Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM096212

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.:

8. Lease Name and Well No.: MAD MAX 6 FED COM 132H

2. Name of Operator: COLGATE OPERATING LLC

9. API Well No.: 30-015-50034

3a. Address: 300 N MARIENFELD STREET SUITE 1000, MIDLAND, TX

3b. Phone No. *(include area code)*: (432) 695-4272

10. Field and Pool, or Exploratory: PURPLE SAGE/PURPLE SAGE; WOLFC

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: SENE / 2234 FNL / 256 FEL / LAT 32.603612 / LONG -104.2265802

At proposed prod. zone: SENE / 2310 FNL / 10 FEL / LAT 32.6035511 / LONG -104.190943

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 1/T20S/R27E/NMP

14. Distance in miles and direction from nearest town or post office*: 12 miles

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 256 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 321.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 1154 feet

19. Proposed Depth: 8305 feet / 19050 feet

20. BLM/BIA Bond No. in file: FED: 001382

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3405 feet

22. Approximate date work will start*: 04/30/2022

23. Estimated duration: 90 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	MIKAH THOMAS / Ph: (432) 695-4224	03/17/2022

Title: Operations Tech

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	10/25/2022

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

Application approval 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.
Conditions of approval, if any, are attached.

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.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 10/25/2022

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
30-015- 50034	48035	OLD MILLMAN RANCH; BS

4 Property Code	5 Property Name	6 Well Number
333344	MAD MAX 6 FED COM	132H

7 OGRID No.	8 Operator Name	9 Elevation
371449	COLGATE ENERGY LLC	3405.14'

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
H	1	20-S	27-E		2234'	NORTH	256'	EAST	EDDY

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
H	5	20-S	28-E		2310'	NORTH	10'	EAST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
321.03			

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.

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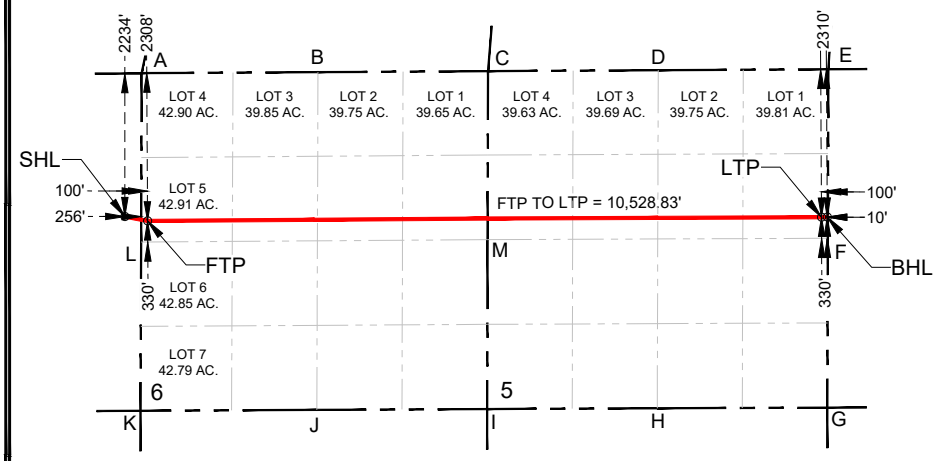

SURFACE HOLE LOCATION (SHL)
NEW MEXICO EAST - NAD 83
X=574211.09 LAT.= 32.60361201° N
Y=583341.30 LONG.= 104.22658015° W
NEW MEXICO EAST - NAD 27
X=533031.04 LAT.= 32.60349531° N
Y=583279.82 LONG.= -104.22607133° W
2234' FNL, 256' FEL - SECTION 1

FIRST TAKE POINT (FTP)
NEW MEXICO EAST - NAD 83
X=574566.58 LAT.= 32.60342627° N
Y=583274.09 LONG.= 104.22542596° W
NEW MEXICO EAST - NAD 27
X=533386.53 LAT.= 32.60330956° N
Y=583212.60 LONG.= -104.22491717° W
2308' FNL, 100' FWL - SECTION 6

LAST TAKE POINT (LTP)
NEW MEXICO EAST - NAD 83
X=585095.25 LAT.= 32.60355041° N
Y=583331.63 LONG.= 104.19123523° W
NEW MEXICO EAST - NAD 27
X=543915.17 LAT.= 32.60343334° N
Y=583270.06 LONG.= -104.19072730° W
2310' FNL, 100' FEL - SECTION 5

BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST - NAD 83
X=585185.25 LAT.= 32.60355110° N
Y=583332.00 LONG.= 104.19094296° W
NEW MEXICO EAST - NAD 27
X=544005.17 LAT.= 32.60343402° N
Y=583270.43 LONG.= -104.19043504° W
2310' FNL, 10' FEL - SECTION 5

CORNER DATA
NEW MEXICO EAST - NAD 83
A - FOUND IRON PIPE W/ BRASS CAP N:585581.74' E:574473.78'
B - FOUND IRON PIPE W/ BRASS CAP N:585597.11' E:577229.43'
C - FOUND IRON PIPE W/ BRASS CAP N:585612.31' E:579886.02'
D - FOUND IRON PIPE W/ BRASS CAP N:585627.24' E:582544.32'
E - FOUND IRON PIPE W/ BRASS CAP N:585641.97' E:585202.31'
F - FOUND IRON PIPE W/ BRASS CAP N:583002.03' E:585194.24'
G - FOUND IRON PIPE W/ BRASS CAP N:580356.62' E:585185.65'
H - FOUND IRON PIPE W/ BRASS CAP N:580345.56' E:582529.47'
I - FOUND IRON PIPE W/ BRASS CAP N:580334.86' E:579872.32'
J - FOUND IRON PIPE W/ BRASS CAP N:580320.78' E:577210.36'
K - FOUND IRON PIPE W/ BRASS CAP N:580307.10' E:574456.69'
L - FOUND IRON PIPE W/ BRASS CAP N:582943.40' E:574465.55'
M - FOUND IRON PIPE W/ BRASS CAP N:582980.13' E:579878.84'

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.

Signature 03.15.2022 Date

Mikah Thomas
Printed Name

mthomas@colgateenergy.com
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.

Date of Survey

Signature and Seal of Professional Surveyor:

MARK J. MURRAY NEW MEXICO 12177 REGISTERED PROFESSIONAL SURVEYOR

3/1/2022

Certificate Number

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Colgate Operating, LLC **OGRID:** 371449 **Date:** 02/24 /2022

II. Type: x Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Mad Max 6 Fed Com 121H	30-015-	H – 1 – 20S – 27E	2235 FNL 166 FEL	1700	3400	4400
Mad Max 6 Fed Com 131H	30-015-	H – 1 – 20S – 27E	2234 FNL 226 FEL	1300	3100	3300
Mad Max 6 Fed Com 201H	30-015-	H – 1 – 20S – 27E	2235 FNL 136 FEL	1300	2400	1900
Mad Max 6 Fed Com 122H	30-015-	H – 1 – 20S – 27E	2235 FNL 196 FEL	1700	3400	4400
Mad Max 6 Fed Com 132H	30-015-	H – 1 – 20S – 27E	2234 FNL 256 FEL	1300	3100	3300
Mad Max 6 Fed Com 123H	30-015-	7 – 6 – 20S – 28E	387 FSL 375 FWL	1700	3400	4400
Mad Max 6 Fed Com 133H	30-015-	7 – 6 – 20S – 28E	447 FSL 375 FWL	1300	3100	3300
Mad Max 6 Fed Com 202H	30-015-	7 – 6 – 20S – 28E	507 FSL 375 FWL	1300	2400	1900
Mad Max 6 Fed Com 134H	30-015-	7 – 6 – 20S – 28E	417 FSL 375 FWL	1300	3100	3300
Mad Max 6 Fed Com 124H	30-015-	7 – 6 – 20S – 28E	357 FSL 375 FWL	1700	3400	4400
Mad Max 6 Fed Com 203H	30-015-	7 – 6 – 20S – 28E	477 FSL 375 FWL	1300	2400	1900

