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.

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.

2. Name of Operator

9. API Well No. 30 015 47951

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory

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

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

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
Title		
Approved by *(Signature)*	Name *(Printed/Typed)*	Date
Title	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: 11/13/2020

Entered - KMS NMOCD

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 47951	96718	Loco Hills; Glorieta-Yeso

[4]Property Code	[5]Property Name	[6]Well Number
7377	LA FORGE FEDERAL COM	2H

[7]OGRID No.	[8]Operator Name	[9]Elevation
	EOG RESOURCES, INC.	3767'

[10]Surface Location

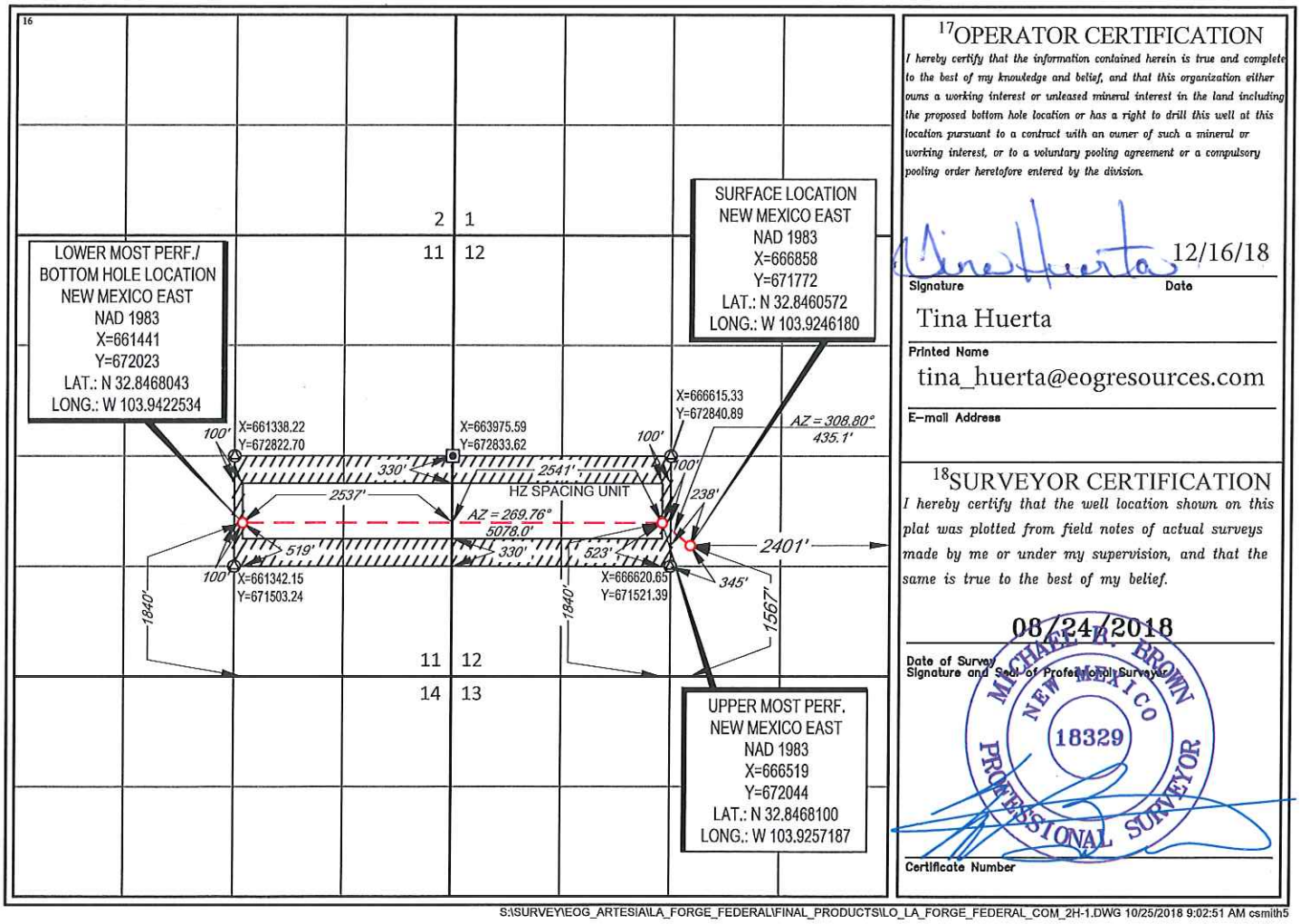
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	12	17-S	30-E	–	1567	SOUTH	2401	EAST	EDDY

[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
J	11	17-S	30-E	–	1840	SOUTH	2537	EAST	EDDY

[12]Dedicated Acres	[13]Joint or Infill	[14]Consolidation Code	[15]Order No.
160.00			

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.



[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.

Tina Huerta 12/16/18
Signature Date

Tina Huerta
Printed Name

tina_huerta@eogresources.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 to the best of my belief.

08/24/2018
Date of Survey
Signature and Seal of Professional Surveyor:

MICHAEL B. BROWN
NEW MEXICO
18329
PROFESSIONAL SURVEYOR

Certificate Number

S:\SURVEY\EOG_ARTESIA\LA_FORGE_FEDERAL\FINAL_PRODUCTS\LO_LA_FORGE_FEDERAL_COM_2H-1.DWG 10/25/2018 9:02:51 AM csmith5

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**EOG RESOURCES INC.**
LEASE NO.:	**NMLC0029339A**
WELL NAME & NO.:	**LA FORGE FED COM 2H**
SURFACE HOLE FOOTAGE:	**1567'/S & 2401'/E**
BOTTOM HOLE FOOTAGE	**1840'/S & 2537'/E**
LOCATION:	**Section 12, T.17 S., R.30 E., NMPM**
COUNTY:	**Eddy County, New Mexico**

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	[x] COM	[ ] Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Grayburg** 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

Primary Casing Design

1. The **13-3/8** inch surface casing shall be set at approximately **400** 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

Approval Date: 11/13/2020

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 **7 X 5 ½** inch production 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.**

Alternate Casing Design

3. The **13-3/8** inch surface casing shall be set at approximately **400** 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.

4. 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 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.

5. The minimum required fill of cement behind the **7 X 5 ½** inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

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

2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** 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) 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.

JJP11022020

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL
Mr. Scott-La Forge Fed Com
Lease Number NMLC 0029338
NMLC 0029339A
NMNM 0074939
NMNM 002748

Mr. Scott Fed Com #1H, La Forge Fed Com #2H,
Two Surface Flowlines, Lease Road
EOG Resources Inc.

Legal Description:

Well Pad 1

Mr. Scott Fed Com #1H
Surface Hole Location: 1591' FSL & 2382' FEL, Section 12, T. 17 S., R. 30 E.
Bottom Hole Location: 1840' FSL & 2537' FEL, Section 11, T. 17 S., R. 30 E.

La Forge Fed Com #2H
Surface Hole Location: 1567' FSL & 2401' FEL, Section 12, T. 17 S., R. 30 E.
Bottom Hole Location: 1840' FSL & 2537' FEL, Section 11, T. 17 S., R. 30 E.

TABLE OF CONTENTS

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

☐ **Road Section Diagram**
☐ **Production (Post Drilling)**
Well Structures & Facilities
Pipelines
Electric Lines
☐ **Interim Reclamation**
☐ **Final Abandonment & Reclamation**

GENERAL PROVISIONS

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

I. PERMIT EXPIRATION

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

II. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

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

III. NOXIOUS WEEDS

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

SPECIAL REQUIREMENT(S)

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

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

CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be

redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

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

G. ON LEASE ACCESS ROADS

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

Surfacing

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

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

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

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

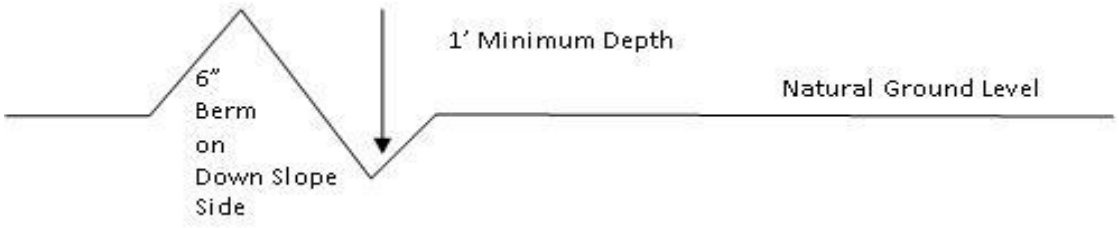
Ditching
Ditching shall be required on both sides of the road.

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

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

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

Cross Section of a Typical Lead-off Ditch



Approval Date: 11/13/2020

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

Formula for Spacing Interval of Lead-off Ditches

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

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattle guards

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

Fence Requirement

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

Public Access

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

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

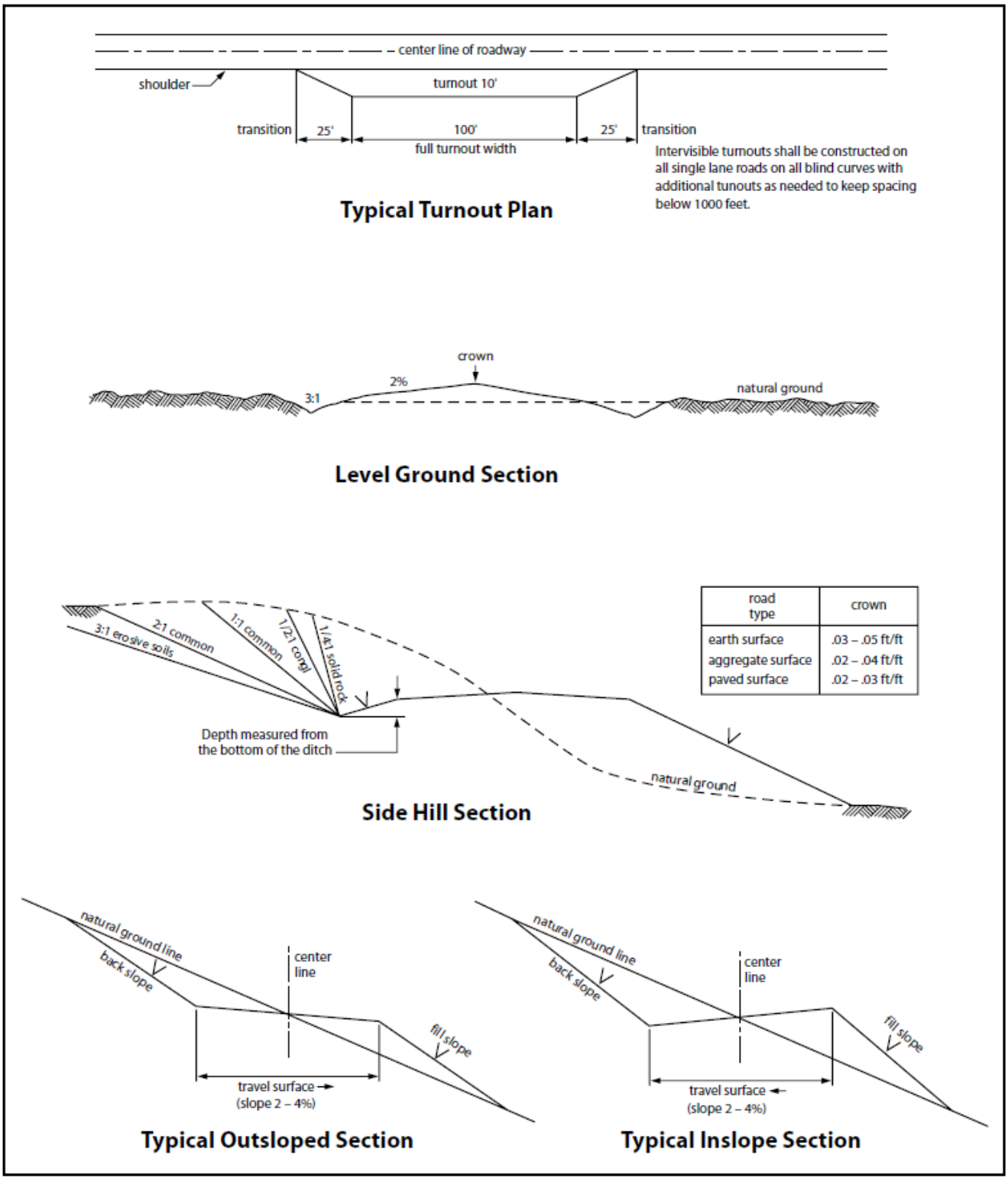


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

Approval Date: 11/13/2020

IV. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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

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

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

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

Containment Structures

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

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

B. PIPELINES

BURIED PIPELINE STIPULATIONS

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

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

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

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

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

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

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

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **30** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation*.)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

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

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

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

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

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

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

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

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

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

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

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

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

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

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

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

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

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

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the

Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
b. Activities of other parties including, but not limited to:
    (1) Land clearing.
    (2) Earth-disturbing and earth-moving work.
    (3) Blasting.
    (4) Vandalism and sabotage.
c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

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

6. All construction and maintenance activity will be confined to the authorized right-of-way width of **20** feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline must be installed no farther than 10 feet

from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline must be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity will be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.

9. The pipeline shall be buried with a minimum of **24** inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

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

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

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

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

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

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

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

17. Surface pipelines must be less than or equal to 4 inches and a working pressure below 125 psi.

V. INTERIM RECLAMATION

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

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

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

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

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

VI. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

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

Seed Mixture for LPC Sand/Shinnery Sites

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

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

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

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

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

EXIBIT 1a
EOG Resources, Inc.
3M Choke Manifold Equipment

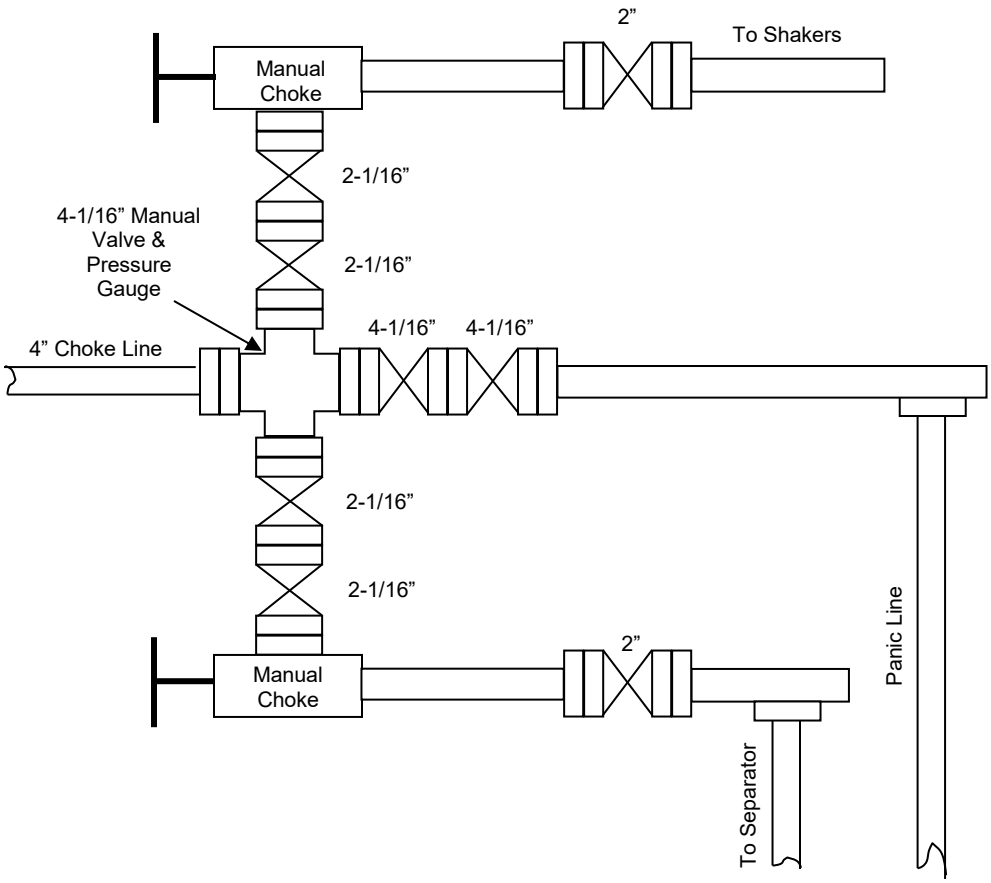
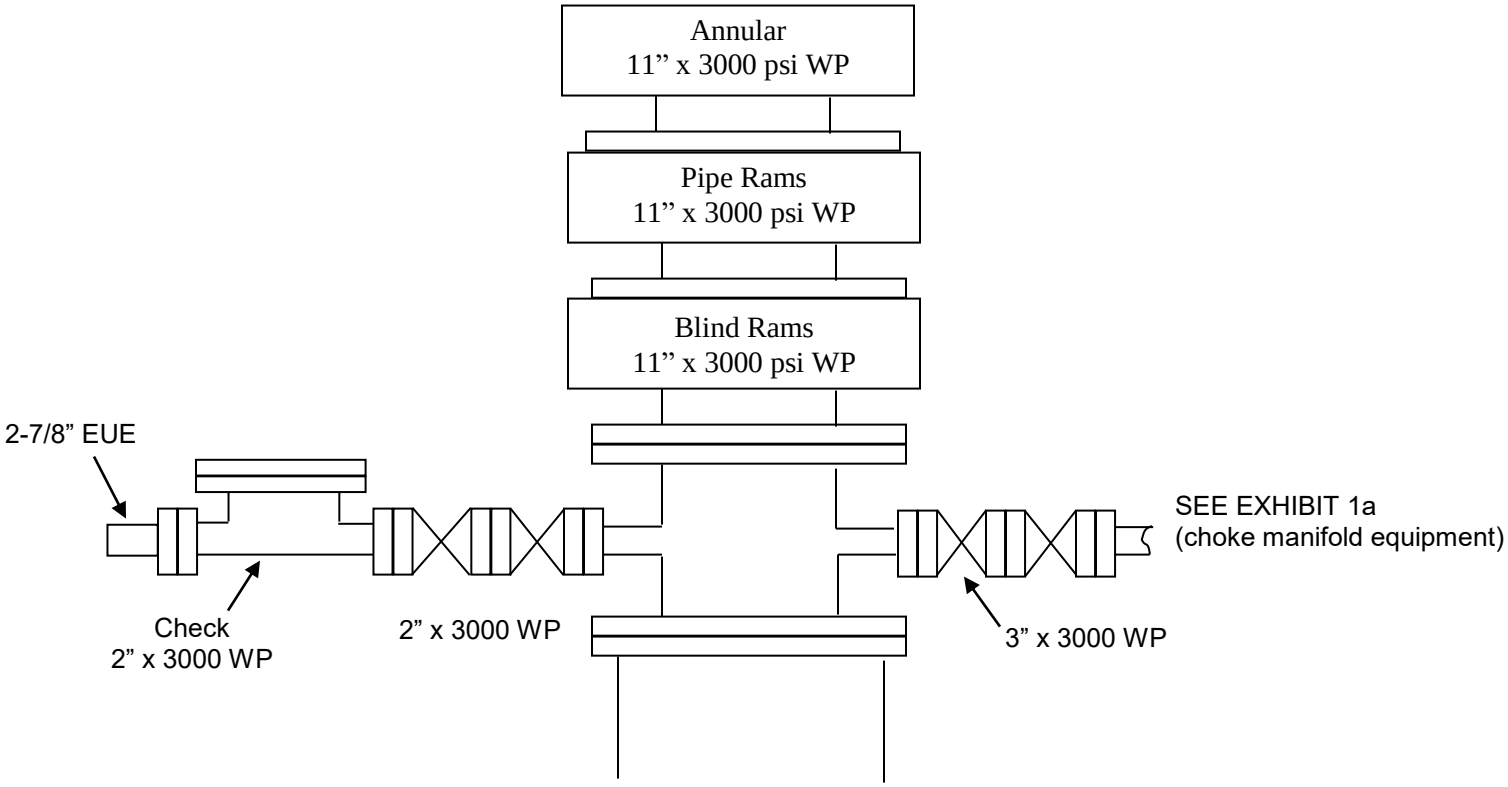
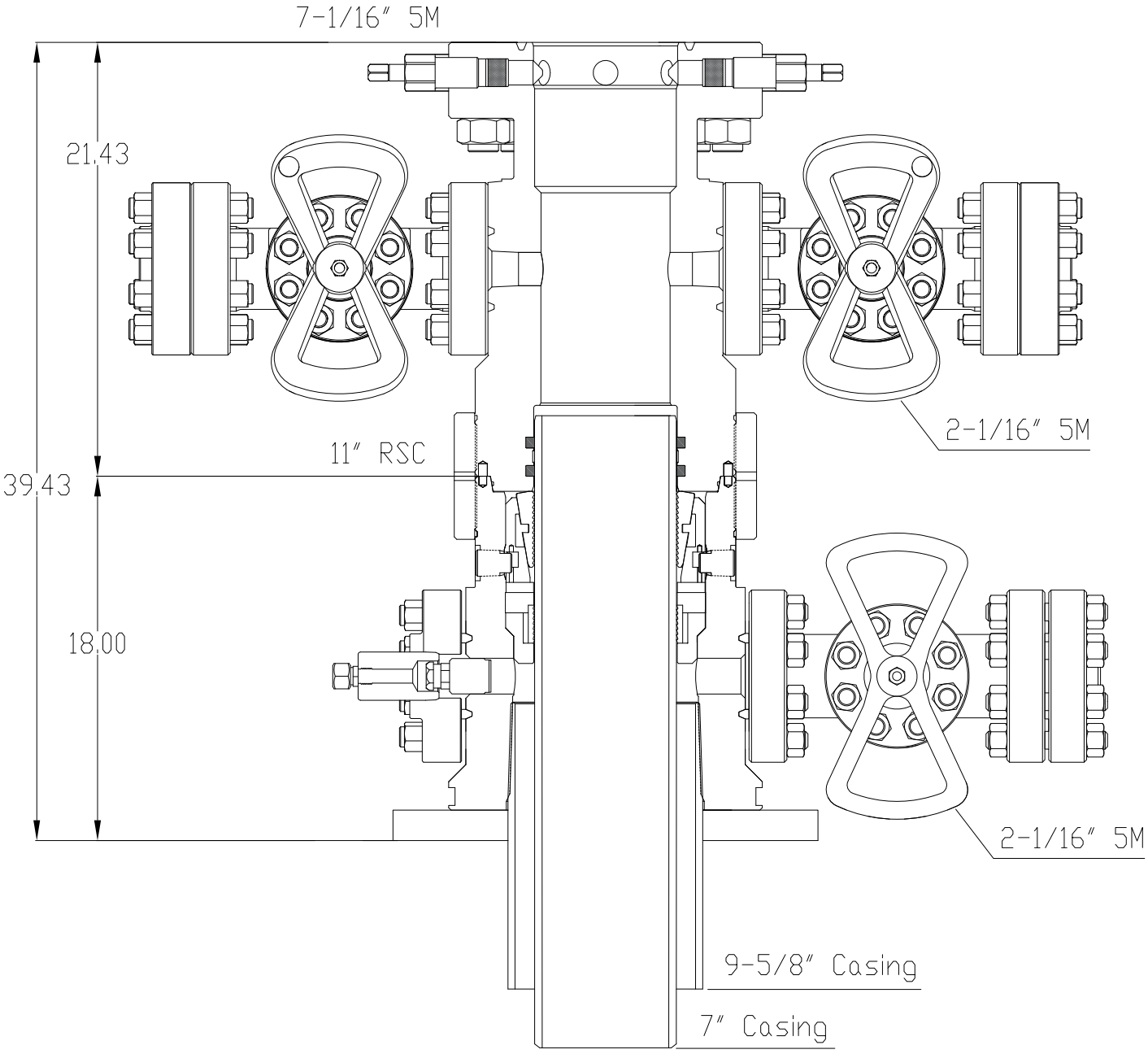


