HOBBS OCD

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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.
NMNM066927

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.
LOBO BLANCO 16 FED
709H (326973)

2. Name of Operator
EOG RESOURCES INCORPORATED (7377)

9. API Well No.
30-025-46749

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory
1111 Bagby Sky Lobby2 Houston TX 77002	(713)651-7000	PERMIAN / WC-025 G-09 S263416B; UP (98105)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface NENE / 221 FNL / 321 FEL / LAT 32.0500996 / LONG -103.467339
At proposed prod. zone NENE / 100 FNL / 843 FEL / LAT 32.0794645 / LONG -103.4690556

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 16 / T26S / R34E / NMP

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

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
100 feet	2480	640

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
33 feet	12788 feet / 23014 feet	FED: NM2308

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3312 feet	01/01/2020	25 days

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Jayna K. Hobby / Ph: (432)686-6997	07/02/2019
Title: Regulatory Specialist		
Approved by *(Signature)* (Electronic Submission)	Name *(Printed/Typed)* Cody Layton / Ph: (575)234-5959	Date 01/13/2020
Title: Assistant Field Manager Lands & Minerals	Office: CARLSBAD	

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.

GCP Rec 01/15/2020

APPROVED WITH CONDITIONS

Approval Date: 01/13/2020

KR 01/13/2020

SL

(Continued on page 2)

*(Instructions on page 2)

Double Sided

Additional Operator Remarks

Location of Well

1. SHL: NENE / 221 FNL / 321 FEL / TWSP: 26S / RANGE: 34E / SECTION: 16 / LAT: 32.0500996 / LONG: -103.467339 (TVD: 0 feet, MD: 0 feet)
   PPP: SESE / 100 FSL / 843 FEL / TWSP: 26S / RANGE: 34E / SECTION: 9 / LAT: 32.0509815 / LONG: -103.4690251 (TVD: 12531 feet, MD: 12559 feet)
   BHL: NENE / 100 FNL / 843 FEL / TWSP: 26S / RANGE: 34E / SECTION: 4 / LAT: 32.0794645 / LONG: -103.4690556 (TVD: 12788 feet, MD: 23014 feet)

BLM Point of Contact

Name: Pamella Hernandez
Title:
Phone: 5752345954
Email: phermandez@blm.gov

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**EOG RESOURCES, INC.**
LEASE NO.:	**NMNM066927**
WELL NAME & NO.:	**LOBO BLANCO 16 FED 709H**
SURFACE HOLE FOOTAGE:	**221'/N & 321'/E**
BOTTOM HOLE FOOTAGE	**100'/N & 843'/E**
LOCATION:	**Section 16, T.26 S., R.34 E., NMPM**
COUNTY:	**Lea 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	☐ COM	☐ Unit

A. HYDROGEN SULFIDE

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

B. CASING

Primary Casing Design:

1. The **9-5/8** inch surface casing shall be set at approximately **800** feet (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after

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

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

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

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

    - Cement should tie-back **200 feet** into the 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 **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

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

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.

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.

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

EOG Resources Inc.
Lease No. NMNM 066927

Central Tank Battery, Two Well Pads, Lease Roads, Buried Flowlines/Gas Lift Lines, Water Line, Gas Sales Line, and Overhead Electric Line

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.

Approval Date: 01/13/2020

V. 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.

Timing Limitation Exceptions:
The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

