic choke.
- 7. Notify the Drill Site Manager and Drilling Manager.
- 8. Pick up the Kelly and make it up.
- 9. Open the safety valve.
- 10.Read and record:
  - a. Shut-in drill pipe pressure,
  - b. Shut-in casing pressure, and
  - c. Pit gain.
- 11. Prepare the well-killing spreadsheet.

Ascent Energy, LLC Blowout Prevention and Control Well Kick Shut-In Procedures

It is assumed the hydraulic choke is always open while drilling or tripping. Note: check all lines and valves for leaks after the well has been shut-in.

### Crewmember Stations for well kicks after the well has been shut-in:

Crewmember	Station
Driller	On the brake.
Derrickman	Check pumps, line up mud and mixing equipment, check mud weight in pits.
Motorman	On hydraulic closing unit.
Floorhand #1	On hydraulic choke control panel to watch and record shut-in procedures.
Floorhand #2	Check BOPs, choke manifold, etc. for leaks then go to floor with driller.
Toolpusher	Make sure all crewmembers carry out their assignments.

etal One Corp.	FLUSHMA)	FLUSHMAX-III			) -17
Metal One			Date	25-Jan	- 1 /
Metti One	Connection Dat	a Sheet	Rev.	N - 1	
	Geometry	<u>Imperia</u>	a <u>l</u>	<u>S.I.</u>	
	Pipe Body Grade	P110		Diio	
	Pipe OD ( D )	7 5/8	in	P110 193.68	mm
FLUSHMAX-II		29.70	lb/ft	44.20	mm ka/m
I LOOMWAX II	Actual weight	29.04	ID/IL	43.21	kg/m
	Wall Thickness (t)	0.375	in	9.53	kg/m
	Pipe ID ( d )	6.875	in	174.63	mm
	Pipe body cross section	8.537	in <sup>2</sup>		mm 2
	Drift Dia.	A CONTRACTOR OF THE PROPERTY OF THE PARTY OF		5,508	mm <sup>2</sup>
	Dilit Dia.	6.750	in	171.45	mm
	Connection				
	Box OD (W)	7.625	in	193.68	mm
4 7	PIN ID	6.875	in	174.63	mm
	Make up Loss	3.040	in	77.22	mm
	Box Critical Area	4.424	in <sup>2</sup>	2854	mm <sup>2</sup>
5 8	Joint load efficiency	60	%	60	%
Box	Thus and Tamen		/ 16 ( 3/4		1 /0
		1		+ Deriti	
5 area				rei it )	
lake	Number of Threads  Performance  Performance Properties	for Pipe Body	5	ГРІ	L KN
area	Number of Threads  Performance  Performance Properties S.M.Y.S.	for Pipe Body	5 -	4,177	kN MPa
area	Performance Performance Properties S.M.Y.S. M.I.Y.P.	for Pipe Body 939 9,470	kips psi	4,177 65.31	MPa
lake poss	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength	for Pipe Body 939 9,470 5,350 fied Minimum YII	kips psi psi ELD Strer	4,177 65.31 36.90 ngth of Pipe bo	MPa MPa odv
lake p ss Pin critic	Performance  Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim Performance Properties	for Pipe Body 939 9,470 5,350 fied Minimum YII num Internal Yiel	kips psi psi ELD Strer d Pressur	4,177 65.31 36.90 ngth of Pipe bore of Pipe body	MPa MPa odv
lake p ss Pin critic	Performance  Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim  Performance Properties Tensile Yield load	for Pipe Body 939 9,470 5,350 fied Minimum YII for Connection 563 kips	kips psi psi ELD Strerd Pressuron 60%	4,177 65.31 36.90 ngth of Pipe bore of Pipe body	MPa MPa odv
lake p ss Pin critic	Performance  Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim  Performance Properties Tensile Yield load Min. Compression Yield	for Pipe Body 939 9,470 5,350 fied Minimum YII for Connection 563 kips 563 kips	kips psi psi ELD Strerd Pressuron (60%)	4,177 65.31 36.90 agth of Pipe bote of Pipe bote of S.M.Y.S.	MPa MPa odv
lake p ss Pin critic	Performance  Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim  Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure	for Pipe Body 939 9,470 5,350 fied Minimum YII for Connection 563 kips 563 kips	kips psi psi psi CHO Strend Pressur 60% (60% 60% 60%)	4,177 65.31 36.90 ngth of Pipe bode of S.M.Y.S. of S.M.Y.S. of	MPa MPa ody v