IV. Central Delivery Point Name: Mad Max 6 Fed Com Battery [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

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Well Name	API	Spud Date	TD ReachedDate	Completion Commencement Date	Initial Flow Back Date	First Production Date
Mad Max 6 Fed Com 121H	30-015-	05/01/2022 (Estimated)	06/01/2022 (Estimated)	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Mad Max 6 Fed Com 131H	30-015-	05/01/2022 (Estimated)	06/01/2022 (Estimated)	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Mad Max 6 Fed Com 201H	30-015-	05/01/2022 (Estimated)	06/01/2022 (Estimated)	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Mad Max 6 Fed Com 122H	30-015-	05/01/2022 (Estimated)	06/01/2022 (Estimated)	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Mad Max 6 Fed Com 132H	30-015-	05/01/2022 (Estimated)	06/01/2022 (Estimated)	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Mad Max 6 Fed Com 123H	30-015-	05/01/2022 (Estimated)	06/01/2022 (Estimated)	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Mad Max 6 Fed Com 133H	30-015-	05/01/2022 (Estimated)	06/01/2022 (Estimated)	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Mad Max 6 Fed Com 202H	30-015-	05/01/2022 (Estimated)	06/01/2022 (Estimated)	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Mad Max 6 Fed Com 134H	30-015-	05/01/2022 (Estimated)	06/01/2022 (Estimated)	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Mad Max 6 Fed Com 124H	30-015-	05/01/2022 (Estimated)	06/01/2022 (Estimated)	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Mad Max 6 Fed Com 203H	30-015-	05/01/2022 (Estimated)	06/01/2022 (Estimated)	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled

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

VII. Operational Practices: x Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

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

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

X Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

X Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

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

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

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I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:
Printed Name: Mikah Thomas
Title: Operations Tech
E-mail Address: mthomas@colgateenergy.com
Date: 03.17.2022
Phone: 432-695-4272

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment:

Colgate Operating, LLC production tank batteries include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool in conjunction with the total number of wells planned to or existing within the facility. Separation equipment is upgraded prior to well being drilled or completed, if determined to be undersized or needed. The separation equipment is designed and built according to the relevant industry specifications (API Specification 12J and ASME Sec VIII Div I). Other recognized industry publications such as the Gas Processors Suppliers Association (GPSA) are referenced when designing separation equipment to optimize gas capture.

VII. Operational Practices:

1. Subsection B.

    - During drilling, flare stacks will be located a minimum of 150 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
    - Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
    - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

2. Subsection C.

    - During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.

For emergencies, equipment malfunction, or if the operator decides to produce oil and gas during well completion:

- Flowlines will be routed for flowback fluids into a completion or storage tank and, if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.

- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

3. Subsection D.

- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.

4. Subsection E.

- All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
- Flare stack has been designed for proper size and combustion efficiency. Flare currently has a continuous pilot and is located more than 100 feet from any known well and storage tanks.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

5. Subsection F.

- Measurement equipment is installed to measure the volume of natural gas flared from process piping or a flowline piped from the equipment associated with a well and facility associated with the approved application for permit

to drill that has an average daily production greater than 60 mcf of natural gas.

- Measurement equipment installed is not designed or equipped with a manifold to allow diversion of natural gas around the metering equipment, except for the sole purpose of inspecting and servicing the measurement equipment, as noted in NMAC 19.15.27.8 Subsection G.

VIII. Best Management Practices:

1. During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.

2. Operator does not flow well (well shut in) during initial production until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.

3. Operator equips storage tanks with an automatic gauging system to reduce venting of natural gas.

4. Operator reduces the number of blowdowns by looking for opportunities to coordinate repair and maintenance activities.

5. Operator combusts natural gas that would otherwise be vented or flared, when feasible.

6. Operator has a flare stack designed in accordance with need and to handle sufficient volume to ensure proper combustion efficiency. Flare stacks are equipped with continuous pilots and securely anchored at least 100 feet (at minimum) from storage tanks and wells.

7. Operator minimizes venting (when feasible) through pump downs of vessels and reducing time required to purge equipment before returning equipment to service.

8. Operator will shut in wells (when feasible) in the event of a takeaway disruption, emergency situations, or other operations where venting or flaring may occur due to equipment failures.

9. Operator utilizes compressed air to operate pneumatic equipment instead of gas.

10. Operator utilizes vapor recovery towers and VRU's to increase gas capture efficiency.

Drilling Program
Colgate Energy
Mad Max 6 Fed Com 132H
2,234' FNL & 256' FEL (SHL)
Sec 1-T20S-R27E
Eddy County, New Mexico

The estimated tops of geologic formations are as follows:

Formation:	TVD	Subsea
Rustler	133	3302
Salado	305	3130
Tansill	540	2895
Yates	667	2768
Seven Rivers	1135	2300
Queen	1575	1860
Grayburg	1945	1490
San Andres	2390	1045
Delaware Mountain Group	2835	600
Bone Spring Lime	3935	-500
1st Bone Spring Sand*	5935	-2500
2nd Bone Spring Sand*	6950	-3515
3rd Bone Spring Sand*	8105	-4670

Formations anticipated to contain fresh water, oil or gas are as follows:

Water — Fresh water is anticipated at 65' and will be protected by setting a water string at 260' and cementing to surface.
Hydrocarbons — Oil and gas are anticipated in the above (*) formations. These zones will be protected by casing as necessary.

Proposed casing program is as follows:

Name	Hole Size	Casing Size	Weight & Grade	Thread Collar	Top Csg	Setting Depth	Collapse	Burst	Tension
Surface	17 1/2	13 3/8	54.5# J-55 (new)	BTC	0	260'	1.125	1.2	1.6
Intermediate	12 1/4	9 5/8	36# J-55 (new)	BTC	0	2,760'	1.125	1.2	1.6
Production	7 7/8	5 1/2	17# HPP-110 (new)	CDC HTQ	0	19,050'	1.125	1.2	1.6

SF Values will meet or exceed

Proposed cementing program is as follows:

Name	Slurry	Sacks	Yield	Weight	Excess	Top Cement	Blend
Surface	Tail	249	1.34	14.8	100%	0'	Class C w/ accelerator
Intermediate	Lead	485	2.08	12.7	50%	0'	Class C w/ salt, extender and LCM additives
	Tail	161	1.34	14.8	25%	2,208'	Class C w/ accelerator
Production	Lead	735	2.41	11.5	25%	0'	Class H w/ POZ, extender, fluid loss, dispersant & retarder
	Tail	1445	1.73	12.5	25%	7,510'	Class H w/ POZ, extender, fluid loss, dispersant & retarder

Proposed casing and cementing accessories are as follows: (Casing will be centralized per Onshore Order 2.III.B.1.f)

Surface: 1 centralizer 5' above shoe held in place with stop ring; 1 centralizer per joint for following 2 joints then every other joint to surface
Intermediate: 2 centralizers on 1st joint, 1 centralizer on 2nd joint, 1 centralizer every 4th joint to surface
Production: 2 centralizers on bottom joint, 1 centralizer on 2nd joint, 1 centralizer every 3rd joint to 2200'

Proposed pressure control equipment is as follows (see schematics below):