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

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

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

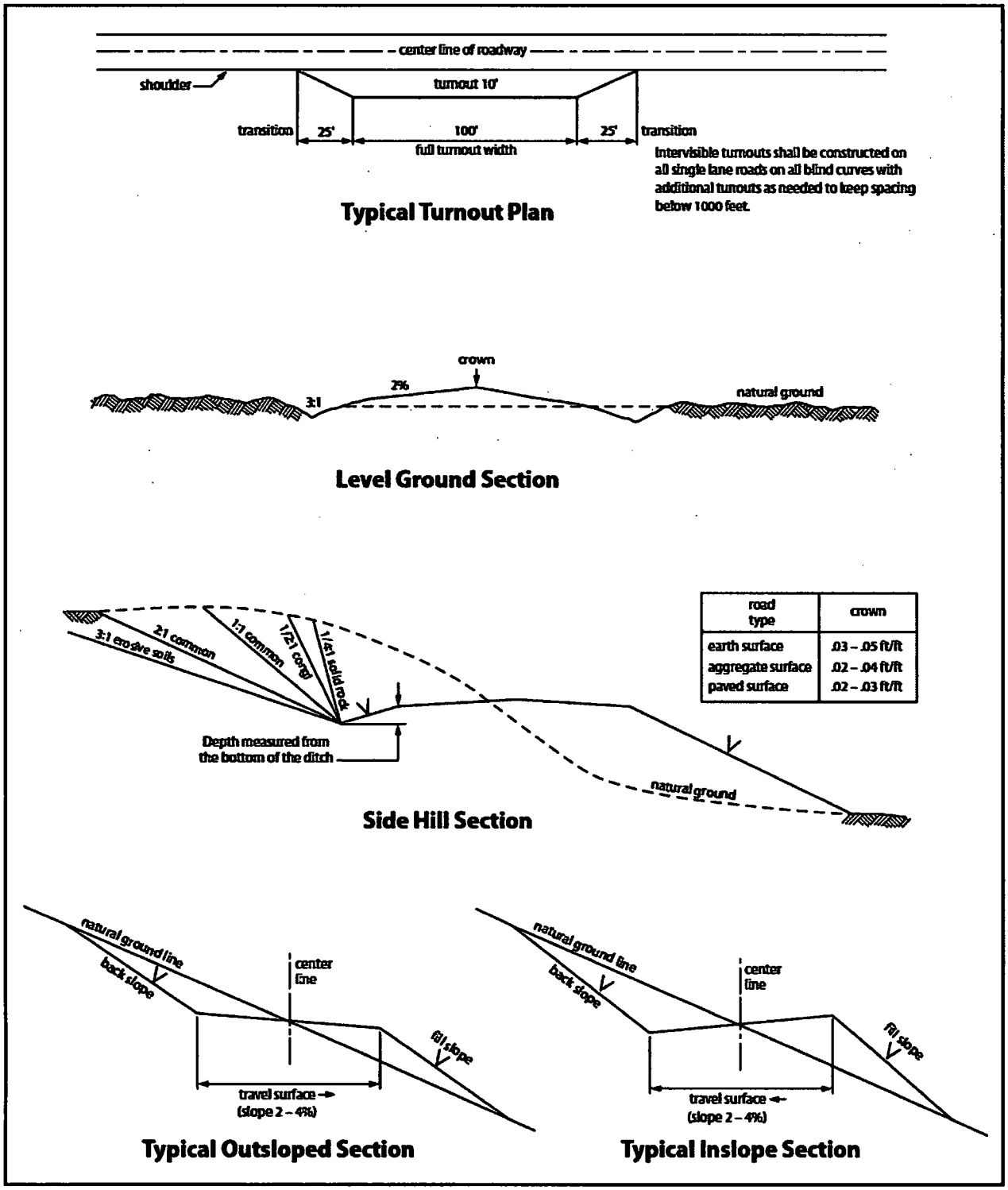

Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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.

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 **20** 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.

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

19. Special Stipulations:

Lesser Prairie-Chicken

Oil and gas activities 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, geophysical exploration other than 3-D operations, and 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. 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 ft. from the source of the noise.

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.

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

A copy of the grant 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 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. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

than 3-D operations, and 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 ft. from the source of the noise.

VIII. INTERIM RECLAMATION

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

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

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

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

Seed Mixture for LPC Sand/Shinnery Sites

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

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

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

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

*Pounds of pure live seed:

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

EOG RESOURCES, INC.
LOBO BLANCO 16 FED #709H

1. GEOLOGIC NAME OF SURFACE FORMATION:
Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	675'
Top of Salt	1,038'
Base of Salt	3,981'
Base Anhydrite	5,328'
Lamar	5,328'
Bell Canyon	5,357'
Cherry Canyon	5,396'
Brushy Canyon	8,106'
Bone Spring Lime	9,608'
1st Bone Spring Sand	10,604'
2nd Bone Spring Shale	10,793'
2nd Bone Spring Sand	11,122'
3rd Bone Spring Carb	11,586'
3rd Bone Spring Sand	12,179'
Wolfcamp	12,629'
TD	12,788'

