Form 3160-3 (June 2015) UNITED STATES	3			FORM APPROVED OMB No. 1004-0137 Expires: January 31, 2018				
DEPARTMENT OF THE R BUREAU OF LAND MANA	5. Lease Serial No. NMNM057683							
APPLICATION FOR PERMIT TO D	RILL OR I	REENTER		6. If Indian, Allotee	or Tribe Name	2		
	EENTER	<u> </u>		7. If Unit or CA Ag	eement, Name	e and No.		
	ther 🗖	<b>-</b>		8. Lease Name and	Well No.			
Ic. Type of Completion: Hydraulic Fracturing  Si	ngle Zone	Multiple Zone		GAVILON FED CO 703H	ом 2 <i>6516</i>	5		
2. Name of Operator ASCENT ENERGY LLC (325830)			(- )	9. API Well No.		7		
3a. Address 1621 18th Street, Suite 200 Denver CO 80202	3b. Phone N (720)710-89	o. (include area cod 999	e)	10. Field and Pool, of HAT MESA / WOL	• 7	96438)		
4. Location of Well (Report location clearly and in accordance w At surface SWSW / 125 FSL / 717 FWL / LAT 32.5226	-	•		11. Sec., T. R. M. or SEC 33 / T20S / R		vey or Area		
At proposed prod. zone NWNW / 330 FNL / 365 FWL / L	AT 32.55047	/6 / LONG -103.67	5658					
<ul><li>14. Distance in miles and direction from nearest town or post offi</li><li>24 miles</li></ul>	ice*			12. County or Parisl LEA	n 13. NM	State		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of ac <b>640</b>	res in lease	17. Spaci <b>320</b>	ing Unit dedicated to this well				
<ol> <li>18. Distance from proposed location* to nearest well, drilling, completed, 30 feet applied for, on this lease, ft.</li> </ol>	19. Proposed 11597 feet	d Depth / <b>22008 fee</b> t	1/BIA Bond No. in file MB001496					
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		mate date work will	l start*	23. Estimated durati	ion			
3660 feet	08/01/2018 24. Attac			90 days				
The following, completed in accordance with the requirements of (as applicable) 1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest Syster SUPO must be filed with the appropriate Forest Service Office	m Lands, the	<ol> <li>Bond to cover th Item 20 above).</li> <li>Operator certific</li> </ol>	e operation	Hydraulic Fracturing r ns unless covered by an mation and/or plans as	n existing bond	l on file (see		
25. Signature (Electronic Submission)		(Printed/Typed) Wood / Ph: (505)4	66-8120	· · ·	Date 06/12/2018			
Title President								
Approved by (Signature) (Electronic Submission)		(Printed/Typed) opher Walls / Ph: (	575)234-	2234	Date 11/26/2019	<u></u>		
Title Petroloum Engineer	Office							
Petroleum Engineer Application approval does not warrant or certify that the applican applicant to conduct operations thereon. Conditions of approval, if any, are attached.	CARL:		hose rights	in the subject lease w	hich would en	title 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					any departmen	t or agency		
SCPhe 12/05/19	VED WI	TH CONDIT	IONS	121	119	n page 2) St. d		
(Continued on page 2)	val Date:	: 11/25/2019		*(In	structions o	n 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 C.S. Washington, D.C. 20240.

(Continued on page 3)

#### Approval Date: 11/25/2019

(Form 3160-3, page 2)

## **Additional Operator Remarks**

#### Location of Well

SHL: SWSW / 125 FSL / 717 FWL / TWSP: 20S / RANGE: 33E / SECTION: 33 / LAT: 32.522694 / LONG: -103.674499 (TVD: 0 feet, MD: 0 feet)
 PPP: SWSW / 125 FSL / 717 FWL / TWSP: 20S / RANGE: 33E / SECTION: 33 / LAT: 32.522694 / LONG: -103.674499 (TVD: 0 feet, MD: 0 feet)
 PPP: LOT 1 / 0 FNL / 1105 FEL / TWSP: 21S / RANGE: 32E / SECTION: 4 / LAT: 32.522328 / LONG: -103.674783 (TVD: 3389 feet, MD: 3400 feet)
 PPP: SWSW / 0 FSL / 383 FWL / TWSP: 20S / RANGE: 33E / SECTION: 33 / LAT: 32.522396 / LONG: -103.67564 (TVD: 11555 feet, MD: 11803 feet)
 PPP: SWSW / 0 FSL / 378 FWL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.536841 / LONG: -103.675652 (TVD: 11603 feet, MD: 17083 feet )
 PPP: NWSW / 1320 FSL / 378 FWL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.540494 / LONG: -103.675652 (TVD: 11602 feet, MD: 18403 feet )
 PPP: SWNW / 2640 FNL / 378 FWL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.544195 / LONG: -103.675652 (TVD: 11600 feet, MD: 19723 feet )
 PPP: SWNW / 330 FNL / 365 FWL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.544195 / LONG: -103.675658 (TVD: 11600 feet, MD: 19723 feet )

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

Name: Tenille Ortiz Title: Legal Instruments Examiner Phone: 5752342224 Email: tortiz@blm.gov

**Approval Date: 11/25/2019** 

(Form 3160-3, page 3)

#### **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.

Approval Date: 11/25/2019

(Form 3160-3, page 4)

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	Ascent Energy, LLC
LEASE NO.:	NMNM-057683
WELL NAME & NO.:	Gavilon Fed Com 703H
<b>SURFACE HOLE FOOTAGE:</b>	0125' FSL & 0717' FWL
<b>BOTTOM HOLE FOOTAGE</b>	0330' FNL & 0365' FWL Sec. 28, T. 20 S., R 33 E.
	Section 33, T. 20 S., R 33 E., NMPM
	County, New Mexico

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

#### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

Potential hazards: Capitan Reef R-111-P Potash Possibility of water flows in the Artesia, Salado, and Capitan Reef. Possibility of lost circulation in the Red Beds, Artesia, Rustler, Delaware, and Capitan Reef. Abnormal pressures maybe encountered when penetrating the Wolfcamp

Formation.

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## B. CASING

- The 13-3/8 inch surface casing shall be set at approximately 1520 feet (in a competent bed <u>below the Magenta Dolomite</u>, which is a <u>Member of the Rustler</u>, and if salt is encountered, set casing at least 25 feet 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 intermediate casing is:
  - Cement to surface. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to Potash.
- 3. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:
  - Cement to surface. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to Capitan Reef and Potash. Excess calculates to 10% Additional cement may be required.

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- In <u>R111 Potash 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.
- 4. The minimum required fill of cement behind the 5-1/2 inch production liner is:
  - Cement should tie-back at least **50 feet above the Capitan Reef** (Top of Capitan Reef estimated at 3730'). Operator shall provide method of verification.

## 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 Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, 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

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such owners and will make those signatures available to the BLM immediately upon request.

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. <u>When the Communitization Agreement number is known, it shall also be on the sign.</u>

<u>Operator to submit anti-collision report due to the Gavilon Federal 1 (30-025-24417)</u> to the BLM prior to drilling this well.

## **GENERAL REQUIREMENTS**

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

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

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 3933612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).

- b. When the operator proposes to set surface casing with Spudder Rig
- Notify the BLM when moving in and removing the Spudder Rig.
- Notify the BLM when moving in the 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.

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- 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.
- 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. 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.
- 4. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 5. 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

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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.

- 6. 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.
- 7. 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.
- 5. The appropriate BLM office shall be notified a minimum of hours in advance for a representative to witness the tests.
  - a. 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).

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- b. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer.
- c. 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.
- d. The results of the test shall be reported to the appropriate BLM office.
- e. 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.
- f. 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.
- g. 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. 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.

E. WASTE MATERIAL AND FLUIDS

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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.

## JAM 110119

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# PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

	ASCENT ENERGY LLC
	NMNM057683
WELL NAME & NO.:	
SURFACE HOLE FOOTAGE:	
BOTTOM HOLE FOOTAGE	
LOCATION:	
COUNTY:	LEA
OPERATOR'S NAME:	
LEASE NO.:	
WELL NAME & NO.:	
SURFACE HOLE FOOTAGE:	
BOTTOM HOLE FOOTAGE	330'/N & 365'/W
LOCATION:	, , ,
COUNTY:	
OPERATOR'S NAME:	
	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 304H
SURFACE HOLE FOOTAGE:	125'/S & 767'/W
BOTTOM HOLE FOOTAGE	330'/N & 1015'/W
LOCATION:	
COUNTY:	LEA
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	
WELL NAME & NO.:	GAVILON FED COM 401H
SURFACE HOLE FOOTAGE:	125'/S & 667'/W
BOTTOM HOLE FOOTAGE	330'/N & 365'/W
LOCATION:	
COUNTY:	LEA
OPERATOR'S NAME:	
	NMNM057683
WELL NAME & NO.:	
SURFACE HOLE FOOTAGE:	
BOTTOM HOLE FOOTAGE	330'/N & 390'/W
LOCATION:	
COUNTY:	LEA
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 504H
SURFACE HOLE FOOTAGE:	125'/S & 817'/W
BOTTOM HOLE FOOTAGE	330'/N & 1290'/W
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA
	• • • • • • • • • • • • • • • • • • •

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OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 602H
SURFACE HOLE FOOTAGE:	125'/S & 692'/W
BOTTOM HOLE FOOTAGE	330'/N & 365'/W
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 703H
SURFACE HOLE FOOTAGE:	125'/S & 717'/W
BOTTOM HOLE FOOTAGE	330'/N & 365'/W
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA
OPERATOR'S NAME:	ASCENT ENERGY LLC
LEASE NO.:	NMNM057683
WELL NAME & NO.:	GAVILON FED COM 704H
SURFACE HOLE FOOTAGE:	125'/S & 792'/W
BOTTOM HOLE FOOTAGE	330'/N & 1030'/W
LOCATION:	SECTION 33, T20S, R33E, NMPM
COUNTY:	LEA

## **TABLE OF CONTENTS**

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

**General Provisions** 

] Permit Expiration

Archaeology, Paleontology, and Historical Sites

**Noxious Weeds** 

Special Requirements

Lesser Prairie-Chicken Timing Stipulations Ground-level Abandoned Well Marker

## **Construction**

Notification

Topsoil

Closed Loop System

Federal Mineral Material Pits

Well Pads

Roads

## **Road Section Diagram**

**Production (Post Drilling)** 

Well Structures & Facilities Pipelines Central Tank Battery

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Access Roads Oil and Gas Related Sites Interim Reclamation Final Abandonment & Reclamation

## I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## **II. PERMIT EXPIRATION**

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

# III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## **IV. NOXIOUS WEEDS**

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious

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weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

## V. SPECIAL REQUIREMENT(S)

#### Wildlife:

**Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken**: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

**Ground-level Abandoned Well Marker to avoid raptor perching**: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

#### **Potash Minerals:**

Lessees must comply with the 2012Secretarial Potash Order. The Order is designed to manage the efficient development of oil, gas, and potash resources. Section 6 of the Order provides general provisions, which must be followed to minimize conflict between the industries and ensure the safety of operations.

To minimize impacts to potash resources, the proposed well is confined within the boundaries of the established Gavilon Drill Island (See Potash Memo and Map in attached file for Drill Island description).

## **VI. CONSTRUCTION**

## A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

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When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

## **B.** TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

## C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

## D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

## E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

## F. EXCLOSURE FENCING (CELLARS & PITS)

## **Exclosure Fencing**

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

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## G. ON LEASE ACCESS ROADS

## **Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

## Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

## Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

## Ditching

Ditching shall be required on both sides of the road.

## Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

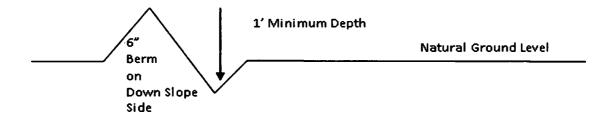
## Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

## **Cross Section of a Typical Lead-off Ditch**

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All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

#### Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: 400' + 100' = 200' lead-off ditch interval 4%

#### **Cattle guards**

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

#### **Fence Requirement**

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

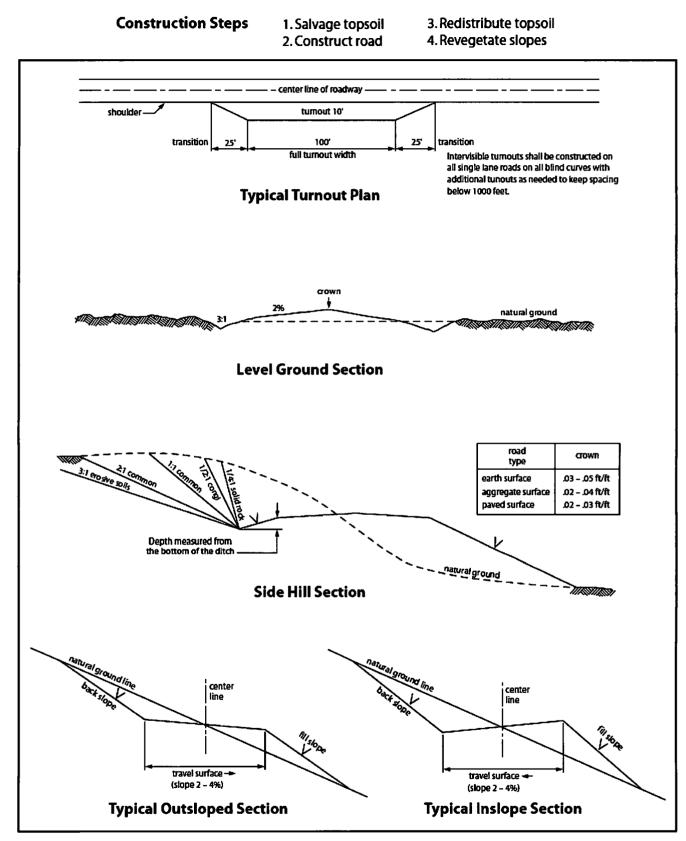
#### **Livestock Watering Requirement**

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

#### **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

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## **VII. PRODUCTION (POST DRILLING)**

## A. WELL STRUCTURES & FACILITIES

#### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

#### **Exclosure Netting (Open-top Tanks)**

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

#### **Chemical and Fuel Secondary Containment and Exclosure Screening**

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

#### **Open-Vent Exhaust Stack Exclosures**

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

#### **Containment Structures**

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Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

#### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, <u>Shale Green</u> from the BLM Standard Environmental Color Chart (CC-001: June 2008).

## **B. PIPELINES**

#### **BURIED PIPELINE STIPULATIONS**

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 <u>et seq.</u> (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, <u>et seq</u>.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

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4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-ofway.

6. The pipeline will be buried with a minimum cover of  $\underline{36}$  inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be  $\underline{30}$  feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed <u>20</u> feet. The trench is included in this area. (Blading is defined as the complete removal of brush and ground vegetation.)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed <u>30</u> feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately  $\_______6\____$  inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

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11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

() seed mixture 1	( ) seed mixture 3
() seed mixture 2	() seed mixture 4
(X) seed mixture 2/LPC	() Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. <u>Escape Ramps</u> - The operator will construct and maintain pipeline/utility trenches that are not otherwise fenced, screened, or netted to prevent livestock, wildlife, and

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humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.
- 19. Special Stipulations:

#### Wildlife:

**Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken**: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

**Ground-level Abandoned Well Marker to avoid raptor perching**: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

#### C. OIL AND GAS RELATED SITES

#### STANDARD STIPULATIONS FOR OIL AND GAS RELATED SITES

A copy of the application (Grant/Sundry Notice) and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

The holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer, BLM.

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant and for all

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response costs, penalties, damages, claims, and other costs arising from the provisions of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Chap. 82, Section 6901 et. seq., from the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Chap. 109, Section 9601 et. seq., and from other applicable environmental statues.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et. seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et. seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the site or related pipeline(s), any oil or other pollutant should be discharged from site facilities, the pipeline(s) or from containers or vehicles impacting Federal lands, the control and total removal, disposal, and cleanup of such oil of other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

5. Sites shall be maintained in an orderly, sanitary condition at all times. Waste materials, both liquid and solid, shall be disposed of promptly at an appropriate, authorized waste disposal facility in accordance with all applicable State and Federal laws. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, brines, chemicals, oil drums, ashes, and equipment.

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6. The operator will notify the Bureau of Land Management (BLM) authorized officer and nearest Fish and Wildlife Service (FWS) Law Enforcement office within 24 hours, if the operator discovers a dead or injured federally protected species (i.e., migratory bird species, bald or golden eagle, or species listed by the FWS as threatened or endangered) in or adjacent to a pit, trench, tank, exhaust stack, or fence. (If the operator is unable to contact the FWS Law Enforcement office, the operator must contact the nearest FWS Ecological Services office.)

7. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this project is **Shale Green**, Munsell Soil Color Chart Number 5Y 4/2.

8. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

9. A sales contract for removal of mineral material (caliche, sand, gravel, fill dirt) from an authorized pit, site, or on location must be obtained from the BLM prior to commencing construction. There are several options available for purchasing mineral material: contact the BLM office (575-234-5972).

10. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

11. Once the site is no longer in service or use, the site must undergo final abandonment. At final abandonment, the site and access roads must undergo "final" reclamation so that the character and productivity of the land are restored. Earthwork for final reclamation must be completed within six (6) months of the abandonment of the site. All pads and facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact. After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided. Seeding should be accomplished by drilling on the contour whenever practical or by other approved

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methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

12. The holder shall stockpile an adequate amount of topsoil where blading occurs. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles. The topsoil will be used for final reclamation.

13. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

() seed mixture 1	() seed mixture 3
() seed mixture 2	() seed mixture 4
(X) seed mixture 2/LPC	() Aplomado Falcon Mixture

14. In those areas where erosion control structures are required to stabilize soil conditions, the holder shall install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound management practices. Any earth work will require prior approval by the Authorized Officer.

15. Open-topped Tanks - The operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1  $\frac{1}{2}$  inches. The netting must not be in contact with fluids and must not have holes or gaps

16. The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an

impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and

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livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

17. Open-Vent Exhaust Stack Exclosures – The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

18. Containment Structures - Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

19. Special Stipulations:

#### Hydrology:

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

#### **TANK BATTERY:**

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

#### Wildlife:

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at

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the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

**Ground-level Abandoned Well Marker to avoid raptor perching**: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

## **VIII. INTERIM RECLAMATION**

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

## IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

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After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

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#### Seed Mixture for LPC Sand/Shinnery Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed shall be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	/ 3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	11bs/A

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

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Email address:

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

## **Operator Certification**

Perator Certification Data Report

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Brian Wood		Signed on: 06/12/2018									
Title: President											
Street Address:											
City:	State:	Zip:									
Phone: (505)466-8120											
Email address: afmss@permitsw	est.com										
Field Representative											
Representative Name: JODY RO	BINS										
Street Address: 1621 18TH ST, 2	00										
City: DENVER	State: CO	<b>Zip:</b> 80202									
Phone: (720)524-3449											

# **FAFMSS**

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



APD ID: 10400031137

**Operator Name: ASCENT ENERGY LLC** 

Well Name: GAVILON FED COM

Well Type: OIL WELL

Well Number: 703H Well Work Type: Drill

Submission Date: 06/12/2018

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General										
APD ID: 10400031137	Tie to previous NO	S? N	Submission Date: 06/12/2018							
BLM Office: CARLSBAD	User: Brian Wood		Title: President							
Federal/Indian APD: FED	Is the first lease pe	netrated for p	roduction Federal or Indian? FED							
Lease number: NMNM057683	Lease Acres: 640									
Surface access agreement in place?	Allotted?	Reser	vation:							
Agreement in place? NO	Federal or Indian ag	greement:								
Agreement number:										
Agreement name:										
Keep application confidential? NO										
Permitting Agent? YES	APD Operator: ASC	APD Operator: ASCENT ENERGY LLC								
Operator letter of designation:										
Operator Info										
Operator Organization Name: ASCENT E	ENERGY LLC									
Operator Address: 1621 18th Street, Suit										
Operator PO Box:		<b>Zip:</b> 80202								
Operator City: Denver Stat	e: CO									

**Operator Phone:** (720)710-8999

**Operator Internet Address:** 

## **Section 2 - Well Information**

Well in Master Development Plan? NO

Well in Master SUPO? NO

Well in Master Drilling Plan? NO

Well Name: GAVILON FED COM

Field/Pool or Exploratory? Field and Pool

Master SUPO name:

**Master Development Plan name:** 

Master Drilling Plan name:

Field Name: HAT MESA

Well Number: 703H

Well API Number:

Pool Name: WOLFCAMP

Is the proposed well in an area containing other mineral resources? USEABLE WATER, NATURAL

Ope	rator	Name	: ASC	ENTI	ENER		LC												
•	l Nam								v	Vell Numb	er: 703	3H							
	<b>e prop</b> ,CO2,9				area c	ontai	ining	other m	nineral res	:ources? L	ISEAB	LE WA	TER,N	AT	URAL				
ls the	e prop	osed	well i	in a H	elium	prod	luctio	n area?	N Use I	Existing W	ell Pa	<b>d?</b> NO	Ne	ew :	surface o	listurl	bance	?	
Туре	of W	ell Pa	d: MU	ILTIPL	.e we	ELL				ple Well P			Νι	ıml	<b>ber:</b> 1				
Well Class: HORIZONTAL       GAVILON FED COM WEST         Number of Legs: 1																			
Well Work Type: Drill																			
Well	Type:	OIL \	NELL																
Desc	ribe V	Nell T	ype:																
Well	sub-T	ype:	INFILI	<u>L</u>															
Desc	ribe s	ub-ty	pe:																
Dista	ince t	o tow	<b>n:</b> 24	Miles			Dis	tance to	o nearest v	well: 30 FT	•	Dist	ance t	o le	ease line	: 125	FT		
Rese	rvoir	well s	pacin	ig ass	igneo	l acre	es Me	asurem	ent: 320 A	cres									
	plat:		_	-		-	Cap_F	plan_201	180612115										
Well	work	start	Date:	08/01	/2018				Durat	tion: 90 D/	AYS								
	Sec	tion	3 - V	Vell	Loca	atior	n Ta	ble											
Sund	ey Ty			•••				<u> </u>	}										
	ribe S																		
	m: NA	•							Vertic	al Datum:	NAVE	88							
	ey nu		2378	6						ence Datu									
	-				[		<u> </u>	Τ		1		T	<b></b>	<u> </u>			· · · · ·		8
Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	sp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	te	Meridian	ease Type	Lease Number	Elevation	_		Will this well produce
				+	Twsp				· · · · · · · · · · · · · · · · · · ·			State					<b>D</b>	2	3
SHL Leg #1	125	FSL	717	FWL	20S	33E	33	Aliquot SWS W	32.52269 4	- 103.6744 99	LEA	NEW MEXI CO	NEW MEXI CO		NMNM 057683	366 0	0	0	
KOP Leg #1	402	FNL	136 9	FEL	21S	32E	4	Lot 2	32.52122 4	- 103.6756 4	LEA		NEW MEXI CO	F	NMNM 014791	- 723 4	109 57	108 94	
PPP Leg	264 0	FNL	378	FWL	20S	33E	28	Aliquot SWN	32.54419 5	- 103.6756	LEA	NEW	NEW MEXI		NMNM 089889	- 794	197 23	116 00	

