Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*

11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law 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, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. 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 the 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., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
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 ofthis form to U.S. Department ofthe Interior, Bureau ofLand Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Additional Remarks

hole.

o Optional decrease of the open hole size of the production curve/lateral section to 6-3/4 if 7-5/8 Int #3 string is ran.

Increase the casing size of our vertical casing strings.

Circulating Medium change to Oil-Based Mud in the Production Hole Section.

Revise proposed BOP beneath the base of the 20 surface shoe to setting the 1st Intermediate casing string only (13 3/8).

The reason for the request is based on improved drilling efficiencies and improved cementing in-place for each casing string. We believe the larger casing diameters in the vertical section will increase the likelihood of getting cement to surface for each string.

There will be no change in Geology formations, and casing depths as noted in the COA of the approved APD.

Please see attached documents for more detailed information of our sundry request.

Location of Well

0. SHL: SWSE / 245 FSL / 1718 FEL / TWSP: 20S / RANGE: 33E / SECTION: 33 / LAT: 32.52302 / LONG: -103.665238 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 0 FSL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.53686 / LONG: -103.66717 (TVD: 11677 feet, MD: 16880 feet)

PPP: SWSE / 100 FSL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 33 / LAT: 32.522621 / LONG: -103.666892 (TVD: 11547 feet, MD: 11655 feet)

PPP: NWSE / 1320 FSL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.540488 / LONG: -103.667166 (TVD: 11671 feet, MD: 18200 feet)

PPP: SWNE / 2640 FNL / 2311 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.544117 / LONG: -103.66717 (TVD: 11664 feet, MD: 19520 feet)

PPP: NWNE / 1320 FNL / 2311 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.547744 / LONG: -103.667169 (TVD: 11657 feet, MD: 20840 feet)

BHL: NWNE / 50 FNL / 2310 FEL / TWSP: 20S / RANGE: 33E / SECTION: 28 / LAT: 32.551234 / LONG: -103.66717 (TVD: 11651 feet, MD: 22110 feet)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025		

[4] Property Code	[5] Property Name	[6] Well Number
	GAVILON FED COM	708H

[7] OGRID No.	[8] Operator Name	[9] Elevation
325830	ASCENT ENERGY, LLC.	3,674'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	33	20 S	33 E		245	SOUTH	1,718	EAST	LEA

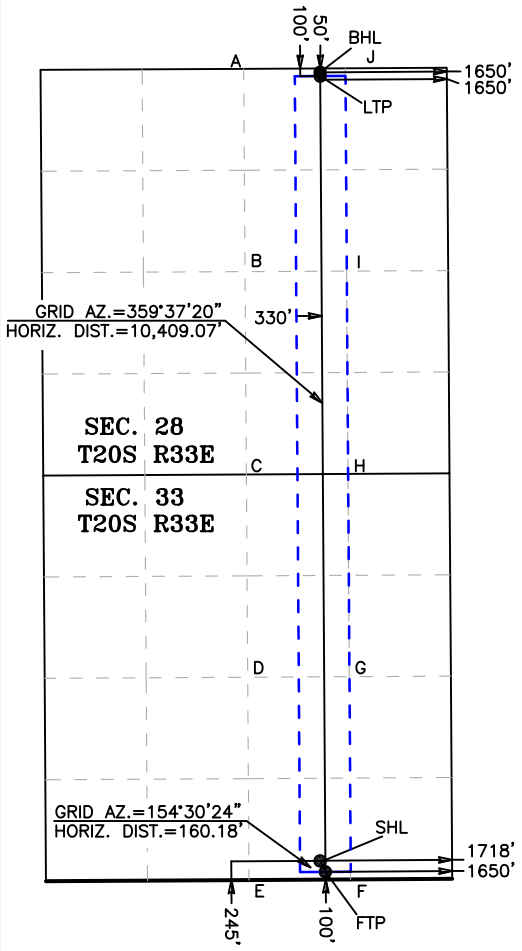
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	28	20 S	33 E		50	NORTH	1,650	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

[16]



SHL (NAD83 NME)		LTP (NAD83 NME)	
Y =	554,651.0	Y =	564,865.3
X =	747,256.7	X =	747,257.4
LAT. =	32.523020 °N	LAT. =	32.551095 °N
LONG. =	103.665238 °W	LONG. =	103.665028 °W
FTP (NAD83 NME)		**BHL (NAD83 NME)**	
Y =	554,506.4	Y =	564,915.3
X =	747,325.7	X =	747,257.0
LAT. =	32.522622 °N	LAT. =	32.551233 °N
LONG. =	103.665018 °W	LONG. =	103.665028 °W

CORNER COORDINATES (NAD83 NME)

A - Y =	564,960.1 N ,	X =	746,261.4 E
B - Y =	562,320.6 N ,	X =	746,278.9 E
C - Y =	559,680.3 N ,	X =	746,296.5 E
D - Y =	557,040.9 N ,	X =	746,313.9 E
E - Y =	554,400.4 N ,	X =	746,331.3 E
F - Y =	554,408.4 N ,	X =	747,653.8 E
G - Y =	557,048.2 N ,	X =	747,636.5 E
H - Y =	559,687.5 N ,	X =	747,618.9 E
I - Y =	562,327.4 N ,	X =	747,601.6 E
J - Y =	564,967.0 N ,	X =	747,584.1 E

SHL (NAD27 NME)		LTP (NAD27 NME)	
Y =	554,589.9	Y =	564,804.0
X =	706,076.0	X =	706,077.0
LAT. =	32.522900 °N	LAT. =	32.550975 °N
LONG. =	103.664745 °W	LONG. =	103.664534 °W
FTP (NAD27 NME)		**BHL (NAD27 NME)**	
Y =	554,445.3	Y =	564,854.0
X =	706,144.9	X =	706,076.6
LAT. =	32.522501 °N	LAT. =	32.551113 °N
LONG. =	103.664524 °W	LONG. =	103.664534 °W

CORNER COORDINATES (NAD27 NME)

A - Y =	564,898.8 N ,	X =	705,081.1 E
B - Y =	562,259.4 N ,	X =	705,098.5 E
C - Y =	559,619.1 N ,	X =	705,115.9 E
D - Y =	556,979.8 N ,	X =	705,133.2 E
E - Y =	554,339.3 N ,	X =	705,150.5 E
F - Y =	554,347.3 N ,	X =	706,473.0 E
G - Y =	556,987.1 N ,	X =	706,455.8 E
H - Y =	559,626.3 N ,	X =	706,438.4 E
I - Y =	562,266.2 N ,	X =	706,421.1 E
J - Y =	564,905.7 N ,	X =	706,403.7 E

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

W Ben Metz 11-24-2021
Signature Date

W Ben Metz
Printed Name

bmetz@ascentenergy.us
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

11-24-2021
Date of Survey

Signatue and Seal of Professional Surveyor:

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

MARK DILLON HARP 23786
Certificate Number RR 2018010136

ASCENT ENERGY

Project: LEA COUNTY, NEW MEXICO (NAD 83) (GRID)
Site: SEC. 33 T20S R33E N.M.P.M. (GRID)
Well: GAVILON FED COM 708H
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 245ft FSL & 1718ft FEL of Sec 33
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	START NUDGE (2°/100ft BUR)
2600.00	12.00	186.18	2595.62	-62.24	-6.74	-62.19	62.60	EOB TO 12° INC
3567.74	12.00	186.18	3542.22	-262.27	-28.41	-262.08	263.81	END OF TANGENT
4167.74	0.00	0.00	4137.84	-324.51	-35.15	-324.27	326.41	EOD TO VERTICAL
10974.95	0.00	0.00	10945.05	-324.51	-35.15	-324.27	326.41	KOP (10°/100ft BUR)
11443.90	46.89	7.20	11363.37	-144.51	-12.41	-144.42	508.01	FTP: 100ft FSL & 1731.25ft FEL of Sec 33
11878.45	90.35	7.20	11518.00	247.40	37.10	247.15	902.87	HZ LP: 491.91ft FSL & 1694.15ft FEL of Sec 33
11978.45	90.35	7.20	11517.39	346.61	49.63	346.27	1002.86	END OF TANGENT
12231.13	90.35	359.62	11515.83	598.65	64.65	598.21	1255.54	EOT TO 359.62° AZ
21847.74	90.35	359.62	11456.31	10214.87	0.79	10214.64	10871.97	LTP: 100ft FNL & 1650ft FEL of Sec 28
21897.74	90.35	359.62	11456.00	10264.86	0.45	10264.64	10921.96	BHL: 50ft FNL & 1650ft FEL of Sec 28

PROPOSED LOCAL COORDINATES:

SHL: 245ft FSL & 1718ft FEL of Sec 33

FTP: 100ft FSL & 1731.25ft FEL of Sec 33

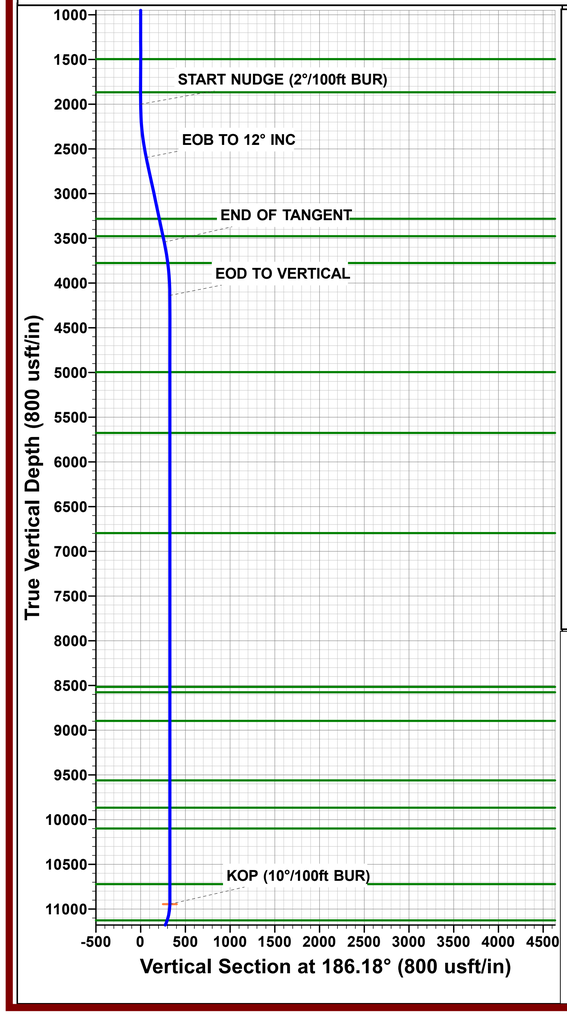
HZ LP: 491.91ft FSL & 1694.15ft FEL of Sec 33