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

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	5,396'	Oil
Brushy Canyon	8,106'	Oil
1st Bone Spring Sand	10,604'	Oil
2nd Bone Spring Shale	10,793'	Oil
2nd Bone Spring Sand	11,122'	Oil
3rd Bone Spring Carb	11,586'	Oil
3rd Bone Spring Sand	12,179'	Oil
Wolfcamp	12,788'	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 9.625" casing at 800' and circulating cement back to surface.

EOG RESOURCES, INC.
LOBO BLANCO 16 FED #709H

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
12.25"	0' – 800'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' – 11,686'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 11,186'	5.5"	20#	P-110 EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	11,186'–11,686'	5.5"	20#	P-110 EC	VAM SFC	1.125	1.25	1.60
6.75"	11,686' – 23,014'	5.5"	20#	P-110 EC	DWC/C-IS MS	1.125	1.25	1.60

Variance is requested to waive the centralizer requirements for the 7-5/8" FJ casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-1/2" FJ casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422'' annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422'' between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422'' is acceptable for the curve and lateral portions of the production open hole section.

EOG Resources also requests approval to implement Casing Design B (pg. 8-9). BLM will be notified of elected design at spud.

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft^3/sk	Slurry Description
800' 9-5/8"	640	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% $CaCl_2$ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 600')
11,686' 7-5/8"	460	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 8,100')
	1,000	12.7	2.30	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
23,014' 5-1/2"	960	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 11,186')

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

EOG requests to pump a two stage cement job on the 7-5/8'' intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (8,106') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. The final cement top will be verified by Echo-meter.

EOG will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-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.

Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

Pipe rams and blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

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

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 – 800'	Fresh - Gel	8.6-8.8	28-34	N/c
800' – 11,686'	Brine	10.0-10.2	28-34	N/c
11,686' – 12,329'	Oil Base	8.7-9.4	58-68	N/c - 6
12,329' – 23,014' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized.

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–CCL Will be run in cased hole during completions phase of operations.

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

The estimated bottom-hole temperature (BHT) at TD is 181 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 9,310 psig and a maximum anticipated surface pressure of 6,496 psig (based on 14.0 ppg MW). No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 8,106' to Intermediate 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.

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 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10,000 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 10,000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Cactus 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.