## **Operator Name:** ASCENT ENERGY LLC

## Well Name: GAVILON FED COM

## Well Number: 703H

Weilbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation		QVT	Will this well produce
S PPP Leg #1-2	2 132 0	<del>Z</del> FSL	ш 378	มี FWL	⊬ 20S	33E	の 28	Riquot NWS W	32.54049 4	- 103.6756 52	LEA	NEW	≥ NEW MEXI CO	<u>۹</u> F	<u> </u>	- 794 2	9 184 03	116 02	<u>s</u> .
PPP Leg #1-3	0	FSL	378	FWL	20S	33E	28	Aliquot SWS W	32.53684 1	- 103.6756 52	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	- 794 3	170 83	116 03	
PPP Leg #1-4	0	FSL	383	FWL	20S	33E	33	Aliquot SWS W	32.52239 6	- 103.6756 4	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 057683	- 789 5	118 03	115 55	
PPP Leg #1-5	0	FNL	110 5	FEL	21S	32E	4	Lot 1	32.52232 8	- 103.6747 83	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 014791	271	340 0	338 9	
PPP Leg #1-6	125	FSL	717	FWL	20S	33E	33	Aliquot SWS W	32.52269 4	- 103.6744 99	LEA		NEW MEXI CO	F	NMNM 057683	366 0	0	0	
EXIT Leg #1	330	FNL	365	FWL	20S	33E	28	Aliquot NWN W	32.55047 6	- 103.6756 58	LEA		NEW MEXI CO	F	NMNM 089889	- 793 7	220 08	115 97	
BHL Leg #1	330	FNL	365	FWL	20S	33E	28	Aliquot NWN W	32.55047 6	- 103.6756 58	LEA		NEW MEXI CO	F	NMNM 089889	- 793 7	220 08	115 97	

### 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 <u>DCP</u> system at that time. Based on current information, it is <u>Ascent</u> <u>Energy, LLC 's</u> belief the system ultimately 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

I

:

1

- 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

# 

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



APD ID: 10400031137

**Operator Name: ASCENT ENERGY LLC** 

Well Name: GAVILON FED COM

Well Type: OIL WELL

Submission Date: 06/12/2018

Highlighted data reflects the most recent changes

Show Final Text

Well Work Type: Drill

Well Number: 703H

# Section 1 - Geologic Formations

Formation			True Vertical	Measured			Producing
ID	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	-
1	QUATERNARY	3660	0	0	OTHER : Quaternary caliche	USEABLE WATER	N
2	RUSTLER ANHYDRITE	2228	1430	1430		NONE	N
3	TOP SALT	1868	1790	1790		NONE	N
4	CASTILE	408	3250	3257	ANHYDRITE	NONE	N
5	YATES	168	3490	3503	OTHER : Carbonates	NATURAL GAS,CO2,OIL	N
6	CAPITAN REEF	-257	3915	3937	LIMESTONE	USEABLE WATER	N
7	DELAWARE	-1342	5000	5046	OTHER,SANDSTONE : Mt. Group	NATURAL GAS,CO2,OIL	N
8	CHERRY CANYON	-1842	5500	5558	SANDSTONE	NATURAL GAS,CO2,OIL	N
9	BRUSHY CANYON	-3182	6840	6903	SANDSTONE	NATURAL GAS,CO2,OIL	N
10	BONE SPRING	-4787	8445	8508	LIMESTONE	NATURAL GAS,CO2,OIL	N
11	UPPER AVALON SHALE	-4844	8502	8565	SHALE	NATURAL GAS,CO2,OIL	N
12	BONE SPRING	-5171	8829	8892	SHALE, OTHER : LEONARD OR LOWER AVALON SHALE	NATURAL GAS,CO2,OIL	N
13	BONE SPRING 1ST	-5818	9476	9539	SANDSTONE	NATURAL GAS,CO2,OIL	N
14	BONE SPRING 2ND	-6139	9799	9862	OTHER : Carbonate	CO2,OIL	N
15	BONE SPRING 2ND	-6391	10051	10114	SANDSTONE	NATURAL GAS,CO2,OIL	N
16	BONE SPRING 3RD	-6947	10607	10670	OTHER : Carbonate	NATURAL GAS,CO2,OIL	N
17	BONE SPRING 3RD	-7368	11028	11091	SANDSTONE	NATURAL GAS,CO2,OIL	Ň
18	WOLFCAMP	-7741	11401	11521	OTHER : Carbonate	NATURAL GAS.CO2.OIL	Y

<b>Operator Name:</b> ASCENT ENERG <b>Well Name:</b> GAVILON FED COM	GY LLC Well Number: 703H
Section 2 - Blowout	Prevention
Pressure Rating (PSI): 5M	Rating Depth: 10000
NP) preventer, and an annular prevention of the prevention of t	pment (BOPE) will consist of a single ram, mud cross and double ram type (10,000 psi enter (5000 psi WP). Both units will be hydraulically operated. Ram type will be equipped ill pipe rams on the top. Auxiliary equipment: A Kelly cock will be kept in the drill string at obing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all
D. steel line. Choke and kill line data used. Variance is requested to use a surface casing, a 13.625" BOP/BOPE	ested to use a co-flex line between the BOP and choke manifold instead of using a 4" O. book is attached. If this hose is unavailable, then a hose of equal or higher rating will be speed head (aka, multi-bowl wellhead). Diagram is attached. After running the 13.375" E system with an (equal to or great than) 5000 psi WP will be installed on the wellhead 250 psi low, followed by a test to 5000-psi high. Pressure test will be repeated at least re Order 2.
<b>Testing Procedure:</b> Minimum workir BOPE will be tested in accordance w or J packer. Both surface and interme osi, whichever is greater. Before drilli	ng pressure of the BOP and related BOPE below the surface casing will be 5000-psi. All ith Onshore Order 2. All BOPE will be tested using a conventional test plug – not a cup ediate casing will be tested as required by Onshore Order 2 to at least 0.22 psi/ft or 1500 ing out the surface casing: ram type BOP and accessory equipment will be tested to be tested to 3500/250 psig surface casing will be tested to 1500 psi for 30 minutes

preventer will be tested to 3500/250 psig intermediate casing will be tested to 2000 psi for 30 minutes Intermediate casing will be landed using a mandrel hanger and separate pack off. After installation, the pack off and lower flange will be pressure tested to 5000 psi. A hydraulically operated choke will be installed before drilling out of the intermediate casing shoe. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each TOOH. These checks will be noted on the daily tour sheets. Speed head will be installed by the vendor's representative(s). Well head welding will be monitored by the vendor's representative(s).

Choke Diagram Attachment:

Gavilon\_703H\_BOP\_Choke\_20191020120857.pdf

### **BOP Diagram Attachment:**

Gavilon\_703H\_BOP\_Choke\_20191020120904.pdf

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1455	0	1455	3660		1455	J-55	54.5	ST&C	e l	1.12 5	DRY	1.6	DRY	1.6

# Section 3 - Casing

### Well Name: GAVILON FED COM

#### Well Number: 703H

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
2	INTERMED	12.2 5	9.625	NEW	API	N	0	3500	0	3487	3660		3500	J-55	36	LT&C	1.12 5	1.12 5	DRY	1.6	DRY	1.6
3	INTERMED IATE	8.75	7.625	NEW	API	N	0	4850	0	4807	3660			HCP -110		OTHER - EZGO FJ3	1.12 5	1.12 5	DRY	1.6	DRY	1.6
4	PRODUCTI ON	6.75	5.5	NEW	API	N	0	22008	0	11597	3660		22008	HCP -110	-	OTHER - EZGO FJ3	1.12 5	1.12 5	DRY	1.6	DRY	1.6

#### **Casing Attachments**

Casing ID: 1

String Type: SURFACE

**Inspection Document:** 

Spec Document:

**Tapered String Spec:** 

#### Casing Design Assumptions and Worksheet(s):

Gavilon\_703H\_Casing\_Design\_Assumptions\_20180612122814.pdf

Casing ID: 2 String Type: INTERMEDIATE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

#### Casing Design Assumptions and Worksheet(s):

Gavilon\_703H\_Casing\_Design\_Assumptions\_20180612122851.pdf

Well Name: GAVILON FED COM

Well Number: 703H

#### **Casing Attachments**

Casing ID: 3 String Type: INTERMEDIATE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

#### Casing Design Assumptions and Worksheet(s):

Gavilon\_703H\_Casing\_Design\_Assumptions\_20180612122918.pdf

EZGO\_7.625in\_Casing\_Spec\_20191020121008.pdf

Casing ID: 4 String Type: PRODUCTION

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

#### Casing Design Assumptions and Worksheet(s):

Gavilon\_703H\_Casing\_Design\_Assumptions\_20180612122952.pdf

EZGO\_5.5in\_Casing\_Spec\_20191020121034.pdf

Section	4 - Ce	emen	t								
String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1455	565	1.73	13.5	976	100	Class C HALCEM System	4% bentonite
SURFACE	Tail		0	1455	425	1.33	14.8	566	100	Class C HALCEM System	none
INTERMEDIATE	Lead		0	3500	580	1.73	12.7	1002	100	Class C HALCEM System	4% bentonite

### Well Name: GAVILON FED COM

#### Well Number: 703H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		0	3500	520	1.33	14.8	692	100	Class C HALCEM System	none
INTERMEDIATE	Lead		0	4850	195	2.04	12.7	397	50	EconoCem HLC	5% salt + 3% Microbond + 3 lb/sk Kol- seal + 0.3% HR-800
INTERMEDIATE	Tail		0	4850	155	1.37	14.8	212	50	Class C HALCEM System	3% Microbond
PRODUCTION	Lead		0	2200 8	830	2.89	11	2396	50	NeoCem PL	3% Microbond
PRODUCTION	Tail		0	2200 8	2365	1.47	13.2	3481	50	NeoCEM PT	3% Microbond

## Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

**Describe what will be on location to control well or mitigate other conditions:** All necessary 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. A closed loop system will be used.

**Describe the mud monitoring system utilized:** An electronic pit volume totalizer (PVT) will be used to monitor volume, flow rate, pump pressure, and stroke rate.

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (Ibs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	Hd	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1455	OTHER : Fresh water	8.4	9.6							
1455	3500	OTHER : Brine water	10	10							
3500	4850	OTHER : Fresh water	8.4	9.6							

## Circulating Medium Table

## Well Name: GAVILON FED COM

Well Number: 703H

Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	Hd	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
4850	2200 8	OTHER : Cut brine/gel	8.5	9.3							

# Section 6 - Test, Logging, Coring

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

GR-CCL will be run in cased hole during completion phase of operations.

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

GR

#### Coring operation description for the well:

No core, drill stem test, or open hole log is planned.