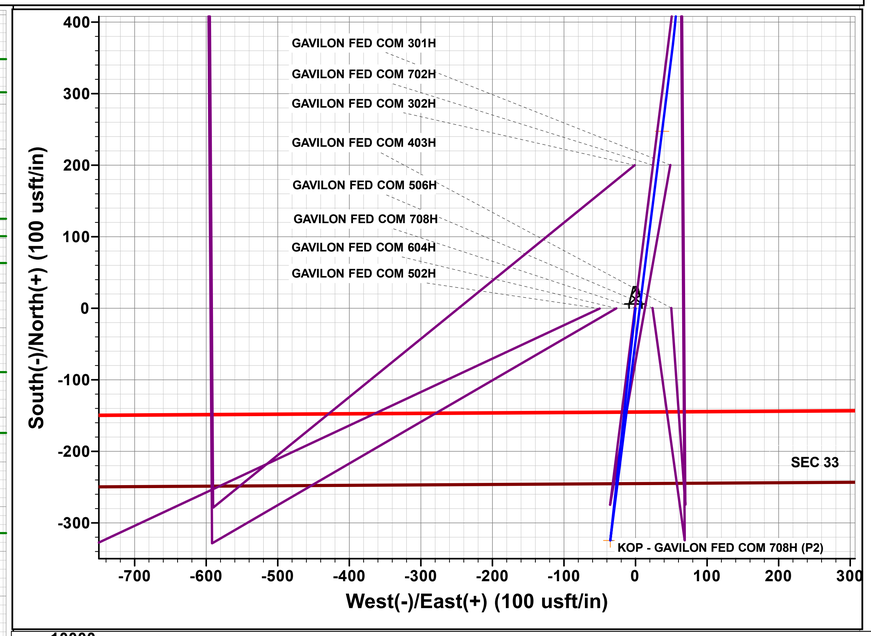
LTP: 100ft FNL & 1650ft FEL of Sec 28

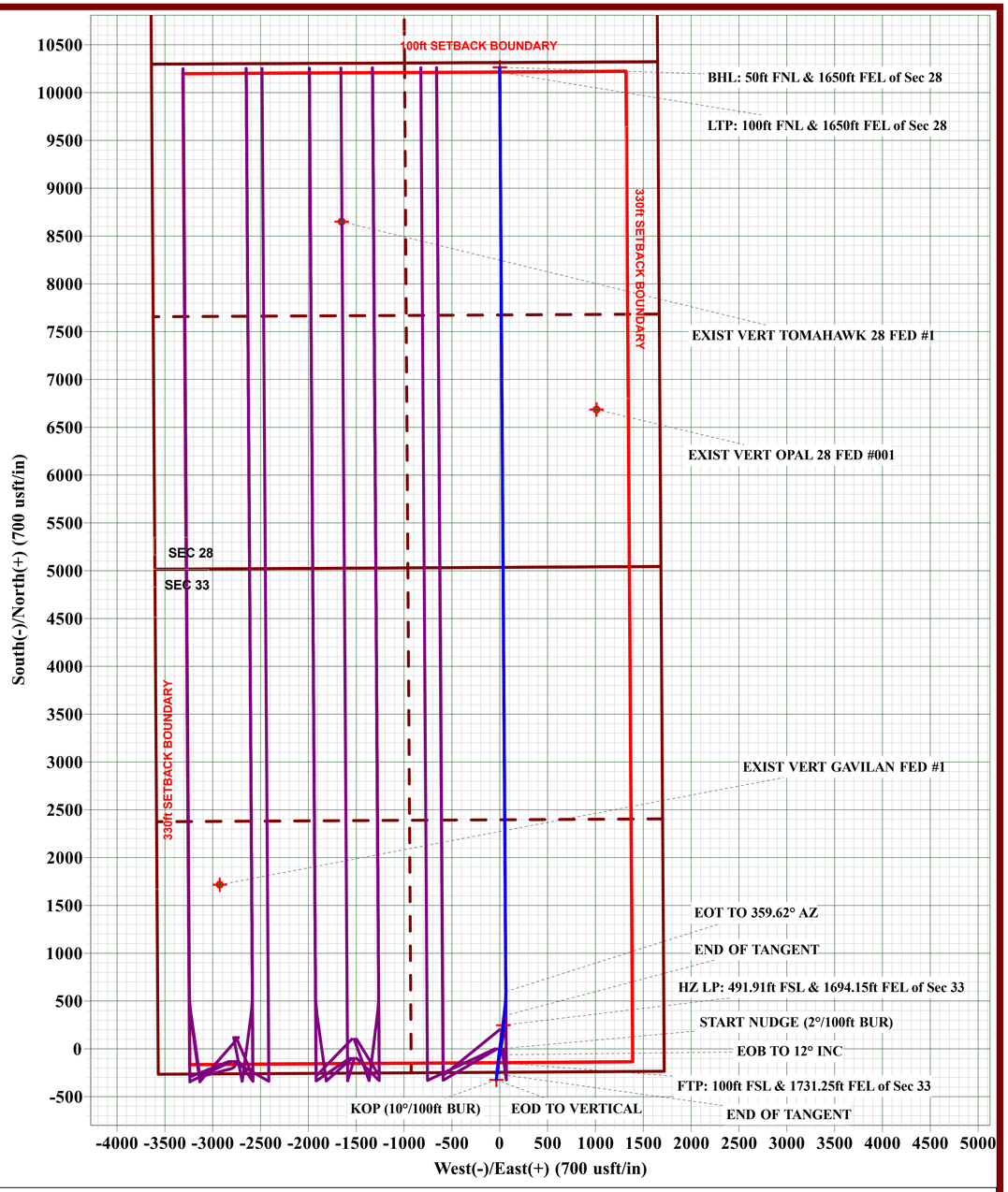
BHL: 50ft FNL & 1650ft FEL of Sec 28

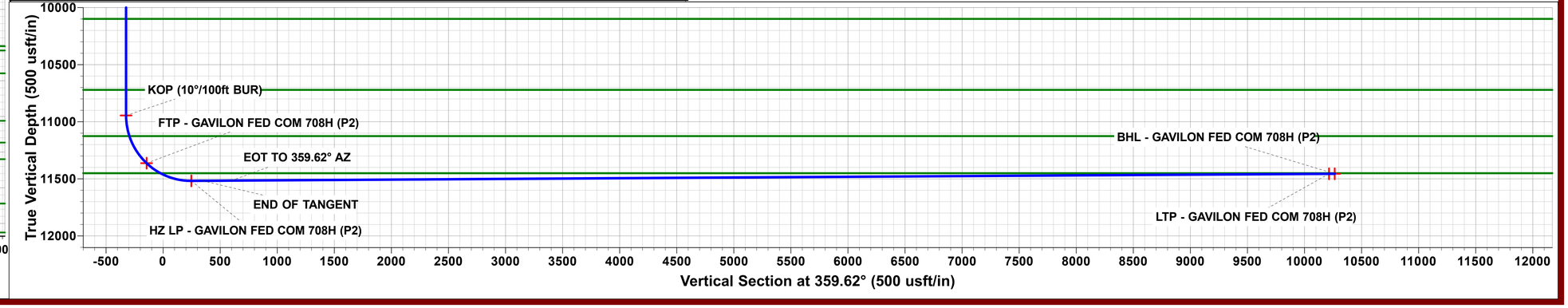
WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - GAVILON FED COM 708H (P2)	10945.05	-324.51	-35.15	32.522129	-103.665359
FTP - GAVILON FED COM 708H (P2)	11363.36	-144.51	-12.41	32.522623	-103.665282
BHL - GAVILON FED COM 708H (P2)	11456.00	10264.87	0.45	32.551233	-103.665028
LTP - GAVILON FED COM 708H (P2)	11456.31	10214.87	0.78	32.551096	-103.665028
HZ LP - GAVILON FED COM 708H (P2)	11518.00	247.40	37.10	32.523700	-103.665113









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

Sundry Print Report

01/17/2022

Well Name: GAVILON FED COM

Well Location: T20S / R33E / SEC 33 / SWSE / 32.52302 / -103.665238

County or Parish/State: LEA / NM

Well Number: 708H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM057683, NMNM57683

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002547863

Well Status: Approved Application for Permit to Drill

Operator: ASCENT ENERGY LLC

Notice of Intent

Sundry ID: 2648157

Type of Submission: Notice of Intent

Type of Action: Other

Date Sundry Submitted: 12/09/2021

Time Sundry Submitted: 03:16

Date proposed operation will begin: 12/13/2021

Procedure Description: Ascent Energy requests to change the well name of the Gavilon Fed Com 701H to Gavilon Fed Com 708H. We also request to revise the bottom hole location from a currently approved APD BHL of 50' FNL & 2310' FEL of Section 28 in Township 20S, Range 33E to a new bottom hole location 50' FNL & 1650' FEL of Section 28 in Township 20S, Range 33E. This location will still be targeting the Wolfcamp formation. Attached are the new C102, well plat and proposed directional survey. Ascent Energy also respectfully requests approval on the Gavilon Fed Com 701H (Pending sundry approval to change well name to Gavilon Fed Com 708H) for an option to: • Addition of an External Casing Packer on the 13-3/8"and 9-5/8" Casing • Addition of an Optional 7-5/8" Intermediate #3 casing string set 100' above KOP (10,875'). This hole section will be drilled with a 8-3/4" open hole. o Optional decrease of the open hole size of the production curve/lateral section to 6-3/4" if 7-5/8" Int #3 string is ran. • Increase the casing size of our vertical casing strings. • Circulating Medium change to Oil-Based Mud in the Production Hole Section. • Revise proposed BOP beneath the base of the 20" surface shoe to setting the 1st Intermediate casing string only (13 3/8"). The reason for the request is based on improved drilling efficiencies and improved cementing in-place for each casing string. We believe the larger casing diameters in the vertical section will increase the likelihood of getting cement to surface for each string. There will be no change in Geology formations, and casing depths as noted in the COA of the approved APD. Please see attached documents for more detailed information of our sundry request.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Gavilon_701H_Sundry_9Dec_2021__rev1_20211214123606.pdf

Well Name: GAVILON FED COM

Well Location: T20S / R33E / SEC 33 / SWSE / 32.52302 / -103.665238

County or Parish/State: LEA / NM

Well Number: 708H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM057683, NMNM57683

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002547863

Well Status: Approved Application for Permit to Drill

Operator: ASCENT ENERGY LLC

DWG2___24X36_20211209151414.pdf

PROPOSAL__20211209151415

2018010136_ASCENT_GAVILON_708H_LEA_C102_FINAL_11_24_2021_signed_20211209151349.pdf

2018010136_ASCENT_GAVILON_708H_PACKET_SET_11_24_2021_20211209151350.pdf

Conditions of Approval

Additional Reviews

Gavilon_Fed_Com_708H_Sundry_ID_2648157_20220107103240.pdf

33_20_33_O_Sundry_ID_2648157_Gavilon_Fed_Com_701H_Lea_NM057683_Ascent_Energy_LLC_13_22d_12_15_2021_LV_20220107103240.pdf

Gavilon_Fed_Com_708H_Sundry_ID_2648157_20220107103240.docx

33_20_33_O_Sundry_ID_2648157_Gavilon_Fed_Com_701H_Lea_NM057683_Ascent_Energy_LLC_13_22d_12_15_2021_LV___Alternate_20220107103240.pdf

Casing_Specs_5.5in_20lb_Hunting_TLW_SC_20220107103240.pdf

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: BEN METZ

Signed on: DEC 14, 2021 12:36 PM

Name: ASCENT ENERGY LLC

Title: Vice President Exploration

Street Address: PO BOX 270983

City: LITTLETON **State:** CO

Phone: (303) 513-8590

Email address: BMETZ@ASCENTENERGY.US

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

Well Name: GAVILON FED COM

Well Location: T20S / R33E / SEC 33 / SWSE / 32.52302 / -103.665238

County or Parish/State: LEA / NM

Well Number: 708H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM057683, NMNM57683

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002547863

Well Status: Approved Application for Permit to Drill

Operator: ASCENT ENERGY LLC

BLM Point of Contact

BLM POC Name: Cody Layton

BLM POC Title: Assistant Field Manager Lands & Minerals

BLM POC Phone: 5752345959

BLM POC Email Address: clayton@blm.gov

Disposition: Approved

Disposition Date: 01/13/2022

Signature: Cody R. Layton

Ascent Energy respectfully requests approval on the Gavilon Fed Com 701H for an option to:

- Addition of an External Casing Packer on the 13-3/8"and 9-5/8" Casing
- Addition of an Optional 7-5/8" Intermediate #3 casing string set 100' above KOP (10,875'). This hole section will be drilled with a 8-3/4" open hole.
    - Optional decrease of the open hole size of the production curve/lateral section to 6-3/4" if 7-5/8" Int #3 string is ran.
- Increase the casing size of our vertical casing strings.
- Circulating Medium change to Oil-Based Mud in the Production Hole Section.
- Revise proposed BOP beneath the base of the 20" surface shoe to setting the 1st Intermediate casing string only (13 3/8").