EOG RESOURCES, INC.
LOBO BLANCO 16 FED #709H

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

Casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

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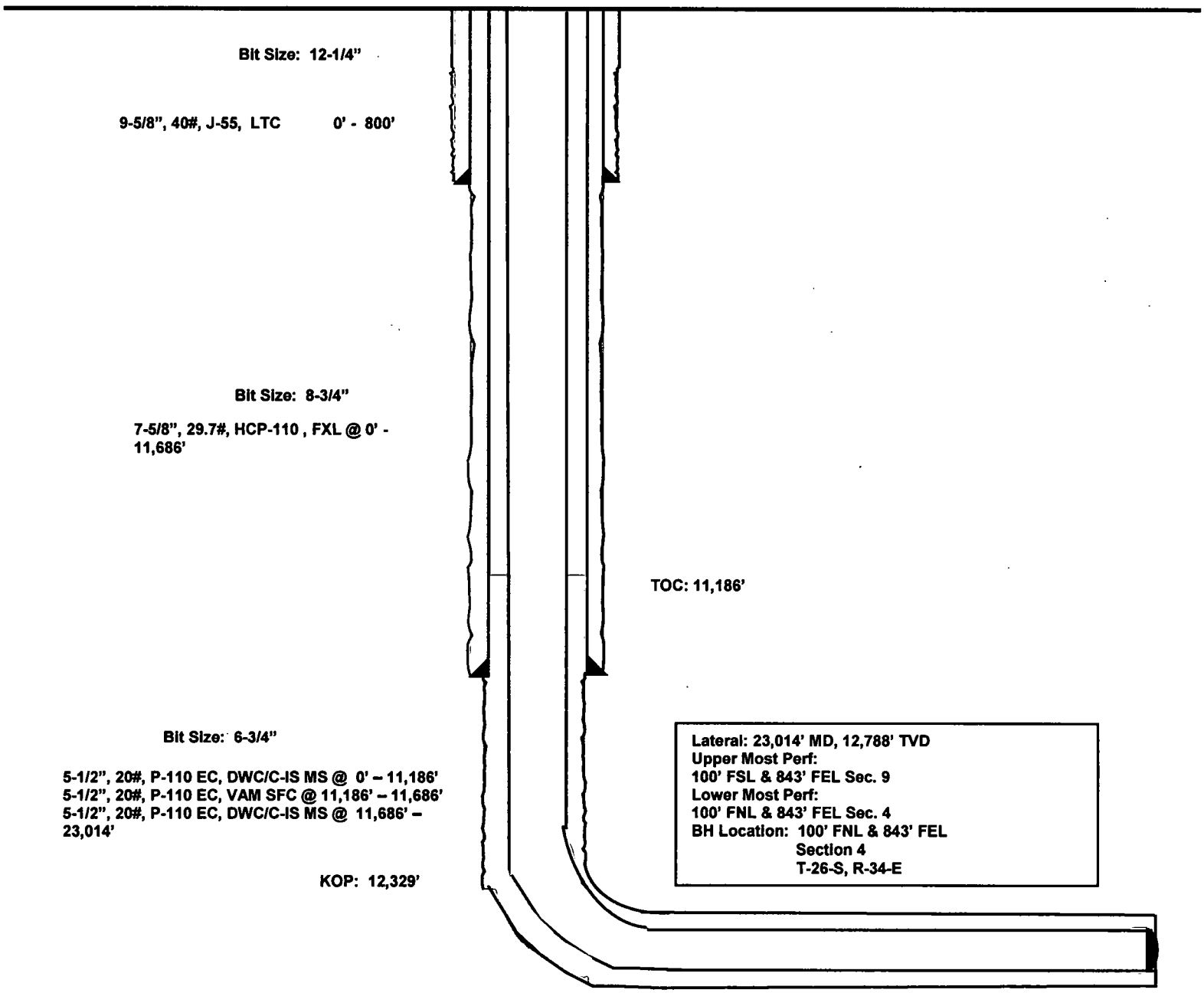
LOBO BLANCO 16 FED #709H

221' FNL
321' FEL
Section 16
T-26-S, R-34-E

Proposed Wellbore
Design A

API: 30-025-***

KB: 3,337'
GL: 3,312'