BOPE with working pressure ratings in excess of anticipated maximum surface pressure will be utilized for well control from drill out of surface casing to TMD. A rotating head will also be installed and utilized as needed. All BOPE connections shall be flanged, welded or clamped. All choke lines shall be straight unless targeted with running tees or tee blocks are used, and choke lines shall be anchored to prevent whip and reduce vibrations. All valves in the choke line & the choke manifold shall be full opening as to not cause restrictions and to allow for straight fluid paths to minimize potential erosion. All gauges utilized in the well control system shall be of a type designed for drilling fluid service. A top drive inside BOP valve will be utilized at all times. Subs equipped with full opening valves sized to fit the drill pipe and collars will be available on the rig floor in the open position. The key to operate said valve equipped subs will be on the rig floor at all times. The accumulator system will have sufficient capacity to open the HCR and close all three sets of rams plus the annular preventer while retaining at least 300 psi above precharge on the closing manifold (accumulator system shall be capable of doing so without using the closing unit pumps). The fluid reservoir capacity will be double the usable fluid volume of the accumulator system capacity, and the fluid level will be maintained at the manufacturer's recommended level. Prior to connecting the closing unit to the BOP stack, an accumulator precharge pressure test shall be performed to ensure the precharge pressure is within 100 psi of the desired precharge pressure (only nitrogen gas will be used to precharge). Two independent power sources will be made available at all times to power the closing unit pumps so that the pumps can automatically start when the closing valve manifold pressure has decreased to the pre-set level. Closing unit pumps will be sized to allow opening of HCR and closing of annular preventer on 5" drill pipe achieving at least 200 psi above precharge pressure with the accumulator system isolated from service in less than two minutes. A valve shall be installed in the closing line as close to the annular preventer as possible to act as a locking device; the valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative. Remote controls capable of opening and closing all preventers & the HCR shall be readily accessible to the driller; master controls with the same capability will be operable at the accumulator. The wellhead will be a multi-bowl speed head allowing for hang-off of intermediate casing & isolation of the 13-3/8” x 9-5/8” annulus without breaking the connection between the BOP & wellhead to install an additional casing head. A wear bushing will be installed & inspected frequently to guard against internal wear to wellhead. VBRs (variable-bore rams) will be run in upper ram-body of BOP stack to provide redundancy to annular preventer while RIH w/ production casing;

A request for variance of pressure control equipment as follows:

1. Colgate Energy requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

BOPE will be tested per the following procedure:

After surface casing is set and the BOPE installed, pressure tests of BOPE will be performed by a third party tester utilizing water and a test plug to 250 psi low and 5,000 psi high. To deem a pressure test successful, pressure must be maintained for ten minutes without any bleed-off. A valve on the wellhead below seat of test plug will be open at all time during BOPE tests to guard against damage to casing. The BOPE will be re-tested in this manner after any connection breaks or passage of allotted time (25 days). Any BOPE which fails to pass pressure tests after initial install will be replaced prior to drilling out of surface casing shoe. If at any time a BOPE component cannot function to secure the hole, the hole shall be secured utilizing a retrievable packer, and the non-functioning BOPE component shall be repair or replaced. After repair or replacement, a pressure test of the repaired or replaced component and any connections broken to repair or replace the non-functioning component will be tested in the same manner as described for initial install of BOPE. The annular preventer will be faction tested at least weekly, and the ram-type preventers will be function tested on each trip. BOPE pit level drills will be conducted weekly with each drilling crews. All pressure tests performed on BOPE and BOPE pit level drills will be logged in the drilling log. Isolation of 13-3/8" x 9-5/8" casing annulus shall be confirmed by pressure testing of wellhead sealing component after said sealing component is installed.

Each casing string will be tested once installed in the wellbore per the following procedure:

After cement has been allowed to sit undisturbed for eight hours and has reached a compressive strength of 500 psi across the zone of interest, the 13-3/8" surface casing will be pressured to 1,500 psi and held for 30 minutes. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review. A casing test will be deemed successful if test pressure does not decline more than 10% over the thirty minute period. The casing pressure test will be completed against the blind rams of 13-5/8" 10M BOPE prior to PU tools to drill out. After cement has been allowed to sit undisturbed for eight hours and has reached a compressive strength of 500 psi across the zone of interest, the 9-5/8" intermediate casing will be pressured to 1,500 psi and held for 30 minutes. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review. A casing test will be deemed successful if test pressure does not decline more than 10% over the thirty minute period. Casing pressure test will be completed against the lower pipe rams of 13-5/8" 10M BOPE immediately prior to drilling out float equipment. Casing pressure test on 5-1/2" production casing will occur more than 72 hours after cement is placed and reached ultimate compressive strength. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review. A casing test will be deemed successful if test pressure does not decline more than 10% over the thirty minute period. Casing will be tested by pressuring up to 8,500 psi and holding pressure for 30 minutes prior to the beginning of perforating & stimulating operations.

Each casing string will be cemented per the following cementing procedure:

Cement will be placed on all casing strings utilizing the pump and plug method. A float will be installed in the casing shoe and float collar on all casing strings to hold cement in place once pumping is completed. A top plug will be utilized on all casing strings to prevent contamination of the cement by the displacement fluid. A preflush fluid will be pumped prior to cement to aid in removal of drilling mud from the wellbore, eliminate drilling mud contamination of the cement slurry and prepare the surface of both the wellbore and casing for cement.

Proposed mud system is as follows:

Name	Hole Size	Mud Weight	Viscosity	Fluid Loss	Type Mud
Surface	17-1/2"	8.6 - 9.0	28 - 34	NC	FW Spud Mud
Intermediate	12-1/4"	10.0 - 10.2	30 - 32	NC	Brine Water
Production	8-3/4"	9.0 - 10.0	32 - 35	NC	Oil Based Mud

All necessary mud products for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions. The mud monitoring system is an electronic Pason system satisfying requirements of Onshore Order #1. Both visual and electronic mud monitoring equipment will be utilized to detect volume changes indicating loss or gain of circulating system fluid volume. Slow pump rates will be taken & recorded tourly in the drilling log. Mud engineer will perform tests and provide written report at least every 12 hours while circulating. A trip tank will be utilized and trip sheet will be recorded to ensure wellbore is taking proper fill or displacing proper fluid volume during all tripping operations. Gas detecting equipment will be utilized to monitor for hydrocarbon gas at the shakers while drilling and/or circulating. H2S monitoring equipment with both visual & auditory alarms will be installed and operational at the shakers, rig floor and cellar while drilling and/or circulating. A flare system with an effective method for ignition & discharge more than 100 feet from the wellbore will be utilized to gather and burn all gas; lines will be straight unless targeted with running tees. A mud gas separator will be installed and operable at least 500 feet before first anticipated hydrocarbon zone.

Proposed testing, surveying, logging and coring program is as follows:

No open-hole logs are planned at this time. Directional surveys will be collected at no greater than 200' intervals while drilling through the MWD tools. A GR log will be collected while drilling through the MWD tools from intermediate casing to TD. No DSTs or cores are planned at this time. No temperature logs planned at this time. CBL will be run to confirm TOC on production casing after rig is removed from location. A formation integrity test (FIT) will be performed on 9-5/8" casing string after BOPE is installed to at least 1 ppge over planned section mud weight after drilling ten feet of new hole.

Anticipated potential hazards are as follows:

No abnormal pressures or temperatures are expected. In accordance with Onshore Order No. 6, Colgate Energy does not anticipate that there will be enough H_2S from the surface to the Wolfcamp formations to meet the BLM's minimum requirements for the submission of an "H_2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H_2S safety package on all wells, attached is an "H_2S Drilling Operations Plan". Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

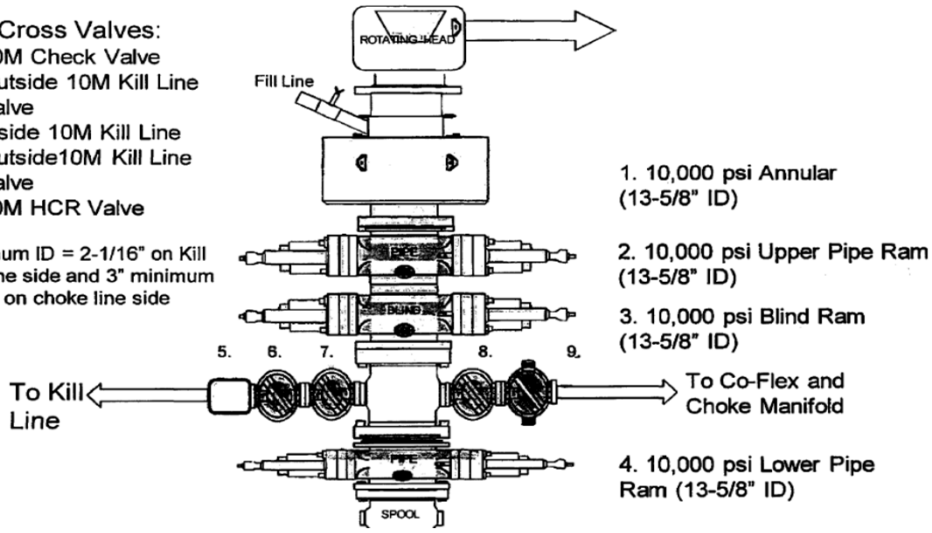
Estimated BHP: 8.3 lbs/gal gradient or less
Estimated BHT: 120° F

Planned commencement of operations is as follows:
Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 30 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.