The reason for the request is based on improved drilling efficiencies and improved cementing in-place for each casing string. We believe the larger casing diameters in the vertical section will increase the likelihood of getting cement to surface for each string.

There will be no change in Geology formations, and casing depths as noted in the COA of the approved APD.

External Casing Packer:

The pending hole conditions the addition of an External Casing Packer to the Intermediate #1 13-3/8" and Intermediate #2 9-5/8" casing string is requested. A DV Tool is also requested the Intermediate #1 13-3/8" & Intermediate #2 9-5/8" casing string.

Proposed/Optional proposed design:

Proposed Casing:

DESCRIPTION	Hole Size (in)	CSG Size (in)	INTERVAL (ft)			WEIGHT (ppf)	GRADE	COUPLING	FORMATION PRESS @ CSG DEPTH (PPG)	MW @ CSG DEPTH (PPG)	SAFETY FACTORS		
			TOP MD	BTM TVD	BTM MD						BURST (psi)	COLLAPSE (psi)	TENSION (1000 lbs)
CONDUCTOR	36	30	0	120	120	---	---	WELD	---	---	---	---	---
											---	---	---
SURFACE	26	20	0	1,575	1,575	94	J-55	BTC	8.3	9.0	2,110	520	1480
											3.0	2.7	10.0
INT. #1	17.5	13.375	0	3,273	3,292	54.5	J-55	BTC	8.3	10.0	2,730	1,130	853
											1.7	1.7	4.8
INT. #2	12.25	9.625	0	5,015	5,045	40	L-80	BTC	8.3	9.2	5,750	3,090	630
											1.5	4.2	3.1
PRODUCTION	8.75	5.5	0	11,518	21,898	20	P-110	BTC	8.7	9.6	12,630	11,100	641
											3.2	2.5	1.5

Optional Casing Design:

DESCRIPTION	Hole Size (in)	CSG Size (in)	INTERVAL (ft) TOP MD	INTERVAL (ft) BTM TVD	INTERVAL (ft) BTM MD	WEIGHT (ppf)	GRADE	COUPLING	FORMATION PRESS @ CSG DEPTH (PPG)	MW @ CSG DEPTH (PPG)	SAFETY FACTORS BURST (psi)	SAFETY FACTORS COLLAPSE (psi)	SAFETY FACTORS TENSION (1000 lbs)
CONDUCTOR	36	30	0	120	120	---	---	WELD	---	---	---	---	---
											---	---	---
SURFACE	26	20	0	1,575	1,575	94	J-55	BTC	8.3	9.0	2,110	520	1480
											3.0	2.7	10.0
INT. #1	17.5	13.375	0	3,273	3,292	54.5	J-55	BTC	8.3	10.0	2,730	1,130	853
											1.7	1.7	4.8
INT. #2	12.25	9.625	0	5,015	5,045	40	L-80	BTC	8.3	9.2	5,750	3,090	630
											1.5	4.2	3.1
INT. #3	8.75	7.625	0	4,985	4,925	29.7	P-110	BTC	8.3	9.2	9470.0	5340	940
											1.125	1.125	1.8
	8.75	7.625	4,925	10,845	10,875	29.7	P-110	HTF-NR	8.6	9.2	9470.0	5340	940
											1.125	1.125	1.8
PRODUCTION	6.75	5.5	0	11,518	21,898	20	P-110	BTC	8.7	9.6	12,630	11,100	641
											3.2	2.5	1.5

Cement:

DESCRIPTION	HOLE (IN)	CSG (IN)	TOP	BTM	LENGTH (FT)	SLURRY DESCRIPTION	FT^3 / SACKS	EXCESS	WEIGHT (ppg)	YIELD (FT^3/SK)
CONDUCTOR	36	30	0	120	120	Class G	518 / 443	100%	15.8	1.17
SURFACE - LEAD	26	20	0	1,075	1,075	Class C	3127 / 1818	100%	13.5	1.72
SURFACE - TAIL	26	20	1,075	1,575	500	Class C	1506 / 1132	100%	14.8	1.33
INT #1 - LEAD	17.5	13.375	0	2,792	2,792	Class C	3085 / 1330	75%	12.7	2.32
INT #1 - TAIL	17.5	13.375	2,792	3,292	500	Class C	608 / 457	75%	14.8	1.33
INT #1 - DV TAIL	17.5	13.375	0	1,625	1,625	Class C	1610 / 1211	75%	14.8	1.33
INT #2 - LEAD	12.25	9.625	0	4,545	4,545	50/50Poz Class C	1979 / 900	100%	11.5	2.2
INT # 2 - TAIL	12.25	9.625	4,545	5,045	500	Class C	313 / 236	100%	14.8	1.33
INT #2 - DV LEAD	12.25	9.625	0	2,842	2,842	50/50Poz Class C	983 / 447	50%	11.5	2.2
INT # 2 - DV TAIL	12.25	9.625	2,842	3,342	500	Class C	235 / 177	50%	14.8	1.33
PRODUCTION - LEAD	8.75	5.5	0	9,000	9,000	Nine Lite	2515 / 1014	20%	11.0	2.48
PRODUCTION - TAIL	8.75	5.5	9,000	21,898	12,898	35/65 Poz Class H	3911 / 2660	20%	13.2	1.47

Note 1: Int 1 is two stage cement job. DVT and External Casing packer to be placed @ approximately 1625’ MD, 50ft from previous casing shoe and will be adjusted real time

Note 2: Int 2 is two stage cement job. DVT and External Casing packer to be placed @ approximately 3342’ MD, 50ft from previous casing shoe and will be adjusted real time

Cement Design if Optional Casing design is ran:

DESCRIPTION	HOLE (IN)	CSG (IN)	TOP	BTM	LENGTH (FT)	SLURRY DESCRIPTION	FT^3 / SACKS	EXCESS	WEIGHT (ppg)	YIELD (FT^3/SK)
CONDUCTOR	36	30	0	120	120	Class G	518 / 443	100%	15.8	1.17
SURFACE - LEAD	26	20	0	1,075	1,075	Class C	3127 / 1818	100%	13.5	1.72
SURFACE - TAIL	26	20	1,075	1,575	500	Class C	1506 / 1132	100%	14.8	1.33
INT #1 - LEAD	17.5	13.375	0	2,792	2,792	Class C	3085 / 1330	75%	12.7	2.32
INT #1 - TAIL	17.5	13.375	2,792	3,292	500	Class C	608 / 457	75%	14.8	1.33
INT #1 - DV TAIL	17.5	13.375	0	1,625	1,625	Class C	1610 / 1211	75%	14.8	1.33
INT #2 - LEAD	12.25	9.625	0	4,545	4,545	50/50Poz Class C	1979 / 900	100%	11.5	2.2
INT # 2 - TAIL	12.25	9.625	4,545	5,045	500	Class C	313 / 236	100%	14.8	1.33
INT #2 - DV LEAD	12.25	9.625	0	2,842	2,842	50/50Poz Class C	983 / 447	50%	11.5	2.2
INT # 2 - DV TAIL	12.25	9.625	2,842	3,342	500	Class C	235 / 177	50%	14.8	1.33
INT #3 - LEAD	8.75	7.625	0	8,375	8,375	50/50Poz Class C	1218 / 553	100%	11.5	2.2
INT # 3 - TAIL	8.75	7.625	8,375	10,875	2,500	Class C	503 / 378	100%	14.8	1.33
PRODUCTION - LEAD	6.75	5.5	0	9,900	9,900	Nine Lite	1103 / 445	20%	11.0	2.48
PRODUCTION - TAIL	6.75	5.5	9,900	21,898	11,998	35/65 Poz Class H	1196 / 813	20%	13.2	1.47

Note 1: Int 1 is two stage cement job. DVT and External Casing packer to be placed @ approximately 1625' MD, 50ft from previous casing shoe and will be adjusted real time

Note 2: Int 2 is two stage cement job. DVT and External Casing packer to be placed @ approximately 3342' MD, 50ft from previous casing shoe and will be adjusted real time

Circulating Medium / Mud Program:

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)
0	1,575	OTHER: Fresh Water	8.4	9.6
1,575	3,292	OTHER: Brine Water	10	10
3,292	5,045	OTHER: Fresh Water	8.4	9.6
5,045	10,875	Cut Brine	8.5	9.5
10,875	21,898	OBM	8.5	9.5

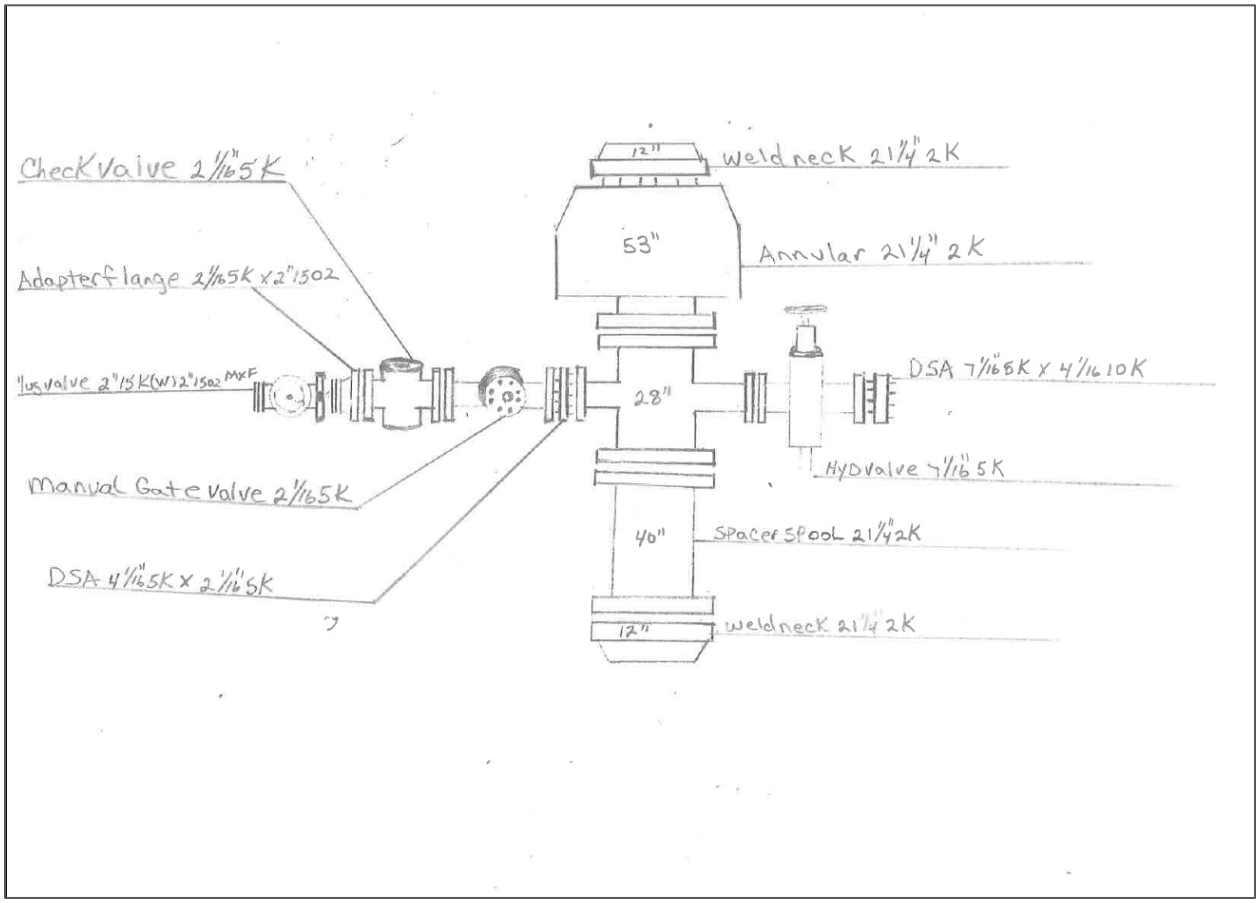
New Proposed BOP:

From the Base of the 20" Surface pipe, the well will be equipped with a 2M Annular system. Before drilling out the 20" surface pipe, the 2M system will be tested to 250psi low and 1000psi high by an 3rd party service company. The 2M BOPE and related equipment will meet or exceed the requirements of a 2M psi system as set forth in On Shore Order No. 2 while drilling below the 20" surface shoe and to TD of Intermediate #1 (13-3/8" Casing). Once the Intermediate #1 13-3/8" Casing is cemented the 20" 2M BOPE and 21-1/4" wellhead will be removed and a 13-5/8" Multi-bowl wellhead and previously permitted 13-5/8" 5M BOPE will be installed. From the base of the Intermediate #1 13-3/8" casing string through running of the 5-1/2" production string the 5M BOPE will be equipped.