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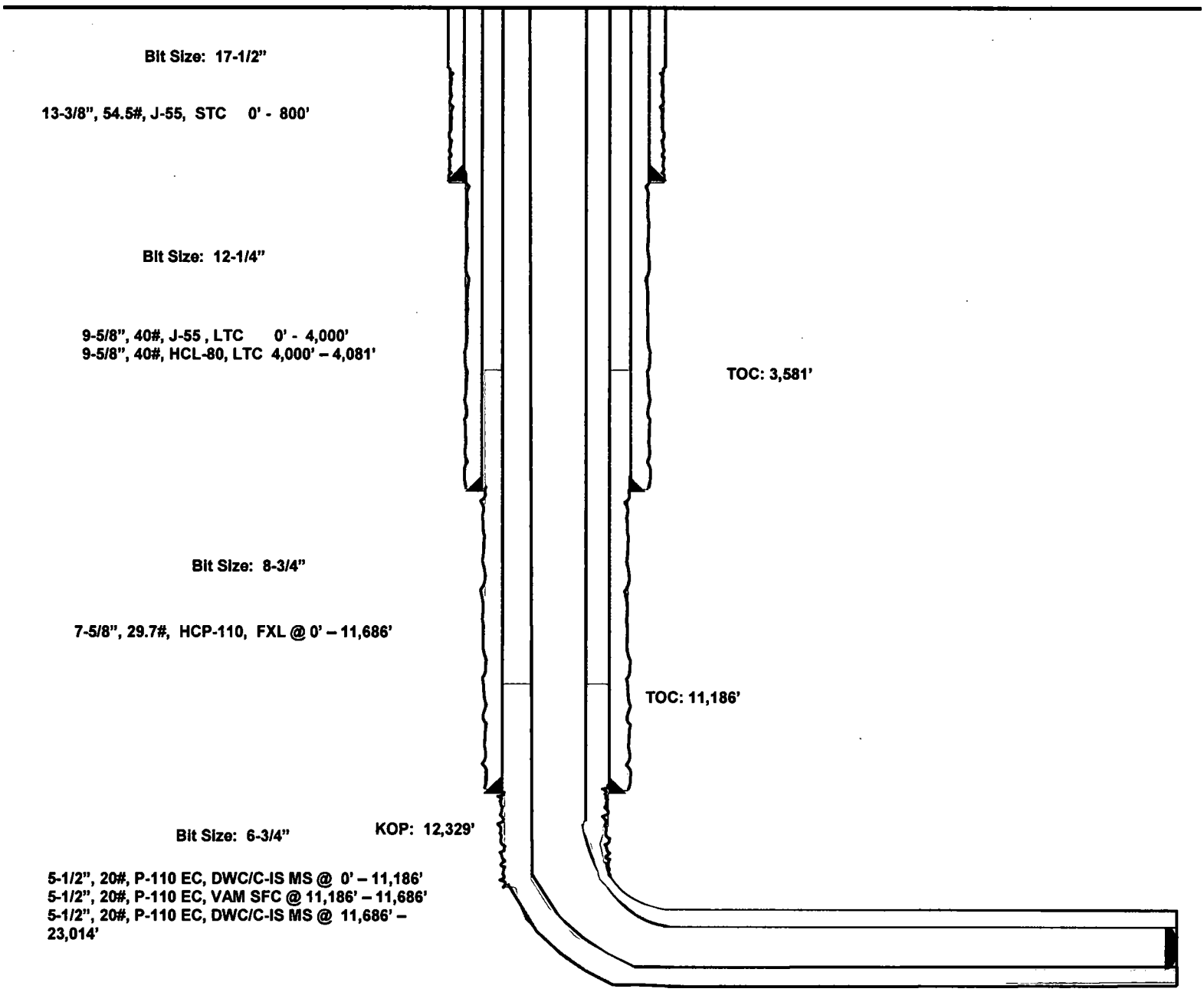
Proposed Wellbore
Design B

API: 30-025-***



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LOBO BLANCO 16 FED #709H

Design B

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
17.5"	0 – 800'	13.375"	54.5#	J-55	STC	1.125	1.25	1.60
12.25"	0 – 4,000'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
12.25"	4,000' – 4,081'	9.625"	40#	HCL-80	LTC	1.125	1.25	1.60
8.75"	0 – 11,686'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 11,186'	5.5"	20#	P-110 EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	11,186'–11,686'	5.5"	20#	P-110 EC	VAM SFC	1.125	1.25	1.60
6.75"	11,686' – 23,014'	5.5"	20#	P-110 EC	DWC/C-IS MS	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft^3/sk	Slurry Description
800' 13-3/8"	430	13.5	1.74	Lead: Class C + 4.0% Bentonite Gel + 0.5% $CaCl_2$ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	160	14.8	1.35	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 600')
4,081' 9-5/8"	650	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	260	14.8	1.32	Tail: Class C + 10% NaCl + 3% MagOx (TOC @ 3,260')
11,686' 7-5/8"	250	10.8	3.67	Lead: Class C + 3% CaCl2 + 3% Microbond (TOC @ 3,581')
	100	14.8	2.38	Tail: Class H + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 10,186')
23,014' 5-1/2"	960	14.8	1.31	Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 11,186')

As a contingency, EOG requests the option to pump a two stage cement job on the 7-5/8'' intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (8,106') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed.