### **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 6030

Anticipated Surface Pressure: 3477.34

Anticipated Bottom Hole Temperature(F): 170

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

**Describe:** 

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

# Hydrogen Sulfide drilling operations plan required? YES

# Hydrogen sulfide drilling operations plan:

Gavilon\_703H\_H2S\_Plan\_20180612123257.pdf

Well Name: GAVILON FED COM

Well Number: 703H

# Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Gavilon\_703H\_Horizontal\_Drill\_Plan\_20190927102432.pdf

Other proposed operations facets description:

# Other proposed operations facets attachment:

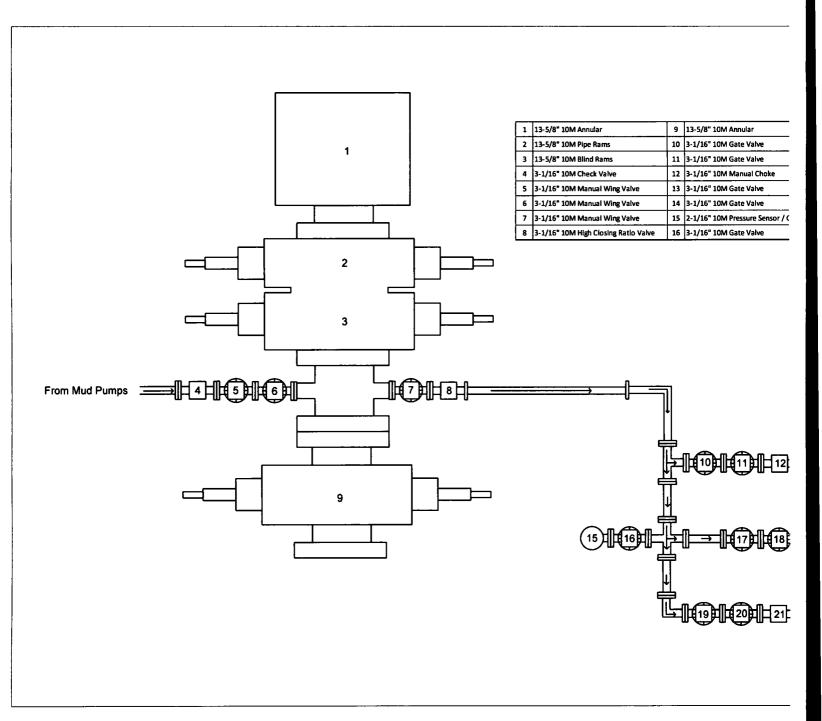
Gavilon\_703H\_Speedhead\_Specs\_20180612123324.pdf CoFlex\_Certs\_20190927102517.pdf Gavilon\_703H\_Anti\_Collision\_Report\_20190927102600.pdf Gavilon\_703H\_Drill\_Plan\_Revised\_20191020121410.pdf

# Other Variance attachment:

Gavilon\_703H\_Casing\_Cementing\_Variance\_20180612123332.docx Gavilon\_703H\_Surface\_Rig\_Variance\_20190927102442.pdf