EXHIBIT 1

EOG Resources
3000 PSI BOPE

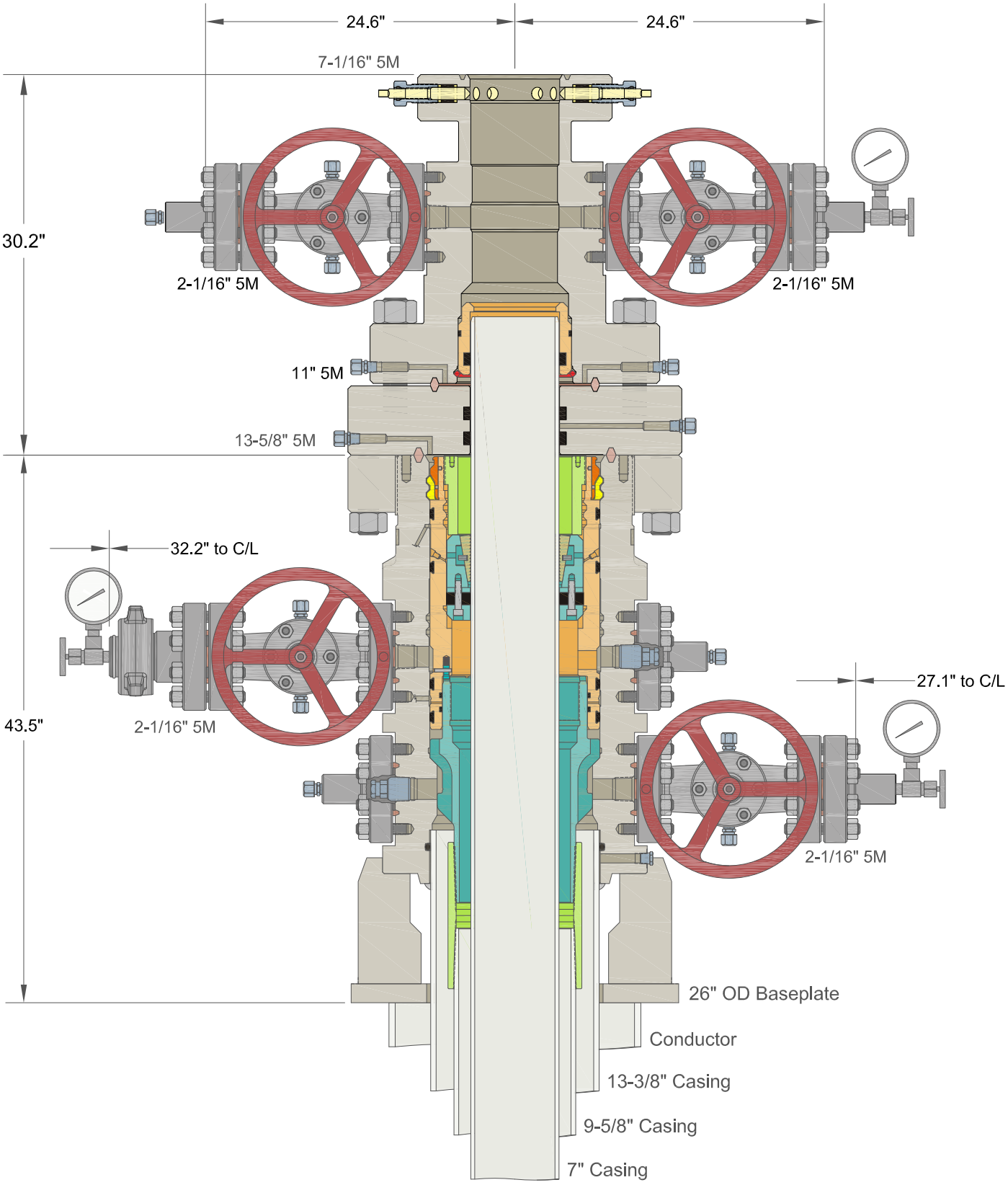




*CONCEPT QUOTE DRAWING

EOG RESOURCES INC. 9-5/8" X 7" 5M HES WELLHEAD SYSTEM QUOTE: HOU - 119274	DWN	CB	1/25/18	DRAWING NO WH-17830
	CHK			
	APP			
		BY	DATE	

Woldwide Expertise - Global Strength



ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC	EOG RESOURCES ARTESIA		
13-3/8" x 9-5/8" x 7" 5M MBU-3T Wellhead System With 11" 5M x 7-1/16" 5M CTH-HPS Tubing Head, 9-5/8" Mandrel Casing Hanger & 7" C22 Slip Casing Hanger	DRAWN	DLE	17JAN19
	APPRV		
	DRAWING NO.	HBE0000060	

EOG RESOURCES, INC.
La Forge Federal Com 2H

Hydrogen Sulfide Plan Summary

A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

- Well control equipment
  a. Flare line 150' from wellhead to be ignited by flare gun.
  b. Choke manifold with a remotely operated choke.
  c. Mud/gas separator

- Protective equipment for essential personnel.

  Breathing apparatus:
  a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
  b. Work/Escape packs —4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
  c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

  Auxiliary Rescue Equipment:
  a. Stretcher
  b. Two OSHA full body harness
  c. 100 ft 5/8 inch OSHA approved rope
  d. 1-20# class ABC fire extinguisher

- H2S detection and monitoring equipment:
  The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
  (Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
  a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
  c. Two wind socks will be placed in strategic locations, visible from all angles.

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La Forge Federal Com 2H

- Mud program:
  The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

- Metallurgy:
  All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

- Communication:
  Communication will be via cell phones and land lines where available.

EOG RESOURCES, INC.
La Forge Federal Com 2H

Emergency Assistance Telephone List

PUBLIC SAFETY:	**911 or**
Eddy County Sheriff's Department	(575) 887-7551
Fire Department:	
Carlsbad	(575) 885-3125
Artesia	(575) 746-5050
Hospitals:	
Carlsbad	(575) 887-4121
Artesia	(575) 748-3333
Hobbs	(575) 392-1979
Dept. of Public Safety/Carlsbad	(575) 748-9718
Highway Department	(575) 885-3281
New Mexico Oil Conservation	(575) 476-3440
U.S. Dept. of Labor	(575) 887-1174

EOG Resources, Inc.		
EOG / Artesia	Office	(575) 748-1471

Company Drilling Consultants:		
Brent Patterson	Cell	(575) 365-7032

Drilling Engineer		
Jeremiah Mullen	Office	(575) 748-4378
	Cell	(575) 703-5467

Drilling Manager		
Tim Bussell	Office	(575) 748-4221
	Cell	(575) 365-5695

Safety		
Brian Chandler (HSE Manager)	Office	(432) 686-3695
	Cell	(817) 239-0251

EOG Resources - Artesia

Eddy County (NAD83)
La Forge
La Forge Federal Com #2H

Lateral

Plan: Plan #1

Standard Planning Report

02 January, 2019

eog resources

Planning Report

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well La Forge Federal Com #2H
Company:	EOG Resources - Artesia	**TVD Reference:**	KB @ 3785.000usft (Planning Rig)
Project:	Eddy County (NAD83)	**MD Reference:**	KB @ 3785.000usft (Planning Rig)
Site:	La Forge	**North Reference:**	Grid
Well:	La Forge Federal Com #2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

Project Eddy County (NAD83)

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

Site La Forge

Site Position:		**Northing:**	671,772.00 usft	**Latitude:**	32° 50' 45.810 N
From:	Map	**Easting:**	666,858.00 usft	**Longitude:**	103° 55' 28.620 W
Position Uncertainty:	0.000 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.22 °

Well La Forge Federal Com #2H

Well Position	**+N/-S**	0.000 usft	**Northing:**	671,772.00 usft	**Latitude:**	32° 50' 45.810 N
	+E/-W	0.000 usft	**Easting:**	666,858.00 usft	**Longitude:**	103° 55' 28.620 W
Position Uncertainty		0.000 usft	**Wellhead Elevation:**	3,785.000 usft	**Ground Level:**	3,767.000 usft

Wellbore Lateral

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/18/2018	7.02	60.56	48,128.12825225

Design Plan #1

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.000

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.000	0.000	0.000	272.653

Plan Survey Tool Program **Date** 1/2/2019

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.000	10,407.143	Plan #1 (Lateral)	MWD	
				OWSG MWD - Standard	

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
0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00	
400.000	0.00	0.000	400.000	0.000	0.000	0.00	0.00	0.00	0.00	
3,500.000	0.00	0.000	3,500.000	0.000	0.000	0.00	0.00	0.00	0.00	
4,201.939	0.00	0.000	4,201.939	0.000	0.000	0.00	0.00	0.00	0.00	
4,801.939	30.00	333.200	4,774.897	137.033	-69.220	5.00	5.00	0.00	333.20	
5,370.808	60.00	269.760	5,191.541	272.048	-402.120	9.00	5.27	-11.15	-83.71	
5,445.808	60.00	269.760	5,229.041	271.776	-467.071	0.00	0.00	0.00	0.00	
5,698.850	90.37	269.759	5,293.000	270.762	-708.844	12.00	12.00	0.00	0.00	
10,407.143	90.37	269.759	5,263.000	251.000	-5,417.000	0.00	0.00	0.00	0.00	[LFFC#2H]BHL1

eog resources

Planning Report

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well La Forge Federal Com #2H
Company:	EOG Resources - Artesia	**TVD Reference:**	KB @ 3785.000usft (Planning Rig)
Project:	Eddy County (NAD83)	**MD Reference:**	KB @ 3785.000usft (Planning Rig)
Site:	La Forge	**North Reference:**	Grid
Well:	La Forge Federal Com #2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

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)
0.000	0.00	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00
100.000	0.00	0.000	100.000	0.000	0.000	0.000	0.00	0.00	0.00
200.000	0.00	0.000	200.000	0.000	0.000	0.000	0.00	0.00	0.00
300.000	0.00	0.000	300.000	0.000	0.000	0.000	0.00	0.00	0.00
400.000	0.00	0.000	400.000	0.000	0.000	0.000	0.00	0.00	0.00
500.000	0.00	0.000	500.000	0.000	0.000	0.000	0.00	0.00	0.00
600.000	0.00	0.000	600.000	0.000	0.000	0.000	0.00	0.00	0.00
700.000	0.00	0.000	700.000	0.000	0.000	0.000	0.00	0.00	0.00
800.000	0.00	0.000	800.000	0.000	0.000	0.000	0.00	0.00	0.00
900.000	0.00	0.000	900.000	0.000	0.000	0.000	0.00	0.00	0.00
1,000.000	0.00	0.000	1,000.000	0.000	0.000	0.000	0.00	0.00	0.00
1,100.000	0.00	0.000	1,100.000	0.000	0.000	0.000	0.00	0.00	0.00
1,200.000	0.00	0.000	1,200.000	0.000	0.000	0.000	0.00	0.00	0.00
1,300.000	0.00	0.000	1,300.000	0.000	0.000	0.000	0.00	0.00	0.00
1,400.000	0.00	0.000	1,400.000	0.000	0.000	0.000	0.00	0.00	0.00
1,500.000	0.00	0.000	1,500.000	0.000	0.000	0.000	0.00	0.00	0.00
1,600.000	0.00	0.000	1,600.000	0.000	0.000	0.000	0.00	0.00	0.00
1,700.000	0.00	0.000	1,700.000	0.000	0.000	0.000	0.00	0.00	0.00
1,800.000	0.00	0.000	1,800.000	0.000	0.000	0.000	0.00	0.00	0.00
1,900.000	0.00	0.000	1,900.000	0.000	0.000	0.000	0.00	0.00	0.00
2,000.000	0.00	0.000	2,000.000	0.000	0.000	0.000	0.00	0.00	0.00
2,100.000	0.00	0.000	2,100.000	0.000	0.000	0.000	0.00	0.00	0.00
2,200.000	0.00	0.000	2,200.000	0.000	0.000	0.000	0.00	0.00	0.00
2,300.000	0.00	0.000	2,300.000	0.000	0.000	0.000	0.00	0.00	0.00
2,400.000	0.00	0.000	2,400.000	0.000	0.000	0.000	0.00	0.00	0.00
2,500.000	0.00	0.000	2,500.000	0.000	0.000	0.000	0.00	0.00	0.00
2,600.000	0.00	0.000	2,600.000	0.000	0.000	0.000	0.00	0.00	0.00
2,700.000	0.00	0.000	2,700.000	0.000	0.000	0.000	0.00	0.00	0.00
2,800.000	0.00	0.000	2,800.000	0.000	0.000	0.000	0.00	0.00	0.00
2,900.000	0.00	0.000	2,900.000	0.000	0.000	0.000	0.00	0.00	0.00
3,000.000	0.00	0.000	3,000.000	0.000	0.000	0.000	0.00	0.00	0.00
3,100.000	0.00	0.000	3,100.000	0.000	0.000	0.000	0.00	0.00	0.00
3,200.000	0.00	0.000	3,200.000	0.000	0.000	0.000	0.00	0.00	0.00
3,300.000	0.00	0.000	3,300.000	0.000	0.000	0.000	0.00	0.00	0.00
3,400.000	0.00	0.000	3,400.000	0.000	0.000	0.000	0.00	0.00	0.00
3,500.000	0.00	0.000	3,500.000	0.000	0.000	0.000	0.00	0.00	0.00
3,600.000	0.00	0.000	3,600.000	0.000	0.000	0.000	0.00	0.00	0.00
3,700.000	0.00	0.000	3,700.000	0.000	0.000	0.000	0.00	0.00	0.00
3,800.000	0.00	0.000	3,800.000	0.000	0.000	0.000	0.00	0.00	0.00
3,900.000	0.00	0.000	3,900.000	0.000	0.000	0.000	0.00	0.00	0.00
4,000.000	0.00	0.000	4,000.000	0.000	0.000	0.000	0.00	0.00	0.00
4,100.000	0.00	0.000	4,100.000	0.000	0.000	0.000	0.00	0.00	0.00
4,201.939	0.00	0.000	4,201.939	0.000	0.000	0.000	0.00	0.00	0.00
KOP 5°/100' BR									
4,300.000	4.90	333.200	4,299.880	3.743	-1.891	2.062	5.00	5.00	0.00
4,400.000	9.90	333.200	4,399.015	15.240	-7.698	8.395	5.00	5.00	0.00
4,500.000	14.90	333.200	4,496.650	34.405	-17.379	18.953	5.00	5.00	0.00
4,600.000	19.90	333.200	4,592.042	61.094	-30.861	33.655	5.00	5.00	0.00
4,700.000	24.90	333.200	4,684.466	95.101	-48.039	52.389	5.00	5.00	0.00
4,801.939	30.00	333.200	4,774.897	137.033	-69.220	75.489	5.00	5.00	0.00
4,850.000	30.75	324.768	4,816.380	157.803	-81.731	88.948	9.00	1.56	-17.54
4,900.000	32.07	316.510	4,859.072	177.884	-98.249	106.378	9.00	2.65	-16.52
4,950.000	33.89	308.943	4,901.030	196.287	-118.239	127.197	9.00	3.64	-15.13
5,000.000	36.13	302.131	4,941.995	212.898	-141.576	151.279	9.00	4.47	-13.62

eog resources

Planning Report

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well La Forge Federal Com #2H
Company:	EOG Resources - Artesia	**TVD Reference:**	KB @ 3785.000usft (Planning Rig)
Project:	Eddy County (NAD83)	**MD Reference:**	KB @ 3785.000usft (Planning Rig)
Site:	La Forge	**North Reference:**	Grid
Well:	La Forge Federal Com #2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