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 800'	Fresh - Gel	8.6-8.8	28-34	N/c
800' – 4,081'	Brine	10.0-10.2	28-34	N/c
4,081'– 11,686'	Oil Base	8.7-9.4	58-68	N/c - 6
11,686'– 23,014' Lateral	Oil Base	10.0-11.5	58-68	3 - 6

eog resources

EOG Resources - Midland

Lea County, NM (NAD 83 NME)
Lobo Blanco 9 Fed
#709H

OH

Plan: Plan #0.2

Standard Planning Report

19 June, 2019

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #709H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3339.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3339.0usft
Site:	Lobo Blanco 9 Fed	**North Reference:**	Grid
Well:	#709H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Lobo Blanco 9 Fed				
Site Position:		**Northing:**	383,514.00 usft	**Latitude:**	32° 3' 5.410 N
From:	Map	**Easting:**	805,018.00 usft	**Longitude:**	103° 28' 56.122 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.45 °

Well	#709H					
Well Position	**+N/-S**	-474.0 usft	**Northing:**	383,040.00 usft	**Latitude:**	32° 3' 0.356 N
	+E/-W	4,626.0 usft	**Easting:**	809,644.00 usft	**Longitude:**	103° 28' 2.419 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,314.0 usft

Wellbore	OH			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	1/21/2019	6.72	59.90	47,682.45532604

Design	Plan #0.2				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	356.69	

Plan Survey Tool Program **Date** 6/19/2019

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	23,014.3	Plan #0.2 (OH)	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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,184.6	3.69	296.96	3,184.5	2.7	-5.3	2.00	2.00	0.00	296.96	
12,144.7	3.69	296.96	12,126.0	264.3	-519.7	0.00	0.00	0.00	0.00	
12,329.4	0.00	0.00	12,310.5	267.0	-525.0	2.00	-2.00	0.00	180.00	KOP(LB 9 Fed #709H
13,079.4	90.00	359.49	12,788.0	744.4	-529.3	12.00	12.00	-0.07	359.49	
23,014.3	90.00	359.49	12,788.0	10,679.0	-618.0	0.00	0.00	0.00	0.00	PBHL(LB 9 Fed #709I