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Alake ip oss Pin critic area	Performance  Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength  Note S.M.Y.S.= Specific M.I.Y.P. = Minim  Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure Max. DLS ( deg. /100ft)  Recommended Torque	for Pipe Body 939 9,470 5,350 fied Minimum YII for Connection 563 kips 563 kips 7,580 psi 15,500 17,200	kips psi psi psi ELD Strerd Pressur 60% (60% c) 100% o 25	4,177 65.31 36.90 Ingth of Pipe body of S.M.Y.S. of S.M.Y.S. of M.I.Y.P. f Collapse S 21,000 23,300	MPa MPa ody v
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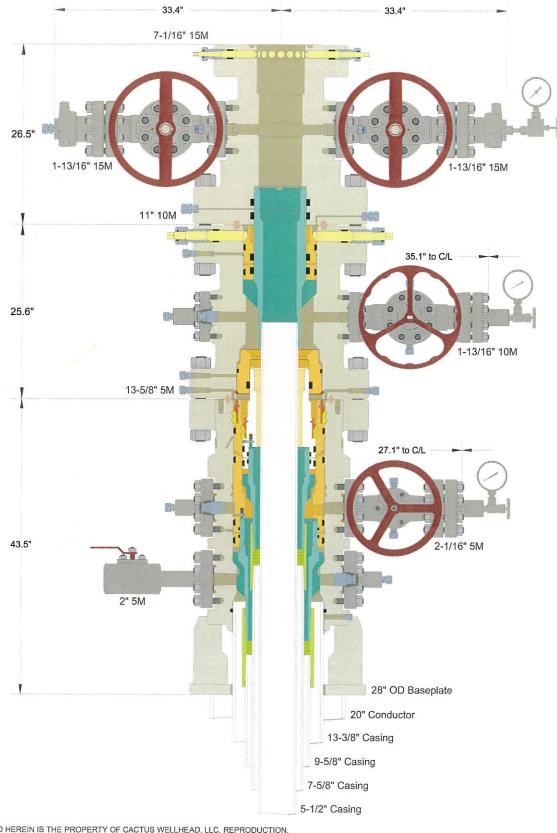
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34110	GEOCON	2.7、10.4、12.4.2、13.1.2、12.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		5-Oc	:t-16
Metal One	Connection Data	a Sheet			
			Rev.	N-	-0
	Geometry				
	Geometry	<u>Imperia</u>	<u>al</u>	<u>S.I.</u>	
	Pipe Body				
	Grade	P110		P110	
	Pipe OD ( D )	5 1/2	in	139.70	mm
GEOCONN	Weight	20.00	lb/ft	29.76	kg/m
	Wall Thickness (t)	0.361	in	9.17	mm
	Pipe ID (d)	4.778	in	121.36	mm
	Drift Dia.	4.653	in	118.19	mm
<b>W</b>	- Connection				
	Coupling OD ( W )	6.050	in	153.67	mm
——D_	Coupling CD ( W )	8.350			mm
	Make up Loss	4.125	in	212.09	mm
↑			in . 2	104.78	mm
T T	1 1/2 0 1 1 1 1 0 0 1 1 1 1 0 0 1	5.83	in <sup>2</sup>	3,758	mm <sup>2</sup>
}	Box Critical Area	6.10	in <sup>2</sup>	3,935	mm <sup>2</sup>
<b>\</b>	Thread Taper	1		4" per ft )	
5	Number of Threads	19号点从关键数据	5 T	PI	
	Performance		J 1		
	Performance Performance Properties		/		
	Performance Performance Properties S.M.Y.S.	641	/ kips	2,850	kN
	Performance Performance Properties S.M.Y.S. M.I.Y.P.	641 12,640	/ kips psi	2,850 87.17	MPa
	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength	641 12,640 11,100	kips psi psi	2,850 87.17 76.55	MPa MPa
	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specification	641 12,640 11,100 fied Minimum YII	kips psi psi ELD Strei	2,850 87.17 76.55 ngth of Pipe bo	MPa MPa odv
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NT -	Performance  Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength  Note S.M.Y.S.= Specific M.I.Y.P. = Minimal Minimal Performance Properties	641 12,640 11,100 fied Minimum YII num Internal Yield	kips psi psi psi ELD Strei d Pressui	2,850 87.17 76.55 ngth of Pipe body	MPa MPa odv
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JN J	Performance  Performance Properties  S.M.Y.S.  M.I.Y.P.  Collapse Strength  Note S.M.Y.S.= Specific M.I.Y.P. = Minim  Performance Properties  Min. Connection Joint Strength  Min. Compression Yield  Internal Pressure	641 12,640 11,100 fied Minimum YII num Internal Yield	kips psi psi ELD Streid Pressui 00 100% 0 100% 0	2,850 87.17 76.55 ngth of Pipe body re of Pipe body f S.M.Y.S. f S.M.Y.S.	MPa MPa ody v
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JN J	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specific M.I.Y.P. = Minim Performance Properties Min. Connection Joint Strength Min. Compression Yield Internal Pressure External Pressure	641 12,640 11,100 fied Minimum YII num Internal Yield	/ kips psi psi psi ELD Streid Pressui on 100% o 100% o 100% o 100% o	2,850 87.17 76.55 ngth of Pipe body f S.M.Y.S. f S.M.Y.S. f M.I.Y.P. f Collapse S	MPa MPa ody v
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JN	Performance  Performance Properties  S.M.Y.S.  M.I.Y.P.  Collapse Strength  Note S.M.Y.S.= Specific M.I.Y.P. = Minim  Performance Properties  Min. Connection Joint Strength  Min. Compression Yield  Internal Pressure  External Pressure  Max. DLS ( deg. /100ft)	641 12,640 11,100 fied Minimum YII num Internal Yield	/ kips psi psi ELD Stred Pressured 100% o 100% o 100% o >9	2,850 87.17 76.55 ngth of Pipe body f S.M.Y.S. f S.M.Y.S. f M.I.Y.P. f Collapse S	MPa MPa ody v