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)
5,050.000	38.71	296.061	4,981.715	227.614	-168.118	178.473	9.00	5.16	-12.14
5,100.000	41.57	290.669	5,019.946	240.345	-197.699	208.612	9.00	5.72	-10.78
5,150.000	44.66	285.874	5,056.450	251.012	-230.139	241.511	9.00	6.17	-9.59
5,200.000	47.92	281.587	5,091.004	259.550	-265.237	276.966	9.00	6.53	-8.57
5,250.000	51.33	277.729	5,123.394	265.906	-302.777	314.760	9.00	6.82	-7.72
5,300.000	54.86	274.228	5,153.420	270.040	-342.526	354.658	9.00	7.05	-7.00
5,350.000	58.47	271.021	5,180.898	271.928	-384.241	396.416	9.00	7.23	-6.41
5,368.470	59.83	269.900	5,190.369	272.054	-400.097	412.260	9.00	7.34	-6.07
[LFFC#2H]UMP 5368' MD (5190' TVD)									
5,370.808	60.00	269.760	5,191.541	272.048	-402.120	414.281	9.00	7.37	-5.97
START 75' TANGENT/9°/100' BR									
5,400.000	60.00	269.760	5,206.137	271.942	-427.401	439.530	0.00	0.00	0.00
5,445.808	60.00	269.760	5,229.041	271.776	-467.071	479.150	0.00	0.00	0.00
END 60° TANGENT/BEGIN 12°/100' BR									
5,450.000	60.50	269.760	5,231.121	271.761	-470.711	482.785	12.00	12.00	0.00
5,475.000	63.50	269.760	5,242.855	271.668	-492.782	504.829	12.00	12.00	0.00
5,500.000	66.50	269.760	5,253.418	271.573	-515.438	527.455	12.00	12.00	0.00
5,525.000	69.50	269.760	5,262.781	271.476	-538.615	550.603	12.00	12.00	0.00
5,550.000	72.50	269.760	5,270.918	271.377	-562.250	574.209	12.00	12.00	0.00
5,575.000	75.50	269.760	5,277.807	271.276	-586.279	598.207	12.00	12.00	0.00
5,600.000	78.50	269.760	5,283.429	271.174	-610.636	622.533	12.00	12.00	0.00
5,625.000	81.50	269.760	5,287.769	271.071	-635.253	647.119	12.00	12.00	0.00
5,650.000	84.50	269.760	5,290.814	270.967	-660.064	671.899	12.00	12.00	0.00
5,675.000	87.50	269.760	5,292.556	270.862	-685.000	696.803	12.00	12.00	0.00
5,698.851	90.37	269.759	5,293.000	270.762	-708.844	720.617	12.00	12.00	0.00
[LFFC#2H]EOC 5699' MD (5293' TVD)									
5,700.000	90.37	269.759	5,292.992	270.757	-709.993	721.765	0.00	0.00	0.00
5,800.000	90.37	269.759	5,292.355	270.338	-809.990	821.635	0.00	0.00	0.00
5,900.000	90.37	269.759	5,291.718	269.918	-909.987	921.506	0.00	0.00	0.00
6,000.000	90.37	269.759	5,291.081	269.498	-1,009.985	1,021.376	0.00	0.00	0.00
6,100.000	90.37	269.759	5,290.444	269.078	-1,109.982	1,121.247	0.00	0.00	0.00
6,200.000	90.37	269.759	5,289.807	268.659	-1,209.979	1,221.117	0.00	0.00	0.00
6,300.000	90.37	269.759	5,289.169	268.239	-1,309.976	1,320.988	0.00	0.00	0.00
6,400.000	90.37	269.759	5,288.532	267.819	-1,409.973	1,420.858	0.00	0.00	0.00
6,500.000	90.37	269.759	5,287.895	267.400	-1,509.970	1,520.728	0.00	0.00	0.00
6,600.000	90.37	269.759	5,287.258	266.980	-1,609.967	1,620.599	0.00	0.00	0.00
6,700.000	90.37	269.759	5,286.621	266.560	-1,709.964	1,720.469	0.00	0.00	0.00
6,800.000	90.37	269.759	5,285.983	266.140	-1,809.961	1,820.340	0.00	0.00	0.00
6,900.000	90.37	269.759	5,285.346	265.721	-1,909.958	1,920.210	0.00	0.00	0.00
7,000.000	90.37	269.759	5,284.709	265.301	-2,009.955	2,020.081	0.00	0.00	0.00
7,100.000	90.37	269.759	5,284.072	264.881	-2,109.952	2,119.951	0.00	0.00	0.00
7,200.000	90.37	269.759	5,283.435	264.461	-2,209.950	2,219.822	0.00	0.00	0.00
7,300.000	90.37	269.759	5,282.798	264.042	-2,309.947	2,319.692	0.00	0.00	0.00
7,400.000	90.37	269.759	5,282.160	263.622	-2,409.944	2,419.563	0.00	0.00	0.00
7,500.000	90.37	269.759	5,281.523	263.202	-2,509.941	2,519.433	0.00	0.00	0.00
7,600.000	90.37	269.759	5,280.886	262.782	-2,609.938	2,619.304	0.00	0.00	0.00
7,700.000	90.37	269.759	5,280.249	262.363	-2,709.935	2,719.174	0.00	0.00	0.00
7,800.000	90.37	269.759	5,279.612	261.943	-2,809.932	2,819.045	0.00	0.00	0.00
7,900.000	90.37	269.759	5,278.975	261.523	-2,909.929	2,918.915	0.00	0.00	0.00
8,000.000	90.37	269.759	5,278.337	261.104	-3,009.926	3,018.786	0.00	0.00	0.00
8,100.000	90.37	269.759	5,277.700	260.684	-3,109.923	3,118.656	0.00	0.00	0.00
8,200.000	90.37	269.759	5,277.063	260.264	-3,209.920	3,218.527	0.00	0.00	0.00
8,300.000	90.37	269.759	5,276.426	259.844	-3,309.918	3,318.397	0.00	0.00	0.00

eog resources

Planning Report

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Project:	Eddy County (NAD83)	**MD Reference:**	KB @ 3785.000usft (Planning Rig)
Site:	La Forge	**North Reference:**	Grid
Well:	La Forge Federal Com #2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #1		

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)
8,400.000	90.37	269.759	5,275.789	259.425	-3,409.915	3,418.268	0.00	0.00	0.00
8,500.000	90.37	269.759	5,275.152	259.005	-3,509.912	3,518.138	0.00	0.00	0.00
8,600.000	90.37	269.759	5,274.514	258.585	-3,609.909	3,618.009	0.00	0.00	0.00
8,700.000	90.37	269.759	5,273.877	258.165	-3,709.906	3,717.879	0.00	0.00	0.00
8,800.000	90.37	269.759	5,273.240	257.746	-3,809.903	3,817.750	0.00	0.00	0.00
8,900.000	90.37	269.759	5,272.603	257.326	-3,909.900	3,917.620	0.00	0.00	0.00
9,000.000	90.37	269.759	5,271.966	256.906	-4,009.897	4,017.491	0.00	0.00	0.00
9,100.000	90.37	269.759	5,271.329	256.486	-4,109.894	4,117.361	0.00	0.00	0.00
9,200.000	90.37	269.759	5,270.691	256.067	-4,209.891	4,217.232	0.00	0.00	0.00
9,300.000	90.37	269.759	5,270.054	255.647	-4,309.888	4,317.102	0.00	0.00	0.00
9,400.000	90.37	269.759	5,269.417	255.227	-4,409.885	4,416.972	0.00	0.00	0.00
9,500.000	90.37	269.759	5,268.780	254.808	-4,509.883	4,516.843	0.00	0.00	0.00
9,600.000	90.37	269.759	5,268.143	254.388	-4,609.880	4,616.713	0.00	0.00	0.00
9,700.000	90.37	269.759	5,267.505	253.968	-4,709.877	4,716.584	0.00	0.00	0.00
9,800.000	90.37	269.759	5,266.868	253.548	-4,809.874	4,816.454	0.00	0.00	0.00
9,900.000	90.37	269.759	5,266.231	253.129	-4,909.871	4,916.325	0.00	0.00	0.00
10,000.000	90.37	269.759	5,265.594	252.709	-5,009.868	5,016.195	0.00	0.00	0.00
10,100.000	90.37	269.759	5,264.957	252.289	-5,109.865	5,116.066	0.00	0.00	0.00
10,200.000	90.37	269.759	5,264.320	251.869	-5,209.862	5,215.936	0.00	0.00	0.00
10,300.000	90.37	269.759	5,263.682	251.450	-5,309.859	5,315.807	0.00	0.00	0.00
10,407.143	90.37	269.759	5,263.000	251.000	-5,417.000	5,422.812	0.00	0.00	0.00
[LFFC#2H]BHL 10407' MD (5263' TVD)									

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
[LFFC#2H]BHL1 - plan hits target center - Point	0.00	0.000	5,263.000	251.000	-5,417.000	672,023.00	661,441.00	32° 50' 48.496 N	103° 56' 32.107 W
[LFFC#2H]UMP1 - plan misses target center by 119.440usft at 5368.470usft MD (5190.369 TVD, 272.054 N, -400.097 E) - Point	0.00	0.000	5,293.000	272.000	-339.000	672,044.00	666,519.00	32° 50' 48.514 N	103° 55' 32.582 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
4,201.939	4,201.939	0.000	0.000	KOP 5°/100' BR
5,368.470	5,190.369	272.054	-400.097	[LFFC#2H]UMP 5368' MD (5190' TVD)
5,370.808	5,191.541	272.048	-402.120	START 75' TANGENT/9°/100' BR
5,445.808	5,229.041	271.776	-467.071	END 60° TANGENT/BEGIN 12°/100' BR
5,698.851	5,293.000	270.762	-708.844	[LFFC#2H]EOC 5699' MD (5293' TVD)
10,407.143	5,263.000	251.000	-5,417.000	[LFFC#2H]BHL 10407' MD (5263' TVD)

PROJECT DETAILS: Eddy County (NAD83)	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

Project:	Eddy County (NAD83)
Site:	La Forge
Well:	La Forge Federal Com #2H
Wellbore:	Lateral
Design:	Plan #1
Ground Elevation	3767.000
Northing	671772.00
Easting	666858.00
KB @ 3785.000usft (Planning Rig)	

eog resources

T G M

Azimuths to Grid North
True North: -0.22°
Magnetic North: 6.80°

Magnetic Field
Strength: 48128.1snT
Dip Angle: 60.56°
Date: 10/18/2018
Model: IGRF2015

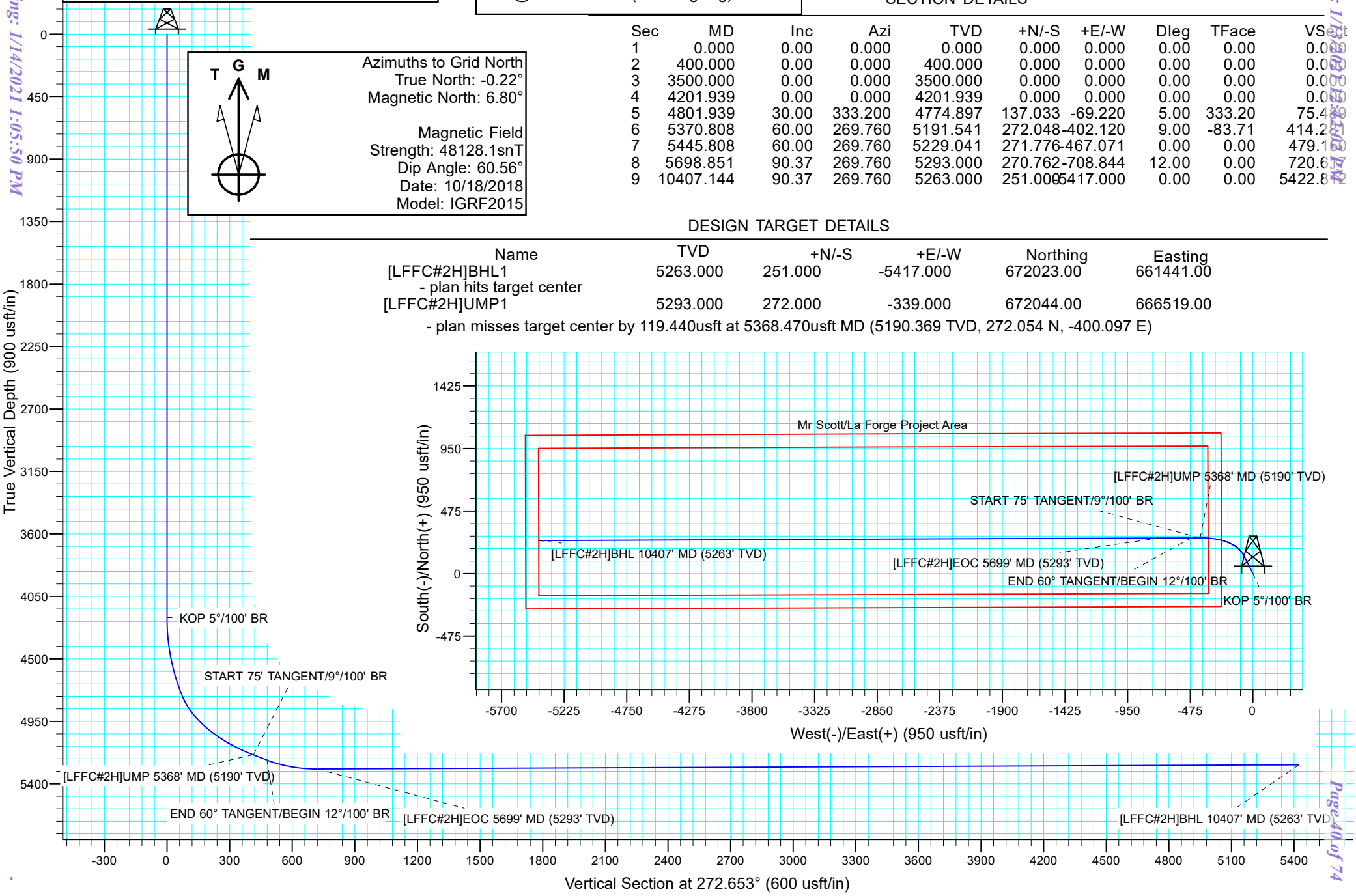
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.00	0.00
2	400.000	0.00	0.000	400.000	0.000	0.000	0.00	0.00	0.00
3	3500.000	0.00	0.000	3500.000	0.000	0.000	0.00	0.00	0.00
4	4201.939	0.00	0.000	4201.939	0.000	0.000	0.00	0.00	0.00
5	4801.939	30.00	333.200	4774.897	137.033	-69.220	5.00	333.20	75.4
6	5370.808	60.00	269.760	5191.541	272.048	-402.120	9.00	-83.71	414.2
7	5445.808	60.00	269.760	5229.041	271.776	-467.071	0.00	0.00	479.1
8	5698.851	90.37	269.760	5293.000	270.762	-708.844	12.00	0.00	720.6
9	10407.144	90.37	269.760	5263.000	251.000	-5417.000	0.00	0.00	5422.8

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
[LFFC#2H]BHL1	5263.000	251.000	-5417.000	672023.00	661441.00
- plan hits target center					
[LFFC#2H]UMP1	5293.000	272.000	-339.000	672044.00	666519.00

- plan misses target center by 119.440usft at 5368.470usft MD (5190.369 TVD, 272.054 N, -400.097 E)



EOG Resources - Artesia

Eddy County (NAD83)
La Forge
La Forge Federal Com #2H

Lateral
Plan #1

Anticollision Report

02 January, 2019

eog resources

Anticollision Report

Company:	EOG Resources - Artesia	**Local Co-ordinate Reference:**	Well La Forge Federal Com #2H
Project:	Eddy County (NAD83)	**TVD Reference:**	KB @ 3785.000usft (Planning Rig)
Reference Site:	La Forge	**MD Reference:**	KB @ 3785.000usft (Planning Rig)
Site Error:	0.000 usft	**North Reference:**	Grid
Reference Well:	La Forge Federal Com #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.000 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral	**Database:**	EDM 5000.14
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Plan #1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.980 usft	**Error Surface:**	Combined Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 1/2/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.000	10,407.143	Plan #1 (Lateral)	MWD	OWSG MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Mr. Scott						
Mr. Scott Federal Com #1H - Lateral - Plan #1	4,000.000	4,000.000	29.206	9.227	1.462	Level 3, CC, ES, SF

Offset Design Mr. Scott - Mr. Scott Federal Com #1H - Lateral - Plan #1

Survey Program: 0-MWD

Offset Site Error: 0.000 usft

Offset Well Error: 0.000 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.000	0.000	0.000	0.000	0.000	0.000	38.05	23.000	18.000	29.206				
100.000	100.000	100.000	100.000	0.147	0.147	38.05	23.000	18.000	29.206	28.998	0.21	140.514	
200.000	200.000	200.000	200.000	0.505	0.505	38.05	23.000	18.000	29.206	28.491	0.71	40.859	
300.000	300.000	300.000	300.000	0.864	0.864	38.05	23.000	18.000	29.206	27.984	1.22	23.905	
400.000	400.000	400.000	400.000	1.222	1.222	38.05	23.000	18.000	29.206	27.477	1.73	16.895	
500.000	500.000	500.000	500.000	1.581	1.581	38.05	23.000	18.000	29.206	26.970	2.24	13.064	
600.000	600.000	600.000	600.000	1.939	1.939	38.05	23.000	18.000	29.206	26.464	2.74	10.649	
700.000	700.000	700.000	700.000	2.298	2.298	38.05	23.000	18.000	29.206	25.957	3.25	8.988	
800.000	800.000	800.000	800.000	2.656	2.656	38.05	23.000	18.000	29.206	25.450	3.76	7.775	
900.000	900.000	900.000	900.000	3.015	3.015	38.05	23.000	18.000	29.206	24.943	4.26	6.850	
1,000.000	1,000.000	1,000.000	1,000.000	3.373	3.373	38.05	23.000	18.000	29.206	24.436	4.77	6.122	
1,100.000	1,100.000	1,100.000	1,100.000	3.732	3.732	38.05	23.000	18.000	29.206	23.929	5.28	5.534	
1,200.000	1,200.000	1,200.000	1,200.000	4.090	4.090	38.05	23.000	18.000	29.206	23.422	5.78	5.049	
1,300.000	1,300.000	1,300.000	1,300.000	4.449	4.449	38.05	23.000	18.000	29.206	22.915	6.29	4.642	
1,400.000	1,400.000	1,400.000	1,400.000	4.807	4.807	38.05	23.000	18.000	29.206	22.408	6.80	4.296	
1,500.000	1,500.000	1,500.000	1,500.000	5.166	5.166	38.05	23.000	18.000	29.206	21.901	7.31	3.998	
1,600.000	1,600.000	1,600.000	1,600.000	5.524	5.524	38.05	23.000	18.000	29.206	21.394	7.81	3.739	
1,700.000	1,700.000	1,700.000	1,700.000	5.883	5.883	38.05	23.000	18.000	29.206	20.887	8.32	3.511	
1,800.000	1,800.000	1,800.000	1,800.000	6.241	6.241	38.05	23.000	18.000	29.206	20.380	8.83	3.309	
1,900.000	1,900.000	1,900.000	1,900.000	6.599	6.599	38.05	23.000	18.000	29.206	19.873	9.33	3.129	
2,000.000	2,000.000	2,000.000	2,000.000	6.958	6.958	38.05	23.000	18.000	29.206	19.366	9.84	2.968	
2,100.000	2,100.000	2,100.000	2,100.000	7.316	7.316	38.05	23.000	18.000	29.206	18.859	10.35	2.823	
2,200.000	2,200.000	2,200.000	2,200.000	7.675	7.675	38.05	23.000	18.000	29.206	18.352	10.85	2.691	
2,300.000	2,300.000	2,300.000	2,300.000	8.033	8.033	38.05	23.000	18.000	29.206	17.845	11.36	2.571	
2,400.000	2,400.000	2,400.000	2,400.000	8.392	8.392	38.05	23.000	18.000	29.206	17.338	11.87	2.461	
2,500.000	2,500.000	2,500.000	2,500.000	8.750	8.750	38.05	23.000	18.000	29.206	16.831	12.37	2.360	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

eog resources

Anticollision Report

Company:	EOG Resources - Artesia	**Local Co-ordinate Reference:**	Well La Forge Federal Com #2H
Project:	Eddy County (NAD83)	**TVD Reference:**	KB @ 3785.000usft (Planning Rig)
Reference Site:	La Forge	**MD Reference:**	KB @ 3785.000usft (Planning Rig)
Site Error:	0.000 usft	**North Reference:**	Grid
Reference Well:	La Forge Federal Com #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.000 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral	**Database:**	EDM 5000.14
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Mr. Scott - Mr. Scott Federal Com #1H - Lateral - Plan #1