The previously permitted 5M choke will be utilized in conjunction with the 2M Annular System.

ASCENT ENERGY

2M ANNULAR BOPE & DIAGRAM



ASCENT ENERGY

LEA COUNTY, NEW MEXICO (NAD 83) (GRID)
SEC. 33 T20S R33E N.M.P.M. (GRID)
GAVILON FED COM 708H

ORIGINAL WELLBORE
09 December, 2021

Plan: PROPOSAL #2

ASCENT ENERGY

Project: LEA COUNTY, NEW MEXICO (NAD 83) (GRID)
Site: SEC. 33 T20S R33E N.M.P.M. (GRID)
Well: GAVILON FED COM 708H
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #2

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 245ft FSL & 1718ft FEL of Sec 33
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	START NUDGE (2°/100ft BUR)
2600.00	12.00	186.18	2595.62	-62.24	-6.74	-62.19	62.60	EOB TO 12° INC
3567.74	12.00	186.18	3542.22	-262.27	-28.41	-262.08	263.81	END OF TANGENT
4167.74	0.00	0.00	4137.84	-324.51	-35.15	-324.27	326.41	EOD TO VERTICAL
10974.95	0.00	0.00	10945.05	-324.51	-35.15	-324.27	326.41	KOP (10°/100ft BUR)
11443.90	46.89	7.20	11363.37	-144.51	-12.41	-144.42	508.01	FTP: 100ft FSL & 1731.25ft FEL of Sec 33
11878.45	90.35	7.20	11518.00	247.40	37.10	247.15	902.87	HZ LP: 491.91ft FSL & 1694.15ft FEL of Sec 33
11978.45	90.35	7.20	11517.39	346.61	49.63	346.27	1002.86	END OF TANGENT
12231.13	90.35	359.62	11515.83	598.65	64.65	598.21	1255.54	EOT TO 359.62° AZ
21847.74	90.35	359.62	11456.31	10214.87	0.79	10214.64	10871.97	LTP: 100ft FNL & 1650ft FEL of Sec 28
21897.74	90.35	359.62	11456.00	10264.86	0.45	10264.64	10921.96	BHL: 50ft FNL & 1650ft FEL of Sec 28

PROPOSED LOCAL COORDINATES:

SHL: 245ft FSL & 1718ft FEL of Sec 33

FTP: 100ft FSL & 1731.25ft FEL of Sec 33

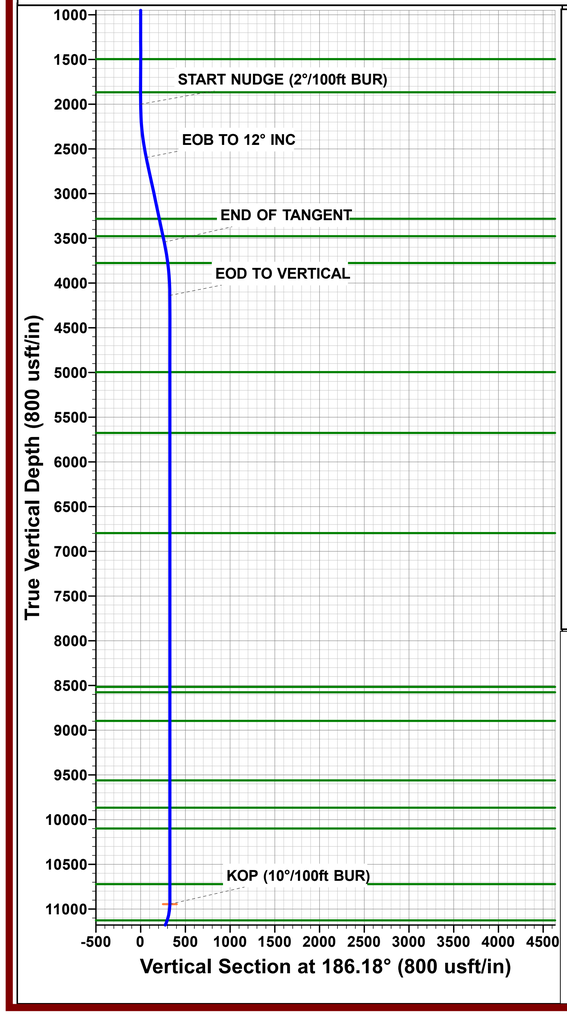
HZ LP: 491.91ft FSL & 1694.15ft FEL of Sec 33