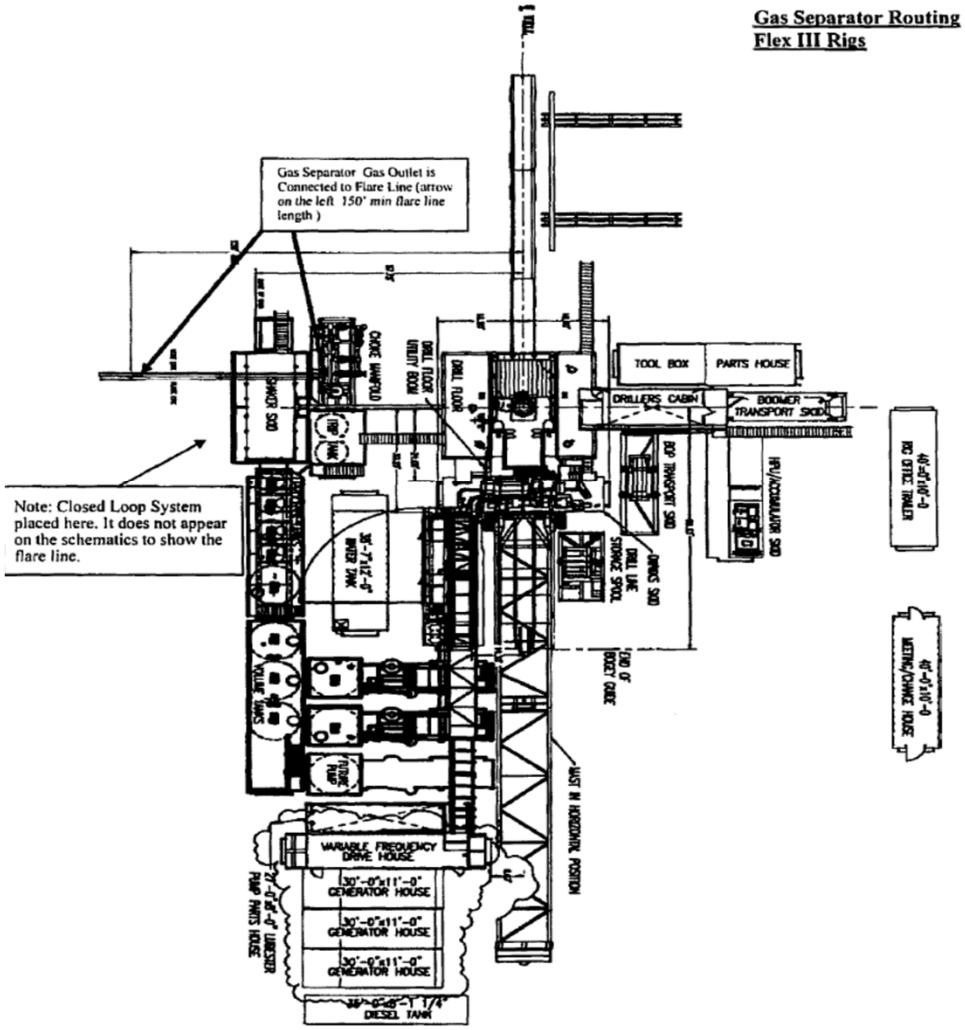
10,000 psi BOP Stack:

Mud Cross Valves:
5. 10M Check Valve
6. Outside 10M Kill Line Valve
7. Inside 10M Kill Line
8. Outside10M Kill Line Valve
9. 10M HCR Valve

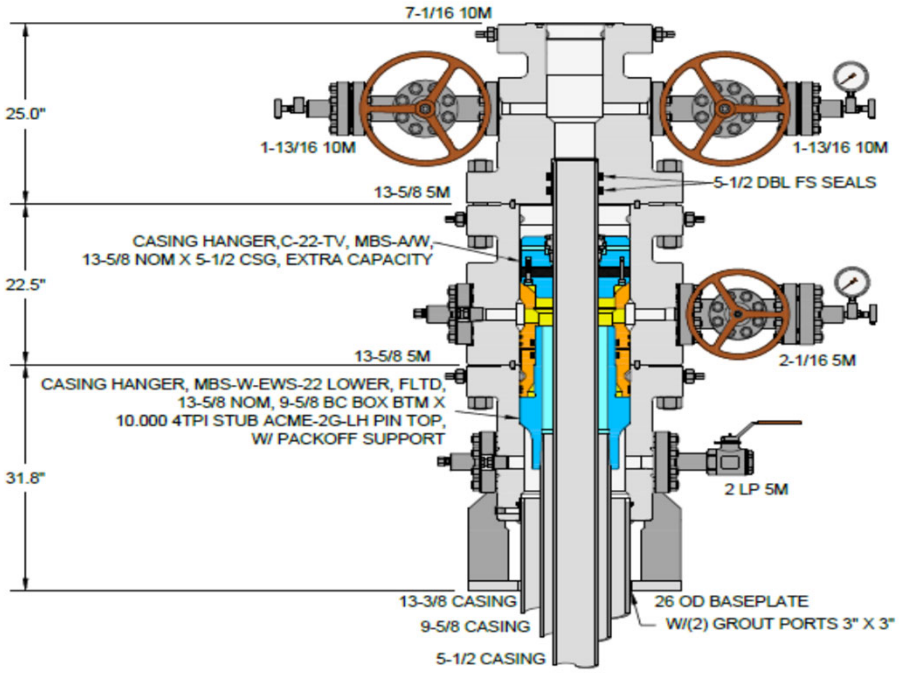
*Minimum ID = 2-1/16" on Kill Line side and 3" minimum ID on choke line side



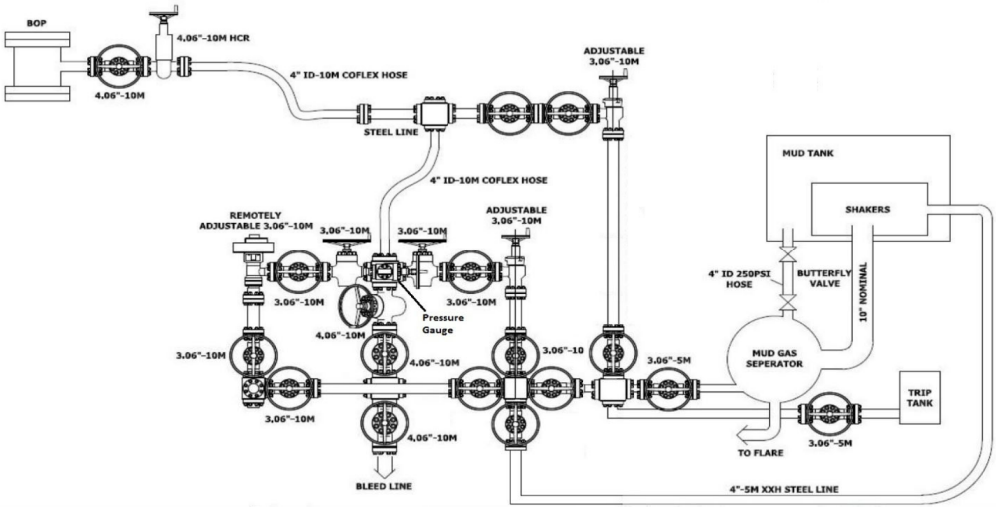
Closed Loop System Layout:



Multi-bowl Wellhead



10M Choke Layout



Colgate Energy

(Permit) Eddy County, NM (83-NME)
(Permit) Mad Max 6 Fed Com
(A01)Mad Max 6 Fed Com 132H - Slot A01(MM-132H)

Permit

Plan: APD-Rev00

Standard Planning Report

08 March, 2022

COLGATE ENERGY

Planning Report

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well (A01)Mad Max 6 Fed Com 132H - Slot A01(MM-132H)
Company:	Colgate Energy	**TVD Reference:**	3405+30 @ 3435.00usft
Project:	(Permit) Eddy County, NM (83-NME)	**MD Reference:**	3405+30 @ 3435.00usft
Site:	(Permit) Mad Max 6 Fed Com	**North Reference:**	Grid
Well:	(A01)Mad Max 6 Fed Com 132H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Permit		
Design:	APD-Rev00		

Project (Permit) Eddy County, NM (83-NME)

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

Site (Permit) Mad Max 6 Fed Com

Site Position:		**Northing:**	583,236.55 usft	**Latitude:**	32.60332409
From:	Map	**Easting:**	574,204.89 usft	**Longitude:**	-104.22660063
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well (A01)Mad Max 6 Fed Com 132H - Slot A01(MM-132H)

Well Position	**+N/-S**	0.00 usft	**Northing:**	583,341.30 usft	**Latitude:**	32.60361200
	+E/-W	0.00 usft	**Easting:**	574,211.09 usft	**Longitude:**	-104.22658016
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,405.00 usft
Grid Convergence:		0.06 °				

Wellbore Permit

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/17/2022	6.80	60.13	47,579.56448054

Design APD-Rev00

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	89.69

Plan Survey Tool Program **Date** 3/8/2022

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,050.46	APD-Rev00 (Permit)	MWD+IFR1+SAG+FDIR (SQC	
				OWSG MWD + IFR1 + Sag + F	

COLGATE ENERGY

Planning Report

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Site:	(Permit) Mad Max 6 Fed Com	**North Reference:**	Grid
Well:	(A01)Mad Max 6 Fed Com 132H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Permit		
Design:	APD-Rev00		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,033.42	3.50	192.13	1,033.28	-6.97	-1.50	1.50	1.50	0.00	192.13	
1,968.61	3.50	192.13	1,966.72	-62.81	-13.50	0.00	0.00	0.00	0.00	
2,202.04	0.00	0.00	2,200.00	-69.78	-15.00	1.50	-1.50	0.00	180.00	
7,734.08	0.00	0.00	7,732.04	-69.78	-15.00	0.00	0.00	0.00	0.00	
8,634.08	90.00	89.60	8,305.00	-65.79	557.94	10.00	10.00	9.96	89.60	
13,744.84	90.00	89.60	8,305.00	-30.23	5,668.58	0.00	0.00	0.00	0.00	
13,753.48	90.00	89.77	8,305.00	-30.18	5,677.22	2.00	0.00	2.00	89.99	
19,050.46	90.00	89.77	8,305.00	-9.30	10,974.16	0.00	0.00	0.00	0.00	03-PBHL(MM-132H)

COLGATE ENERGY

Planning Report

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Company:	Colgate Energy	**TVD Reference:**	3405+30 @ 3435.00usft
Project:	(Permit) Eddy County, NM (83-NME)	**MD Reference:**	3405+30 @ 3435.00usft
Site:	(Permit) Mad Max 6 Fed Com	**North Reference:**	Grid
Well:	(A01)Mad Max 6 Fed Com 132H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Permit		
Design:	APD-Rev00		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
133.00	0.00	0.00	133.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
305.00	0.00	0.00	305.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
540.00	0.00	0.00	540.00	0.00	0.00	0.00	0.00	0.00	0.00
Tansill									
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
667.00	0.00	0.00	667.00	0.00	0.00	0.00	0.00	0.00	0.00
Yates									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	1.50	192.13	899.99	-1.28	-0.28	-0.28	1.50	1.50	0.00
1,000.00	3.00	192.13	999.91	-5.12	-1.10	-1.13	1.50	1.50	0.00
1,033.42	3.50	192.13	1,033.28	-6.97	-1.50	-1.54	1.50	1.50	0.00
1,100.00	3.50	192.13	1,099.73	-10.95	-2.35	-2.41	0.00	0.00	0.00
1,135.34	3.50	192.13	1,135.00	-13.06	-2.81	-2.88	0.00	0.00	0.00
Seven Rivers									
1,200.00	3.50	192.13	1,199.54	-16.92	-3.64	-3.73	0.00	0.00	0.00
1,300.00	3.50	192.13	1,299.36	-22.89	-4.92	-5.04	0.00	0.00	0.00
1,400.00	3.50	192.13	1,399.17	-28.86	-6.20	-6.36	0.00	0.00	0.00
1,500.00	3.50	192.13	1,498.98	-34.83	-7.49	-7.68	0.00	0.00	0.00
1,576.16	3.50	192.13	1,575.00	-39.38	-8.46	-8.68	0.00	0.00	0.00
Queen									
1,600.00	3.50	192.13	1,598.80	-40.80	-8.77	-8.99	0.00	0.00	0.00
1,700.00	3.50	192.13	1,698.61	-46.77	-10.05	-10.31	0.00	0.00	0.00
1,800.00	3.50	192.13	1,798.42	-52.74	-11.34	-11.62	0.00	0.00	0.00
1,900.00	3.50	192.13	1,898.24	-58.71	-12.62	-12.94	0.00	0.00	0.00
1,946.85	3.50	192.13	1,945.00	-61.51	-13.22	-13.55	0.00	0.00	0.00
Grayburg									
1,968.61	3.50	192.13	1,966.72	-62.81	-13.50	-13.84	0.00	0.00	0.00
2,000.00	3.03	192.13	1,998.06	-64.56	-13.88	-14.23	1.50	-1.50	0.00
2,100.00	1.53	192.13	2,097.98	-68.45	-14.71	-15.08	1.50	-1.50	0.00
2,202.04	0.00	0.00	2,200.00	-69.78	-15.00	-15.38	1.50	-1.50	0.00
2,300.00	0.00	0.00	2,297.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
2,392.04	0.00	0.00	2,390.00	-69.78	-15.00	-15.38	0.00	0.00	0.00
San Andres									
2,400.00	0.00	0.00	2,397.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
2,500.00	0.00	0.00	2,497.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
2,600.00	0.00	0.00	2,597.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
2,700.00	0.00	0.00	2,697.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
2,800.00	0.00	0.00	2,797.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
2,837.04	0.00	0.00	2,835.00	-69.78	-15.00	-15.38	0.00	0.00	0.00
Delaware Sands									
2,900.00	0.00	0.00	2,897.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
3,000.00	0.00	0.00	2,997.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
3,100.00	0.00	0.00	3,097.96	-69.78	-15.00	-15.38	0.00	0.00	0.00