Offset Site Error: 0.000 usft

Survey Program: 0-MWD

Offset Well Error: 0.000 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.000	2,600.000	2,600.000	2,600.000	9.109	9.109	38.05	23.000	18.000	29.206	16.324	12.88	2.267	
2,700.000	2,700.000	2,700.000	2,700.000	9.467	9.467	38.05	23.000	18.000	29.206	15.817	13.39	2.181	
2,800.000	2,800.000	2,800.000	2,800.000	9.826	9.826	38.05	23.000	18.000	29.206	15.311	13.90	2.102	
2,900.000	2,900.000	2,900.000	2,900.000	10.184	10.184	38.05	23.000	18.000	29.206	14.804	14.40	2.028	
3,000.000	3,000.000	3,000.000	3,000.000	10.543	10.543	38.05	23.000	18.000	29.206	14.297	14.91	1.959	
3,100.000	3,100.000	3,100.000	3,100.000	10.901	10.901	38.05	23.000	18.000	29.206	13.790	15.42	1.894	
3,200.000	3,200.000	3,200.000	3,200.000	11.260	11.260	38.05	23.000	18.000	29.206	13.283	15.92	1.834	
3,300.000	3,300.000	3,300.000	3,300.000	11.618	11.618	38.05	23.000	18.000	29.206	12.776	16.43	1.778	
3,400.000	3,400.000	3,400.000	3,400.000	11.977	11.977	38.05	23.000	18.000	29.206	12.269	16.94	1.724	
3,500.000	3,500.000	3,500.000	3,500.000	12.335	12.335	38.05	23.000	18.000	29.206	11.762	17.44	1.674	
3,600.000	3,600.000	3,600.000	3,600.000	12.693	12.693	38.05	23.000	18.000	29.206	11.255	17.95	1.627	
3,700.000	3,700.000	3,700.000	3,700.000	13.052	13.052	38.05	23.000	18.000	29.206	10.748	18.46	1.582	
3,800.000	3,800.000	3,800.000	3,800.000	13.410	13.410	38.05	23.000	18.000	29.206	10.241	18.97	1.540	
3,900.000	3,900.000	3,900.000	3,900.000	13.769	13.769	38.05	23.000	18.000	29.206	9.734	19.47	1.500	Level 3
4,000.000	4,000.000	4,000.000	4,000.000	14.127	14.127	38.05	23.000	18.000	29.206	9.227	19.98	1.462	Level 3, CC, ES, SF
4,100.000	4,100.000	4,098.039	4,097.791	14.486	14.478	28.38	28.093	15.177	32.007	11.568	20.44	1.566	
4,201.939	4,201.939	4,194.455	4,192.310	14.851	14.820	7.86	44.414	6.130	45.857	25.270	20.59	2.228	
4,300.000	4,299.880	4,282.465	4,275.698	15.202	15.131	21.35	68.880	-7.432	69.702	49.369	20.33	3.428	
4,400.000	4,399.015	4,368.003	4,352.865	15.557	15.449	14.16	101.054	-25.266	99.007	79.187	19.82	4.995	
4,500.000	4,496.650	4,453.024	4,424.841	15.912	15.795	9.65	140.393	-47.481	131.514	112.111	19.40	6.778	
4,600.000	4,592.042	4,548.972	4,503.336	16.273	16.252	3.14	182.615	-82.756	159.152	139.434	19.72	8.072	
4,700.000	4,684.466	4,640.901	4,575.868	16.651	16.769	-5.40	216.270	-127.953	181.278	161.661	19.62	9.241	
4,801.939	4,774.897	4,726.665	4,639.821	17.069	17.336	-15.07	241.038	-179.342	202.951	183.902	19.05	10.654	
4,850.000	4,816.380	4,764.386	4,666.504	17.282	17.616	-13.16	249.782	-204.523	214.478	195.797	18.68	11.482	
4,900.000	4,859.072	4,802.797	4,692.628	17.518	17.922	-11.09	257.288	-231.655	227.608	209.325	18.28	12.449	
4,950.000	4,901.030	4,840.458	4,717.125	17.770	18.249	-9.13	263.253	-259.624	241.444	223.571	17.87	13.509	
5,000.000	4,941.995	4,877.458	4,740.032	18.040	18.596	-7.41	267.747	-288.324	255.602	238.154	17.45	14.649	
5,050.000	4,981.715	4,913.872	4,761.377	18.329	18.960	-5.96	270.833	-317.657	269.776	252.764	17.01	15.859	
5,100.000	5,019.946	4,950.000	4,781.311	18.642	19.346	-4.79	272.576	-347.732	283.716	267.141	16.58	17.116	
5,150.000	5,056.450	4,985.829	4,799.796	18.983	19.759	-3.88	273.003	-378.416	297.222	281.082	16.14	18.416	
5,200.000	5,091.004	5,033.469	4,823.616	19.358	20.351	-3.42	272.823	-419.673	309.068	292.738	16.33	18.927	
5,250.000	5,123.394	5,072.618	4,843.004	19.773	20.863	-2.49	272.674	-453.682	318.491	302.413	16.08	19.809	
5,300.000	5,153.420	5,100.000	4,855.281	20.232	21.254	-1.33	272.568	-478.153	327.549	312.301	15.25	21.481	
5,350.000	5,180.898	5,130.813	4,867.392	20.741	21.727	-0.29	272.444	-506.480	336.494	321.873	14.62	23.014	
5,370.808	5,191.541	5,142.799	4,871.605	20.970	21.920	0.14	272.395	-517.701	340.173	325.840	14.33	23.733	
5,400.000	5,206.137	5,159.468	4,876.994	21.302	22.195	0.14	272.326	-533.473	345.813	331.861	13.95	24.786	
5,445.808	5,229.041	5,185.116	4,884.202	21.857	22.636	0.14	272.219	-558.084	356.648	343.236	13.41	26.591	
5,450.000	5,231.121	5,187.431	4,884.787	21.910	22.677	0.14	272.209	-560.324	357.740	344.374	13.37	26.765	
5,475.000	5,242.855	5,200.000	4,887.775	22.239	22.900	0.13	272.156	-572.533	363.926	350.869	13.06	27.870	
5,500.000	5,253.418	5,215.004	4,890.920	22.589	23.175	0.13	272.092	-587.203	369.535	356.676	12.86	28.737	
5,525.000	5,262.781	5,225.000	4,892.758	22.960	23.359	0.13	272.049	-597.028	374.606	362.085	12.52	29.919	
5,550.000	5,270.918	5,242.513	4,895.482	23.352	23.691	0.12	271.973	-614.327	379.032	366.586	12.45	30.455	
5,575.000	5,277.807	5,256.249	4,897.173	23.762	23.955	0.12	271.914	-627.958	382.910	370.629	12.28	31.180	
5,600.000	5,283.429	5,269.975	4,898.470	24.191	24.223	0.12	271.854	-641.621	386.204	374.058	12.15	31.796	
5,625.000	5,287.769	5,283.691	4,899.374	24.637	24.495	0.12	271.794	-655.308	388.912	376.868	12.04	32.289	
5,650.000	5,290.814	5,300.000	4,899.937	25.096	24.821	0.12	271.723	-671.605	391.048	379.024	12.02	32.522	
5,675.000	5,292.556	5,311.778	4,900.002	25.569	25.060	0.12	271.675	-682.516	392.562	380.617	11.95	32.864	
5,698.850	5,293.000	5,334.752	4,899.851	26.029	25.543	0.12	271.571	-706.356	393.157	381.066	12.09	32.516	
5,700.000	5,292.992	5,335.901	4,899.844	26.051	25.568	0.12	271.566	-707.505	393.157	381.059	12.10	32.497	
5,800.000	5,292.355	5,435.901	4,899.210	28.094	27.734	0.11	271.130	-807.502	393.154	380.399	12.75	30.824	
5,900.000	5,291.718	5,535.901	4,898.577	30.295	30.038	0.11	270.693	-907.500	393.150	379.680	13.47	29.188	
6,000.000	5,291.081	5,635.901	4,897.943	32.624	32.455	0.11	270.256	-1,007.497	393.146	378.911	14.24	27.618	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

eog resources

Anticollision Report

Company:	EOG Resources - Artesia	**Local Co-ordinate Reference:**	Well La Forge Federal Com #2H
Project:	Eddy County (NAD83)	**TVD Reference:**	KB @ 3785.000usft (Planning Rig)
Reference Site:	La Forge	**MD Reference:**	KB @ 3785.000usft (Planning Rig)
Site Error:	0.000 usft	**North Reference:**	Grid
Reference Well:	La Forge Federal Com #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.000 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral	**Database:**	EDM 5000.14
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Mr. Scott - Mr. Scott Federal Com #1H - Lateral - Plan #1

Offset Site Error: 0.000 usft

Survey Program: 0-MWD

Offset Well Error: 0.000 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,100.000	5,290.444	5,735.901	4,897.309	35.053	34.963	0.11	269.819	-1,107.494	393.143	378.099	15.04	26.133	
6,200.000	5,289.807	5,835.901	4,896.676	37.565	37.542	0.10	269.383	-1,207.491	393.139	377.251	15.89	24.743	
6,300.000	5,289.169	5,935.901	4,896.042	40.143	40.178	0.10	268.946	-1,307.488	393.136	376.371	16.76	23.450	
6,400.000	5,288.532	6,035.901	4,895.408	42.775	42.862	0.10	268.509	-1,407.485	393.132	375.465	17.67	22.252	
6,500.000	5,287.895	6,135.901	4,894.775	45.452	45.585	0.10	268.073	-1,507.482	393.129	374.537	18.59	21.145	
6,600.000	5,287.258	6,235.901	4,894.141	48.166	48.340	0.09	267.636	-1,607.479	393.125	373.590	19.54	20.123	
6,700.000	5,286.621	6,335.901	4,893.507	50.912	51.121	0.09	267.199	-1,707.476	393.122	372.625	20.50	19.180	
6,800.000	5,285.983	6,435.901	4,892.873	53.684	53.925	0.09	266.763	-1,807.473	393.118	371.647	21.47	18.309	
6,900.000	5,285.346	6,535.901	4,892.240	56.479	56.749	0.09	266.326	-1,907.470	393.115	370.656	22.46	17.504	
7,000.000	5,284.709	6,635.901	4,891.606	59.293	59.589	0.08	265.889	-2,007.467	393.111	369.654	23.46	16.758	
7,100.000	5,284.072	6,735.901	4,890.972	62.124	62.444	0.08	265.453	-2,107.464	393.108	368.642	24.47	16.068	
7,200.000	5,283.435	6,835.901	4,890.339	64.969	65.311	0.08	265.016	-2,207.461	393.104	367.622	25.48	15.427	
7,300.000	5,282.798	6,935.901	4,889.705	67.827	68.188	0.08	264.579	-2,307.458	393.101	366.595	26.51	14.831	
7,400.000	5,282.160	7,035.901	4,889.071	70.696	71.076	0.07	264.143	-2,407.455	393.097	365.561	27.54	14.275	
7,500.000	5,281.523	7,135.901	4,888.438	73.575	73.971	0.07	263.706	-2,507.452	393.094	364.520	28.57	13.757	
7,600.000	5,280.886	7,235.901	4,887.804	76.463	76.874	0.07	263.269	-2,607.449	393.090	363.475	29.62	13.273	
7,700.000	5,280.249	7,335.901	4,887.170	79.359	79.784	0.07	262.833	-2,707.446	393.087	362.425	30.66	12.820	
7,800.000	5,279.612	7,435.901	4,886.537	82.261	82.700	0.06	262.396	-2,807.443	393.083	361.370	31.71	12.395	
7,900.000	5,278.975	7,535.901	4,885.903	85.170	85.621	0.06	261.959	-2,907.440	393.080	360.312	32.77	11.996	
8,000.000	5,278.337	7,635.901	4,885.269	88.085	88.546	0.06	261.522	-3,007.437	393.076	359.250	33.83	11.621	
8,100.000	5,277.700	7,735.901	4,884.636	91.004	91.477	0.06	261.086	-3,107.434	393.073	358.185	34.89	11.267	
8,200.000	5,277.063	7,835.901	4,884.002	93.928	94.411	0.05	260.649	-3,207.431	393.069	357.117	35.95	10.933	
8,300.000	5,276.426	7,935.901	4,883.368	96.857	97.348	0.05	260.212	-3,307.428	393.066	356.047	37.02	10.618	
8,400.000	5,275.789	8,035.901	4,882.735	99.789	100.289	0.05	259.776	-3,407.425	393.062	354.974	38.09	10.320	
8,500.000	5,275.152	8,135.901	4,882.101	102.724	103.233	0.05	259.339	-3,507.422	393.059	353.899	39.16	10.037	
8,600.000	5,274.514	8,235.901	4,881.467	105.663	106.179	0.04	258.902	-3,607.419	393.055	352.821	40.23	9.769	
8,700.000	5,273.877	8,335.901	4,880.833	108.605	109.129	0.04	258.466	-3,707.416	393.052	351.742	41.31	9.515	
8,800.000	5,273.240	8,435.901	4,880.200	111.549	112.080	0.04	258.029	-3,807.413	393.048	350.661	42.39	9.273	
8,900.000	5,272.603	8,535.901	4,879.566	114.496	115.033	0.04	257.592	-3,907.410	393.045	349.579	43.47	9.043	
9,000.000	5,271.966	8,635.901	4,878.932	117.446	117.989	0.03	257.156	-4,007.408	393.041	348.495	44.55	8.823	
9,100.000	5,271.329	8,735.901	4,878.299	120.397	120.946	0.03	256.719	-4,107.405	393.038	347.409	45.63	8.614	
9,200.000	5,270.691	8,835.901	4,877.665	123.350	123.905	0.03	256.282	-4,207.402	393.034	346.322	46.71	8.414	
9,300.000	5,270.054	8,935.901	4,877.031	126.306	126.866	0.03	255.846	-4,307.399	393.031	345.234	47.80	8.223	
9,400.000	5,269.417	9,035.901	4,876.398	129.263	129.828	0.02	255.409	-4,407.396	393.027	344.145	48.88	8.040	
9,500.000	5,268.780	9,135.901	4,875.764	132.221	132.791	0.02	254.972	-4,507.393	393.024	343.055	49.97	7.865	
9,600.000	5,268.143	9,235.901	4,875.130	135.181	135.756	0.02	254.536	-4,607.390	393.020	341.964	51.06	7.698	
9,700.000	5,267.505	9,335.901	4,874.497	138.143	138.722	0.02	254.099	-4,707.387	393.017	340.872	52.14	7.537	
9,800.000	5,266.868	9,435.901	4,873.863	141.106	141.689	0.02	253.662	-4,807.384	393.013	339.779	53.23	7.383	
9,900.000	5,266.231	9,535.901	4,873.229	144.070	144.657	0.01	253.225	-4,907.381	393.010	338.685	54.32	7.234	
10,000.000	5,265.594	9,635.901	4,872.596	147.035	147.626	0.01	252.789	-5,007.378	393.006	337.591	55.42	7.092	
10,100.000	5,264.957	9,735.901	4,871.962	150.001	150.596	0.01	252.352	-5,107.375	393.003	336.495	56.51	6.955	
10,200.000	5,264.320	9,835.901	4,871.328	152.969	153.567	0.01	251.915	-5,207.372	392.999	335.399	57.60	6.823	
10,300.000	5,263.682	9,935.901	4,870.695	155.937	156.539	0.00	251.479	-5,307.369	392.996	334.303	58.69	6.696	
10,407.143	5,263.000	10,043.045	4,870.016	159.118	159.724	0.00	251.011	-5,414.509	392.992	333.127	59.86	6.565	

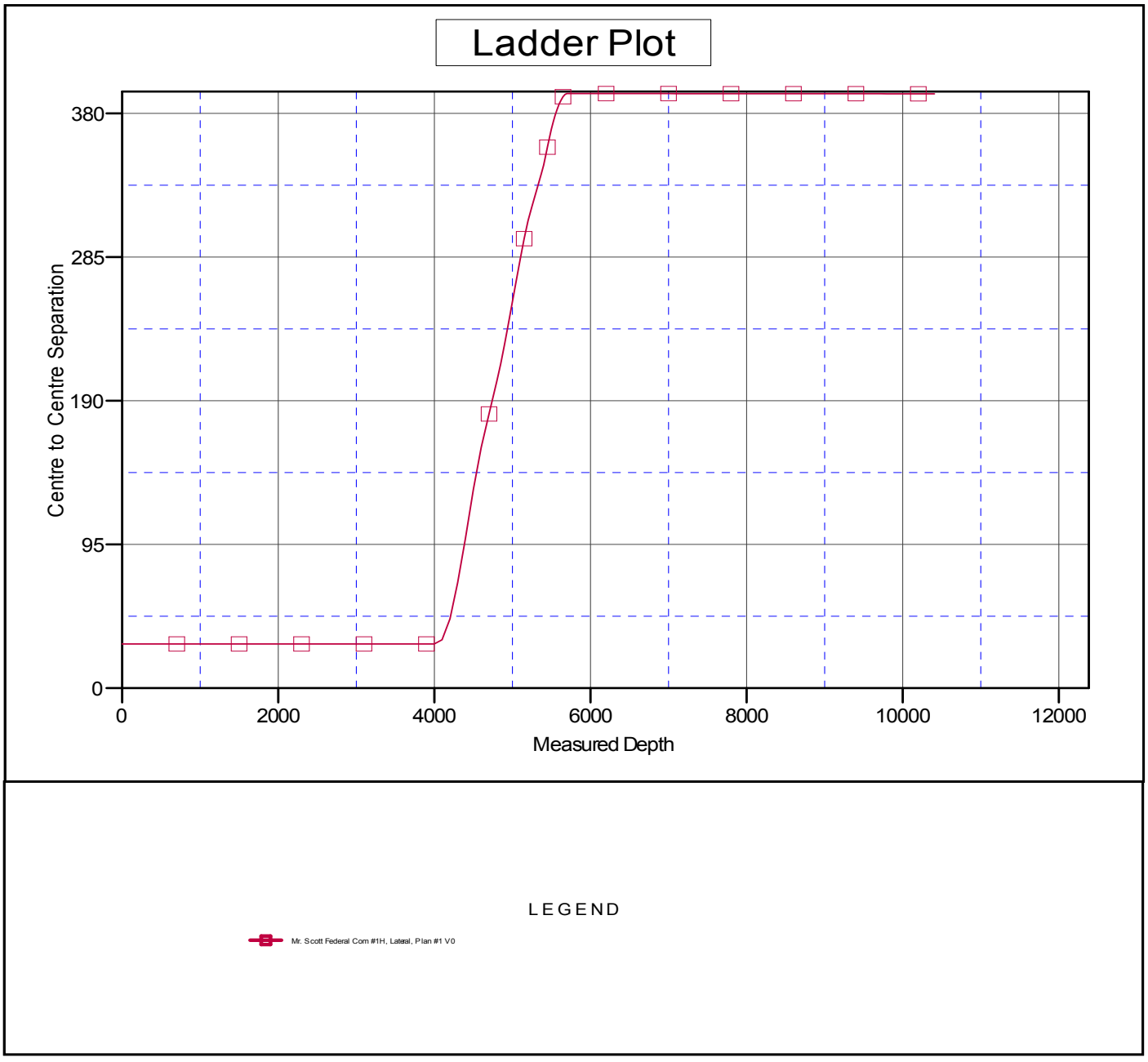
eog resources

Anticollision Report

Company:	EOG Resources - Artesia	**Local Co-ordinate Reference:**	Well La Forge Federal Com #2H
Project:	Eddy County (NAD83)	**TVD Reference:**	KB @ 3785.000usft (Planning Rig)
Reference Site:	La Forge	**MD Reference:**	KB @ 3785.000usft (Planning Rig)
Site Error:	0.000 usft	**North Reference:**	Grid
Reference Well:	La Forge Federal Com #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.000 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral	**Database:**	EDM 5000.14
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to KB @ 3785.000usft (Planning Rig)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: La Forge Federal Com #2H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.22°