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #709H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3339.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3339.0usft
Site:	Lobo Blanco 9 Fed	**North Reference:**	Grid
Well:	#709H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	2.00	296.96	3,100.0	0.8	-1.6	0.9	2.00	2.00	0.00
3,184.6	3.69	296.96	3,184.5	2.7	-5.3	3.0	2.00	2.00	0.00
3,200.0	3.69	296.96	3,199.8	3.1	-6.2	3.5	0.00	0.00	0.00
3,300.0	3.69	296.96	3,299.6	6.1	-11.9	6.7	0.00	0.00	0.00
3,400.0	3.69	296.96	3,399.4	9.0	-17.7	10.0	0.00	0.00	0.00
3,500.0	3.69	296.96	3,499.2	11.9	-23.4	13.2	0.00	0.00	0.00
3,600.0	3.69	296.96	3,599.0	14.8	-29.1	16.5	0.00	0.00	0.00
3,700.0	3.69	296.96	3,698.8	17.7	-34.9	19.7	0.00	0.00	0.00
3,800.0	3.69	296.96	3,798.6	20.7	-40.6	23.0	0.00	0.00	0.00
3,900.0	3.69	296.96	3,898.4	23.6	-46.4	26.2	0.00	0.00	0.00
4,000.0	3.69	296.96	3,998.2	26.5	-52.1	29.5	0.00	0.00	0.00
4,100.0	3.69	296.96	4,098.0	29.4	-57.9	32.7	0.00	0.00	0.00
4,200.0	3.69	296.96	4,197.8	32.3	-63.6	36.0	0.00	0.00	0.00
4,300.0	3.69	296.96	4,297.6	35.3	-69.3	39.2	0.00	0.00	0.00
4,400.0	3.69	296.96	4,397.3	38.2	-75.1	42.5	0.00	0.00	0.00
4,500.0	3.69	296.96	4,497.1	41.1	-80.8	45.7	0.00	0.00	0.00
4,600.0	3.69	296.96	4,596.9	44.0	-86.6	48.9	0.00	0.00	0.00
4,700.0	3.69	296.96	4,696.7	46.9	-92.3	52.2	0.00	0.00	0.00
4,800.0	3.69	296.96	4,796.5	49.9	-98.0	55.4	0.00	0.00	0.00
4,900.0	3.69	296.96	4,896.3	52.8	-103.8	58.7	0.00	0.00	0.00
5,000.0	3.69	296.96	4,996.1	55.7	-109.5	61.9	0.00	0.00	0.00
5,100.0	3.69	296.96	5,095.9	58.6	-115.3	65.2	0.00	0.00	0.00
5,200.0	3.69	296.96	5,195.7	61.5	-121.0	68.4	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #709H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3339.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3339.0usft
Site:	Lobo Blanco 9 Fed	**North Reference:**	Grid
Well:	#709H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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)
5,300.0	3.69	296.96	5,295.5	64.5	-126.7	71.7	0.00	0.00	0.00
5,400.0	3.69	296.96	5,395.3	67.4	-132.5	74.9	0.00	0.00	0.00
5,500.0	3.69	296.96	5,495.1	70.3	-138.2	78.2	0.00	0.00	0.00
5,600.0	3.69	296.96	5,594.9	73.2	-144.0	81.4	0.00	0.00	0.00
5,700.0	3.69	296.96	5,694.6	76.1	-149.7	84.7	0.00	0.00	0.00
5,800.0	3.69	296.96	5,794.4	79.1	-155.4	87.9	0.00	0.00	0.00
5,900.0	3.69	296.96	5,894.2	82.0	-161.2	91.2	0.00	0.00	0.00
6,000.0	3.69	296.96	5,994.0	84.9	-166.9	94.4	0.00	0.00	0.00
6,100.0	3.69	296.96	6,093.8	87.8	-172.7	97.6	0.00	0.00	0.00
6,200.0	3.69	296.96	6,193.6	90.7	-178.4	100.9	0.00	0.00	0.00
6,300.0	3.69	296.96	6,293.4	93.7	-184.2	104.1	0.00	0.00	0.00
6,400.0	3.69	296.96	6,393.2	96.6	-189.9	107.4	0.00	0.00	0.00
6,500.0	3.69	296.96	6,493.0	99.5	-195.6	110.6	0.00	0.00	0.00
6,600.0	3.69	296.96	6,592.8	102.4	-201.4	113.9	0.00	0.00	0.00
6,700.0	3.69	296.96	6,692.6	105.3	-207.1	117.1	0.00	0.00	0.00
6,800.0	3.69	296.96	6,792.4	108.3	-212.9	120.4	0.00	0.00	0.00
6,900.0	3.69	296.96	6,892.2	111.2	-218.6	123.6	0.00	0.00	0.00
7,000.0	3.69	296.96	6,992.0	114.1	-224.3	126.9	0.00	0.00	0.00
7,100.0	3.69	296.96	7,091.7	117.0	-230.1	130.1	0.00	0.00	0.00
7,200.0	3.69	296.96	7,191.5	119.9	-235.8	133.4	0.00	0.00	0.00
7,300.0	3.69	296.96	7,291.3	122.9	-241.6	136.6	0.00	0.00	0.00