COLGATE ENERGY

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Well:	(A01)Mad Max 6 Fed Com 132H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Permit		
Design:	APD-Rev00		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,200.00	0.00	0.00	3,197.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
3,300.00	0.00	0.00	3,297.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
3,400.00	0.00	0.00	3,397.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
3,500.00	0.00	0.00	3,497.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
3,600.00	0.00	0.00	3,597.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
3,700.00	0.00	0.00	3,697.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
3,800.00	0.00	0.00	3,797.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
3,900.00	0.00	0.00	3,897.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
3,937.04	0.00	0.00	3,935.00	-69.78	-15.00	-15.38	0.00	0.00	0.00
Bone Spring									
4,000.00	0.00	0.00	3,997.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
4,100.00	0.00	0.00	4,097.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
4,200.00	0.00	0.00	4,197.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
4,300.00	0.00	0.00	4,297.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
4,400.00	0.00	0.00	4,397.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
4,500.00	0.00	0.00	4,497.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
4,600.00	0.00	0.00	4,597.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
4,700.00	0.00	0.00	4,697.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
4,800.00	0.00	0.00	4,797.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
4,900.00	0.00	0.00	4,897.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
5,000.00	0.00	0.00	4,997.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
5,100.00	0.00	0.00	5,097.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
5,200.00	0.00	0.00	5,197.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
5,300.00	0.00	0.00	5,297.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
5,400.00	0.00	0.00	5,397.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
5,500.00	0.00	0.00	5,497.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
5,600.00	0.00	0.00	5,597.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
5,700.00	0.00	0.00	5,697.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
5,800.00	0.00	0.00	5,797.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
5,900.00	0.00	0.00	5,897.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
5,937.04	0.00	0.00	5,935.00	-69.78	-15.00	-15.38	0.00	0.00	0.00
FBSG									
6,000.00	0.00	0.00	5,997.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
6,100.00	0.00	0.00	6,097.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
6,200.00	0.00	0.00	6,197.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
6,300.00	0.00	0.00	6,297.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
6,400.00	0.00	0.00	6,397.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
6,500.00	0.00	0.00	6,497.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
6,600.00	0.00	0.00	6,597.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
6,700.00	0.00	0.00	6,697.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
6,800.00	0.00	0.00	6,797.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
6,900.00	0.00	0.00	6,897.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
6,952.04	0.00	0.00	6,950.00	-69.78	-15.00	-15.38	0.00	0.00	0.00
SBSG									
7,000.00	0.00	0.00	6,997.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
7,100.00	0.00	0.00	7,097.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
7,200.00	0.00	0.00	7,197.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
7,300.00	0.00	0.00	7,297.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
7,400.00	0.00	0.00	7,397.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
7,500.00	0.00	0.00	7,497.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
7,600.00	0.00	0.00	7,597.96	-69.78	-15.00	-15.38	0.00	0.00	0.00
7,700.00	0.00	0.00	7,697.96	-69.78	-15.00	-15.38	0.00	0.00	0.00

COLGATE ENERGY

Planning Report

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well (A01)Mad Max 6 Fed Com 132H - Slot A01(MM-132H)
Company:	Colgate Energy	**TVD Reference:**	3405+30 @ 3435.00usft
Project:	(Permit) Eddy County, NM (83-NME)	**MD Reference:**	3405+30 @ 3435.00usft
Site:	(Permit) Mad Max 6 Fed Com	**North Reference:**	Grid
Well:	(A01)Mad Max 6 Fed Com 132H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Permit		
Design:	APD-Rev00		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,734.08	0.00	0.00	7,732.04	-69.78	-15.00	-15.38	0.00	0.00	0.00
KOP: 7734.08' MD, -15.38' VS, 7732.04' TVD									
7,750.00	1.59	89.60	7,747.96	-69.78	-14.78	-15.16	10.00	10.00	0.00
7,800.00	6.59	89.60	7,797.82	-69.75	-11.21	-11.59	10.00	10.00	0.00
7,850.00	11.59	89.60	7,847.17	-69.70	-3.31	-3.69	10.00	10.00	0.00
7,900.00	16.59	89.60	7,895.65	-69.61	8.86	8.48	10.00	10.00	0.00
7,950.00	21.59	89.60	7,942.89	-69.50	25.21	24.83	10.00	10.00	0.00
8,000.00	26.59	89.60	7,988.52	-69.36	45.61	45.23	10.00	10.00	0.00
8,050.00	31.59	89.60	8,032.20	-69.19	69.91	69.54	10.00	10.00	0.00
8,100.00	36.59	89.60	8,073.59	-68.99	97.93	97.55	10.00	10.00	0.00
8,140.20	40.61	89.60	8,105.00	-68.82	123.00	122.63	10.00	10.00	0.00
TBSG									
8,150.00	41.59	89.60	8,112.38	-68.77	129.45	129.07	10.00	10.00	0.00
8,200.00	46.59	89.60	8,148.28	-68.53	164.23	163.85	10.00	10.00	0.00
8,250.00	51.59	89.60	8,181.02	-68.27	202.00	201.63	10.00	10.00	0.00
8,300.00	56.59	89.60	8,210.33	-67.99	242.49	242.11	10.00	10.00	0.00
8,350.00	61.59	89.60	8,236.01	-67.69	285.37	285.00	10.00	10.00	0.00
8,400.00	66.59	89.60	8,257.84	-67.38	330.33	329.96	10.00	10.00	0.00
8,440.34	70.63	89.60	8,272.56	-67.12	367.89	367.52	10.00	10.00	0.00
01-FTP(MM-132H)									
8,450.00	71.59	89.60	8,275.68	-67.05	377.02	376.65	10.00	10.00	0.00
8,500.00	76.59	89.60	8,289.38	-66.72	425.09	424.72	10.00	10.00	0.00
8,550.00	81.59	89.60	8,298.84	-66.38	474.17	473.81	10.00	10.00	0.00
8,600.00	86.59	89.60	8,303.98	-66.03	523.89	523.52	10.00	10.00	0.00
8,634.08	90.00	89.60	8,305.00	-65.79	557.95	557.58	10.00	10.00	0.00
EOC: 8634.08' MD, 557.58' VS, 8305.00' TVD									
8,700.00	90.00	89.60	8,305.00	-65.33	623.87	623.50	0.00	0.00	0.00
8,800.00	90.00	89.60	8,305.00	-64.64	723.86	723.50	0.00	0.00	0.00
8,900.00	90.00	89.60	8,305.00	-63.94	823.86	823.50	0.00	0.00	0.00
9,000.00	90.00	89.60	8,305.00	-63.25	923.86	923.50	0.00	0.00	0.00
9,100.00	90.00	89.60	8,305.00	-62.55	1,023.86	1,023.50	0.00	0.00	0.00
9,200.00	90.00	89.60	8,305.00	-61.86	1,123.85	1,123.50	0.00	0.00	0.00
9,300.00	90.00	89.60	8,305.00	-61.16	1,223.85	1,223.50	0.00	0.00	0.00
9,400.00	90.00	89.60	8,305.00	-60.46	1,323.85	1,323.50	0.00	0.00	0.00
9,500.00	90.00	89.60	8,305.00	-59.77	1,423.85	1,423.50	0.00	0.00	0.00
9,600.00	90.00	89.60	8,305.00	-59.07	1,523.84	1,523.50	0.00	0.00	0.00
9,700.00	90.00	89.60	8,305.00	-58.38	1,623.84	1,623.50	0.00	0.00	0.00
9,800.00	90.00	89.60	8,305.00	-57.68	1,723.84	1,723.50	0.00	0.00	0.00
9,900.00	90.00	89.60	8,305.00	-56.98	1,823.84	1,823.50	0.00	0.00	0.00
10,000.00	90.00	89.60	8,305.00	-56.29	1,923.83	1,923.50	0.00	0.00	0.00
10,100.00	90.00	89.60	8,305.00	-55.59	2,023.83	2,023.50	0.00	0.00	0.00
10,200.00	90.00	89.60	8,305.00	-54.90	2,123.83	2,123.50	0.00	0.00	0.00
10,300.00	90.00	89.60	8,305.00	-54.20	2,223.83	2,223.50	0.00	0.00	0.00
10,400.00	90.00	89.60	8,305.00	-53.50	2,323.82	2,323.50	0.00	0.00	0.00
10,500.00	90.00	89.60	8,305.00	-52.81	2,423.82	2,423.50	0.00	0.00	0.00
10,600.00	90.00	89.60	8,305.00	-52.11	2,523.82	2,523.50	0.00	0.00	0.00
10,700.00	90.00	89.60	8,305.00	-51.42	2,623.82	2,623.50	0.00	0.00	0.00
10,800.00	90.00	89.60	8,305.00	-50.72	2,723.82	2,723.50	0.00	0.00	0.00
10,900.00	90.00	89.60	8,305.00	-50.03	2,823.81	2,823.50	0.00	0.00	0.00
11,000.00	90.00	89.60	8,305.00	-49.33	2,923.81	2,923.50	0.00	0.00	0.00
11,086.20	90.00	89.60	8,305.00	-48.73	3,010.01	3,009.70	0.00	0.00	0.00
21-Exit-NM096212(MM-132H)									