eog resources

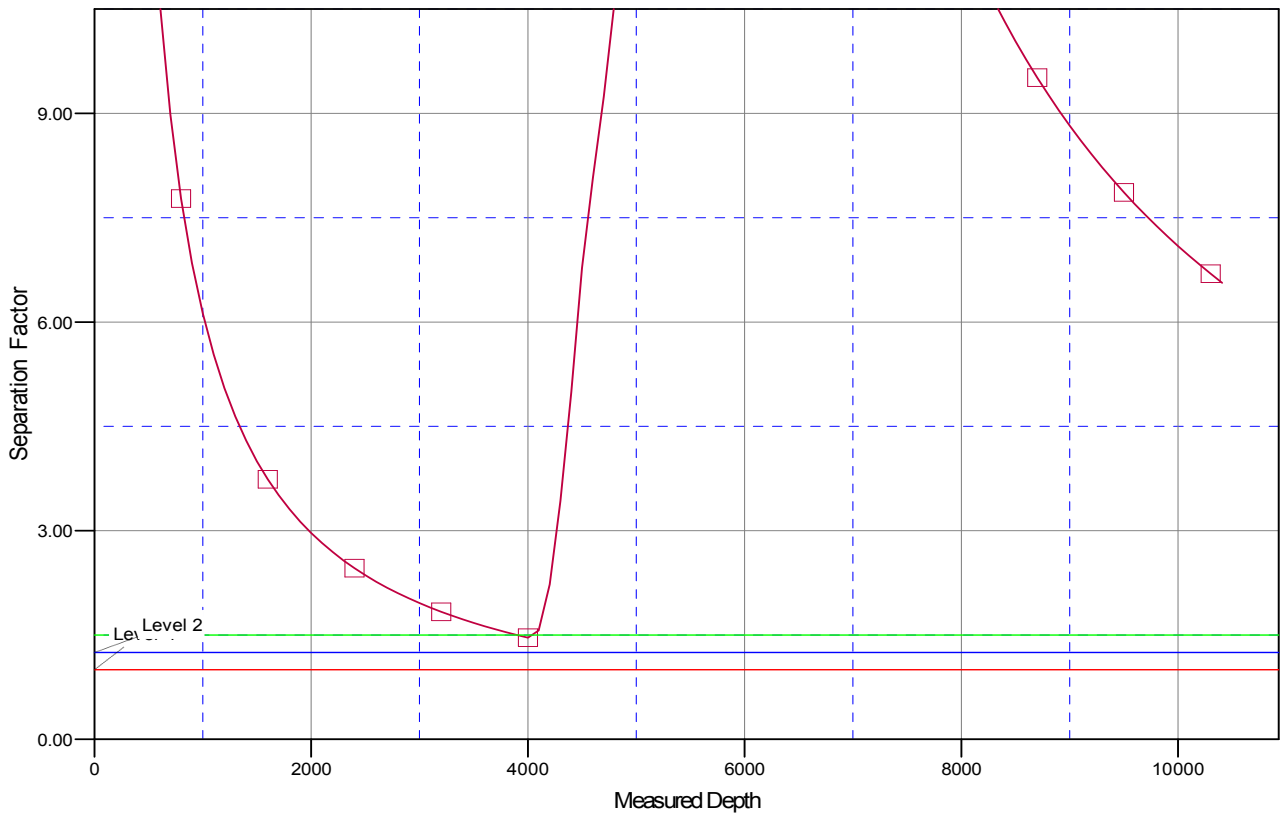
Anticollision Report

Company:	EOG Resources - Artesia	**Local Co-ordinate Reference:**	Well La Forge Federal Com #2H
Project:	Eddy County (NAD83)	**TVD Reference:**	KB @ 3785.000usft (Planning Rig)
Reference Site:	La Forge	**MD Reference:**	KB @ 3785.000usft (Planning Rig)
Site Error:	0.000 usft	**North Reference:**	Grid
Reference Well:	La Forge Federal Com #2H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.000 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Lateral	**Database:**	EDM 5000.14
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to KB @ 3785.000usft (Planning Rig)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: La Forge Federal Com #2H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.22°

Separation Factor Plot



LEGEND

Mr. Scott Federal Com #1H, Lateral, Plan #1 V0

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Manufacturer: Midwest Hose & Specialty

Serial Number: SN#90067

Length: 35'

Size: OD = 8" ID = 4"

Ends: Flanges Size: 4-1/16"

WP Rating: 10,000 psi Anchors required by manfacturer: No

MIDWEST

HOSE AND SPECIALTY INC.

INTERNAL HYDROSTATIC TEST REPORT

Customer: CACTUS	**P.O. Number:** RIG #123
	Asset # M10761

HOSE SPECIFICATIONS

Type: CHOKE LINE	**Length:** 35'
I.D. 4" *INCHES*	**O.D.** 8" *INCHES*

WORKING PRESSURE	TEST PRESSURE	BURST PRESSURE
10,000 *PSI*	15,000 *PSI*	*PSI*

COUPLINGS

Type of End Fitting
4 1/16 10K FLANGE

Type of Coupling: SWEDGED	**MANUFACTURED BY** MIDWEST HOSE & SPECIALTY

PROCEDURE

Hose assembly pressure tested with water at ambient temperature.

TIME HELD AT TEST PRESSURE	ACTUAL BURST PRESSURE:
1 *MIN.*	0 *PSI*

COMMENTS:
SN#90067 M10761
Hose is covered with stainless steel armour cover and wraped with fire resistant vermiculite coated fiberglass insulation rated for 1500 degrees complete with lifting eyes

Date:	Tested By:	Approved:
6/6/2011	BOBBY FINK	MENDI JACKSON

Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: CACTUS

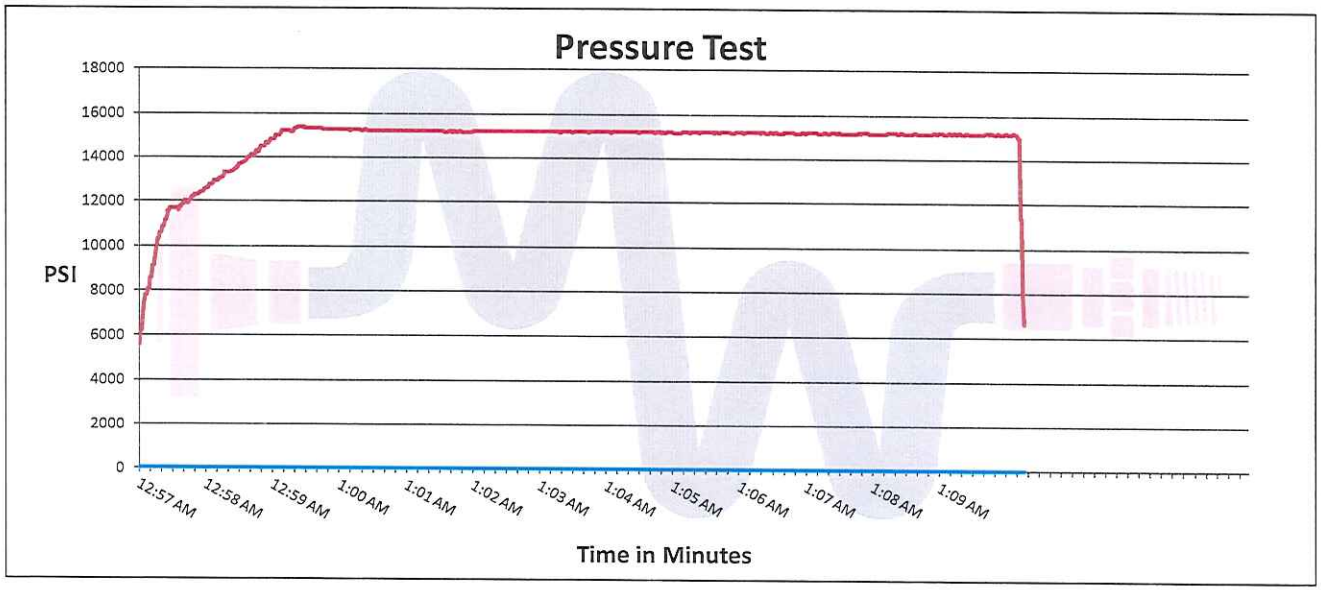
SALES ORDER# 90067

Hose Specifications

Hose Type	Length
C & K	35'
I.D.	**O.D.**
4"	8"
Working Pressure	**Burst Pressure**
10000 PSI	Standard Safety Multiplier Applies

Verification

Type of Fitting	Coupling Method
4 1/16 10K	Swage
Die Size	**Final O.D.**
6.62"	6.68"
Hose Serial #	**Hose Assembly Serial #**
	90067



Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
15000 PSI	11 1/4 Minutes		15439 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: *Bobby Fink*

Approved By: *Mendi Jackson*

Mendi Jackson

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: December 5, 2018

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: EOG Resources, Inc. 7377

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

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

Well(s)/Production Facility – Name of facility

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Data Federal 1H		11–17S-30E	1289' FNL 651' FEL	500	0	
Data Federal 2H		11–17S-30E	1249' FNL 653' FEL	500	0	
Data Federal 3H		11–17S-30E	1209' FNL 654' FEL	500	0	
Bones Federal 4H		11–17S-30E	1284' FNL 501' FEL	500	0	
Bones Federal 5H		11–17S-30E	1244' FNL 503' FEL	500	0	
Bones Federal 6H		11–17S-30E	1204' FNL 504' FEL	500	0	
Mr. Scott Federal Com 1H		12–17S-30E	1567'FSL 2401' FEL	500	0	
La Forge Federal Com 2H		12–17S-30E	1591'FSL 2832' FEL	500	0	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to DCP Midstream and will be connected to DCP Midstream low pressure gathering system located in Eddy County, New Mexico. It will require 27' of pipeline to connect the facility to low/high pressure gathering system. EOG provides (periodically) to DCP Midstream a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, EOG and DCP Midstream have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP Midstream Processing Plant located in New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

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

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

Alternatives to Reduce Flaring

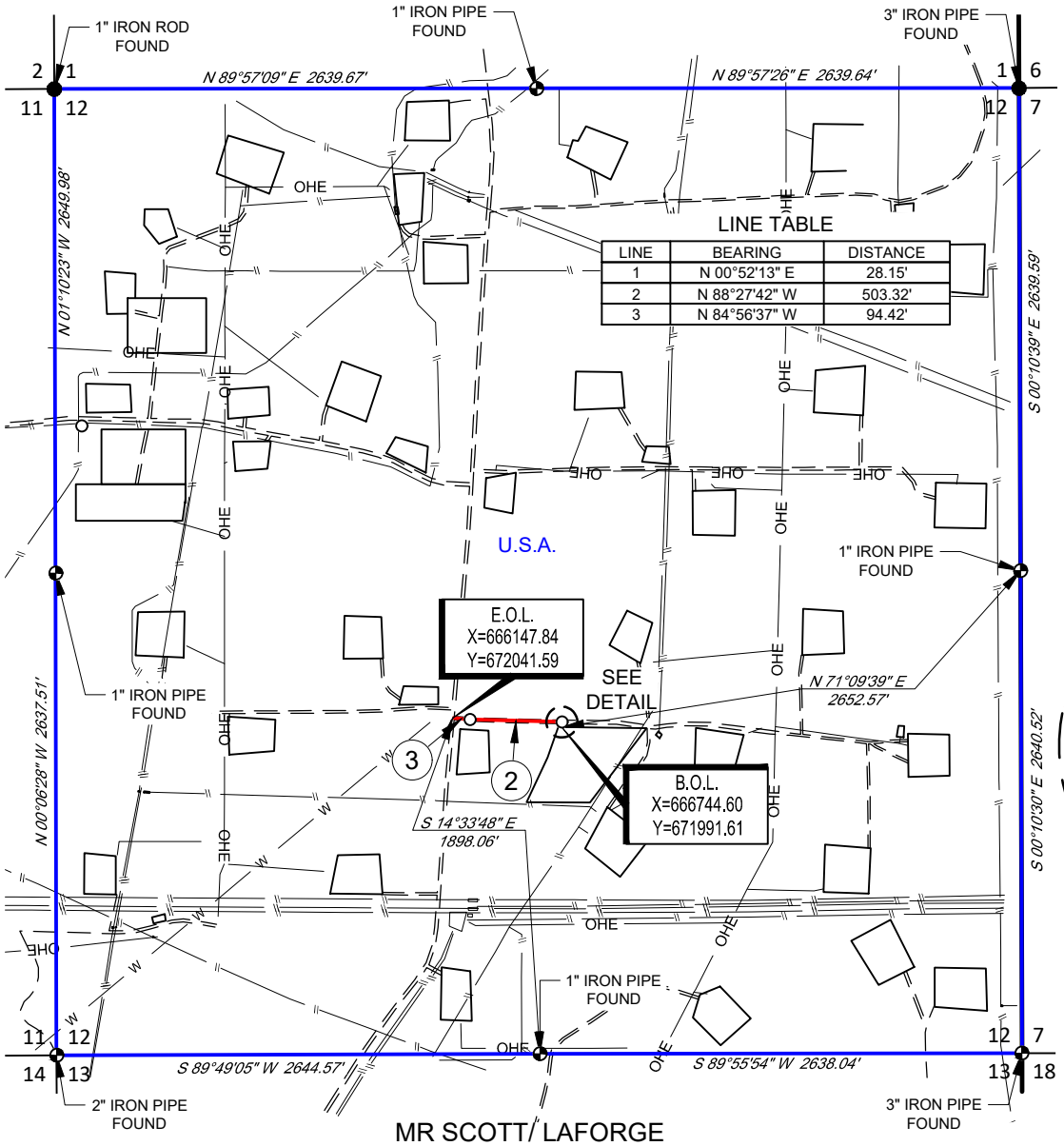
Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

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

SCALE: 1" = 1000'

0' 500' 1000'

SECTION 12, TOWNSHIP 17-S, RANGE 30-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

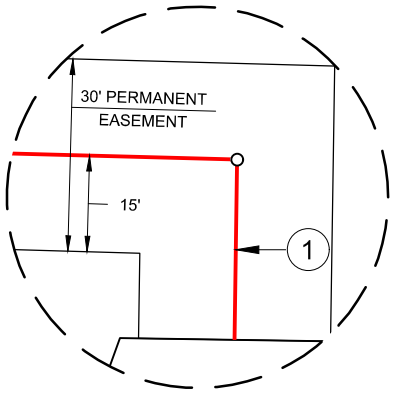


LINE TABLE

LINE	BEARING	DISTANCE
1	N 00°52'13" E	28.15'
2	N 88°27'42" W	503.32'
3	N 84°56'37" W	94.42'

LEGEND

- SURVEY/SECTION LINE
- RANGE/TOWNSHIP LINE
- TRACT BORDER
- SURVEYED BASELINE
- EDGE OF EASEMENT
- ROAD WAY
- X — FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- W — WATER LINE
- IRON ROD FOUND
- IRON PIPE FOUND
- POINT OF INTERSECTION



DETAIL VIEW
SCALE: 1" = 30'

MR SCOTT/ LAFORGE ACCESS ROAD

Being a proposed road easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 625.89 feet or 37.93 rods, containing 0.43 acres more or less.

Michael Blake Brown, P.S. No. 18329
OCTOBER 25, 2018

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

eog resources, inc.

MR SCOTT/ LAFORGE ACCESS ROAD	REVISION:	
	INT	DATE
DATE: 10/15/2018		
FILE: EP_MRSCOTT_LAFORGE_ACCESS_RD_SEC12		
DRAWN BY: IMU		
SHEET : 1 OF 1		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY EOG RESOURCES, INC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING
5. E.O.L./P.O.E. = END OF LINE/POINT OF EXIT
6. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

S:\SURVEY\EOG_ARTESIA\MR_SCOTT_FEDERAL\FINAL_PRODUCTS\EP_MRSCOTT_LAFORGE_ACCESS_RD_SEC12.DWG 10/25/2018 9:44:13 AM csmith5

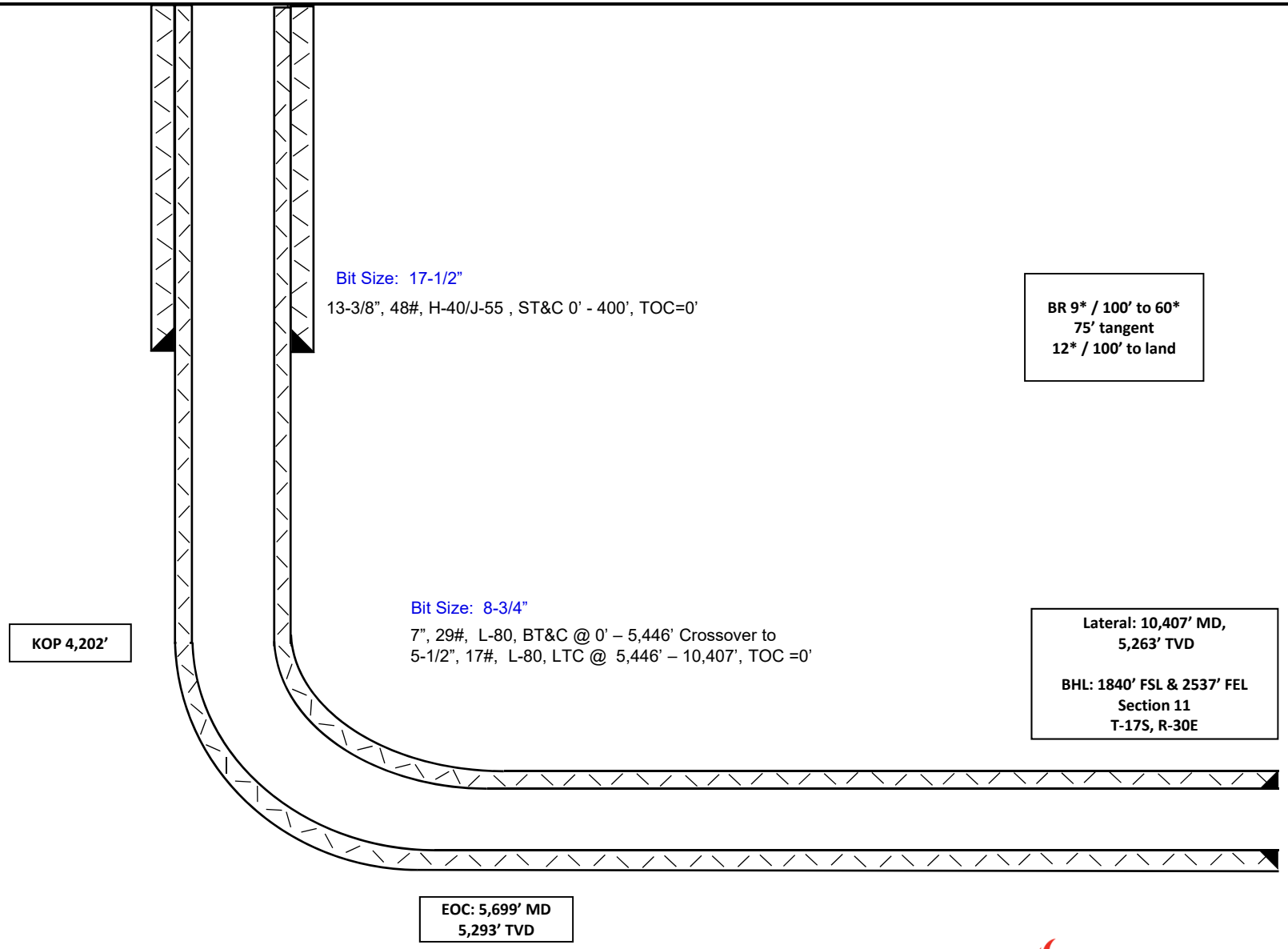
1567' FSL
2401' FEL
Section 12
T-17S, R-30E