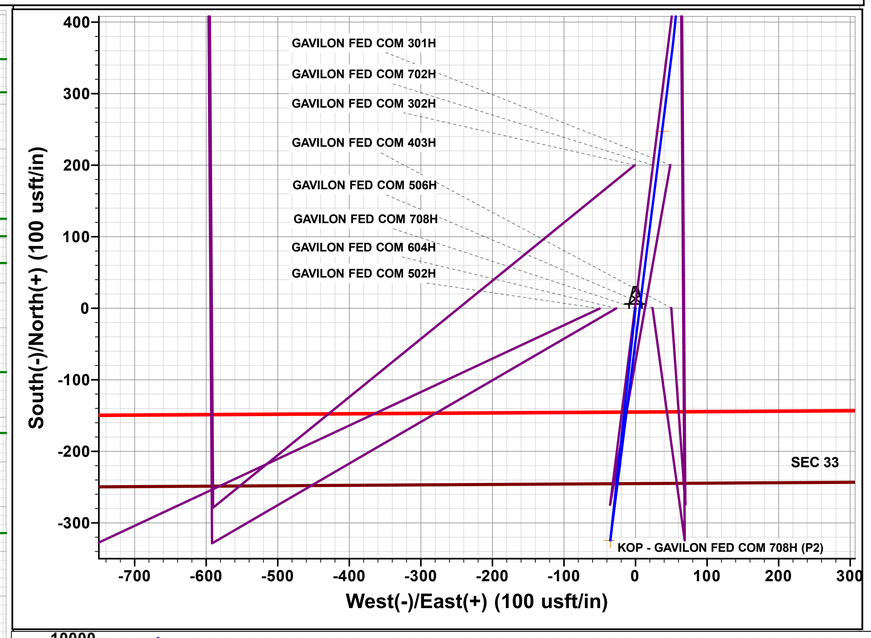
LTP: 100ft FNL & 1650ft FEL of Sec 28

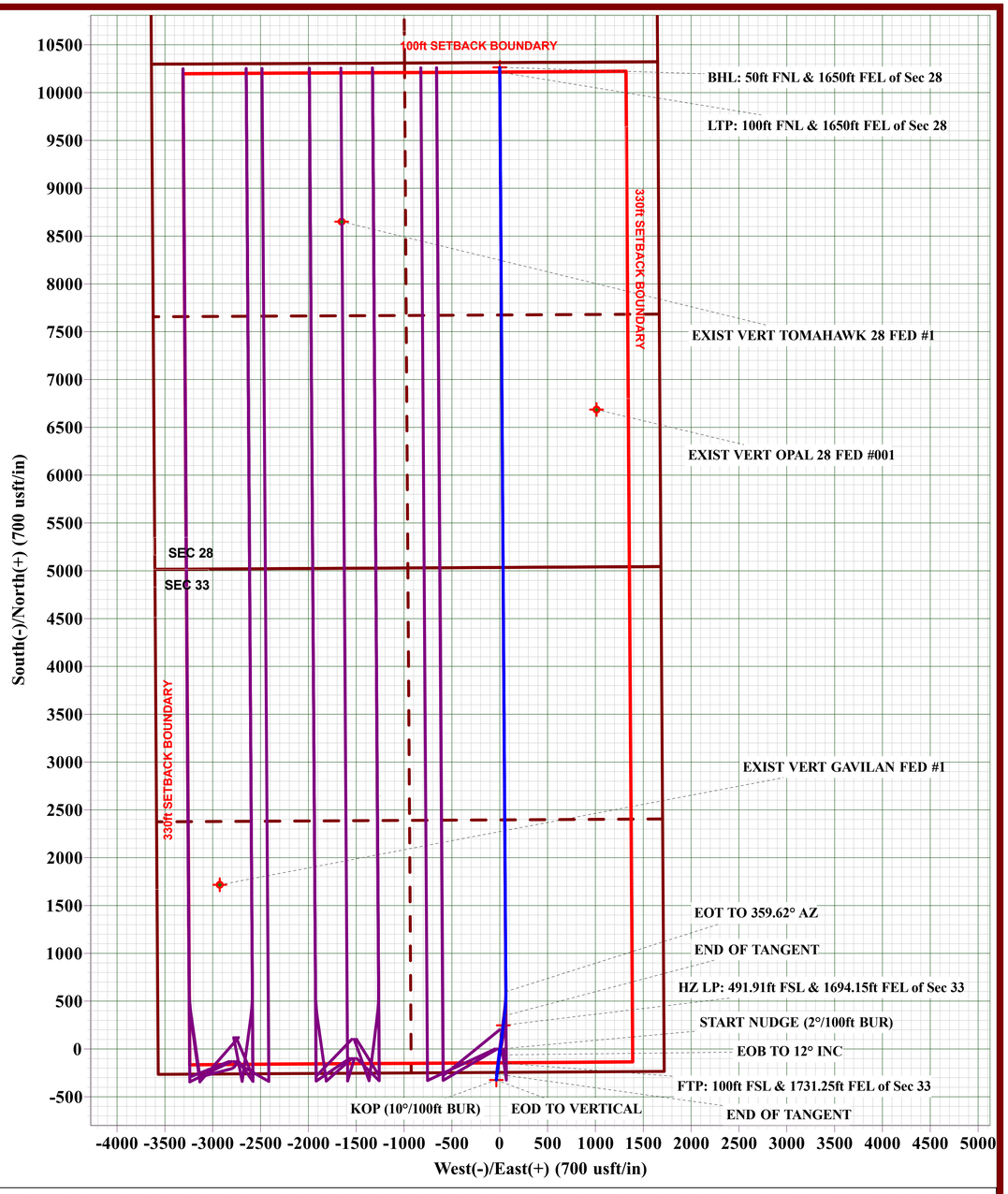
BHL: 50ft FNL & 1650ft FEL of Sec 28

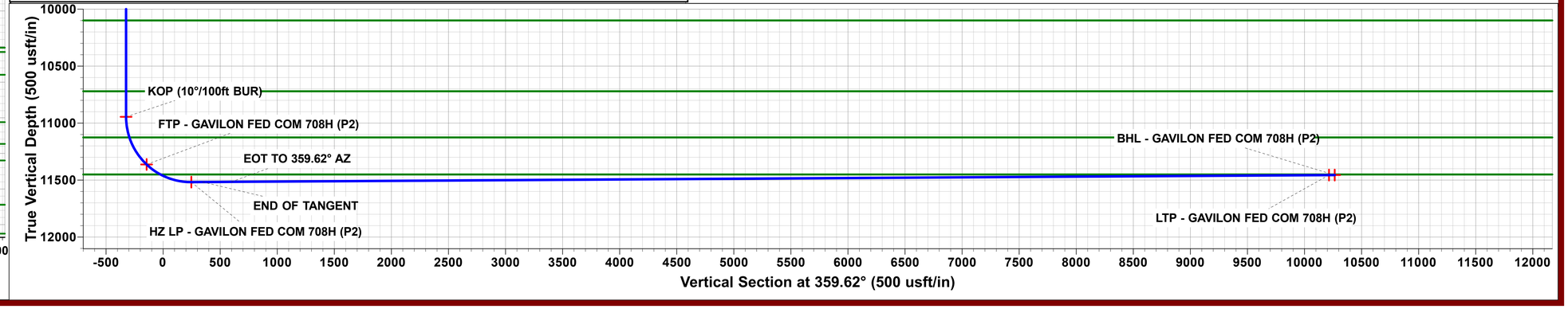
WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - GAVILON FED COM 708H (P2)	10945.05	-324.51	-35.15	32.522129	-103.665359
FTP - GAVILON FED COM 708H (P2)	11363.36	-144.51	-12.41	32.522623	-103.665282
BHL - GAVILON FED COM 708H (P2)	11456.00	10264.87	0.45	32.551233	-103.665028
LTP - GAVILON FED COM 708H (P2)	11456.31	10214.87	0.78	32.551096	-103.665028
HZ LP - GAVILON FED COM 708H (P2)	11518.00	247.40	37.10	32.523700	-103.665113









Planning Report

Database:	Database 1	**Local Co-ordinate Reference:**	Well GAVILON FED COM 708H
Company:	ASCENT ENERGY	**TVD Reference:**	KB EST 25' @ 3696.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	**MD Reference:**	KB EST 25' @ 3696.00usft
Site:	SEC. 33 T20S R33E N.M.P.M. (GRID)	**North Reference:**	Grid
Well:	GAVILON FED COM 708H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

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

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site SEC. 33 T20S R33E N.M.P.M. (GRID)

Site Position:		**Northing:**	554,744.90 usft	**Latitude:**	32.523326
From:	Map	**Easting:**	744,451.60 usft	**Longitude:**	-103.674337
Position Uncertainty:	0.00 usft	**Slot Radius:**	1.10 ft	**Grid Convergence:**	0.35 °

Well GAVILON FED COM 708H

Well Position	**+N/-S**	-93.90 usft	**Northing:**	554,651.00 usft	**Latitude:**	32.523020
	+E/-W	2,805.22 usft	**Easting:**	747,256.70 usft	**Longitude:**	-103.665238
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,671.00 usft

Wellbore ORIGINAL WELLBORE

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2020-03-19	6.76	60.20	47,788.83023188

Design PROPOSAL #2

Audit Notes:

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

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.62

Plan Sections

MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usf	Build Rate (°/100usf	Turn Rate (°/100usf	TFO (°)	Target
0.00	0.00	0.00	0.00	-3,696.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	-1,696.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.00	12.00	186.18	2,595.62	-1,100.38	-62.24	-6.74	2.00	2.00	0.00	186.18	
3,567.74	12.00	186.18	3,542.22	-153.78	-262.27	-28.41	0.00	0.00	0.00	0.00	
4,167.74	0.00	0.00	4,137.84	441.84	-324.51	-35.15	2.00	-2.00	0.00	180.00	
10,974.95	0.00	0.00	10,945.05	7,249.05	-324.51	-35.15	0.00	0.00	0.00	0.00	KOP - GAVILON FE
11,878.45	90.35	7.20	11,518.00	7,822.00	247.40	37.10	10.00	10.00	0.00	7.20	
11,978.45	90.35	7.20	11,517.39	7,821.39	346.61	49.63	0.00	0.00	0.00	0.00	
12,231.13	90.35	359.62	11,515.83	7,819.83	598.65	64.65	3.00	0.00	-3.00	-89.94	
21,897.74	90.35	359.62	11,456.00	7,760.00	10,264.87	0.45	0.00	0.00	0.00	0.00	BHL - GAVILON FE

Planning Report

Database:	Database 1	**Local Co-ordinate Reference:**	Well GAVILON FED COM 708H
Company:	ASCENT ENERGY	**TVD Reference:**	KB EST 25' @ 3696.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	**MD Reference:**	KB EST 25' @ 3696.00usft
Site:	SEC. 33 T20S R33E N.M.P.M. (GRID)	**North Reference:**	Grid
Well:	GAVILON FED COM 708H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
SHL: 245ft FSL & 1718ft FEL of Sec 33										
0.00	***0.00***	***0.00***	***0.00***	***3,696.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
100.00	0.00	0.00	100.00	3,596.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	3,496.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	3,396.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	3,296.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	3,196.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	3,096.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	2,996.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	2,896.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	2,796.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	2,696.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	2,596.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	2,496.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	2,396.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	2,296.00	0.00	0.00	0.00	0.00	0.00	0.00
RSTLR										
1,496.00	***0.00***	***0.00***	***1,496.00***	***2,200.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
1,500.00	0.00	0.00	1,500.00	2,196.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	2,096.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	1,996.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	1,896.00	0.00	0.00	0.00	0.00	0.00	0.00
SALDO										
1,866.00	***0.00***	***0.00***	***1,866.00***	***1,830.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
1,900.00	0.00	0.00	1,900.00	1,796.00	0.00	0.00	0.00	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
2,000.00	***0.00***	***0.00***	***2,000.00***	***1,696.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***
2,100.00	2.00	186.18	2,099.98	1,596.02	-1.74	-0.19	-1.73	2.00	2.00	0.00
2,200.00	4.00	186.18	2,199.84	1,496.16	-6.94	-0.75	-6.93	2.00	2.00	0.00
2,300.00	6.00	186.18	2,299.45	1,396.55	-15.60	-1.69	-15.59	2.00	2.00	0.00
2,400.00	8.00	186.18	2,398.70	1,297.30	-27.72	-3.00	-27.70	2.00	2.00	0.00
2,500.00	10.00	186.18	2,497.47	1,198.53	-43.27	-4.69	-43.24	2.00	2.00	0.00
EOB TO 12° INC										
2,600.00	***12.00***	***186.18***	***2,595.62***	***1,100.38***	***-62.24***	***-6.74***	***-62.19***	***2.00***	***2.00***	***0.00***
2,700.00	12.00	186.18	2,693.44	1,002.56	-82.91	-8.98	-82.85	0.00	0.00	0.00
2,800.00	12.00	186.18	2,791.25	904.75	-103.58	-11.22	-103.50	0.00	0.00	0.00
2,900.00	12.00	186.18	2,889.07	806.93	-124.25	-13.46	-124.16	0.00	0.00	0.00
3,000.00	12.00	186.18	2,986.88	709.12	-144.92	-15.70	-144.81	0.00	0.00	0.00
3,100.00	12.00	186.18	3,084.70	611.30	-165.59	-17.94	-165.47	0.00	0.00	0.00
3,200.00	12.00	186.18	3,182.51	513.49	-186.26	-20.17	-186.12	0.00	0.00	0.00
3,300.00	12.00	186.18	3,280.33	415.67	-206.93	-22.41	-206.78	0.00	0.00	0.00
TANSIL										
3,300.69	***12.00***	***186.18***	***3,281.00***	***415.00***	***-207.07***	***-22.43***	***-206.92***	***0.00***	***0.00***	***0.00***
3,400.00	12.00	186.18	3,378.14	317.86	-227.60	-24.65	-227.43	0.00	0.00	0.00
3,500.00	12.00	186.18	3,475.96	220.04	-248.27	-26.89	-248.09	0.00	0.00	0.00
YATES										
3,500.05	***12.00***	***186.18***	***3,476.00***	***220.00***	***-248.28***	***-26.89***	***-248.10***	***0.00***	***0.00***	***0.00***
END OF TANGENT										
3,567.74	***12.00***	***186.18***	***3,542.22***	***153.78***	***-262.27***	***-28.41***	***-262.08***	***0.00***	***0.00***	***0.00***
3,600.00	11.35	186.18	3,573.81	122.19	-268.76	-29.11	-268.57	2.00	-2.00	0.00
3,700.00	9.35	186.18	3,672.17	23.83	-286.63	-31.05	-286.42	2.00	-2.00	0.00
3,800.00	7.35	186.18	3,771.11	-75.11	-301.08	-32.61	-300.86	2.00	-2.00	0.00

Planning Report

Database:	Database 1	**Local Co-ordinate Reference:**	Well GAVILON FED COM 708H
Company:	ASCENT ENERGY	**TVD Reference:**	KB EST 25' @ 3696.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	**MD Reference:**	KB EST 25' @ 3696.00usft
Site:	SEC. 33 T20S R33E N.M.P.M. (GRID)	**North Reference:**	Grid
Well:	GAVILON FED COM 708H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
CAPITAN_REEF_TOP										
3,804.93	***7.26***	***186.18***	***3,776.00***	***-80.00***	***-301.70***	***-32.68***	***-301.48***	***2.00***	***-2.00***	***0.00***
3,900.00	5.35	186.18	3,870.49	-174.49	-312.08	-33.80	-311.85	2.00	-2.00	0.00
4,000.00	3.35	186.18	3,970.19	-274.19	-319.63	-34.62	-319.39	2.00	-2.00	0.00
4,100.00	1.35	186.18	4,070.11	-374.11	-323.72	-35.06	-323.48	2.00	-2.00	0.00
EOD TO VERTICAL										
4,167.74	***0.00***	***0.00***	***4,137.84***	***-441.84***	***-324.51***	***-35.15***	***-324.27***	***2.00***	***-2.00***	***256.60***
4,200.00	0.00	0.00	4,170.10	-474.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
4,300.00	0.00	0.00	4,270.10	-574.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
4,400.00	0.00	0.00	4,370.10	-674.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
4,500.00	0.00	0.00	4,470.10	-774.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
4,600.00	0.00	0.00	4,570.10	-874.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
4,700.00	0.00	0.00	4,670.10	-974.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
4,800.00	0.00	0.00	4,770.10	-1,074.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
4,900.00	0.00	0.00	4,870.10	-1,174.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
5,000.00	0.00	0.00	4,970.10	-1,274.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
TOP_DELAWARE_SAND										
5,025.90	***0.00***	***0.00***	***4,996.00***	***-1,300.00***	***-324.51***	***-35.15***	***-324.27***	***0.00***	***0.00***	***0.00***
5,100.00	0.00	0.00	5,070.10	-1,374.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
5,200.00	0.00	0.00	5,170.10	-1,474.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
5,300.00	0.00	0.00	5,270.10	-1,574.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
5,400.00	0.00	0.00	5,370.10	-1,674.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
5,500.00	0.00	0.00	5,470.10	-1,774.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
5,600.00	0.00	0.00	5,570.10	-1,874.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
5,700.00	0.00	0.00	5,670.10	-1,974.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
CHERRY_CANYON										
5,705.90	***0.00***	***0.00***	***5,676.00***	***-1,980.00***	***-324.51***	***-35.15***	***-324.27***	***0.00***	***0.00***	***0.00***
5,800.00	0.00	0.00	5,770.10	-2,074.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
5,900.00	0.00	0.00	5,870.10	-2,174.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
6,000.00	0.00	0.00	5,970.10	-2,274.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
6,100.00	0.00	0.00	6,070.10	-2,374.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
6,200.00	0.00	0.00	6,170.10	-2,474.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
6,300.00	0.00	0.00	6,270.10	-2,574.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
6,400.00	0.00	0.00	6,370.10	-2,674.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
6,500.00	0.00	0.00	6,470.10	-2,774.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
6,600.00	0.00	0.00	6,570.10	-2,874.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
6,700.00	0.00	0.00	6,670.10	-2,974.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
6,800.00	0.00	0.00	6,770.10	-3,074.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
BRUSHY_CANYON										
6,825.90	***0.00***	***0.00***	***6,796.00***	***-3,100.00***	***-324.51***	***-35.15***	***-324.27***	***0.00***	***0.00***	***0.00***
6,900.00	0.00	0.00	6,870.10	-3,174.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
7,000.00	0.00	0.00	6,970.10	-3,274.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
7,100.00	0.00	0.00	7,070.10	-3,374.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
7,200.00	0.00	0.00	7,170.10	-3,474.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
7,300.00	0.00	0.00	7,270.10	-3,574.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
7,400.00	0.00	0.00	7,370.10	-3,674.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
7,500.00	0.00	0.00	7,470.10	-3,774.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
7,600.00	0.00	0.00	7,570.10	-3,874.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
7,700.00	0.00	0.00	7,670.10	-3,974.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
7,800.00	0.00	0.00	7,770.10	-4,074.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
7,900.00	0.00	0.00	7,870.10	-4,174.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
8,000.00	0.00	0.00	7,970.10	-4,274.10	-324.51	-35.15	-324.27	0.00	0.00	0.00