COLGATE ENERGY

Planning Report

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well (A01)Mad Max 6 Fed Com 132H - Slot A01(MM-132H)
Company:	Colgate Energy	**TVD Reference:**	3405+30 @ 3435.00usft
Project:	(Permit) Eddy County, NM (83-NME)	**MD Reference:**	3405+30 @ 3435.00usft
Site:	(Permit) Mad Max 6 Fed Com	**North Reference:**	Grid
Well:	(A01)Mad Max 6 Fed Com 132H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Permit		
Design:	APD-Rev00		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,100.00	90.00	89.60	8,305.00	-48.63	3,023.81	3,023.50	0.00	0.00	0.00
11,200.00	90.00	89.60	8,305.00	-47.94	3,123.81	3,123.50	0.00	0.00	0.00
11,300.00	90.00	89.60	8,305.00	-47.24	3,223.80	3,223.50	0.00	0.00	0.00
11,400.00	90.00	89.60	8,305.00	-46.55	3,323.80	3,323.50	0.00	0.00	0.00
11,500.00	90.00	89.60	8,305.00	-45.85	3,423.80	3,423.50	0.00	0.00	0.00
11,600.00	90.00	89.60	8,305.00	-45.15	3,523.80	3,523.50	0.00	0.00	0.00
11,700.00	90.00	89.60	8,305.00	-44.46	3,623.79	3,623.50	0.00	0.00	0.00
11,800.00	90.00	89.60	8,305.00	-43.76	3,723.79	3,723.50	0.00	0.00	0.00
11,900.00	90.00	89.60	8,305.00	-43.07	3,823.79	3,823.50	0.00	0.00	0.00
12,000.00	90.00	89.60	8,305.00	-42.37	3,923.79	3,923.50	0.00	0.00	0.00
12,100.00	90.00	89.60	8,305.00	-41.68	4,023.78	4,023.50	0.00	0.00	0.00
12,200.00	90.00	89.60	8,305.00	-40.98	4,123.78	4,123.50	0.00	0.00	0.00
12,300.00	90.00	89.60	8,305.00	-40.28	4,223.78	4,223.50	0.00	0.00	0.00
12,400.00	90.00	89.60	8,305.00	-39.59	4,323.78	4,323.50	0.00	0.00	0.00
12,500.00	90.00	89.60	8,305.00	-38.89	4,423.77	4,423.50	0.00	0.00	0.00
12,600.00	90.00	89.60	8,305.00	-38.20	4,523.77	4,523.50	0.00	0.00	0.00
12,700.00	90.00	89.60	8,305.00	-37.50	4,623.77	4,623.50	0.00	0.00	0.00
12,800.00	90.00	89.60	8,305.00	-36.80	4,723.77	4,723.50	0.00	0.00	0.00
12,900.00	90.00	89.60	8,305.00	-36.11	4,823.76	4,823.50	0.00	0.00	0.00
13,000.00	90.00	89.60	8,305.00	-35.41	4,923.76	4,923.50	0.00	0.00	0.00
13,100.00	90.00	89.60	8,305.00	-34.72	5,023.76	5,023.50	0.00	0.00	0.00
13,200.00	90.00	89.60	8,305.00	-34.02	5,123.76	5,123.50	0.00	0.00	0.00
13,300.00	90.00	89.60	8,305.00	-33.33	5,223.75	5,223.50	0.00	0.00	0.00
13,400.00	90.00	89.60	8,305.00	-32.63	5,323.75	5,323.50	0.00	0.00	0.00
13,500.00	90.00	89.60	8,305.00	-31.93	5,423.75	5,423.50	0.00	0.00	0.00
13,600.00	90.00	89.60	8,305.00	-31.24	5,523.75	5,523.50	0.00	0.00	0.00
13,700.00	90.00	89.60	8,305.00	-30.54	5,623.75	5,623.50	0.00	0.00	0.00
13,744.84	90.00	89.60	8,305.00	-30.23	5,668.58	5,668.33	0.00	0.00	0.00
13,744.91	90.00	89.60	8,305.00	-30.23	5,668.65	5,668.40	0.00	0.00	0.00
23-Exit-NM096211(MM-132H)									
13,753.48	90.00	89.77	8,305.00	-30.18	5,677.22	5,676.97	2.02	0.00	2.02
13,800.00	90.00	89.77	8,305.00	-30.00	5,723.74	5,723.50	0.00	0.00	0.00
13,900.00	90.00	89.77	8,305.00	-29.61	5,823.74	5,823.50	0.00	0.00	0.00
14,000.00	90.00	89.77	8,305.00	-29.21	5,923.74	5,923.50	0.00	0.00	0.00
14,100.00	90.00	89.77	8,305.00	-28.82	6,023.74	6,023.50	0.00	0.00	0.00
14,200.00	90.00	89.77	8,305.00	-28.42	6,123.74	6,123.50	0.00	0.00	0.00
14,300.00	90.00	89.77	8,305.00	-28.03	6,223.74	6,223.50	0.00	0.00	0.00
14,400.00	90.00	89.77	8,305.00	-27.63	6,323.74	6,323.50	0.00	0.00	0.00
14,500.00	90.00	89.77	8,305.00	-27.24	6,423.74	6,423.50	0.00	0.00	0.00
14,600.00	90.00	89.77	8,305.00	-26.85	6,523.74	6,523.50	0.00	0.00	0.00
14,700.00	90.00	89.77	8,305.00	-26.45	6,623.74	6,623.50	0.00	0.00	0.00
14,800.00	90.00	89.77	8,305.00	-26.06	6,723.74	6,723.50	0.00	0.00	0.00
14,900.00	90.00	89.77	8,305.00	-25.66	6,823.74	6,823.50	0.00	0.00	0.00
15,000.00	90.00	89.77	8,305.00	-25.27	6,923.73	6,923.50	0.00	0.00	0.00
15,100.00	90.00	89.77	8,305.00	-24.87	7,023.73	7,023.50	0.00	0.00	0.00
15,200.00	90.00	89.77	8,305.00	-24.48	7,123.73	7,123.50	0.00	0.00	0.00
15,300.00	90.00	89.77	8,305.00	-24.09	7,223.73	7,223.50	0.00	0.00	0.00
15,400.00	90.00	89.77	8,305.00	-23.69	7,323.73	7,323.50	0.00	0.00	0.00
15,500.00	90.00	89.77	8,305.00	-23.30	7,423.73	7,423.50	0.00	0.00	0.00
15,600.00	90.00	89.77	8,305.00	-22.90	7,523.73	7,523.50	0.00	0.00	0.00
15,700.00	90.00	89.77	8,305.00	-22.51	7,623.73	7,623.50	0.00	0.00	0.00
15,800.00	90.00	89.77	8,305.00	-22.11	7,723.73	7,723.50	0.00	0.00	0.00