La Forge Federal Com #2H

Proposed Wellbore

API: 30-015-*****

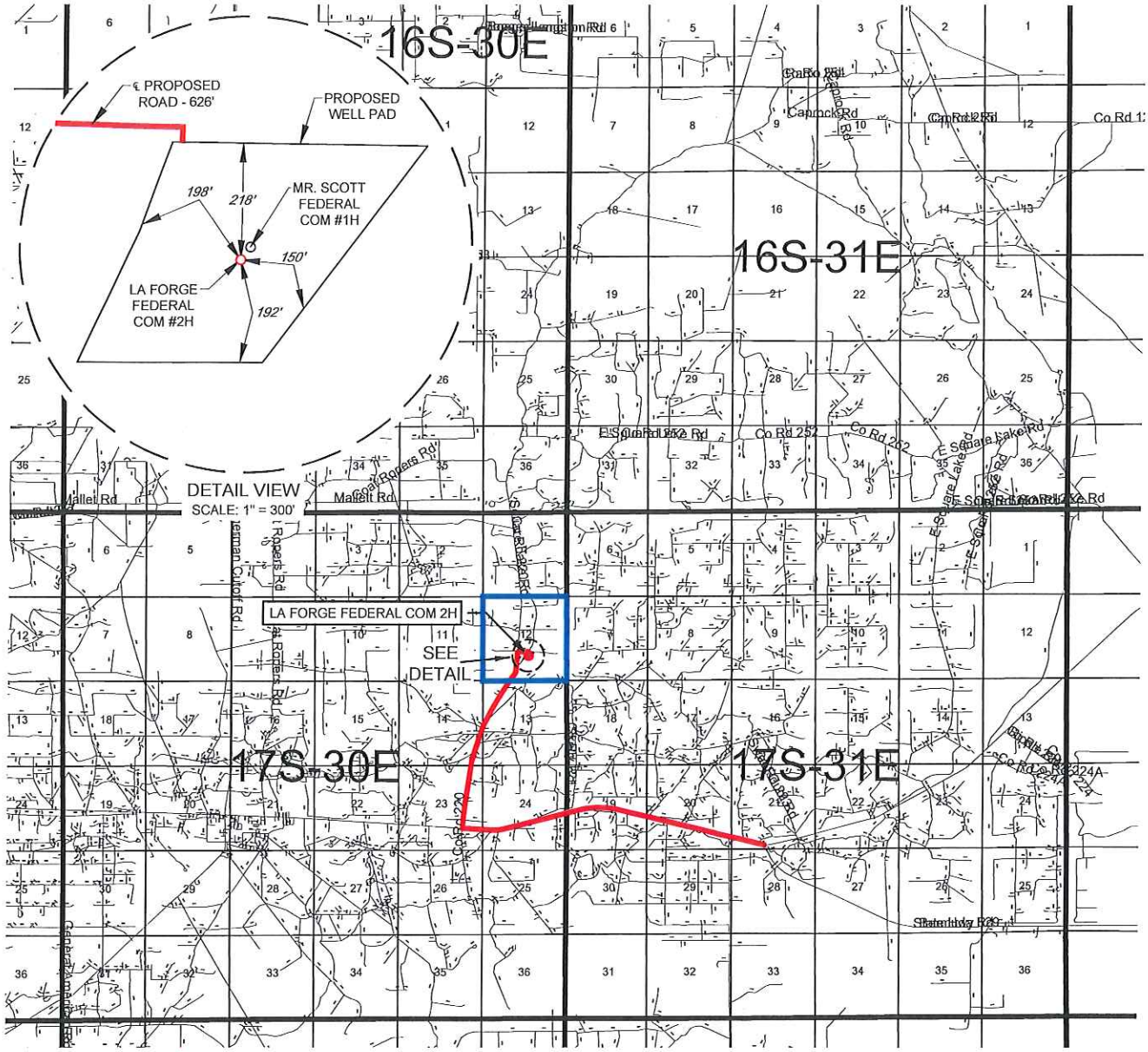
KB: 3,785'
GL: 3,767'



eog resources

EXHIBIT 2

VICINITY MAP



eog resources, inc.

LEASE NAME & WELL NO.: LA FORGE FEDERAL COM 2H

SECTION 12 TWP 17-S RGE 30-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 1567 FSL & 2401 FEL

DISTANCE & DIRECTION

FROM INT. OF NM-529, & US-82, GO WEST ON US-82 ±3.7 MILES, THENCE NORTH (RIGHT) ON SQUARE LAKE RD. ±2.2 MILES, THENCE EAST (RIGHT) ON A PROPOSED RD. ±626 FEET TO A POINT ±248 FEET NORTHWEST OF THE LOCATION.

N

SCALE: 1" = 10000'
0' 5000' 10000'

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

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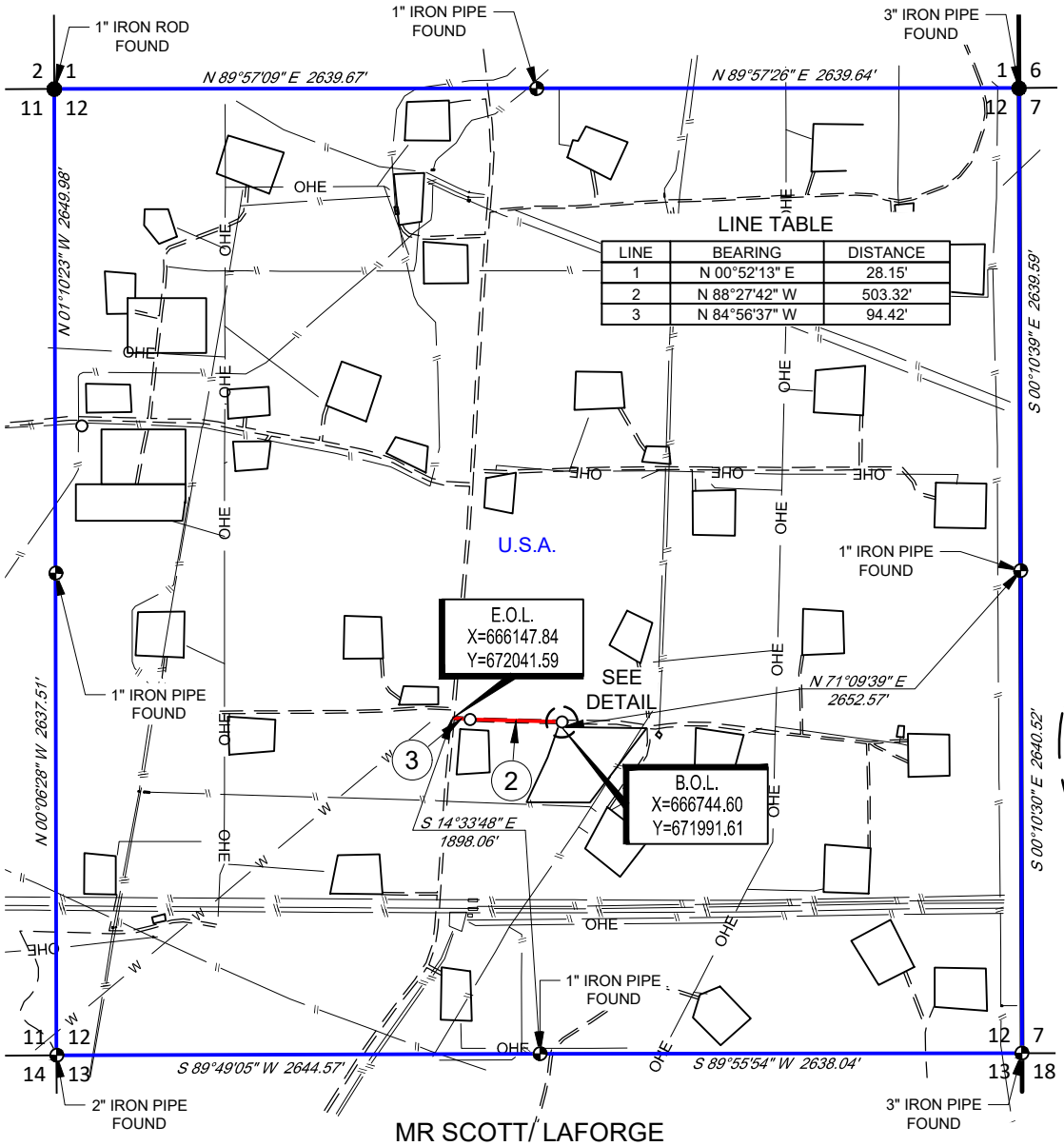
S:\SURVEY\EOG_ARTESIA\LA_FORGE_FEDERAL\FINAL_PRODUCTS\LO_LA_FORGE_FEDERAL_COM_2H-1.DWG 10/25/2018 9:02:54 AM csmith5

SCALE: 1" = 1000'

0' 500' 1000'

SECTION 12, TOWNSHIP 17-S, RANGE 30-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

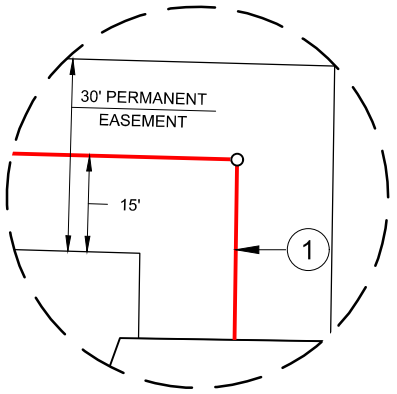


LINE TABLE

LINE	BEARING	DISTANCE
1	N 00°52'13" E	28.15'
2	N 88°27'42" W	503.32'
3	N 84°56'37" W	94.42'

LEGEND

- SURVEY/SECTION LINE
- RANGE/TOWNSHIP LINE
- TRACT BORDER
- SURVEYED BASELINE
- EDGE OF EASEMENT
- ROAD WAY
- X — FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- W — WATER LINE
- IRON ROD FOUND
- IRON PIPE FOUND
- POINT OF INTERSECTION



DETAIL VIEW
SCALE: 1" = 30'

MR SCOTT/ LAFORGE ACCESS ROAD

Being a proposed road easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 625.89 feet or 37.93 rods, containing 0.43 acres more or less.

Michael Blake Brown, P.S. No. 18329
OCTOBER 25, 2018

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
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TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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eog resources, inc.

MR SCOTT/ LAFORGE ACCESS ROAD	REVISION: INT	DATE
DATE: 10/15/2018		
FILE: EP_MRSCOTT_LAFORGE_ACCESS_RD_SEC12		
DRAWN BY: IMU		
SHEET : 1 OF 1		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY EOG RESOURCES, INC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING
5. E.O.L./P.O.E. = END OF LINE/POINT OF EXIT
6. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

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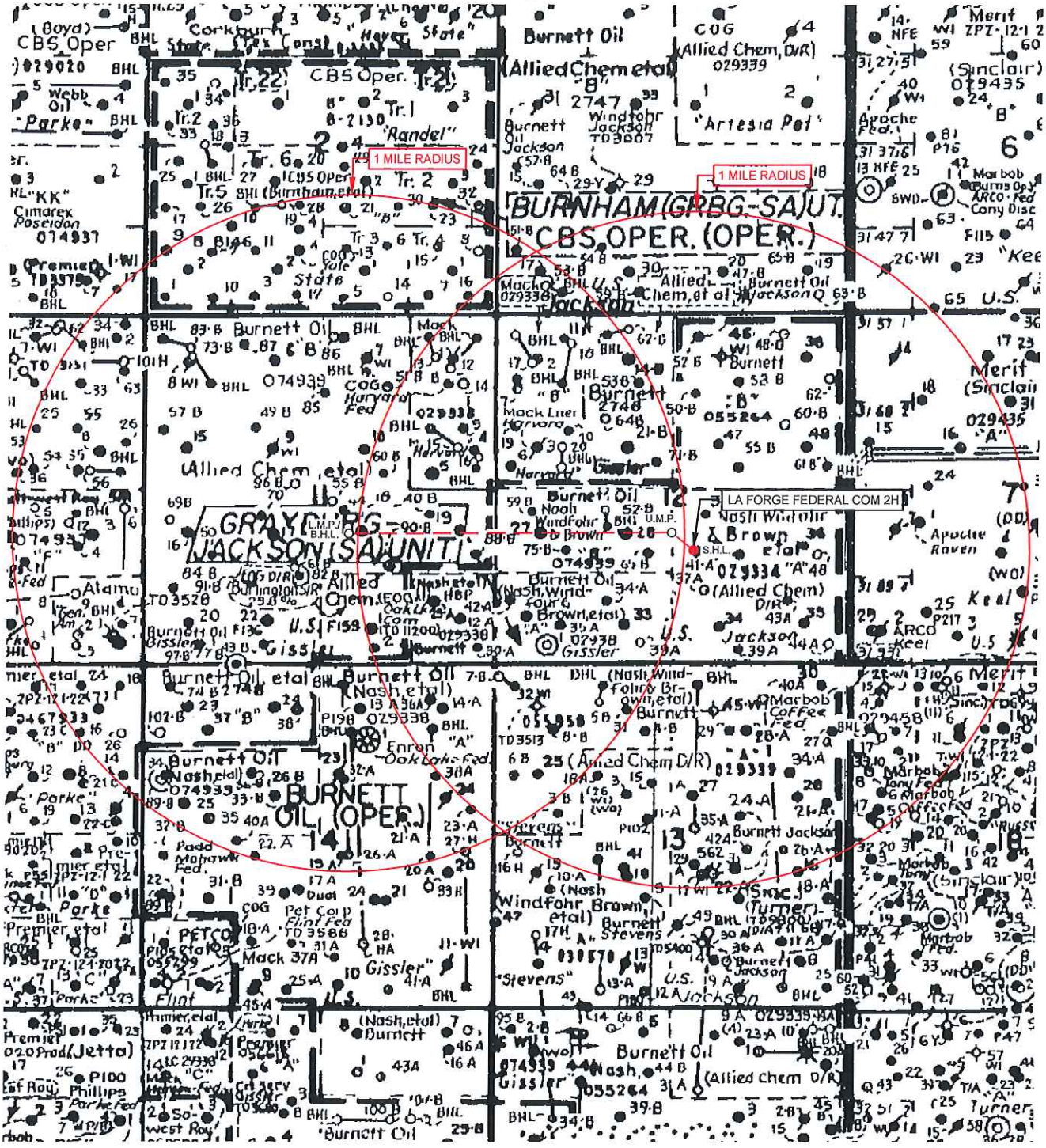
EXHIBIT 3

eog resources, inc.

SECTION 12, TOWNSHIP 17-S, RANGE 30-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: LA FORGE FEDERAL COM 2H

2H LATITUDE N 32.8460572 2H LONGITUDE W 103.9246180

SCALE: NTS

N

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

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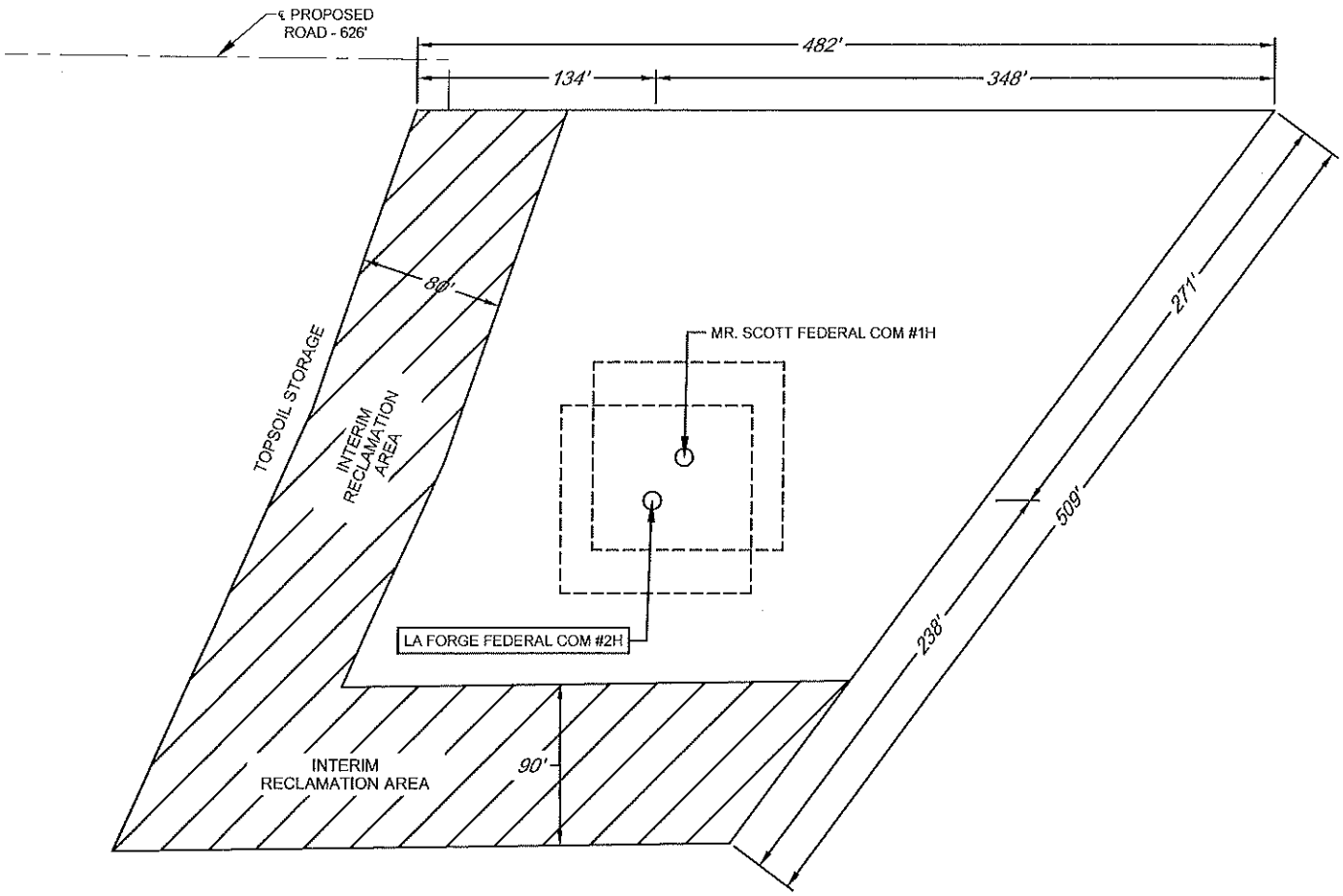
EXHIBIT 2C

RECLAMATION AND FACILITY DIAGRAM - PRODUCTION FACILITIES DIAGRAM

SECTION 12, TOWNSHIP 17-S, RANGE 30-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