Planning Report

Database:	Database 1	**Local Co-ordinate Reference:**	Well GAVILON FED COM 708H
Company:	ASCENT ENERGY	**TVD Reference:**	KB EST 25' @ 3696.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	**MD Reference:**	KB EST 25' @ 3696.00usft
Site:	SEC. 33 T20S R33E N.M.P.M. (GRID)	**North Reference:**	Grid
Well:	GAVILON FED COM 708H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,100.00	0.00	0.00	8,070.10	-4,374.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
8,200.00	0.00	0.00	8,170.10	-4,474.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
8,300.00	0.00	0.00	8,270.10	-4,574.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
8,400.00	0.00	0.00	8,370.10	-4,674.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
8,500.00	0.00	0.00	8,470.10	-4,774.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
BSPG_LIME										
8,545.90	***0.00***	***0.00***	***8,516.00***	***-4,820.00***	***-324.51***	***-35.15***	***-324.27***	***0.00***	***0.00***	***0.00***
8,600.00	0.00	0.00	8,570.10	-4,874.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
AVLN										
8,605.90	***0.00***	***0.00***	***8,576.00***	***-4,880.00***	***-324.51***	***-35.15***	***-324.27***	***0.00***	***0.00***	***0.00***
8,700.00	0.00	0.00	8,670.10	-4,974.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
8,800.00	0.00	0.00	8,770.10	-5,074.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
8,900.00	0.00	0.00	8,870.10	-5,174.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
LEONARD_B										
8,925.90	***0.00***	***0.00***	***8,896.00***	***-5,200.00***	***-324.51***	***-35.15***	***-324.27***	***0.00***	***0.00***	***0.00***
9,000.00	0.00	0.00	8,970.10	-5,274.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
9,100.00	0.00	0.00	9,070.10	-5,374.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
9,200.00	0.00	0.00	9,170.10	-5,474.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
9,300.00	0.00	0.00	9,270.10	-5,574.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
9,400.00	0.00	0.00	9,370.10	-5,674.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
9,500.00	0.00	0.00	9,470.10	-5,774.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
1ST_BSPG_SND										
9,590.90	***0.00***	***0.00***	***9,561.00***	***-5,865.00***	***-324.51***	***-35.15***	***-324.27***	***0.00***	***0.00***	***0.00***
9,600.00	0.00	0.00	9,570.10	-5,874.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
9,700.00	0.00	0.00	9,670.10	-5,974.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
9,800.00	0.00	0.00	9,770.10	-6,074.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
2ND_BSPG										
9,895.90	***0.00***	***0.00***	***9,866.00***	***-6,170.00***	***-324.51***	***-35.15***	***-324.27***	***0.00***	***0.00***	***0.00***
9,900.00	0.00	0.00	9,870.10	-6,174.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
10,000.00	0.00	0.00	9,970.10	-6,274.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
10,100.00	0.00	0.00	10,070.10	-6,374.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
2ND_BSPG_SND										
10,128.90	***0.00***	***0.00***	***10,099.00***	***-6,403.00***	***-324.51***	***-35.15***	***-324.27***	***0.00***	***0.00***	***0.00***
10,200.00	0.00	0.00	10,170.10	-6,474.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
10,300.00	0.00	0.00	10,270.10	-6,574.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
10,400.00	0.00	0.00	10,370.10	-6,674.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
10,500.00	0.00	0.00	10,470.10	-6,774.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
10,600.00	0.00	0.00	10,570.10	-6,874.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
10,700.00	0.00	0.00	10,670.10	-6,974.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
3RD_BSPG										
10,750.90	***0.00***	***0.00***	***10,721.00***	***-7,025.00***	***-324.51***	***-35.15***	***-324.27***	***0.00***	***0.00***	***0.00***
10,800.00	0.00	0.00	10,770.10	-7,074.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
10,900.00	0.00	0.00	10,870.10	-7,174.10	-324.51	-35.15	-324.27	0.00	0.00	0.00
KOP (10°/100ft BUR)										
10,974.95	***0.00***	***0.00***	***10,945.05***	***-7,249.05***	***-324.51***	***-35.15***	***-324.27***	***0.00***	***0.00***	***0.00***
11,000.00	2.50	7.20	10,970.09	-7,274.09	-323.97	-35.08	-323.73	10.00	10.00	0.00
11,100.00	12.50	7.20	11,069.11	-7,373.11	-311.03	-33.45	-310.80	10.00	10.00	0.00
3RD BSPG S										
11,159.05	***18.41***	***7.20***	***11,126.00***	***-7,430.00***	***-295.42***	***-31.47***	***-295.20***	***10.00***	***10.00***	***0.00***
11,200.00	22.50	7.20	11,164.36	-7,468.36	-281.22	-29.68	-281.02	10.00	10.00	0.00
11,300.00	32.50	7.20	11,252.94	-7,556.94	-235.46	-23.90	-235.30	10.00	10.00	0.00
11,400.00	42.50	7.20	11,332.17	-7,636.17	-175.14	-16.28	-175.02	10.00	10.00	0.00

Planning Report

Database:	Database 1	**Local Co-ordinate Reference:**	Well GAVILON FED COM 708H
Company:	ASCENT ENERGY	**TVD Reference:**	KB EST 25' @ 3696.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	**MD Reference:**	KB EST 25' @ 3696.00usft
Site:	SEC. 33 T20S R33E N.M.P.M. (GRID)	**North Reference:**	Grid
Well:	GAVILON FED COM 708H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
FTP: 100ft FSL & 1731.25ft FEL of Sec 33										
11,443.90	***46.89***	***7.20***	***11,363.37***	***-7,667.37***	***-144.51***	***-12.41***	***-144.42***	***10.00***	***10.00***	***0.00***
11,500.00	52.50	7.20	11,399.64	-7,703.64	-102.08	-7.05	-102.03	10.00	10.00	0.00
WC A										
11,595.08	***62.01***	***7.20***	***11,451.00***	***-7,755.00***	***-22.83***	***2.96***	***-22.85***	***10.00***	***10.00***	***0.00***
11,600.00	62.50	7.20	11,453.29	-7,757.29	-18.51	3.51	-18.53	10.00	10.00	0.00
11,700.00	72.50	7.20	11,491.50	-7,795.50	73.04	15.07	72.94	10.00	10.00	0.00
11,800.00	82.50	7.20	11,513.11	-7,817.11	169.78	27.29	169.60	10.00	10.00	0.00
HZ LP: 491.91ft FSL & 1694.15ft FEL of Sec 33										
11,878.45	***90.35***	***7.20***	***11,518.00***	***-7,822.00***	***247.40***	***37.10***	***247.15***	***10.00***	***10.00***	***0.00***
11,900.00	90.35	7.20	11,517.87	-7,821.87	268.78	39.80	268.51	0.00	0.00	0.00
END OF TANGENT										
11,978.45	***90.35***	***7.20***	***11,517.39***	***-7,821.39***	***346.61***	***49.63***	***346.27***	***0.00***	***0.00***	***0.00***
12,000.00	90.35	6.55	11,517.25	-7,821.25	368.00	52.21	367.65	3.00	0.00	-3.00
12,100.00	90.35	3.55	11,516.64	-7,820.64	467.60	61.02	467.19	3.00	0.00	-3.00
12,200.00	90.35	0.55	11,516.02	-7,820.02	567.52	64.60	567.08	3.00	0.00	-3.00
EOT TO 359.62° AZ										
12,231.13	***90.35***	***359.62***	***11,515.83***	***-7,819.83***	***598.65***	***64.65***	***598.21***	***3.00***	***0.00***	***-3.00***
12,300.00	90.35	359.62	11,515.40	-7,819.40	667.52	64.19	667.08	0.00	0.00	0.00
12,400.00	90.35	359.62	11,514.79	-7,818.79	767.52	63.53	767.08	0.00	0.00	0.00
12,500.00	90.35	359.62	11,514.17	-7,818.17	867.51	62.86	867.08	0.00	0.00	0.00
12,600.00	90.35	359.62	11,513.55	-7,817.55	967.51	62.20	967.07	0.00	0.00	0.00
12,700.00	90.35	359.62	11,512.93	-7,816.93	1,067.50	61.54	1,067.07	0.00	0.00	0.00
12,800.00	90.35	359.62	11,512.31	-7,816.31	1,167.50	60.87	1,167.07	0.00	0.00	0.00
12,900.00	90.35	359.62	11,511.69	-7,815.69	1,267.50	60.21	1,267.07	0.00	0.00	0.00
13,000.00	90.35	359.62	11,511.07	-7,815.07	1,367.49	59.54	1,367.07	0.00	0.00	0.00
13,100.00	90.35	359.62	11,510.45	-7,814.45	1,467.49	58.88	1,467.06	0.00	0.00	0.00
13,200.00	90.35	359.62	11,509.83	-7,813.83	1,567.48	58.22	1,567.06	0.00	0.00	0.00
13,300.00	90.35	359.62	11,509.21	-7,813.21	1,667.48	57.55	1,667.06	0.00	0.00	0.00
13,400.00	90.35	359.62	11,508.60	-7,812.60	1,767.47	56.89	1,767.06	0.00	0.00	0.00
13,500.00	90.35	359.62	11,507.98	-7,811.98	1,867.47	56.22	1,867.06	0.00	0.00	0.00
13,600.00	90.35	359.62	11,507.36	-7,811.36	1,967.47	55.56	1,967.05	0.00	0.00	0.00
13,700.00	90.35	359.62	11,506.74	-7,810.74	2,067.46	54.90	2,067.05	0.00	0.00	0.00
13,800.00	90.35	359.62	11,506.12	-7,810.12	2,167.46	54.23	2,167.05	0.00	0.00	0.00
13,900.00	90.35	359.62	11,505.50	-7,809.50	2,267.45	53.57	2,267.05	0.00	0.00	0.00
14,000.00	90.35	359.62	11,504.88	-7,808.88	2,367.45	52.90	2,367.05	0.00	0.00	0.00
14,100.00	90.35	359.62	11,504.26	-7,808.26	2,467.45	52.24	2,467.05	0.00	0.00	0.00
14,200.00	90.35	359.62	11,503.64	-7,807.64	2,567.44	51.57	2,567.04	0.00	0.00	0.00
14,300.00	90.35	359.62	11,503.03	-7,807.03	2,667.44	50.91	2,667.04	0.00	0.00	0.00
14,400.00	90.35	359.62	11,502.41	-7,806.41	2,767.43	50.25	2,767.04	0.00	0.00	0.00
14,500.00	90.35	359.62	11,501.79	-7,805.79	2,867.43	49.58	2,867.04	0.00	0.00	0.00
14,600.00	90.35	359.62	11,501.17	-7,805.17	2,967.43	48.92	2,967.04	0.00	0.00	0.00
14,700.00	90.35	359.62	11,500.55	-7,804.55	3,067.42	48.25	3,067.03	0.00	0.00	0.00
14,800.00	90.35	359.62	11,499.93	-7,803.93	3,167.42	47.59	3,167.03	0.00	0.00	0.00
14,900.00	90.35	359.62	11,499.31	-7,803.31	3,267.41	46.93	3,267.03	0.00	0.00	0.00
15,000.00	90.35	359.62	11,498.69	-7,802.69	3,367.41	46.26	3,367.03	0.00	0.00	0.00
15,100.00	90.35	359.62	11,498.07	-7,802.07	3,467.40	45.60	3,467.03	0.00	0.00	0.00
15,200.00	90.35	359.62	11,497.45	-7,801.45	3,567.40	44.93	3,567.02	0.00	0.00	0.00
15,300.00	90.35	359.62	11,496.84	-7,800.84	3,667.40	44.27	3,667.02	0.00	0.00	0.00
15,400.00	90.35	359.62	11,496.22	-7,800.22	3,767.39	43.61	3,767.02	0.00	0.00	0.00
15,500.00	90.35	359.62	11,495.60	-7,799.60	3,867.39	42.94	3,867.02	0.00	0.00	0.00
15,600.00	90.35	359.62	11,494.98	-7,798.98	3,967.38	42.28	3,967.02	0.00	0.00	0.00