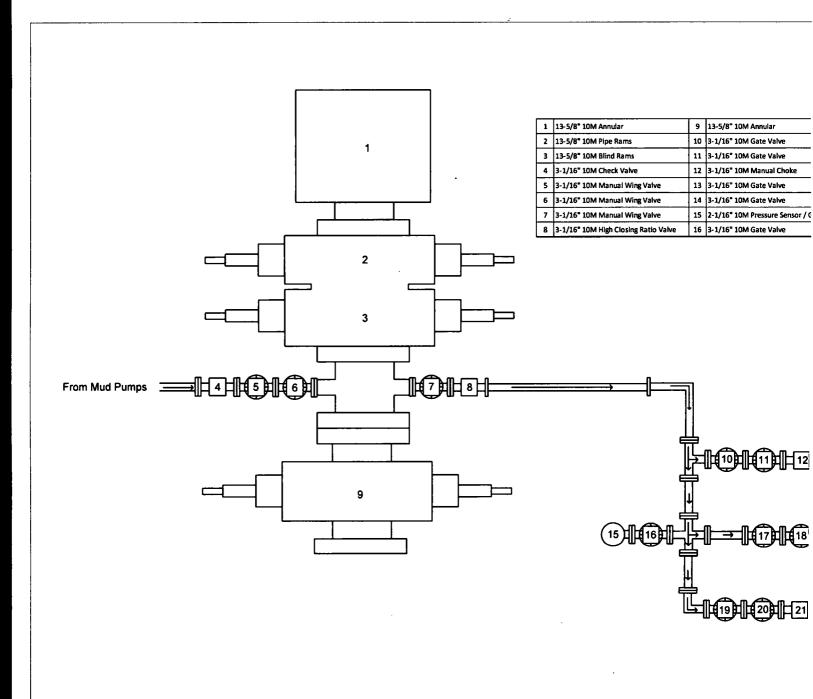
### ASCENT ENERGY - NABORS X04

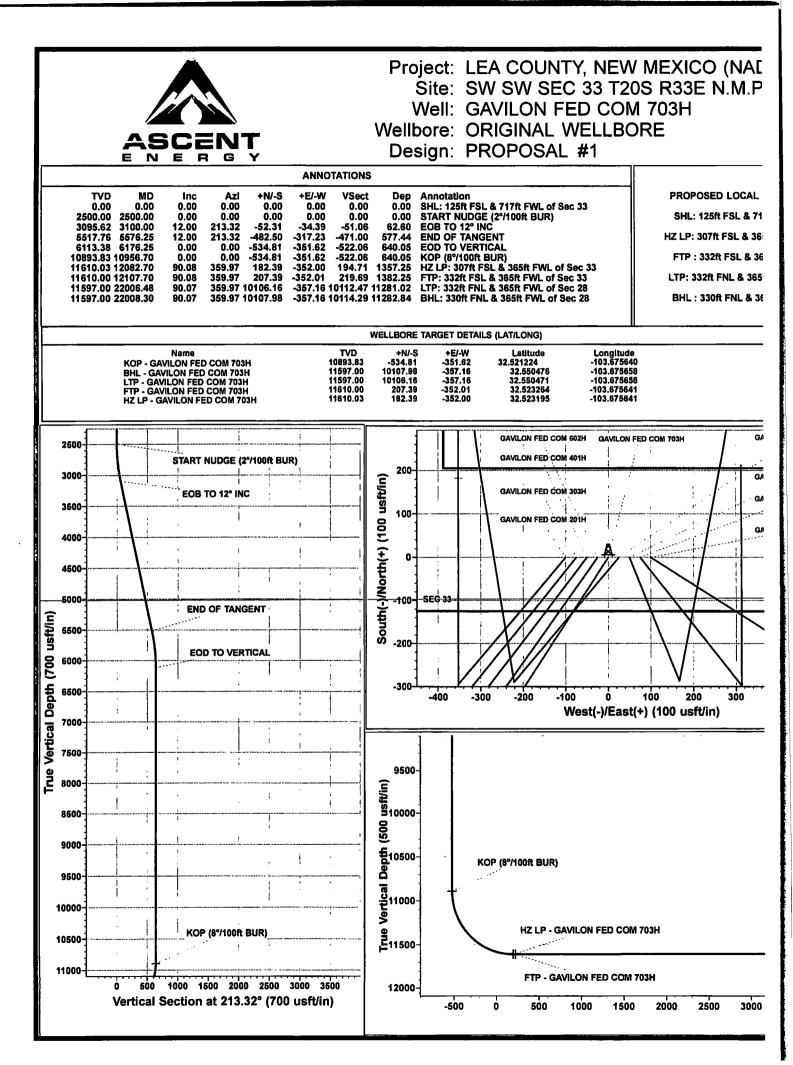
### **BOPE & CHOKE MANIFOLD DIAGRAM**



# ASCENT ENERGY - NABORS X04

# **BOPE & CHOKE MANIFOLD DIAGRAM**





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PERESCI Company: Rojects Slics Wells Wellborg Designe		ASCENT EN LEA COUN SW SW SEG GAVILON F ORIGINAL \ PROPOSAL	I Single User NERGY TY, NEW ME C 33 T20S R ED COM 703 WELLBORE . #1	XICO (NAD 8 33E N.M.P.M H	3) (X ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )	DREADON DREADON DREADOND DREADOND	<b>3</b>	KE KE Tr		35.00usft (C 35.00usft (C	703H Driginal Well Elev) Driginal Well Elev)
Rroject Map System Geo Datum Map Zone:	n: U: : No	S State Plan orth America	Y, NEW MEX e 1983 in Datum 198 astern Zone			stem Datum	): 		n Sea Level Ig geodetic so	cale factor	
Silo	5	SW SW SEC	33 T20S R3	3E N.M.P.M.							a an
Site Positio From: Position Un		Lat/Long	0.00 usft	Northing: Easting: Slot Radius	:	554,513.8 744,303.2 1.1000	22 usft Loi	itude: ngitude: d Converg	ence:		32.52269 -103.67482 0.35 °
W.CO		<b>GAVILON FE</b>	D COM 703H	{							
Well Positio	on +	N/-S	0.00 usft	Northing	<b>j</b> :		4,514.49 usfi				32.52269
		E/-W	99.87 usft	Easting:			4,403.09 usf	-	itude:		-103.67449
Position Un	ncertainty		0.00 usft	Wellhea	d Elevation:		usf	Grou	nd Level:		3,660.00 us
Welliow										فتاة والترزي والماري والمرار	
rienseie			TELEDOILE								
						ers, fan die eerste - yns					
(Ìegneiles			mo (			declination (f)		DipAn (A)	( <b>1</b> )		Šimijh (11).
, Lignaides		ModaliNa IGRF201		Semple Dete 05/04/2018							
				1		(f)		(f));			(CII).
Čegnalis Česign			15	1		(f)		(f));			(CII).
		IGRF201	15	1		(f)		(f));		48	(CII).
Detion		IGRF201	15	1	PROTO	( <del>)</del> ) 6.94		(f));			(CII).
Dealon Audit Notes	3:	IGRF201	15 #1 	05/04/2018 Phase:	PROTO	(f)) 6.94 DTYPE	Tie On 4E/W	(f)) 60.3 Depth:		( 48 0.00 Gilon	(CII).
Design Audit Notes Version:	3:	IGRF201	15 #1 DepthFi ((L	05/04/2018 Phase: com(IIV(E)) Sft)	PROTO	(f) 6.94 DTYPE (N/S) USI()	Tie On GEAV ((ISit)	(f)) 60.3 Depth:	l Dire	() 48 0.00 ction	(CII).
Design Audit Notes Version:	3:	IGRF201	15 #1 DepthFi ((L	05/04/2018 Phase:	PROTO	(f)) 6.94 DTYPE	Tie On 4E/W	(f)) 60.3 Depth:	l Dire	( 48 0.00 Gilon	(CII).
Design Audit Notes Version: Vertical Sec	3: Elon#	IGRF201	15 #1 DepthFi ((L	05/04/2018 Phase: com(IIV(E)) Sft)	PROTO	(f) 6.94 DTYPE (N/S) USI()	Tie On GEAV ((ISit)	(f)) 60.3 Depth:	l Dire	() 48 0.00 ction	(CII).
Design Audit Notes Version:	3: Elon#	IGRF201	15 #1 DepthFi ((L	05/04/2018 Phase: iom(IIVE)) sit) 97.00	PROTO	(f) 6.94 DTYPE (N/S) USI()	Tie On (EAV) (((Sii)) 0.00	(f)) 60.3 Depth:	1 .Dire 35	() 48 0.00 ction	(CII).
Design Audit Notes Version: Vertical/Sec Flan Sectio	s: clonf ng	IGRF201	15 #1 	05/04/2018 Phase: com((FVP)) sfi) 97.00	PROTO	(f) 6.94 DTYPE (N/S) USI()	Tie On GEAV ((ISi) 0.00 Dogleg Rate	(f)) 60.3 Depth: Buffcl Rafio	। .Dic 35 रिपाक रिपाक रिपाक	( 48 0.00 ction 9) 7.98	(CII).
Design Audit Notes Version: Vertical/Sec Flan Sectio	3: Elon#	IGRF201	15 #1 	05/04/2018 Phase: (inv(INVE)) (INVE)) (INVE)) (INVE)) (INVE))	PROTO	(f) 6.94 DTYPE (V4S) US(1) 0.00	Tie On (EAV) (((Sii)) 0.00	(f)) 60.3 Depth: Buffcl Rafio	ا .DIT: 35 آلالی	() 48 0.00 ction	(TEII)) 3,020
Design Audit Notes Version: Vertical/Sec Flan Sectio	3: Ellon# n3 (n6 (f)	IGRF201 PROPOSAL	15 #1 DepthF (L 11,5 Vortleal Depth	05/04/2018 Phase: (IIV(P)) Si(1) 97.00 Si(1) 97.00	PROTO	(f) 6.94 DTYPE (NAS) USII) D.00	Tie On GEAV ((ISR)) 0.00 Dogleg) Rate (f%00msi	(f)) 60.3 Depth: Etil(d Rate (f/400ust	1 .Dic ( 35 Tum Rato (fruous)	( 48 0.00 ction 穷) 7.98 近下の (分)	(CII).
Design Audit Notes Version: Vertical/Sec Flan Sectio	s: Elon: na na	IGRF201	15 #1 	05/04/2018 Phase: com((FVP)) sfi) 97.00	PROTO	(f) 6.94 DTYPE (VAS) US(1) 0.00	Tie On GEAV ((ISi) 0.00 Dogleg Rate	(f)) 60.3 Depth: Buffcl Rafio	। .Dic 35 रिपाक रिपाक रिपाक	( 48 0.00 ction 穷) 7.98 玩乐の·	(TEII)) 3,020
Design Audit Notes Version: Vertical/Sec FlanSectio MD (usit) 0.00	3: Eilon# n3 (ine (f)) 0.00	IGRF201 PROPOSAL	15 #1 	05/04/2018 Phase: com(IPVD)) sfi) 97.00 SS (USfi): -3,685.00	PROTO	(f) 6.94 DTYPE (NAS) UST() D.00 CEAV() (UST()) 0.00	Tie On 4EAV (Usit) 0.00 Poglet Rate (MODIST	(f)) 60.3 Depth: Euffici Rate (f/A00ust	ا الالم 35 آلالم الالم (الالومية) 0.00	( 48 0.00 ction 穷) 7.98 近下の。 (分) 0.00	(TEII)) 3,020
Design Audit Notes Version: Vertical/Sec (ID) ((Usii)) 0.00 2,500.00	s: Efon: n: (ine (f) 0.00 0.00	IGRF201 PROPOSAL	15 #1 DepthFi .(tr 11,5 Vertical) Depth 0.00 2,500.00	05/04/2018 Phase: (III) 97.00 (USfi) -3,685.00 -1,185.00	PROTO	(f) 6.94 DTYPE (VAS) US(1)) D.00 C(EACV) (US(1)) 0.00 0.00	Tie On (EAV) (USII) 0.00 0.00 (MOUSI (MOUSI 0.00 0.00	(f)) 60.3 Depth: Euff(d) Rate (f/100ust) 0.00 0.00 2.00 0.00	ا ــــــــــــــــــــــــــــــــــــ	0.00 Glon 9). 7.98 TFO (1) 0.00 0.00 213.32 0.00	(TEII)) 3,020
Design Audit Notes Version: Vertical/Sec Flan Sectio (Justi): 0.00 2,500.00 3,100.00	effony ma (me (f) 0.00 12.00 12.00 12.00 0.00	IGRF201 PROPOSAL (A=1) ((A=1) ((A=1)) ((A=1)) ((A=1)) ((A=1)) ((A=1)) ((A=1))(	15 #1 DepthFt (u 11,5 Vertleal Depth* 0.00 2,500.00 3,095.62	05/04/2018 Phase: iom((A/D)) sft) 97.00 SS (usff)) -3,685.00 -1,185.00 -589.38 1,832.76 2,428.38	PROTO () () () () () () () () () () () () ()	(f) 6.94 DTYPE (VAS) US(i)) 0.00 CEEAVV (US(i)) 0.00 0.00 0.00 -34.39	Tie On (USII) 0.00 Doglet) Rate (fA00157 0.00 0.00 2.00	(f): 60.3 Depth: Depth: Builid Rate (f/100usf: 0.00 0.00 2.00 0.00 -2.00	ا الالیت (۲۵۱۵) (۲۵۱۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶) (۲۶) (۲۶) (۲۶) (۲۶) (۲۶) (۲۶) (۲۶	() 48 0.00 () 7.98 11FO () 0.00 0.00 0.00 213.32 0.00 180.00	(TEII)) 3,020
Design Audit Notes Version: Vertical/Sec (ID) (Usii) 0.00 2,500.00 3,100.00 5,576.25	s: Effon: (ine (f) 0.00 0.00 12.00 12.00	IGRF201	15 #1 Depthiff (tr. 11,5 Vertical) Depthy 0.00 2,500.00 3,095.62 5,517.76	05/04/2018 Phase: om((IA/D)) sft) 97.00 (USfi)) -3,685.00 -1,185.00 -589.38 1,832.76	PROTO (() () () () () () () () () () () () ()	(f) 6.94 DTYPE NAS USIT) D.00 (USIT) 0.00 0.00 -34.39 -317.23 -351.62 -351.62	Tie On (USII) 0.00 0.00 0.00 0.00 2.00 0.00	(f): 60.3 Depth: Depth: Eulici Rato (f/1000:sf: 0.00 0.00 2.00 0.00 -2.00 0.00	ا ــــــــــــــــــــــــــــــــــــ	0.00 Glon 9). 7.98 TFO (1) 0.00 0.00 213.32 0.00	(EIJ) 3,020 Terreft KOP - GAVILON F
Design Audit Notes Version: Vertical/Sec (ID) (ID) (ISII) 0.00 2,500.00 3,100.00 5,576.25 6,176.25	effony ma (me (f) 0.00 12.00 12.00 12.00 0.00	IGRF201 PROPOSAL (A=1) ((A=1) ((A=1)) ((A=1)) ((A=1)) ((A=1)) ((A=1)) ((A=1))(	15 #1 Depth Fi (L. 11,5 Vor(tleal) Depth 0.00 2,500.00 3,095.62 5,517.76 6,113.38 10,893.83 11,610.03	05/04/2018 Phase: om((IAVE)) sft) 97.00 SS (USff) -3,685.00 -1,185.00 -589.38 1,832.76 2,428.38 7,208.83 7,925.03	PROTO (() () () () () () () () () () () () ()	(f) 6.94 DTYPE (VAS) (Sff) D.00 (Usff) 0.00 0.00 -34.39 -317.23 -351.62 -351.62 -352.00	Tie On CEAW (USG) 0.00 0.00 0.00 2.00 0.00 2.00 0.00 2.00	(f): 60.3 Depth: Depth: Build Rato (fA0005f 0.00 2.00 0.00 2.00 0.00 -2.00 0.00 8.00	ا الالیت (۲۵۱۵) (۲۵۱۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶۵۵) (۲۶) (۲۶) (۲۶) (۲۶) (۲۶) (۲۶) (۲۶) (۲۶	0.00 (10) (100	(ED) 3,020 Tecea
Design Audit Notes Version: Vertical Sec (ID) (USII) 0.00 2,500.00 3,100.00 5,576.25 6,176.25 10,956.70	s: eilon# (ine (f)) 0.00 0.00 12.00 12.00 12.00 0.00 0.00	IGRF201 PROPOSAL PROPOSAL (F) (F) 0.00 0.00 213.32 213.32 0.00 0.00	15 #1 DepthFr (tr 11,5 Vertical) Depth 0.00 2,500.00 3,095.62 5,517.76 6,113.38 10,893.83	05/04/2018 Phase: com((IAVE)) sft) 97.00 SS (usft)) -3,685.00 -1,185.00 -1,185.00 -589.38 1,832.76 2,428.38 7,208.83	PROTO (() () () () () () () () () () () () ()	(f) 6.94 DTYPE NAS USIT) D.00 (USIT) 0.00 0.00 -34.39 -317.23 -351.62 -351.62	Tie On	(f): 60.3 Depth: Depth: Eulici Rato (f/1000:sf: 0.00 0.00 2.00 0.00 -2.00 0.00	Elice (1 35 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	() () () () () () () () () () () () () (	(EIJ) 3,020 Terreft KOP - GAVILON F



Planned Survey						linimum Curvatur	0	
MD inc Azi	TVD	ŝŝ	+N/-S		Vertical Section	Rate	Build Rate	Turn
(usft) (?) (?)	(usft)	(usft)	(usft)	(usft)	(úsft)	(*/100usft)	(°/100usft)	(°/100usft)
SHL: 125ft.FSL & 717ft FWL	. of Sec 33				·			
0.00 0.00 0.00	0.00	3,685.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00 0.00 0.00	100.00	3,585.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00 0.00 0.00	200.00 300.00	3,485.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00         0.00         0.00           400.00         0.00         0.00	400.00	3,385.00 3,285.00	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 0.00 0.00 600.00 0.00 0.00	500.00 600.00	3,185.00 3,085.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00
600.00 0.00 0.00 700.00 0.00 0.00	700.00	2.985.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00
800.00 0.00 0.00	800.00	2,885.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00 0.00 0.00	900.00	2,785.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00 0.00 0.00	1,000.00	2,685.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00 0.00 0.00	1,100.00	2,585.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00 0.00 0.00	1,200.00	2,485.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00 0.00 0.00	1,300.00	2,385.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00 0.00 0.00	1,400.00	2,285.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00 0.00 0.00	1,500.00	2,185.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00 0.00 0.00	1,600.00	2,085.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00 0.00 0.00	1,700.00	1,985.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00 0.00 0.00 1,900.00 0.00 0.00	1,800.00 1,900.00	1,885.00 1,785.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
2,000.00 0.00 0.00	2,000.00	1,685.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00 0.00 0.00 2,200.00 0.00 0.00	2,100.00 2,200.00	1,585.00 1,485.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
	2,300.00	1,385.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00 0.00 0.00	2,400.00	1,285.00	0.00	0.00	0.00	0.00	0.00	0.00
START NUDGE (2°/100ft BU								
2,500.00 0.00 0.00	2,500.00	1,185.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00 2.00 213.32	2,599.98	1,085.02	-1.46	-0.96	-1.42	2.00	2.00	0.00
2,700.00 4.00 213.32	2,699.84	985.16	-5.83	-3.83	-5.69	2.00	2.00	0.00
2,800.00 6.00 213.32	2,799.45	885.55	-13.11	-8.62	-12.80	2.00	2.00	0.00
2,900.00 8.00 213.32	2,898.70	786.30	-23.30	-15.32	-22.74	2.00	2.00	0.00
3,000.00 10.00 213.32	2,997.47	687.53	-36.37	-23.91	-35.50	2.00	2.00	0.00
EOB TO 12° INC	A AAZ AA	PAA AA	F0 64	94 00	<b>E4</b> 00		0.00	
<b>3,100.00 12.00 213.32</b> 3,200.00 12.00 213.32	<b>3,095.62</b> 3,193.44	<b>589.38</b> 491.56	<b>-52.31</b> -69.68	<b>-34.39</b> -45.81	<b>-51.06</b> -68.02	<b>2.00</b> 0.00	<b>2.00</b> 0.00	<b>0.00</b> 0.00
3,300.00 12.00 213.32	3,291.25	393.75	-87.05	-45.81	-86.02	0.00	0.00	0.00
3,400.00 12.00 213.32	3,389.07	295.93	-104.43	-68.66	-101.94		0.00	0.00
3,500.00 12.00 213.32	3,486.88	198.12	-121.80	-80.08	-118.90		0.00	0.00
3,600.00 12.00 213.32	3,584.70	100.30	-139.17	-91.50	-135.86		0.00	0.00
3,700.00 12.00 213.32	3,682.51	2.49	-156.55	-102.92	-152.81	0.00	0.00	0.00
3,800.00 12.00 213.32	3,780.33	-95.33	-173.92	-114.35	-169.77		0.00	0.00
3,900.00 12.00 213.32	3,878.14	-193.14	-191.29	-125.77	-186.73	0.00	0.00	0.00
4,000.00 12.00 213.32	3,975.96	-290.96	-208.66	-137.19	-203.69		0.00	0.00
4,100.00 12.00 213.32	4,073.77	-388.77	-226.04	-148.61	-220.65		0.00	0.00
4,200.00 12.00 213.32	4,171.59	-486.59	-243.41	-160.03	-237.61		0.00	0.00
4,300.00 12.00 213.32 4,400.00 12.00 213.32	4,269.40	-584.40	-260.78	-171.46 -182.88	-254.56		0.00	0.00
1 .	4,367.22	-682.22	-278.15		-271.52		0.00	0.00
4,500.00 12.00 213.32	4,465.03	-780.03	-295.53	-194.30	-288.48		0.00	0.00
4,600.00 12.00 213.32	4,562.84	-877.84	-312.90	-205.72 -217.14	-305.44		0.00	0.00
4,700.0012.00213.324,800.0012.00213.32	4,660.66 4,758.47	-975.66 -1,073.47	-330.27 -347.65	-217.14 -228.57	-322.40 -339.36		0.00 0.00	0.00 0.00
4,900.00 12.00 213.32	4,856.29	-1,171.29	-365.02	-239.99	-356.32		0.00	0.00