COLGATE ENERGY

Planning Report

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well (A01)Mad Max 6 Fed Com 132H - Slot A01(MM-132H)
Company:	Colgate Energy	**TVD Reference:**	3405+30 @ 3435.00usft
Project:	(Permit) Eddy County, NM (83-NME)	**MD Reference:**	3405+30 @ 3435.00usft
Site:	(Permit) Mad Max 6 Fed Com	**North Reference:**	Grid
Well:	(A01)Mad Max 6 Fed Com 132H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Permit		
Design:	APD-Rev00		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,900.00	90.00	89.77	8,305.00	-21.72	7,823.73	7,823.50	0.00	0.00	0.00
16,000.00	90.00	89.77	8,305.00	-21.33	7,923.73	7,923.50	0.00	0.00	0.00
16,100.00	90.00	89.77	8,305.00	-20.93	8,023.73	8,023.50	0.00	0.00	0.00
16,200.00	90.00	89.77	8,305.00	-20.54	8,123.72	8,123.49	0.00	0.00	0.00
16,300.00	90.00	89.77	8,305.00	-20.14	8,223.72	8,223.49	0.00	0.00	0.00
16,400.00	90.00	89.77	8,305.00	-19.75	8,323.72	8,323.49	0.00	0.00	0.00
16,500.00	90.00	89.77	8,305.00	-19.35	8,423.72	8,423.49	0.00	0.00	0.00
16,600.00	90.00	89.77	8,305.00	-18.96	8,523.72	8,523.49	0.00	0.00	0.00
16,700.00	90.00	89.77	8,305.00	-18.57	8,623.72	8,623.49	0.00	0.00	0.00
16,800.00	90.00	89.77	8,305.00	-18.17	8,723.72	8,723.49	0.00	0.00	0.00
16,900.00	90.00	89.77	8,305.00	-17.78	8,823.72	8,823.49	0.00	0.00	0.00
17,000.00	90.00	89.77	8,305.00	-17.38	8,923.72	8,923.49	0.00	0.00	0.00
17,100.00	90.00	89.77	8,305.00	-16.99	9,023.72	9,023.49	0.00	0.00	0.00
17,200.00	90.00	89.77	8,305.00	-16.60	9,123.72	9,123.49	0.00	0.00	0.00
17,300.00	90.00	89.77	8,305.00	-16.20	9,223.72	9,223.49	0.00	0.00	0.00
17,400.00	90.00	89.77	8,305.00	-15.81	9,323.72	9,323.49	0.00	0.00	0.00
17,500.00	90.00	89.77	8,305.00	-15.41	9,423.71	9,423.49	0.00	0.00	0.00
17,600.00	90.00	89.77	8,305.00	-15.02	9,523.71	9,523.49	0.00	0.00	0.00
17,700.00	90.00	89.77	8,305.00	-14.62	9,623.71	9,623.49	0.00	0.00	0.00
17,800.00	90.00	89.77	8,305.00	-14.23	9,723.71	9,723.49	0.00	0.00	0.00
17,900.00	90.00	89.77	8,305.00	-13.84	9,823.71	9,823.49	0.00	0.00	0.00
18,000.00	90.00	89.77	8,305.00	-13.44	9,923.71	9,923.49	0.00	0.00	0.00
18,100.00	90.00	89.77	8,305.00	-13.05	10,023.71	10,023.49	0.00	0.00	0.00
18,200.00	90.00	89.77	8,305.00	-12.65	10,123.71	10,123.49	0.00	0.00	0.00
18,300.00	90.00	89.77	8,305.00	-12.26	10,223.71	10,223.49	0.00	0.00	0.00
18,400.00	90.00	89.77	8,305.00	-11.86	10,323.71	10,323.49	0.00	0.00	0.00
18,500.00	90.00	89.77	8,305.00	-11.47	10,423.71	10,423.49	0.00	0.00	0.00
18,600.00	90.00	89.77	8,305.00	-11.08	10,523.71	10,523.49	0.00	0.00	0.00
18,700.00	90.00	89.77	8,305.00	-10.68	10,623.71	10,623.49	0.00	0.00	0.00
18,800.00	90.00	89.77	8,305.00	-10.29	10,723.70	10,723.49	0.00	0.00	0.00
18,900.00	90.00	89.77	8,305.00	-9.89	10,823.70	10,823.49	0.00	0.00	0.00
18,960.46	90.00	89.77	8,305.00	-9.65	10,884.16	10,883.95	0.00	0.00	0.00
02-LTP(MM-132H) - 25-100FEL-NM083581(MM-132H)									
19,000.00	90.00	89.77	8,305.00	-9.50	10,923.70	10,923.49	0.00	0.00	0.00
19,050.46	90.00	89.77	8,305.00	-9.30	10,974.16	10,973.95	0.00	0.00	0.00
TD: 19050.46' MD, 10973.95' VS, 8305.00' TVD - 03-PBHL(MM-132H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
01-FTP(MM-132H)	0.00	0.00	8,305.00	-67.21	355.49	583,274.09	574,566.58	32.60342627	-104.22542597
- plan misses target center by 34.73usft at 8440.34usft MD (8272.56 TVD, -67.12 N, 367.89 E)									
- Point									
02-LTP(MM-132H)	0.00	0.00	8,305.00	-9.67	10,884.16	583,331.63	585,095.25	32.60355042	-104.19123523
- plan misses target center by 0.02usft at 18960.46usft MD (8305.00 TVD, -9.65 N, 10884.16 E)									
- Point									
03-PBHL(MM-132H)	0.00	0.01	8,305.00	-9.30	10,974.16	583,332.00	585,185.25	32.60355110	-104.19094297
- plan hits target center									
- Point									

COLGATE ENERGY

Planning Report

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well (A01)Mad Max 6 Fed Com 132H - Slot A01(MM-132H)
Company:	Colgate Energy	**TVD Reference:**	3405+30 @ 3435.00usft
Project:	(Permit) Eddy County, NM (83-NME)	**MD Reference:**	3405+30 @ 3435.00usft
Site:	(Permit) Mad Max 6 Fed Com	**North Reference:**	Grid
Well:	(A01)Mad Max 6 Fed Com 132H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Permit		
Design:	APD-Rev00		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
133.00	133.00	Rustler			
305.00	305.00	Salado			
540.00	540.00	Tansill			
667.00	667.00	Yates			
1,135.34	1,135.00	Seven Rivers		0.00	
1,576.16	1,575.00	Queen			
1,946.85	1,945.00	Grayburg			
2,392.04	2,390.00	San Andres			
2,837.04	2,835.00	Delaware Sands			
3,937.04	3,935.00	Bone Spring			
5,937.04	5,935.00	FBSG			
6,952.04	6,950.00	SBSG			
8,140.20	8,105.00	TBSG			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
7,734.08	7,732.04	-69.78	-15.00	KOP: 7734.08' MD, -15.38' VS, 7732.04' TVD
8,634.08	8,305.00	-65.79	557.95	EOC: 8634.08' MD, 557.58' VS, 8305.00' TVD
19,050.46	8,305.00	-9.30	10,974.16	TD: 19050.46' MD, 10973.95' VS, 8305.00' TVD

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Colgate**
LEASE NO.:	**NMNM096212**
LOCATION:	Section 1, T.20 S., R.28 E., NMPM
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	Mad Max 6 Fed Com 132H
SURFACE HOLE FOOTAGE:	2234'/N & 256'/E
BOTTOM HOLE FOOTAGE	2330'/N & 10'/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
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **180** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

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

hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

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

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
   - Cement to surface. If cement does not circulate see B.1.a, c-d above.

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

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is: Cement should tie-back at least **200ft** into previous casing. Operator shall provide method of verification.

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

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).

2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

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

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

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

GENERAL REQUIREMENTS

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

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

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

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

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.
ZS092622

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 155261

CONDITIONS

Operator: COLGATE OPERATING, LLC 300 North Marienfeld Street Midland, TX 79701	OGRID: 371449
	Action Number: 155261
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	11/2/2022
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	11/2/2022
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	11/2/2022
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	11/2/2022
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	11/2/2022