JN J	Performance Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength Note S.M.Y.S.= Specif M.I.Y.P. = Minim Performance Properties Min. Connection Joint Strength Min. Compression Yield Internal Pressure External Pressure Max. DLS ( deg. /100ft)  Recommended Torque	641 12,640 11,100 fied Minimum YIII num Internal Yiel for Connection 14,600	/ kips psi psi psi ELD Streid Pressured Pressu	2,850 87.17 76.55 ngth of Pipe body f S.M.Y.S. f S.M.Y.S. f M.I.Y.P. f Collapse S	MPa MPa ody v trength
JN J	Performance  Performance Properties  S.M.Y.S.  M.I.Y.P.  Collapse Strength  Note S.M.Y.S.= Specific M.I.Y.P. = Miniman Min. Connection Joint Strength  Min. Compression Yield  Internal Pressure  External Pressure  External Pressure  Max. DLS ( deg. /100ft)  Recommended Torque  Min.	641 12,640 11,100 fied Minimum YII num Internal Yiel for Connection 14,600 16,200	kips psi psi psi ELD Streid Pressur on 100% o 100% o >9	2,850 87.17 76.55 ngth of Pipe body f S.M.Y.S. f S.M.Y.S. f M.I.Y.P. f Collapse So 0	MPa MPa ody v trength N-m N-m
JN J	Performance  Performance Properties  S.M.Y.S.  M.I.Y.P.  Collapse Strength  Note S.M.Y.S.= Specific M.I.Y.P. = Miniman Min. Connection Joint Strength  Min. Compression Yield Internal Pressure  External Pressure  External Pressure  Max. DLS ( deg. /100ft)  Recommended Torque  Min.  Opti.  Max.	for Connection  14,600  16,200  17,640  11,100  14,600  16,200  17,800	kips psi psi psi ELD Streid Pressuiton 100% o 100% o 100% o >9	2,850 87.17 76.55 ngth of Pipe body f S.M.Y.S. f S.M.Y.S. f M.I.Y.P. f Collapse S 0	MPa MPa ody v trength N-m N-m
JN J	Performance  Performance Properties S.M.Y.S. M.I.Y.P. Collapse Strength  Note S.M.Y.S.= Specific M.I.Y.P. = Minim  Performance Properties Min. Connection Joint Strength Min. Compression Yield Internal Pressure External Pressure External Pressure Max. DLS ( deg. /100ft)  Recommended Torque Min. Opti. Max. Operational Max.	14,600 16,200 17,800 19,500	kips psi psi psi ELD Streid Pressui on 100% o 100% o 100% o >9  ft-lb ft-lb ft-lb ft-lb	2,850 87.17 76.55 ngth of Pipe body f S.M.Y.S. f S.M.Y.S. f M.I.Y.P. f Collapse S 0 19,700 21,900 24,100 26,400	MPa MPa ody v trength N-m N-m N-m
JN J	Performance  Performance Properties  S.M.Y.S.  M.I.Y.P.  Collapse Strength  Note S.M.Y.S.= Specific M.I.Y.P. = Miniman Min. Connection Joint Strength  Min. Compression Yield Internal Pressure  External Pressure  External Pressure  Max. DLS ( deg. /100ft)  Recommended Torque  Min.  Opti.  Max.	14,600 16,200 17,800 19,500 torque can be app	kips psi psi psi ELD Streid Pressui on 100% o 100% o 100% o >9  ft-lb ft-lb ft-lb ft-lb	2,850 87.17 76.55 ngth of Pipe body f S.M.Y.S. f S.M.Y.S. f M.I.Y.P. f Collapse S 0 19,700 21,900 24,100 26,400	MPa MPa ody v trength N-m N-m N-m

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The products described in this Connection Data Sheet are not recommended for use in deep water offshore applications. For more information, please refer to <a href="http://www.mtlo.co.jp/mo-con/">http://www.mtlo.co.jp/mo-con/</a> images/top/WebsiteTerms Active 20333287 1.pdf the contents of which are incorporated by reference into this Connection Data Sheet.



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### CACTUS WELLHEAD LLC

13-3/8" x 9-5/8" x 7-5/8" x 5-1/2" 5M MBU-3T Wellhead System With 13-5/8" 5M x 11" 10M CTH-P-HPS-F Tubing Spool And 11" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head Released to Imaging: 5/6/2021 11:57:25 AM

## ASCENT ENERGY, LLC DELAWARE BASIN

DRAWN DLE 06APR18
APPRV

DRAWING NO.

ODE0002219

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

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

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** 

CONDITIONS

Action 24884

#### **CONDITIONS OF APPROVAL**

Operator:		OGRID:	Action Number:	Action Type:
ASCENT ENER	GY, LLC. 1125 17th St	325830	24884	FORM 3160-3
Suite 410 Denv	r, CO80202			

OCD Reviewer	Condition
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
1 .	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