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COMPASS 5000.1 Build 56



Database: Company: Project; Site: Veil; Veilbore: Design;	ASC LEA SW GAV ORIC		Y EW MEXICO (I '20S R33E N.N OM 703H		TVD Refere MD Referen North Refer	ICO:	KE KB Tri	ell GAVILON FE -EST @ 3685.0 -EST @ 3685.0 Je nimum Curvatur	Ousft (Origina Ousft (Origina	
Planned Surve	linc	Âzī	TVD	SS	+N/-S	*E/-W	Vertical Section	Dogleg Rate	Build 'Rate	Turn Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
5,000.00	12.00	213.32	4,954.10	-1,269.10	-382.39	-251.41	-373.27	0.00	0.00	0.00
5,100.00	12.00	213.32	5,051.92	-1,366.92	-399.76	-262.83	-390.23	0.00	0.00	0.00
5,200.00	12.00	213.32	5,149.73	-1,464.73	-417.14	-274.25	-407.19	0.00	0.00	0.00
5,300.00	12.00	213.32	5,247.55	-1,562.55	-434.51	-285.68	-424.15	0.00	0.00	0.00
5,400.00	12.00	213.32	5,345.36	-1,660.36	-451.88	-297.10	-441.11	0.00	0.00	0.00
5,500.00	12.00	213.32	5,443.18	-1,758.18	-469.25	-308.52	-458.07	0.00	0.00	0.00
	OF TANGEN	T	P = 4 = - 4	1 000 -0	(00 -0	A 47 A 2	194 44			A
5,576.25	12.00	213.32	5,517.76	-1,832.76	-482.50	-317.23	-471.00	0.00	0.00	0.00
5,600.00	11.52 9.52	213.32 213.32	5,541.01 5,639.32	-1,856.01 -1,954.32	-486.55 -501.81	-319.89 -329.92	-474.95 -489.85	2.00 2.00	-2.00 -2.00	0.00 0.00
5,700.00 5,800.00	9.52 7.52	213.32	5,639.32 5,738.22	-1,954.32 -2,053.22	-501.81	-329.92 -338.07	-489.85 -501.94	2.00	-2.00	0.00
5,900.00	5.52	213.32	5,837.56	-2,152.56	-523.69	-344.31	-511.20	2.00	-2.00	0.00
6,000.00	3.52 1.52	213.32 213.32	5,937.25	-2,252.25 -2,352.14	-530.28 -533.96	-348.64 -351.06	-517.64 -521.23	2.00 2.00	-2.00 -2.00	0.00 0.00
6,100.00	O VERTICA		6,037.14	-2,352.14	-555.90	-351.00	-021.20	2.00	-2.00	0.00
6,176.25	0.00	0.00	6,113.38	-2,428.38	-534.81	-351.62	-522.06	2.00	-2.00	0.00
6,200.00	0.00	0.00	6,137.13	-2,452.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
6.300.00	0.00	0.00	6,237.13	-2,552.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
6,400.00	0.00	0.00	6,337.13	-2,652.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
6,500.00	0.00	0.00	6,437.13	-2,752.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
6,600.00	0.00	0.00	6,537.13	-2,852.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
6,700.00	0.00	0.00	6,637.13	-2,952.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
6.800.00	0.00	0.00	6,737.13	-3,052.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
6,900.00	0.00	0.00	6,837.13	-3,152.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
7,000.00	0.00	0.00	6,937.13	-3,252.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
7,100.00	0.00	0.00	7,037.13	-3,352.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
7,200.00	0.00	0.00	7,137.13	-3,452.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
7.300.00	0.00	0.00	7,237.13	-3,552.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
7,400.00	0.00	0.00	7,337.13	-3,652.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
7,500.00	0.00	0.00	7,437.13	-3,752.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
7,600.00	0.00	0.00	7,537.13	-3,852.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
7,700.00	0.00	0.00	7,637.13	-3,952.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
7,800.00	0.00	0.00	7,737.13	-4,052.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
7,900.00	0.00	0.00	7,837.13	-4,152.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
8,000.00	0.00	0.00	7,937.13	-4,252.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
8,100.00	0.00	0.00	8,037.13	-4,352.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
8,200.00	0.00	0.00	8,137.13	-4,452.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
8,300.00	0.00	0.00	8,237.13	-4,552.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
8,400.00	0.00	0.00	8,337.13	-4,652.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
8,500.00	0.00	0.00	8,437.13	-4,752.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
8,600.00 8,700.00	0.00 0.00	0.00 0.00	8,537.13 8,637.13	-4,852.13 -4,952.13	-534.81 -534.81	-351.62 -351.62	-522.06 -522.06	0.00 0.00	0.00 0.00	0.00 0.00
8,800.00	0.00	0.00	8,737.13	-5,052.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
8,900.00	0.00 0.00	0.00 0.00	8,837.13 8,937.13	-5,152.13 -5,252.13	-534.81 -534.81	-351.62 -351.62	-522.06 -522.06	0.00 0.00	0.00 0.00	0.00 0.00
9,000.00 9,100.00	0.00	0.00	9,037.13	-5,252.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
9,200.00	0.00	0.00	9,137.13	-5,452.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
-	0.00	0.00	9,237.13	-5,552.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
9,300.00 9,400.00	0.00	0.00	9,237.13 9,337.13	-5,552.13	-534.81 -534.81	-351.62 -351.62	-522.06 -522.06	0.00	0.00	0.00
9,400.00 9,500.00	0.00	0.00	9,337.13 9,437.13	-5,852.13	-534.81	-351.62	-522.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,537.13	-5,852.13	-534.81	-351.62	-522.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,637.13	-5,952.13	-534.81	-351.62	-522.06	0.00	0.00	0.00
								0.00		
9,800.00	0.00 0.00	0.00 0.00	9,737.13 9,837.13	-6,052.13 -6,152.13	-534.81 -534.81	-351.62 -351.62	-522.06 -522.06	0.00	0.00 0.00	0.00 0.00
9,900.00	0.00	0.00	3,007.10	-0,102.13	-004.01	-301.02	-JZZ.00	0.00	0.00	0.00