LEASE NAME & WELL NO.: LA FORGE FEDERAL COM 2H

2H LATITUDE N 32.8460572 2H LONGITUDE W 103.9246180

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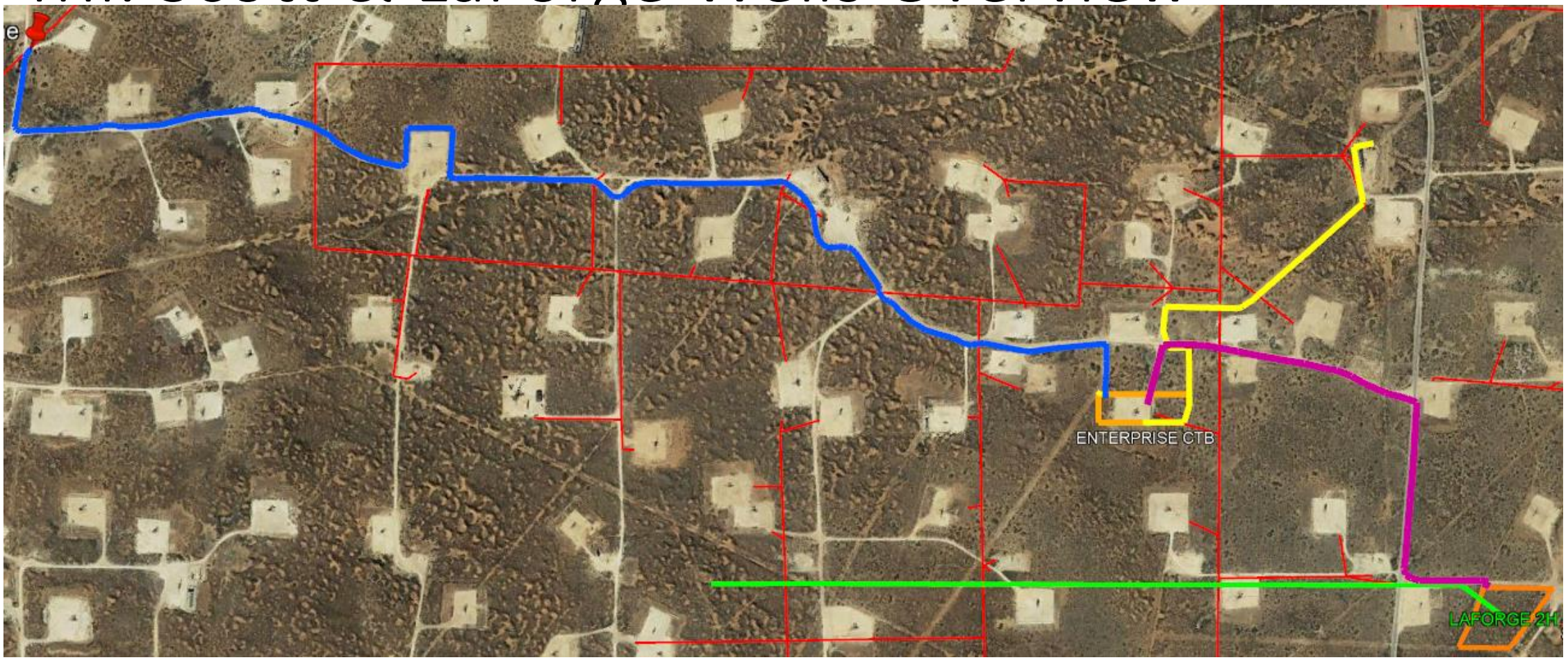
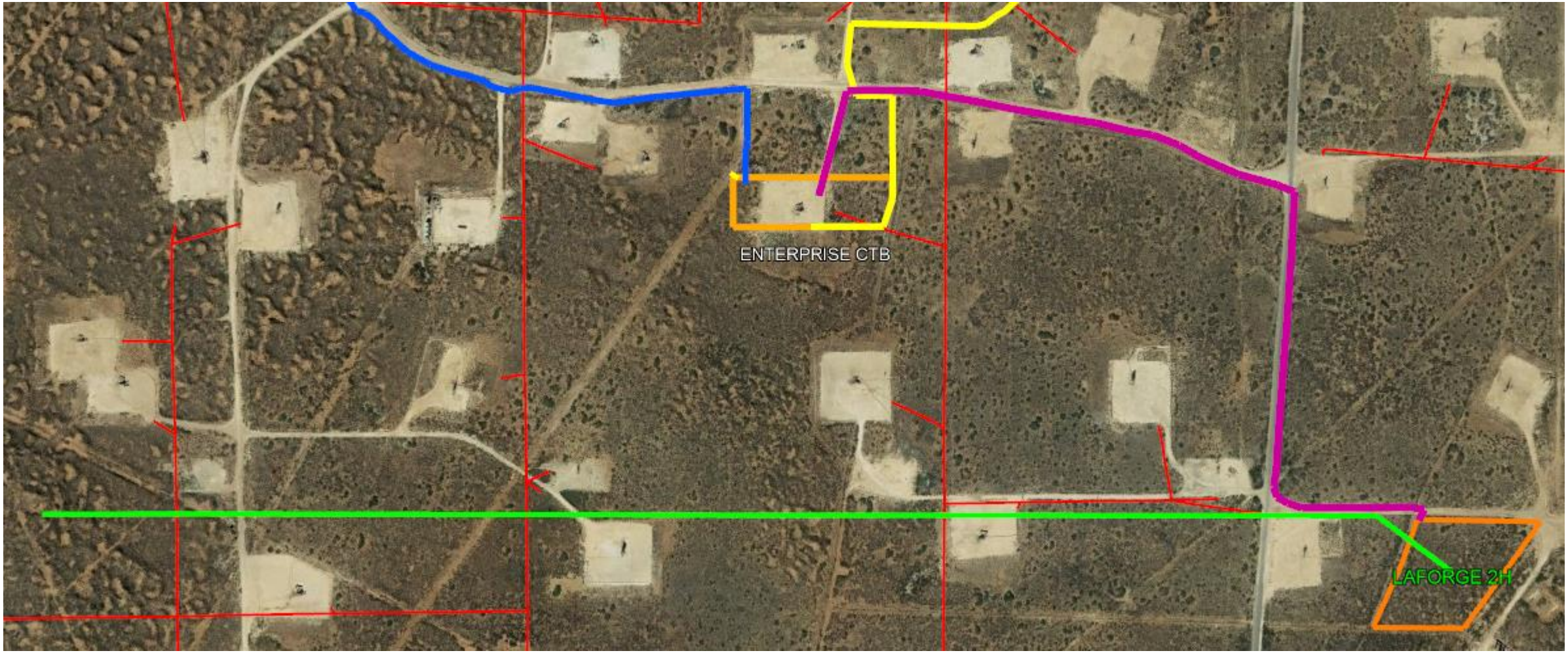
Mr. Scott & LaForge Wells Overview

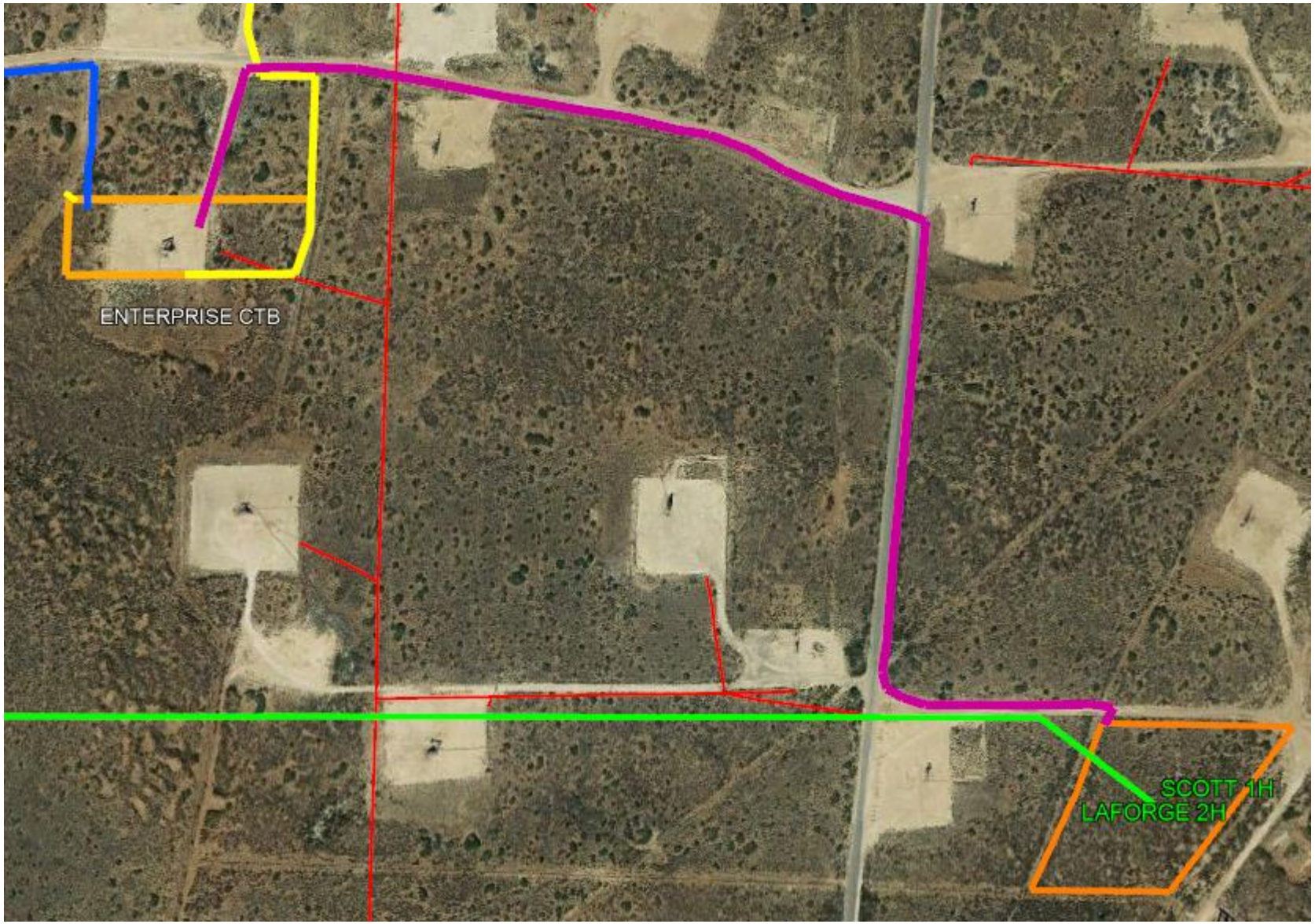


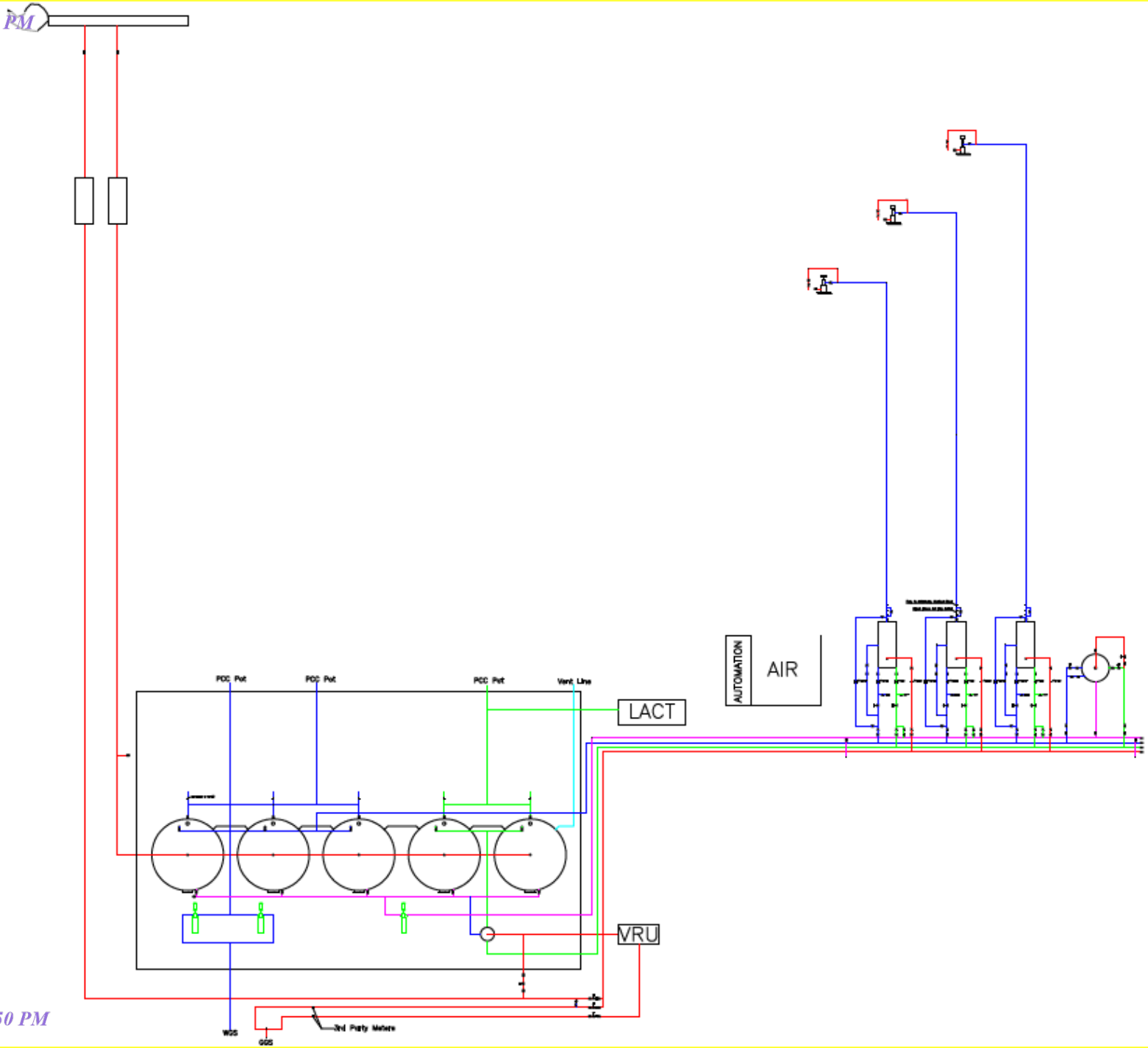
Legend		Comments
	Proposed Pad	
	Water Transfer Line	Photon Torpedo CTB Water Transfer Line - Four 4" poly flowlines on surface. Total footage per line = 6,500'
	Gas Gathering	
	Electrical Grid	Current CVE system in the field. Power supply will come from CVE.
	Well Flowlines	Two 4" poly and two 4" Flexsteel lines on surface. Working pressure will not exceed 125psi. Estimated length @ 4,000'.
	Well Paths	

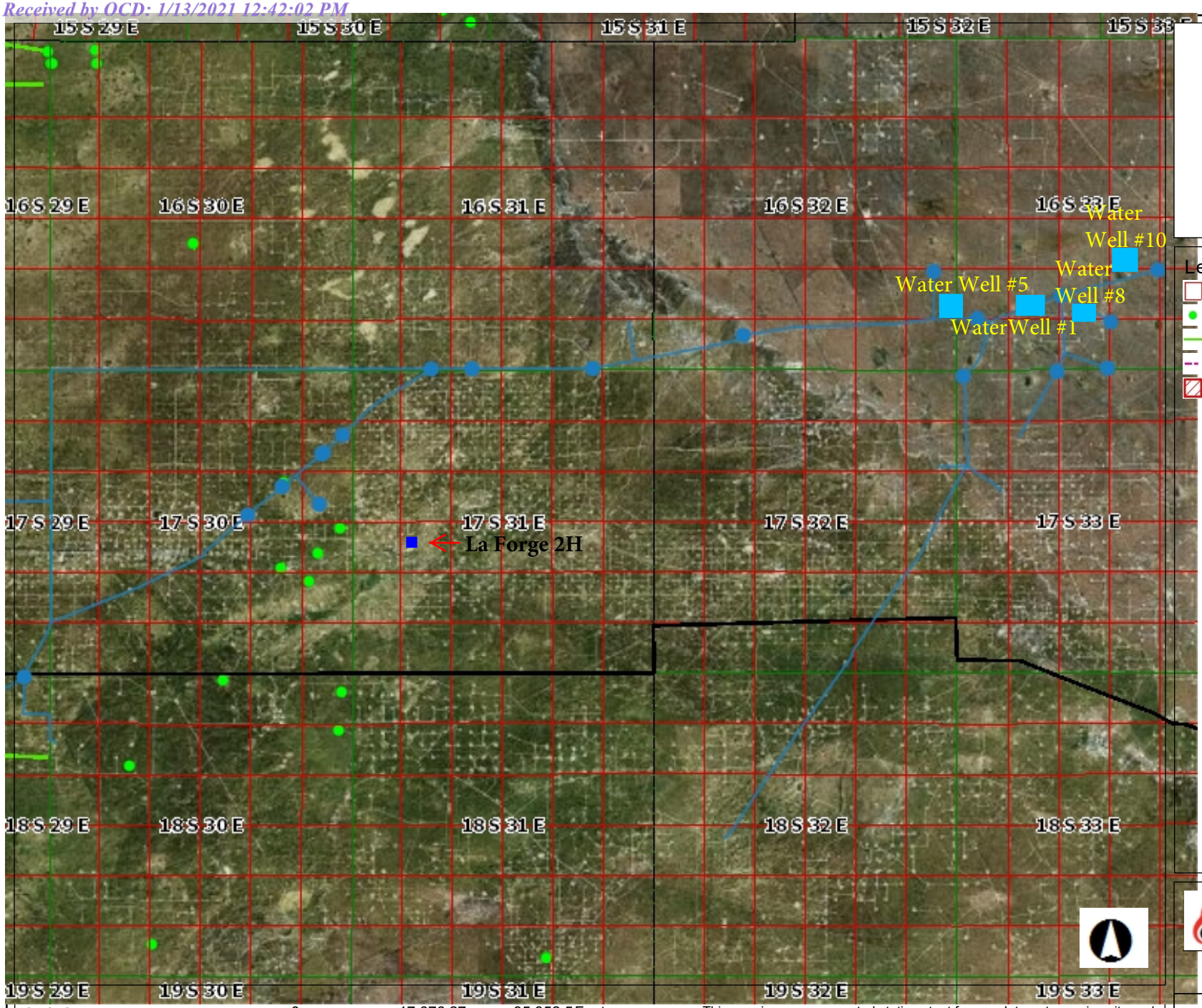


Legend		Comments
	Proposed Pad	
	Water Transfer Line	Photon Torpedo CTB Water Transfer Line - Four 4" poly flowlines on surface. Total footage per line = 6,500'
	Gas Gathering	
	Electrical Grid	Current CVE system in the field. Power supply will come from CVE.
	Well Flowlines	Two 4" poly and two 4" Flexsteel lines on surface. Working pressure will not exceed 125psi. Estimated length @ 4,000'.
	Well Paths	

Legend	
	Proposed Pad
	Water Transfer Line
	Gas Gathering
	Electrical Grid
	Well Flowlines
	Well Paths




PCC Pot
PCC Pot
PCC Pot
Vent Line
LACT
VRU
AUTOMATION
AIR
WGS
GGS
3rd Party Meters



Legend

- Jeffersonian Sections
- Artesia SHL Directional
- Artesia Well Path
- Well Plans
- Well Pad Areas
- Land Calendar Legend
  - EXPIRATION
  - OBLIGATION
  - PAYMENT