Planning Report

Database:	Database 1	**Local Co-ordinate Reference:**	Well GAVILON FED COM 708H
Company:	ASCENT ENERGY	**TVD Reference:**	KB EST 25' @ 3696.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	**MD Reference:**	KB EST 25' @ 3696.00usft
Site:	SEC. 33 T20S R33E N.M.P.M. (GRID)	**North Reference:**	Grid
Well:	GAVILON FED COM 708H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,700.00	90.35	359.62	11,494.36	-7,798.36	4,067.38	41.61	4,067.01	0.00	0.00	0.00
15,800.00	90.35	359.62	11,493.74	-7,797.74	4,167.38	40.95	4,167.01	0.00	0.00	0.00
15,900.00	90.35	359.62	11,493.12	-7,797.12	4,267.37	40.29	4,267.01	0.00	0.00	0.00
16,000.00	90.35	359.62	11,492.50	-7,796.50	4,367.37	39.62	4,367.01	0.00	0.00	0.00
16,100.00	90.35	359.62	11,491.88	-7,795.88	4,467.36	38.96	4,467.01	0.00	0.00	0.00
16,200.00	90.35	359.62	11,491.27	-7,795.27	4,567.36	38.29	4,567.01	0.00	0.00	0.00
16,300.00	90.35	359.62	11,490.65	-7,794.65	4,667.36	37.63	4,667.00	0.00	0.00	0.00
16,400.00	90.35	359.62	11,490.03	-7,794.03	4,767.35	36.96	4,767.00	0.00	0.00	0.00
16,500.00	90.35	359.62	11,489.41	-7,793.41	4,867.35	36.30	4,867.00	0.00	0.00	0.00
16,600.00	90.35	359.62	11,488.79	-7,792.79	4,967.34	35.64	4,967.00	0.00	0.00	0.00
16,700.00	90.35	359.62	11,488.17	-7,792.17	5,067.34	34.97	5,067.00	0.00	0.00	0.00
16,800.00	90.35	359.62	11,487.55	-7,791.55	5,167.33	34.31	5,166.99	0.00	0.00	0.00
16,900.00	90.35	359.62	11,486.93	-7,790.93	5,267.33	33.64	5,266.99	0.00	0.00	0.00
17,000.00	90.35	359.62	11,486.31	-7,790.31	5,367.33	32.98	5,366.99	0.00	0.00	0.00
17,100.00	90.35	359.62	11,485.70	-7,789.70	5,467.32	32.32	5,466.99	0.00	0.00	0.00
17,200.00	90.35	359.62	11,485.08	-7,789.08	5,567.32	31.65	5,566.99	0.00	0.00	0.00
17,300.00	90.35	359.62	11,484.46	-7,788.46	5,667.31	30.99	5,666.98	0.00	0.00	0.00
17,400.00	90.35	359.62	11,483.84	-7,787.84	5,767.31	30.32	5,766.98	0.00	0.00	0.00
17,500.00	90.35	359.62	11,483.22	-7,787.22	5,867.31	29.66	5,866.98	0.00	0.00	0.00
17,600.00	90.35	359.62	11,482.60	-7,786.60	5,967.30	29.00	5,966.98	0.00	0.00	0.00
17,700.00	90.35	359.62	11,481.98	-7,785.98	6,067.30	28.33	6,066.98	0.00	0.00	0.00
17,800.00	90.35	359.62	11,481.36	-7,785.36	6,167.29	27.67	6,166.97	0.00	0.00	0.00
17,900.00	90.35	359.62	11,480.74	-7,784.74	6,267.29	27.00	6,266.97	0.00	0.00	0.00
18,000.00	90.35	359.62	11,480.12	-7,784.12	6,367.29	26.34	6,366.97	0.00	0.00	0.00
18,100.00	90.35	359.62	11,479.51	-7,783.51	6,467.28	25.67	6,466.97	0.00	0.00	0.00
18,200.00	90.35	359.62	11,478.89	-7,782.89	6,567.28	25.01	6,566.97	0.00	0.00	0.00
18,300.00	90.35	359.62	11,478.27	-7,782.27	6,667.27	24.35	6,666.96	0.00	0.00	0.00
18,400.00	90.35	359.62	11,477.65	-7,781.65	6,767.27	23.68	6,766.96	0.00	0.00	0.00
18,500.00	90.35	359.62	11,477.03	-7,781.03	6,867.26	23.02	6,866.96	0.00	0.00	0.00
18,600.00	90.35	359.62	11,476.41	-7,780.41	6,967.26	22.35	6,966.96	0.00	0.00	0.00
18,700.00	90.35	359.62	11,475.79	-7,779.79	7,067.26	21.69	7,066.96	0.00	0.00	0.00
18,800.00	90.35	359.62	11,475.17	-7,779.17	7,167.25	21.03	7,166.96	0.00	0.00	0.00
18,900.00	90.35	359.62	11,474.55	-7,778.55	7,267.25	20.36	7,266.95	0.00	0.00	0.00
19,000.00	90.35	359.62	11,473.94	-7,777.94	7,367.24	19.70	7,366.95	0.00	0.00	0.00
19,100.00	90.35	359.62	11,473.32	-7,777.32	7,467.24	19.03	7,466.95	0.00	0.00	0.00
19,200.00	90.35	359.62	11,472.70	-7,776.70	7,567.24	18.37	7,566.95	0.00	0.00	0.00
19,300.00	90.35	359.62	11,472.08	-7,776.08	7,667.23	17.71	7,666.95	0.00	0.00	0.00
19,400.00	90.35	359.62	11,471.46	-7,775.46	7,767.23	17.04	7,766.94	0.00	0.00	0.00
19,500.00	90.35	359.62	11,470.84	-7,774.84	7,867.22	16.38	7,866.94	0.00	0.00	0.00
19,600.00	90.35	359.62	11,470.22	-7,774.22	7,967.22	15.71	7,966.94	0.00	0.00	0.00
19,700.00	90.35	359.62	11,469.60	-7,773.60	8,067.22	15.05	8,066.94	0.00	0.00	0.00
19,800.00	90.35	359.62	11,468.98	-7,772.98	8,167.21	14.38	8,166.94	0.00	0.00	0.00
19,900.00	90.35	359.62	11,468.36	-7,772.36	8,267.21	13.72	8,266.93	0.00	0.00	0.00
20,000.00	90.35	359.62	11,467.75	-7,771.75	8,367.20	13.06	8,366.93	0.00	0.00	0.00
20,100.00	90.35	359.62	11,467.13	-7,771.13	8,467.20	12.39	8,466.93	0.00	0.00	0.00
20,200.00	90.35	359.62	11,466.51	-7,770.51	8,567.19	11.73	8,566.93	0.00	0.00	0.00
20,300.00	90.35	359.62	11,465.89	-7,769.89	8,667.19	11.06	8,666.93	0.00	0.00	0.00
20,400.00	90.35	359.62	11,465.27	-7,769.27	8,767.19	10.40	8,766.92	0.00	0.00	0.00
20,500.00	90.35	359.62	11,464.65	-7,768.65	8,867.18	9.74	8,866.92	0.00	0.00	0.00
20,600.00	90.35	359.62	11,464.03	-7,768.03	8,967.18	9.07	8,966.92	0.00	0.00	0.00
20,700.00	90.35	359.62	11,463.41	-7,767.41	9,067.17	8.41	9,066.92	0.00	0.00	0.00
20,800.00	90.35	359.62	11,462.79	-7,766.79	9,167.17	7.74	9,166.92	0.00	0.00	0.00
20,900.00	90.35	359.62	11,462.18	-7,766.18	9,267.17	7.08	9,266.92	0.00	0.00	0.00

Planning Report

Database:	Database 1	**Local Co-ordinate Reference:**	Well GAVILON FED COM 708H
Company:	ASCENT ENERGY	**TVD Reference:**	KB EST 25' @ 3696.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	**MD Reference:**	KB EST 25' @ 3696.00usft
Site:	SEC. 33 T20S R33E N.M.P.M. (GRID)	**North Reference:**	Grid
Well:	GAVILON FED COM 708H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
21,000.00	90.35	359.62	11,461.56	-7,765.56	9,367.16	6.42	9,366.91	0.00	0.00	0.00
21,100.00	90.35	359.62	11,460.94	-7,764.94	9,467.16	5.75	9,466.91	0.00	0.00	0.00
21,200.00	90.35	359.62	11,460.32	-7,764.32	9,567.15	5.09	9,566.91	0.00	0.00	0.00
21,300.00	90.35	359.62	11,459.70	-7,763.70	9,667.15	4.42	9,666.91	0.00	0.00	0.00
21,400.00	90.35	359.62	11,459.08	-7,763.08	9,767.15	3.76	9,766.91	0.00	0.00	0.00
21,500.00	90.35	359.62	11,458.46	-7,762.46	9,867.14	3.09	9,866.90	0.00	0.00	0.00
21,600.00	90.35	359.62	11,457.84	-7,761.84	9,967.14	2.43	9,966.90	0.00	0.00	0.00
21,700.00	90.35	359.62	11,457.22	-7,761.22	10,067.13	1.77	10,066.90	0.00	0.00	0.00
21,800.00	90.35	359.62	11,456.60	-7,760.60	10,167.13	1.10	10,166.90	0.00	0.00	0.00
LTP: 100ft FNL & 1650ft FEL of Sec 28										
21,847.74	***90.35***	***359.62***	***11,456.31***	***-7,760.31***	***10,214.87***	***0.79***	***10,214.64***	***0.00***	***0.00***	***0.00***
BHL: 50ft FNL & 1650ft FEL of Sec 28										
21,897.74	***90.35***	***359.62***	***11,456.00***	***-7,760.00***	***10,264.86***	***0.45***	***10,264.64***	***0.00***	***0.00***	***0.00***