05/04/2018 2:55:12PM

COMPASS 5000.1 Build 56



Detelester Company Frojects Silie Vielle Vielleorer Designe	EDN ASC LEA SW GAV ORI	M 5000.1 Singl CENT ENERG COUNTY, NE	Y EW MEXICO (N '20S R33E N.M OM 703H	IAD 83)	TVD Rotered LID Rotered Rottb Roter	CE8	Ences Well KB-I KB-I True	GAVILON FE EST @ 3685.0 EST @ 3685.0 mum Curvature	D COM 703H 0usft (Original 0usft (Original	Well Elev)
Planned Surva	9									
LD (USI)	ine (P)	(A) (P)	TVD (USII)	SS ((USII)).	HILS (LEGI)	(151) (151)	Voilleel Section (USII)	Dogley Reio (fhiorsii))	IUI6 Refe (FFFCOUSI))	TURO REIO (FHOOUSII))
10,000.00 10,100.00	0.00 0.00	0.00 0.00	9,937.13 10,037.13	-6,252.13 -6,352.13	-534.81 -534.81	-351.62 -351.62	-522.06 -522.06	0.00 0.00	0.00 0.00	0.00 0.00
10,200.00 10,300.00 10,400.00	0.00 0.00 0.00	0.00 0.00 0.00	10,137.13 10,237.13 10,337.13	-6,452.13 -6,552.13 -6,652.13	-534.81 -534.81 -534.81	-351.62 -351.62 -351.62	-522.06 -522.06 -522.06	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
10,500.00 10,600.00 10,700.00	0.00 0.00 0.00	0.00 0.00 0.00	10,437.13 10,537.13 10,637.13	-6,752.13 -6,852.13 -6,952.13	-534.81 -534.81 -534.81	-351.62 -351.62 -351.62	-522.06 -522.06 -522.06	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
10,800.00 10,900.00	0.00 0.00	0.00 0.00	10,737.13 10,837.13	-7,052.13 -7,152.13	-534.81 -534.81	-351.62 -351.62	-522.06 -522.06	0.00	0.00	0.00 0.00
10,956.70 11,000.00 11,100.00	0.00 0.00 3.46 11.46	0.00 359.97 359.97	<b>10,893.83</b> 10,937.11 11,036.18	<b>-7,208.83</b> -7,252.11 -7,351.18	<b>-534.81</b> -533.50 -520.52	<b>-351.62</b> -351.62 -351.63	-522.06 -520.75 -507.78	<b>0.00</b> 8.00 8.00	<i>0.00</i> 8.00 8.00	0.00 0.00 0.00
11,200.00 11,300.00 11,400.00 11,500.00	19.46 27.46 35.46 43.46	359.97 359.97 359.97 359.97 359.97	11,132.48 11,224.14 11,309.37 11,386.50	-7,447.48 -7,539.14 -7,624.37 -7,701.50	-493.88 -454.09 -401.94 -338.43	-351.64 -351.66 -351.69 -351.72	-481.15 -441.39 -389.27 -325.80	8.00 8.00 8.00 8.00 8.00	8.00 8.00 8.00 8.00 8.00	0.00 0.00 0.00 0.00 0.00
11,600.00 11,700.00	51.46 59.46	359.97 359.97	11,454.06 11,510.70	-7,769.06 -7,825.70	-264.81 -182.50	-351.76 -351.81	-252.22 -169.96	8.00 8.00	8.00 8.00	0.00 0.00
11,800.00 11,900.00 12,000.00	67.46 75.46 83.46	359.97 359.97 359.97 <b>359.97</b>	11,555.34 11,587.11 11,605.38	-7,870.34 -7,902.11 -7,920.38	-93.10 1.63 99.87	-351.85 -351.90 -351.96	-80.62 14.06 112.23	8.00 8.00 8.00	8.00 8.00 8.00	0.00 0.00 0.00
<b>12,082.70</b> 12,100.00	90.08	359.97 359.97	<b>11,610.03</b>	-7,925.03 -7,925.01	<b>182.39</b> 199.69	<b>-352.00</b> -352.01	<b>194.71</b> 212.00	<b>8.00</b> 0.00	<b>8.00</b> 0.00	<i>0.00</i> 0.00
1		365ft\FWL50	ISEC 33					0.00		
<b>12,107.70</b> 12,200.00 12,300.00 12,400.00	<b>90.08</b> 90.08 90.08 90.08	<b>359.97</b> 359.97 359.97 359.97	<b>11,610.00</b> 11,609.87 11,609.73 11,609.59	<b>-7,925.00</b> -7,924.87 -7,924.73 -7,924.59	<b>207.39</b> 299.69 399.69 499.69	<b>-352.01</b> -352.06 -352.12 -352.17	<b>219.69</b> 311.93 411.87 511.81	<b>0.00</b> 0.00 0.00 0.00	<i>0.00</i> 0.00 0.00 0.00	0.00 0.00 0.00 0.00
12,500.00 12,600.00 12,700.00 12,800.00 12,900.00	90.08 90.08 90.08 90.08 90.08	359.97 359.97 359.97 359.97 359.97	11,609.45 11,609.31 11,609.17 11,609.03 11,608.89	-7,924.45 -7,924.31 -7,924.17 -7,924.03 -7,923.89	599.69 699.69 799.69 899.69 999.69	-352.22 -352.27 -352.33 -352.38 -352.43	611.75 711.69 811.63 911.57 1,011.51	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
13,000.00 13,100.00 13,200.00 13,300.00 13,400.00	90.08 90.08 90.08 90.08 90.08	359.97 359.97 359.97 359.97 359.97 359.97	11,608.76 11,608.62 11,608.48 11,608.34 11,608.21	-7,923.76 -7,923.62 -7,923.48 -7,923.34 -7,923.21	1,099.69 1,199.69 1,299.69 1,399.69 1,399.69	-352.49 -352.54 -352.59 -352.64 -352.70	1,111.45 1,211.39 1,311.33 1,411.27 1,511.21	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
13,500.00 13,600.00 13,700.00 13,800.00 13,900.00	90.08 90.08 90.08 90.08 90.08 90.08	359.97 359.97 359.97 359.97 359.97 359.97	11,608.07 11,607.93 11,607.79 11,607.66 11,607.52	-7,923.07 -7,922.93 -7,922.79 -7,922.66 -7,922.52	1,599.69 1,699.69 1,799.69 1,899.69 1,999.69	-352.75 -352.80 -352.85 -352.91 -352.96	1,611.15 1,711.09 1,811.03 1,910.96 2,010.90	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
14,000.00 14,100.00 14,200.00 14,300.00 14,400.00	90.08 90.08 90.08 90.08 90.08	359.97 359.97 359.97 359.97 359.97 359.97	11,607.38 11,607.25 11,607.11 11,606.98 11,606.84	-7,922.38 -7,922.25 -7,922.11 -7,921.98 -7,921.84	2,099.69 2,199.69 2,299.69 2,399.69 2,499.69	-353.01 -353.07 -353.12 -353.17 -353.22	2,110.84 2,210.78 2,310.72 2,410.66 2,510.60	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
14,500.00 14,600.00	90.08 90.08	359.97 359.97	11,606.70 11,606.57	-7,921.70 -7,921.57	2,599.69 2,699.69	-353.28 -353.33	2,610.54 2,710.48	0.00	0.00 0.00	0.00 0.00

05/04/2018 2:55:12PM

COMPASS 5000.1 Build 56

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Dăt <u>abase:</u> Company: Project: Site: Well:	EDM 5000.1 Single User Db ASCENT ENERGY LEA COUNTY, NEW MEXICO (NAD 83) SW SW SEC 33 T20S R33E N.M.P.M. GAVILON FED COM 703H	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:	Well GAVILON FED COM 703H KB-EST @ 3685.00usft (Original Well Elev) KB-EST @ 3685.00usft (Original Well Elev) True Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Planned Survey

47									-	_
(USÍT)	inc (*)	, Azi (*)	TVĎ (úšťt)	SS (usit)	+N/-S ((usft))	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (*/100usft)	Tum Rate (%100usft)
14,700.00	90.08	359.97	11,606.43	-7,921.43	2,799.69	-353.38	2,810.42	0.00	0.00	0.00
14,800.00	90.08	359.97	11,606.30	-7,921.30	2,899.69	-353.43	2,910.36	0.00	0.00	0.00
14,900.00	90.08	359.97	11,606.16	-7 <b>,92</b> 1.16	2,999.69	-353.49	3,010.30	0.00	0.00	0.00
15,000.00	90.08	359.97	11,606.03	-7,921.03	3,099.69	-353.54	3,110.24	0.00	0.00	0.00
15,100.00	90.08	359.97	11,605.89	-7,920.89	3,199.69	-353.59	3,210.18	0.00	0.00	0.00
15,200.00	90.08	359.97	11,605.76	-7,920.76	3,299.69	-353.64	3,310.12	0.00	0.00	0.00
15,300.00	90.08	359.97	11,605.63	-7,920.63	3,399.69	-353.69	3,410.06	0.00	0.00	0.00
15,400.00	90.08	359.97	11,605.49	-7,920.49	3,499.69	-353.75	3,510.00	0.00	0.00	0.00
15,500.00	90.08	359.97	11,605.36	-7,920.36	3,599.69	-353.80	3,609.93	0.00	0.00	0.00
15,600.00	90.08	359.97	11,605.22	-7,920.22	3,699.69	-353.85	3,709.87	0.00	0.00	0.00
15,700.00	90.08	359.97	11,605.09	-7,920.09	3,799.69	-353.90	3,809.81	0.00	0.00	0.00
15,800.00	90.08	359.97	11,604.96	-7,919.96	3,899.69	-353.96	3,909.75	0.00	0.00	0.00
15,900.00	90.08	359.97	11,604.82	-7,919.82	3,999.69	-354.01	4,009.69	0.00	0.00	0.00
16,000.00	90.08	359.97	11,604.69	-7,919.69	4,099.69	-354.06	4,109.63	0.00	0.00	0.00
16,100.00	90.08	359.97	11,604.56	-7,919.56	4,199.69	-354.11	4,209.57	0.00	0.00	0.00
16,200.00	90.08	359.97	11,604.42	-7,919.42	4,299.69	-354.17	4,309.51	0.00	0.00	0.00
16,300.00	90.08	359.97	11,604.29	-7,919.29	4,399.68	-354.22	4,409.45	0.00	0.00	0.00
16,400.00	90.08	359.97	11,604.16	-7,919.16	4,499.68	-354.27	4,509.39	0.00	0.00	0.00
16,500.00	90.08	359.97	11,604.03	-7,919.03	4,599.68	-354.32	4,609.33	0.00	0.00	0.00
16,600.00	90.08	359.97	11,603.90	-7,918.90	4,699.68	-354.37	4,709.27	0.00	0.00	0.00
16,700.00	90.08	359.97	11,603.76	-7.918.76	4,799.68	-354.43	4,809.21	0.00	0.00	0.00
16,800.00	90.08	359.97	11,603.63	-7,918.63	4,899.68	-354.48	4,909.15	0.00	0.00	0.00
16,900.00	90.08	359.97	11,603.50	-7,918.50	4,999.68	-354.53	5,009.09	0.00	0.00	0.00
17.000.00	90.08	359.97	11,603.37	-7,918.37	5,099.68	-354.58	5,109.02	0.00	0.00	0.00
17,100.00	90.08	359.97	11,603.24	-7,918.24	5,199.68	-354.63	5,208.96	0.00	0.00	0.00
17,200.00	90.08	359.97	11,603.11	-7,918.11	5,299.68	-354.69	5,308.90	0.00	0.00	0.00
17,300.00	90.07	359.97	11,602.98	-7,917.98	5,399.68	-354.74	5,408.84	0.00	0.00	0.00
17,400.00	90.07	359.97	11,602.84	-7,917.84	5,499.68	-354.79	5,508.78	0.00	0.00	0.00
17,500.00	90.07	359.97	11,602.71	-7,917.71	5,599.68	-354.84	5,608.72	0.00	0.00	0.00
17,600.00	90.07	359.97	11,602.58	-7,917.58	5,699.68	-354.89	5,708.66	0.00	0.00	0.00
17,700.00	90.07	359.97	11,602.45	-7,917.45	5,799.68	-354.95	5,808.60	0.00	0.00	0.00
17,800.00	90.07	359.97	11,602.32	-7,917.32	5,899.68	-355.00	5,908.54	0.00	0.00	0.00
17,900.00	90.07	359.97	11,602.19	-7,917.19	5,999.68	-355.05	6,008.48	0.00	0.00	0.00
18.000.00	90.07	359.97	11.602.06	-7,917.06	6,099.68	-355.10	6,108.42	0.00	0.00	0.00
18,100.00	90.07	359.97	11,601.93	-7,916.93	6,199.68	-355.15	6,208.36	0.00	0.00	0.00
18,200.00	90.07	359.97	11,601.80	-7,916.80	6,299.68	-355.21	6,308.30	0.00	0.00	0.00
18,300.00	90.07	359.97	11,601.68	-7,916.68	6,399.68	-355.26	6,408.24	0.00	0.00	0.00
18,400.00	90.07	359.97	11,601.55	-7,916.55	6,499.68	-355.31	6,508.18	0.00	0.00	0.00
18.500.00	90.07	359.97	11,601.42	-7,916.42	6,599.68	-355.36	6,608.12	0.00	0.00	0.00
18,500.00	90.07	359.97 359.97	11,601.42	-7,916.42	6,699.68	-355.30	6,708.05	0.00	0.00	0.00
18,700.00	90.07	359.97	11,601.25	-7,916.16	6,799.68	-355.46	6,807.99	0.00	0.00	0.00
18,800.00	90.07	359.97	11,601.03	-7,916.03	6,899.68	-355.52	6,907.93	0.00	0.00	0.00
18,900.00	90.07	359.97	11,600.90	-7,915.90	6,999.68	-355.57	7,007.87	0.00	0.00	0.00
				-						
19,000.00	90.07	359.97	11,600.78	-7,915.78	7,099.68	-355.62	7,107.81	0.00	0.00	0.00
19,100.00 19,200.00	90.07 90.07	359.97 359.97	11,600.65 11,600.52	-7,915.65 -7,915.52	7,199.68 7,299.68	-355.67 -355.72	7,207.75 7,307.69	0.00 0.00	0.00 0.00	0.00 0.00
19,200.00	90.07	359.97	11,600.39	-7,915.32	7,399.68	-355.72	7,407.63	0.00	0.00	0.00
19,400.00	90.07	359.97	11,600.26	-7,915.26	7,499.68	-355.83	7,507.57	0.00	0.00	0.00
19,500.00	90.07	359.97	11,600.14	-7,915.14	7,599.68	-355.88	7,607.51	0.00	0.00	0.00
19,600.00	90.07	359.97	11,600.01	-7,915.01	7,699.68	-355.93	7,707.45	0.00	0.00	0.00
19,700.00	90.07	359.97	11,599.88	-7,914.88	7,799.68	-355.98	7,807.39	0.00	0.00	0.00
19,800.00	90.07	359.97 359.97	11,599.76 11,599.63	-7,914.76 -7,914.63	7,899.68	-356.03 -356.08	7,907.33	0.00 0.00	0.00	0.00
19,900.00	90.07	359.97	11,599.63	•	7,999.68		8,007.27		0.00	0.00
20,000.00	90.07	359.97	11,599.50	-7,914.50	8,099.68	-356.13	8,107.21	0.00	0.00	0.00