35,352.5 0 17,676.27 35,352.5 Feet

1: 212,115

Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Date: 7/19/2018

eog resources

ARTESIA DIVISION

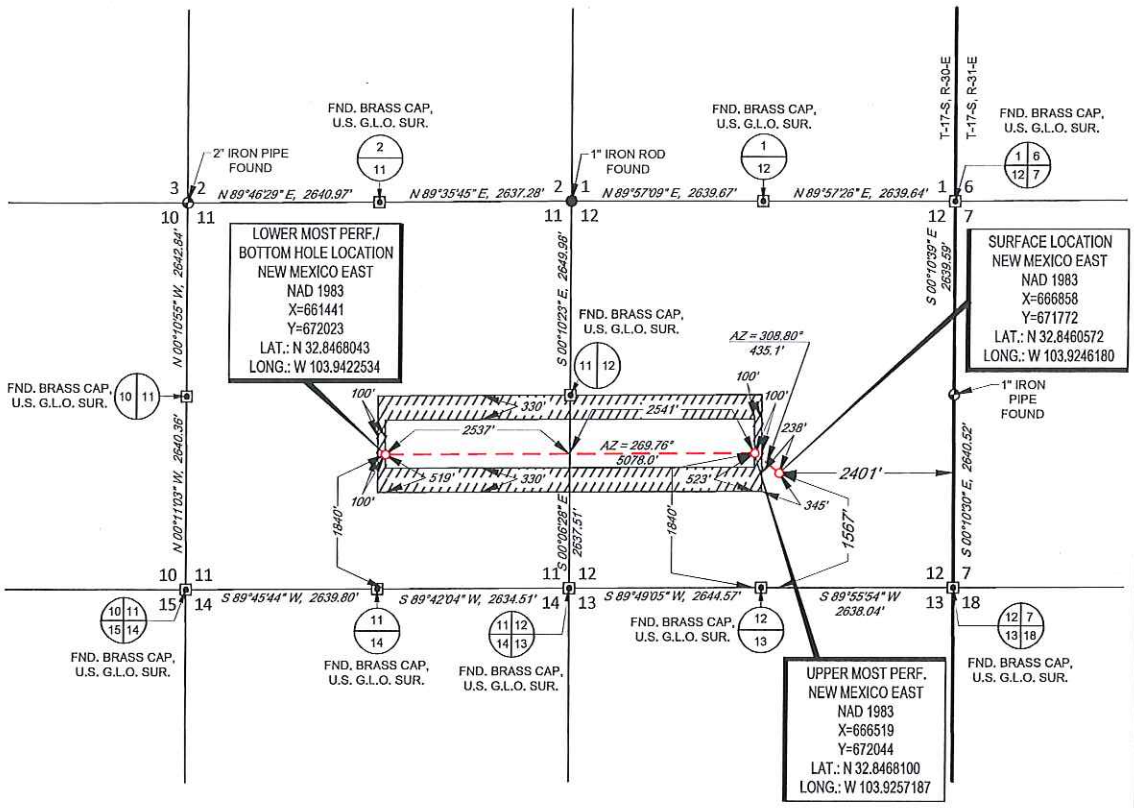
Water Source Map
La Forge 2H

Author: Trixy Duke

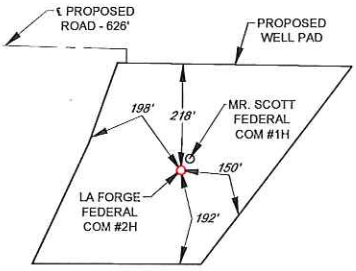
eog resources, inc.

EXHIBIT 2A

SECTION 12, TOWNSHIP 17-S, RANGE 30-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



SCALE: 1" = 2000'
0' 1000' 2000'



DETAIL VIEW
SCALE: 1" = 300'

LEASE NAME & WELL NO.: LA FORGE FEDERAL COM 2H

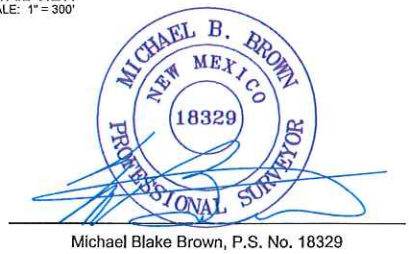
SECTION 12 TWP 17-S RGE 30-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 1567 FSL & 2401 FEL

DISTANCE & DIRECTION

FROM INT. OF NM-529, & US-82, GO WEST ON US-82 ±3.7 MILES, THENCE NORTH (RIGHT) ON SQUARE LAKE RD. ±2.2 MILES, THENCE EAST (RIGHT) ON A PROPOSED RD. ±626 FEET TO A POINT ±248 FEET NORTHWEST OF THE LOCATION.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.



Michael Blake Brown, P.S. No. 18329
OCTOBER 25, 2018

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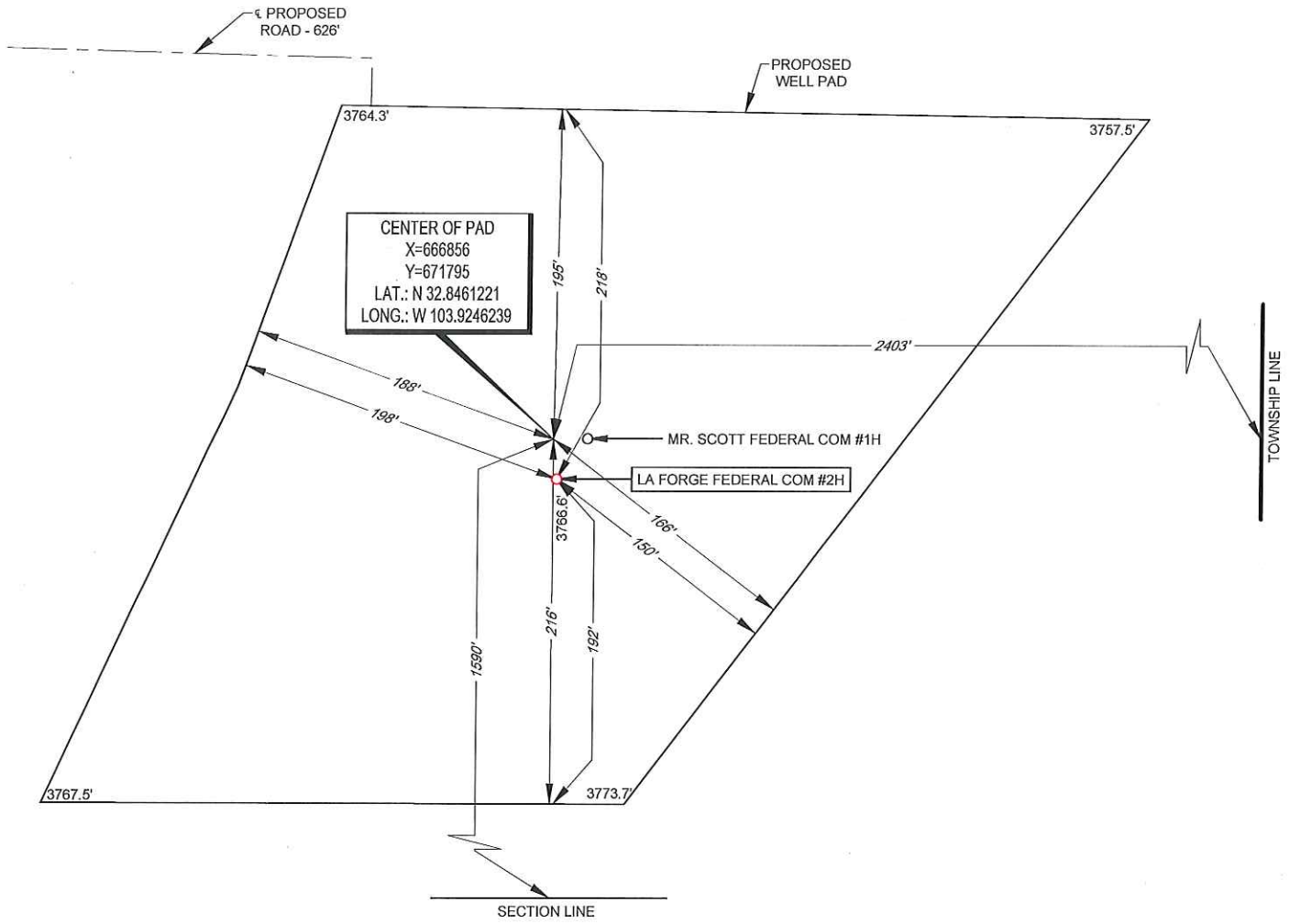
EXHIBIT 2B

eog resources, inc.

SECTION 12, TOWNSHIP 17-S, RANGE 30-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



LEASE NAME & WELL NO.: LA FORGE FEDERAL COM 2H

2H LATITUDE N 32.8460572 2H LONGITUDE W 103.9246180

CENTER OF PAD IS 1590' FSL & 2403' FEL

N

SCALE: 1" = 100'

0' 50' 100'

LEGEND

- TOWNSHIP LINE
- SECTION LINE
- PROPOSED ROAD

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: December 5, 2018

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: EOG Resources, Inc. 7377

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

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

Well(s)/Production Facility – Name of facility

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Data Federal 1H		11–17S-30E	1289' FNL 651' FEL	500	0	
Data Federal 2H		11–17S-30E	1249' FNL 653' FEL	500	0	
Data Federal 3H		11–17S-30E	1209' FNL 654' FEL	500	0	
Bones Federal 4H		11–17S-30E	1284' FNL 501' FEL	500	0	
Bones Federal 5H		11–17S-30E	1244' FNL 503' FEL	500	0	
Bones Federal 6H		11–17S-30E	1204' FNL 504' FEL	500	0	
Mr. Scott Federal Com 1H		12–17S-30E	1567'FSL 2401' FEL	500	0	
La Forge Federal Com 2H		12–17S-30E	1591'FSL 2832' FEL	500	0	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to DCP Midstream and will be connected to DCP Midstream low pressure gathering system located in Eddy County, New Mexico. It will require 27' of pipeline to connect the facility to low/high pressure gathering system. EOG provides (periodically) to DCP Midstream a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, EOG and DCP Midstream have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP Midstream Processing Plant located in New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

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

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

Alternatives to Reduce Flaring

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

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

EOG RESOURCES, INC.
LA FORGE FEDERAL COM NO. 2H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	322’
Tansill	1,312’
Yates	1,479’
Seven Rivers	1,735’
Queen	2,380’
Grayburg	2,786’
San Andres	3,088’
Glorieta	4,585’
Yeso	4,651’
TD	10,407’

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Rustler	322’	Fresh Water, Oil
Grayburg	2,786’	Oil
San Andres	3,088’	Oil
Glorieta	4,585’	Oil
Yeso	4,651’	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13.375” casing at 400’ and circulating cement back to surface.

4. CASING PROGRAM - NEW

EOG Resources requests approval of a contingency hole size and intermediate 9 5/8” casing string if water flow risk is deemed to be high. We request to have a contingency plan approved to drill out with either a 12 ¼” hole if water flow risk is high and the option to drill out with 8 ¾” if the water flow risk is determined to be low. Please see below for primary and contingency request.

Primary Hole & Casing String:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
17.5”	0’-400’	13.375”	48#	H-40/J-55	STC	1.125	1.25	1.60
8.75”	0’ –5,446’	7”	29#	L-80	BTC	1.125	1.25	1.60
8.75”	5,446’-10,407’	5 ½”	17#	L-80	BTC	1.125	1.25	1.60

EOG RESOURCES, INC.
LA FORGE FEDERAL COM NO. 2H

Contingency Hole & Casing String:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
17.5"	0'-400'	13.375"	48#	H-40/ J-55	STC	1.125	1.25	1.60
12.25"	0' –100'	9.625	40#	J-55	LTC	1.125	1.25	1.60
12.25"	100' – 3,300'	9.625	36#	J-55	LTC	1.125	1.25	1.60
12.25"	3,300' – 3,500'	9.625	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' – 5,446'	7"	29#	L-80	BTC	1.125	1.25	1.60
8.75"	5,446'-10,407'	5 ½"	17#	L-80	BTC	1.125	1.25	1.60

Cementing Program:
Note: Cement volumes based on bit size plus at least 100% excess on surface, 100% excess in Contingency Intermediate and 35% excess in production string.

Primary Cement Design:

Depth	No. Sacks	Wt. lb/gal	Yld Ft^3/ft	Volume Ft^3	Slurry Description
400'	415	14.8	1.34	95	Tail: Class 'C' + 2%PF1(Calcium Chloride) (100% excess)
10407'	450	11.9	2.47	198	Lead: Class 50/50 PozC + 5%PF44(BWOW)(Salt) + 10% PF20(Bentonite Gel) +.2%PF153(Anti Settling Agent(+ 3#/sk OF42(Kolseal) + 0.125#/sk PF29 (celloflake) + 0.4#/sk PF45 (Defoamer) (TOC @ Surface) 35% Excess
	1145	13	1.48	302	Tail: Class PVL + 1.3% PF44(BWOW)(Salt) + 5% PF174 (Expanding Cement) + 0.5% PF606 (Fluid Loss) + 0.1% PF153 (Anti Settling Agent) + 0.4#/sk PF45 (Defoamer) 35% Excess

Contingency Cement Design:

Depth	No. Sacks	Wt. lb/gal	Yld Ft^3/ft	Volume Ft^3	Slurry Description
400'	415	14.8	1.34	95	Tail: Class 'C' + 2%PF1(Calcium Chloride) (100% excess)
3500'*	1075	12.8	1.79	343	Lead: 35:65 Poz C + .02 gal/sk Anti Foam + 1% Extender + .13 lb/sk Lost Circulation (TOC @ Surface)
	200	14.8	1.33	47	Tail: Class C + 0.13% Anti Foam
10046'	205	11.9	2.47	90	Lead: Class 50/50 PozC + 5%PF44(BWOW)(Salt) + 10% PF20(Bentonite Gel) +.2%PF153(Anti Settling Agent(+ 3#/sk OF42(Kolseal) + 0.125#/sk PF29 (celloflake) + 0.4#/sk PF45 (Defoamer) (TOC @ 500' into previous casing string) 35% Excess
	1145	13	1.48	302	Tail: Class PVL + 1.3% PF44(BWOW)(Salt) + 5% PF174 (Expanding Cement) + 0.5% PF606 (Fluid Loss) + 0.1% PF153 (Anti Settling Agent) + 0.4#/sk PF45 (Defoamer) 35% Excess

*Cement will be done in 2 stages if water flow is encountered. DV Tool placement will be placed above water flow depth. Cement volumes will be adjusted accordingly.

EOG RESOURCES, INC.
LA FORGE FEDERAL COM NO. 2H

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

A variance is requested to use a co-flex line between the BOP and choke manifold, dependent on rig selection (instead of using a steel line). Certification and specs are attached.

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a double rams with blind rams & pipe rams preventer (3,000 psi WP) and an annular preventer (3,000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 3,000/ 250 psig and the annular preventer to 1,500/ 250 psig. The surface casing will be tested to 1200 psi for 30 minutes.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the surface casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 400’	Fresh Water	8.6-8.8	28-32	N/c
400’ – 3,500’* Vertical	Brine	9.2-10.2	32-34	N/c
3,500’ – 10,407’ Vertical/Curve/Lateral	Cut Brine	8.8-9.4	30-34	N/c
*Reflects the contingency mud system if contingency plan is followed if not the next line will be utilized out from under surface. Mud properties will be adjusted per hole conditions.				

The highest mud weight needed to balance formation is expected to be 10.2 ppg. In order to maintain hole stability, mud weights up to 10.2 ppg may be utilized.

EOG RESOURCES, INC.
LA FORGE FEDERAL COM NO. 2H

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

(A) A kelly cock will be kept in the drill string at all times.

(B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

(C) H_2S monitoring and detection equipment will be utilized from surface casing point to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR–Directional surveys will be run in open hole during drilling phase of operations.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 110 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 2807 psig (based on 10.2 ppg MW). Hydrogen sulfide has been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from spud to surface casing point.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

(A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both “A” and “B” sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

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11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 9-5/8" surface casing, a 9 5/8" BOP/BOPE system with a minimum working pressure of 3,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 3,000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 3,000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Stream Flo HES Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

MULTI-POINT SURFACE USE PLAN OF OPERATIONS

EOG Resources, Inc.

La Forge Federal Com 2H

1567' FSL and 2401' FEL Section 12, T17S-R30E - Surface Hole Location
1840' FSL and 2537' FEL Section 11, T17S-R30E -Bottom Hole Location
Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

The County map showing the well and roads in the vicinity of the proposed location. The access route to the location is indicated on Exhibit 2. Operator will maintain existing roads in condition the same or better than before operations begin. Operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures along the entire access route such as cattle guards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use. Operator will reasonably prevent and abate fugitive dust as needed when created by vehicular traffic and equipment caused by the operator. The BLM's written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on roadways.

DIRECTIONS:

Distance and Directions are detailed on Exhibit 2.

2. PLANNED ACCESS ROAD.

A. The road will be crowned and ditched to a 2% slope from the tip of the crown to the edge of the driving surface.
B. The road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion. Ditches will be 3' wide with a 3:1 slopes.
C. The road will be bladed with drainage on one side. A traffic turnout may be built.
D. Existing roads will be maintained in the same or better condition.
E. The route of road is visible.

3. LOCATION OF EXISTING WELL

Exhibit 3 shows existing wells within a one-mile radius of the proposed well site.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

   A. There are no production facilities on this lease at the present time.
   B. Central tank battery will be the Enterprise battery located at the Kirk Federal Com 1H well.

5. LOCATION AND TYPE OF WATER SUPPLY:

   It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck and pipeline over the existing and proposed roads shown in Exhibit 2.

6. SOURCE OF CONSTRUCTION MATERIALS:

   Dirt contractor will locate closest pit and obtain any permits and materials needed for construction of the well location.

7. METHODS OF HANDLING WASTE DISPOSAL:

   A. This well will be drilled with a closed loop system
   B. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division – the "Pit Rule" 19.15.17 NMAC.
   C. Drilling fluids will be removed after drilling and completions are completed.
   D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
   E. Oil produced during operations will be stored in tanks until sold.
   F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
   G. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not approved.

8. ANCILLARY FACILITIES: None.

9. WELLSITE LAYOUT:

   Exhibits 2A and 2B show the relative location and dimensions of the well pad, the closed loop mud system, location of the drilling equipment. All of the location will be constructed within the staked and flagged area.

10. PLANS FOR RESTORATION:

    A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible. The location will be reduced as shown in Exhibit 2C after completion operations have been conducted. At this point the surfacing material will be removed and topsoil will be redistributed. The area will be contoured as closely as possible to its original state and reseeded.

B. If the proposed well is plugged and abandoned, all equipment and other material will be removed. The location will be cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible. At this point the surfacing material will be removed, topsoil will be redistributed. The area will be contoured as closely as possible to its original location and reseeded. These actions will be completed and accomplished as expeditiously as possible.

C. The reclamation of the pad will be done in sixty days if possible after the well is put in production.

11. SURFACE OWNERSHIP:

Surface Estate:	Bureau of Land Management 620 E. Greene Street Carlsbad, NM 88220-6292
Mineral Estate:	BLM – NMLC-0029339A leased to EOG Resources, Inc., et al 104 South Fourth Street Artesia, NM 88210

12. OTHER INFORMATION:

A. Topography: Refer to the existing archaeological report and environmental assessment for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
B. The primary surface use is for grazing.

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

COMMENTS

Action 14606

COMMENTS

Operator:			OGRID:	Action Number:	Action Type:
EOG RESOURCES INC	P.O. Box 2267	Midland, TX79702	7377	14606	FORM 3160-3

Created By	Comment	Comment Date
kpickford	KP GEO Review 1/14/2020	01/14/2021

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CONDITIONS

Action 14606

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
EOG RESOURCES INC P.O. Box 2267 Midland, TX79702	7377	14606	FORM 3160-3

OCD Reviewer	Condition
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
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
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