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,496.00	1,496.00	RSTLR		0.00	
1,866.00	1,866.00	SALDO		0.00	
3,300.69	3,281.00	TANSIL		0.00	
3,500.05	3,476.00	YATES		0.00	
3,804.93	3,776.00	CAPITAN_REEF_TOP		0.00	
5,025.90	4,996.00	TOP_DELAWARE_SAND		0.00	
5,705.90	5,676.00	CHERRY_CANYON		0.00	
6,825.90	6,796.00	BRUSHY_CANYON		0.00	
8,545.90	8,516.00	BSPG_LIME		0.00	
8,605.90	8,576.00	AVLN		0.00	
8,925.90	8,896.00	LEONARD_B		0.00	
9,590.90	9,561.00	1ST_BSPG_SND		0.00	
9,895.90	9,866.00	2ND_BSPG		0.00	
10,128.90	10,099.00	2ND_BSPG_SND		0.00	
10,750.90	10,721.00	3RD_BSPG		0.00	
11,159.05	11,126.00	3RD BSPG S		0.00	
11,595.08	11,451.00	WC A		0.00	

Planning Report

Database:	Database 1	**Local Co-ordinate Reference:**	Well GAVILON FED COM 708H
Company:	ASCENT ENERGY	**TVD Reference:**	KB EST 25' @ 3696.00usft
Project:	LEA COUNTY, NEW MEXICO (NAD 83) (GRID)	**MD Reference:**	KB EST 25' @ 3696.00usft
Site:	SEC. 33 T20S R33E N.M.P.M. (GRID)	**North Reference:**	Grid
Well:	GAVILON FED COM 708H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #2		

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
0.00	0.00	0.00	0.00	SHL: 245ft FSL & 1718ft FEL of Sec 33
2,000.00	2,000.00	0.00	0.00	START NUDGE (2°/100ft BUR)
2,600.00	2,595.62	-62.24	-6.74	EOB TO 12° INC
3,567.74	3,542.22	-262.27	-28.41	END OF TANGENT
4,167.74	4,137.84	-324.51	-35.15	EOD TO VERTICAL
10,974.95	10,945.05	-324.51	-35.15	KOP (10°/100ft BUR)
11,443.90	11,363.37	-144.51	-12.41	FTP: 100ft FSL & 1731.25ft FEL of Sec 33
11,878.45	11,518.00	247.40	37.10	HZ LP: 491.91ft FSL & 1694.15ft FEL of Sec 33
11,978.45	11,517.39	346.61	49.63	END OF TANGENT
12,231.13	11,515.83	598.65	64.65	EOT TO 359.62° AZ
21,847.74	11,456.31	10,214.87	0.79	LTP: 100ft FNL & 1650ft FEL of Sec 28
21,897.74	11,456.00	10,264.86	0.45	BHL: 50ft FNL & 1650ft FEL of Sec 28

Gavilon Fed Com 701H

20 surface csg in a 26 inch hole. Design Factors Surface

Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	94.00	j	55	btc	9.47	0.66	1.24	1,575	3	2.15	1.18	148,050
"B"				btc				0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:	790		Tail Cmt	does not	circ to sfc.	Totals:	1,575				148,050

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
26	1.5053	2950	4633	2371	95	9.60	980	2M	2.50

Site plat (pipe racks S or E) as per O.O. 1.III.D.4.i. not found.

13 3/8 casing inside the 20 Design Factors Int 1

Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	54.50	j	55	btc	4.78	0.66	1.09	3,292	2	1.95	1.15	179,414
"B"								0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:						Totals:	3,292				179,414
	The cement volume(s) are intended to achieve a top of				0	ft from	surface or a	1575				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	1787	3693	2798	32	10.00	1398	2M	1.56
D V Tool(s):			1625				sum of sx	Σ CuFt	Σ%excess
t by stage % :		219	-2				2998	5304	90

Class 'C' tail cmt yld > 1.35

9 5/8 casing inside the 13 3/8 Design Factors Int 2

Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.00	l	80	btc	4.57	1.24	1.01	5,045	2	1.83	2.21	201,800
"B"								0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:	1,500					Totals:	5,045				201,800
	The cement volume(s) are intended to achieve a top of				0	ft from	surface or a	3292				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	1136	2294	1743	32	9.60	3150	5M	0.81
	Setting Depths for D V Tool(s):		3342				sum of sx	Σ CuFt	Σ%excess
	% excess cmt by stage:	330	1				1760	3513	102

5 1/2 casing inside the 9 5/8 Design Factors Prod 1

Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00	p	110	btc	2.78	1.95	2.22	21,898	2	4.01	3.52	437,960
"B"								0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:	2,534					Totals:	21,898				437,960
	The cement volume(s) are intended to achieve a top of				3690	ft from	surface or a	1355				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.2526	3674	6425	4610	39	9.50			1.35

Class 'H' tail cmt yld > 1.20 Capitan Reef est top XXXX.

Gavilon Fed Com 701H

20	surface csg in a	26	inch hole.		Design Factors			Surface			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	94.00	j 55	btc	9.47	0.66	1.24	1,575	3	2.15	1.18	148,050
"B"			btc				0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig: 790		Tail Cmt	does not	circ to sfc.	Totals:	1,575				148,050

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
26	1.5053	2950	4633	2371	95	9.60	980	2M	2.50

Site plat (pipe racks S or E) as per O.O. 1.III.D.4.i. not found.

13 3/8	casing inside the	20			Design Factors			Int 1			
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	54.50	j 55	btc	4.78	0.66	1.09	3,292	2	1.95	1.15	179,414
"B"							0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:					Totals:	3,292				179,414
	The cement volume(s) are intended to achieve a top of			0	ft from	surface or a	1575				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	1787	3693	2798	32	10.00	1398	2M	1.56
D V Tool(s):			1625				sum of sx	Σ CuFt	Σ%excess
t by stage % :		219	-2				2998	5304	90

Class 'C' tail cmt yld > 1.35

9 5/8	casing inside the	13 3/8			Design Factors			Int 2			
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.00	l 80	btc	4.57	1.24	1.07	5,045	2	1.94	2.21	201,800
"B"							0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500					Totals:	5,045				201,800
	The cement volume(s) are intended to achieve a top of			0	ft from	surface or a	3292				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	1136	2294	1743	32	9.60	2966	5M	0.81
	Setting Depths for D V Tool(s):		3342				sum of sx	Σ CuFt	Σ%excess
	% excess cmt by stage:	330	1				1760	3513	102

7 5/8	casing inside the	9 5/8			Design Factors			Int 3			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	29.70	p 110	HTF-NR	1.92	1.38	1.89	10,875	2	3.42	2.48	322,988
"B"							0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig: 2,386					Totals:	10,875				322,988
	The cement volume(s) are intended to achieve a top of			3690	ft from	surface or a	1355				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.1005	931	1719	733	135	9.50	3150	5M	0.52

Class 'H' tail cmt yld > 1.20 Capitan Reef est top XXXX.

Tail cmt

5 1/2	casing inside the	7 5/8			Design Factors			Prod 1			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00	p 110	HTF-NR	3.07	2.29	2.53	21,898	3	4.56	4.13	437,960
"B"							0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig: 2,386					Totals:	21,898				437,960
	The cement volume(s) are intended to achieve a top of			3690	ft from	surface or a	7185				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Min Dist Hole-Cplg
6 3/4	0.0835	1258	2299	1935	19	9.50	0.44

Class 'H' tail cmt yld > 1.20

TEC-LOCK WEDGE

5.500" 20 LB/FT (.361"Wall) with 5.875" SPECIAL CLEARANCE OD
BEN P110 CY

Pipe Body Data

Nominal OD:	5.500	in
Nominal Wall:	.361	in
Nominal Weight:	20.00	lb/ft
Plain End Weight:	19.83	lb/ft
Material Grade:	P110 CY	
Mill/Specification:	BEN	
Yield Strength:	125,000	psi
Tensile Strength:	135,000	psi
Nominal ID:	4.778	in
API Drift Diameter:	4.653	in
Special Drift Diameter:	None	in
RBW:	87.5 %	
Body Yield:	729,000	lbf
Burst:	14,360	psi
Collapse:	13,010	psi

Connection Data

Standard OD:	5.875	in
Pin Bored ID:	4.778	in
Critical Section Area:	5.656	in²
Tensile Efficiency:	97 %	
Compressive Efficiency:	100 %	
Longitudinal Yield Strength:	707,000	lbf
Compressive Limit:	729,000	lbf
Internal Pressure Rating:	14,360	psi
External Pressure Rating:	13,010	psi
Maximum Bend:	101.2	°/100ft

Operational Data

Minimum Makeup Torque:	15,000	ft*lbf
Optimum Makeup Torque:	18,700	ft*lbf
Maximum Makeup Torque:	41,200	ft*lbf
Minimum Yield:	45,800	ft*lbf
Makeup Loss:	5.97	in

Notes

Operational Torque is equivalent to the Maximum Make-Up Torque

HUNTING

Generated on Sep 03, 2019

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Ascent Energy LLC**
LEASE NO.:	**NMNM057683**
LOCATION:	Section 33, T.20 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	**Gavilon Fed Com 708H**
SURFACE HOLE FOOTAGE:	245'/S & 1718'/E
BOTTOM HOLE FOOTAGE	50'/N & 1650'/E

COA

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
Wellhead Variance	○ Diverter		
Other	☑ 4 String Area	☑ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Cement Squeeze	☐ EchoMeter	
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit
Special Requirements Variance	☐ Break Testing	☐ Offline Cementing	

A. HYDROGEN SULFIDE

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

B. CASING

Primary Casing Design:

Surface casing must be kept fluid filled to meet BLM minimum collapse requirement.

1. The **20** inch surface casing shall be set at approximately **1575 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **13-3/8** inch intermediate casing shall be set at approximately **3292 feet** is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Option 2:

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

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

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
  Cement excess is less than 25%, more cement might be required.

❖ In R111 Potash Areas if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing salt string must come to surface.

3. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

Option 2:

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

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

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.
  Cement excess is less than 25%, more cement might be required.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 200 feet** into the previous casing, whichever is greater. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

Alternate Casing Design:

Surface casing must be kept fluid filled to meet BLM minimum collapse requirement.

1. The **20** inch surface casing shall be set at approximately **1575 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **13-3/8** inch intermediate casing shall be set at approximately **3292 feet** is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Option 2:

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

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

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
  Cement excess is less than 25%, more cement might be required.

❖ In R111 Potash Areas if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing salt string must come to surface.

3. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

Option 2:

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

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

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.
  Cement excess is less than 25%, more cement might be required.

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

- Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 200 feet** into the previous casing, whichever is greater. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

5. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   - Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 200 feet** into the previous casing, whichever is greater. If cement does not circulate see B.1.a, c-d above.
     Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.
     Cement excess is less than 25%, more cement might be required.

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.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **13-3/8** intermediate casing shoe shall be **3000 (3M)** psi.

c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

d. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

b. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch intermediate casing.

Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.

i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
ii. 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.
iii. Manufacturer representative shall install the test plug for the initial BOP test.
iv. 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.
v. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

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

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

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

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

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

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 73499

CONDITIONS

Operator: ASCENT ENERGY, LLC. 14982 Melco Ave. Parker, CO 80134	OGRID: 325830
	Action Number: 73499
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	1/21/2022