05/04/2018 2:55:12PM

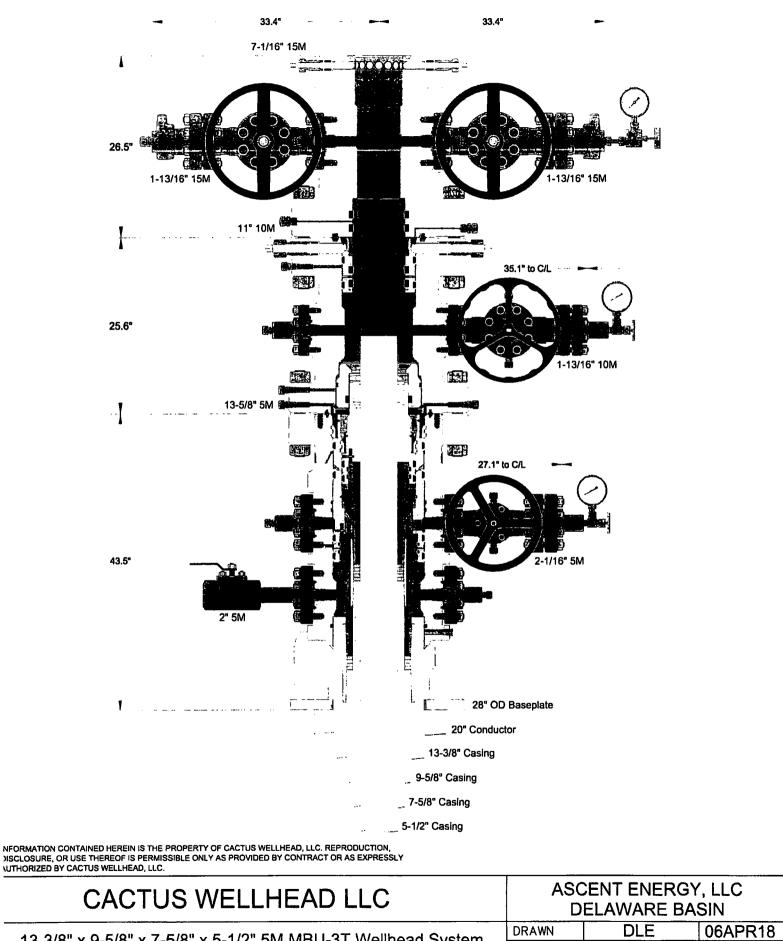
COMPASS 5000.1 Build 56



										<u> </u>
Database: Company: Project: Site: Well: Wellbore: Design:	ASC LEA SW GAV ORI		Y EW MEXICO (1 1208 R33E N.N OM 703H	•	TVD Referen MD Referen North Refer	dinate Reference:       Well GAVILON FED COM 703H         nce:       KB-EST @ 3685.00usft (Original Well Elected)         nce:       KB-EST @ 3685.00usft (Original Well Elected)				
Planned Survey	/									
MD (usft)	lnc (°)	(°)	TVD (usft)	SŚ (usff)	∓N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turīn Řate (°/100usft)
20,100.00	90.07	359.97	11,599.38	-7,914.38	8,199.68	-356.19	8,207.15	0.00	0.00	0.00
20,200.00	90.07	359.97	11,599.25	-7,914.25	8,299.68	-356.24	8,307.08	0.00	0.00	0.00
20,300.00	90.07	359.97	11,599.13	-7,914.13	8,399.68	-356.29	8,407.02	0.00	0.00	0.00
20,400.00	90.07	359.97	11,599.00	-7,914.00	8,499.68	-356.34	8,506.96	0.00	0.00	0.00
20,500.00	90.07	359.97	11.598.87	-7,913.87	8,599,68	-356.39	8,606.90	0.00	0.00	0.00
20,600.00	90.07	359.97	11,598.75	-7,913.75	8,699.68	-356.44	8,706.84	0.00	0.00	0.00
20,700.00	90.07	359.97	11,598.62	-7,913.62	8,799.68	-356.49	8,806.78	0.00	0.00	0.00
20,800.00	90.07	359.97	11,598.50	-7,913.50	8,899.68	-356.55	8,906.72	0.00	0.00	0.00
20,900.00	<del>9</del> 0.07	359.97	11,598.37	-7,913.37	8,999.68	-356.60	9,006.66	0.00	0.00	0.00
21,000.00	90.07	359.97	11.598.25	-7.913.25	9.099.68	-356.65	9,106.60	0.00	0.00	0.00
21,100.00	90.07	359.97	11,598,12	-7,913.12	9,199.68	-356.70	9,206.54	0.00	0.00	0.00
21,200.00	90.07	359.97	11,598.00	-7,913.00	9,299.68	-356.75	9,306.48	0.00	0.00	0.00
21,300.00	90.07	359.97	11,597.88	-7,912.88	9,399.68	-356.80	9,406.42	0.00	0.00	0.00
21,400.00	90.07	359.97	11,597.75	-7,912.75	9,499.68	-356.85	9,506.36	0.00	0.00	0.00
21,500.00	90.07	359.97	11,597.63	-7.912.63	9,599.68	-356.90	9,606.30	0.00	0.00	0.00
21,600.00	90.07	359.97	11.597.50	-7.912.50	9.699.68	-356.96	9,706.24	0.00	0.00	0.00
21 700 00	00.07	250.07	11 507 39	7 012 20	0 700 69	267.01	0 906 17	0.00	0.00	0.00

22,008.30	90.07	359.97	11,597.00	-7,912.00	10,107.98	-357.16	10,114.29	0.01	-0.01	0.00
BHL: 330ft FNL & 365ft FWL of Sec 28										
22,006.48	90.07	359.97	11,597.00	-7,912.00	10,106.16	-357.16	10,112.47	0.00	0.00	0.00
LTP: 3	32ft FNL &	365ft FWL o	f Sec 28							
22,000.00	90.07	359.97	11,597.01	-7,912.01	10,099.68	-357.16	10,105.99	0.00	0.00	0.00
21,900.00	90.07	359.97	11,597.13	-7,912.13	9,999.68	-357.11	10,006.05	0.00	0.00	0.00
21,800.00	90.07	359.97	11,597.26	-7,912.26	9,899.68	-357.06	9,906.11	0.00	0.00	0.00
21,700.00	90.07	359.97	11,597.38	-7,912.38	9,799.68	-357.01	9,806.17	0.00	0.00	0.00

Plan Annotat	ions				
••		÷	Local Co	ordinates	
1 <b>1</b>	MD (usft)	شَرَكُمُ (usit)	(usft)	+E/-W (usft)	Comment
	0.00	0.00	0.00	0.00	SHL: 125ft FSL & 717ft FWL of Sec 33
	2,500.00	2,500.00	0.00	0.00	START NUDGE (2°/100ft BUR)
	3,100.00	3.095.62	-52.31	-34.39	EOB TO 12° INC
	5,576.25	5.517.76	-482.50	-317.23	END OF TANGENT
	6,176.25	6,113.38	-534.81	-351.62	EOD TO VERTICAL
	10.956.70	10.893.83	-534.81	-351.62	KOP (8°/100ft BUR)
	12.082.70	11.610.03	182.39	-352.00	HZ LP: 307ft FSL & 365ft FWL of Sec 33
	12.107.70	11.610.00	207.39	-352.01	FTP: 332ft FSL & 365ft FWL of Sec 33
	22.006.48	11.597.00	10.106.16	-357.16	LTP: 332ft FNL & 365ft FWL of Sec 28
	22,008.30	11,597.00	10,107.98	-357.16	BHL: 330ft FNL & 365ft FWL of Sec 28



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

ODE0002219

APPRV

DRAWING NO.

# **FMSS**

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



APD ID: 10400031137

**Operator Name: ASCENT ENERGY LLC** 

Well Name: GAVILON FED COM

Well Type: OIL WELL

Submission Date: 06/12/2018

10-1-

Well Number: 703H Well Work Type: Drill

**Section 1 - General** 

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO Produced Water Disposal (PWD) Location:

PWD surface owner:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

I eak detection system attachment:

**PWD disturbance (acres):** 

Well Name: GAVILON FED COM

Well Number: 703H

Lined pit Monitor description: Lined pit Monitor attachment: Lined pit: do you have a reclamation bond for the pit? is the reclamation bond a rider under the BLM bond? Lined pit bond number: Lined pit bond amount: Additional bond information attachment: Section 3 - Unlined Pits Would you like to utilize Unlined Pit PWD options? NO Produced Water Disposal (PWD) Location: **PWD disturbance (acres):** PWD surface owner: Unlined pit PWD on or off channel: Unlined pit PWD discharge volume (bbl/day): Unlined pit specifications: **Precipitated solids disposal:** Decribe precipitated solids disposal: Precipitated solids disposal permit: Unlined pit precipitated solids disposal schedule: Unlined pit precipitated solids disposal schedule attachment: Unlined pit reclamation description: Unlined pit reclamation attachment: Unlined pit Monitor description: **Unlined pit Monitor attachment:** Do you propose to put the produced water to beneficial use? Beneficial use user confirmation: Estimated depth of the shallowest aquifer (feet): Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

**Unlined Produced Water Pit Estimated percolation:** 

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: ASCENT ENERGY LLC	
Well Name: GAVILON FED COM	Well Number: 703H
Is the reclamation bond a rider under the BLM bond?	
Unlined pit bond number:	
Unlined pit bond amount:	
Additional bond information attachment:	
Section 4 - Injection	
Would you like to utilize Injection PWD options? NO	
Produced Water Disposal (PWD) Location:	
PWD surface owner:	PWD disturbance (acres):
Injection PWD discharge volume (bbl/day):	
Injection well mineral owner:	
Injection well type:	
Injection well number:	Injection well name:
Assigned injection well API number?	Injection well API number:
Injection well new surface disturbance (acres):	
Minerals protection information:	
Mineral protection attachment:	
Underground Injection Control (UIC) Permit?	
UIC Permit attachment:	
Section 5 - Surface Discharge	
Would you like to utilize Surface Discharge PWD options?	NO
Produced Water Disposal (PWD) Location:	
PWD surface owner:	PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

**PWD disturbance (acres):** 

Well Name: GAVILON FED COM

Well Number: 703H

Other PWD type description: Other PWD type attachment: Have other regulatory requirements been met?

Other regulatory requirements attachment:

# **FMSS**

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

#### APD ID: 10400031137

**Operator Name: ASCENT ENERGY LLC** 

Well Name: GAVILON FED COM

Well Type: OIL WELL

# **Bond Information**

Federal/Indian APD: FED

BLM Bond number: NMB001496

**BIA Bond number:** 

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

**Reclamation bond number:** 

**Reclamation bond amount:** 

**Reclamation bond rider amount:** 

Additional reclamation bond information attachment:

Submission Date: 06/12/2018

Well Number: 703H

Well Work Type: Drill

Highlighted data reflects the most recent changes

12/01/2019

Bond Info Data Report

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Show Final Text