7,400.0	3.69	296.96	7,391.1	125.8	-247.3	139.8	0.00	0.00	0.00
7,500.0	3.69	296.96	7,490.9	128.7	-253.0	143.1	0.00	0.00	0.00
7,600.0	3.69	296.96	7,590.7	131.6	-258.8	146.3	0.00	0.00	0.00
7,700.0	3.69	296.96	7,690.5	134.5	-264.5	149.6	0.00	0.00	0.00
7,800.0	3.69	296.96	7,790.3	137.5	-270.3	152.8	0.00	0.00	0.00
7,900.0	3.69	296.96	7,890.1	140.4	-276.0	156.1	0.00	0.00	0.00
8,000.0	3.69	296.96	7,989.9	143.3	-281.8	159.3	0.00	0.00	0.00
8,100.0	3.69	296.96	8,089.7	146.2	-287.5	162.6	0.00	0.00	0.00
8,200.0	3.69	296.96	8,189.5	149.1	-293.2	165.8	0.00	0.00	0.00
8,300.0	3.69	296.96	8,289.3	152.0	-299.0	169.1	0.00	0.00	0.00
8,400.0	3.69	296.96	8,389.0	155.0	-304.7	172.3	0.00	0.00	0.00
8,500.0	3.69	296.96	8,488.8	157.9	-310.5	175.6	0.00	0.00	0.00
8,600.0	3.69	296.96	8,588.6	160.8	-316.2	178.8	0.00	0.00	0.00
8,700.0	3.69	296.96	8,688.4	163.7	-321.9	182.1	0.00	0.00	0.00
8,800.0	3.69	296.96	8,788.2	166.6	-327.7	185.3	0.00	0.00	0.00
8,900.0	3.69	296.96	8,888.0	169.6	-333.4	188.5	0.00	0.00	0.00
9,000.0	3.69	296.96	8,987.8	172.5	-339.2	191.8	0.00	0.00	0.00
9,100.0	3.69	296.96	9,087.6	175.4	-344.9	195.0	0.00	0.00	0.00
9,200.0	3.69	296.96	9,187.4	178.3	-350.6	198.3	0.00	0.00	0.00
9,300.0	3.69	296.96	9,287.2	181.2	-356.4	201.5	0.00	0.00	0.00
9,400.0	3.69	296.96	9,387.0	184.2	-362.1	204.8	0.00	0.00	0.00
9,500.0	3.69	296.96	9,486.8	187.1	-367.9	208.0	0.00	0.00	0.00
9,600.0	3.69	296.96	9,586.6	190.0	-373.6	211.3	0.00	0.00	0.00
9,700.0	3.69	296.96	9,686.3	192.9	-379.3	214.5	0.00	0.00	0.00
9,800.0	3.69	296.96	9,786.1	195.8	-385.1	217.8	0.00	0.00	0.00
9,900.0	3.69	296.96	9,885.9	198.8	-390.8	221.0	0.00	0.00	0.00
10,000.0	3.69	296.96	9,985.7	201.7	-396.6	224.3	0.00	0.00	0.00
10,100.0	3.69	296.96	10,085.5	204.6	-402.3	227.5	0.00	0.00	0.00
10,200.0	3.69	296.96	10,185.3	207.5	-408.1	230.8	0.00	0.00	0.00
10,300.0	3.69	296.96	10,285.1	210.4	-413.8	234.0	0.00	0.00	0.00
10,400.0	3.69	296.96	10,384.9	213.4	-419.5	237.2	0.00	0.00	0.00
10,500.0	3.69	296.96	10,484.7	216.3	-425.3	240.5	0.00	0.00	0.00
10,600.0	3.69	296.96	10,584.5	219.2	-431.0	243.7	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #709H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3339.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3339.0usft
Site:	Lobo Blanco 9 Fed	**North Reference:**	Grid
Well:	#709H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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)
10,700.0	3.69	296.96	10,684.3	222.1	-436.8	247.0	0.00	0.00	0.00
10,800.0	3.69	296.96	10,784.1	225.0	-442.5	250.2	0.00	0.00	0.00
10,900.0	3.69	296.96	10,883.9	228.0	-448.2	253.5	0.00	0.00	0.00
11,000.0	3.69	296.96	10,983.6	230.9	-454.0	256.7	0.00	0.00	0.00
11,100.0	3.69	296.96	11,083.4	233.8	-459.7	260.0	0.00	0.00	0.00
11,200.0	3.69	296.96	11,183.2	236.7	-465.5	263.2	0.00	0.00	0.00
11,300.0	3.69	296.96	11,283.0	239.6	-471.2	266.5	0.00	0.00	0.00
11,400.0	3.69	296.96	11,382.8	242.6	-476.9	269.7	0.00	0.00	0.00
11,500.0	3.69	296.96	11,482.6	245.5	-482.7	273.0	0.00	0.00	0.00
11,600.0	3.69	296.96	11,582.4	248.4	-488.4	276.2	0.00	0.00	0.00
11,700.0	3.69	296.96	11,682.2	251.3	-494.2	279.4	0.00	0.00	0.00
11,800.0	3.69	296.96	11,782.0	254.2	-499.9	282.7	0.00	0.00	0.00
11,900.0	3.69	296.96	11,881.8	257.2	-505.6	285.9	0.00	0.00	0.00
12,000.0	3.69	296.96	11,981.6	260.1	-511.4	289.2	0.00	0.00	0.00
12,100.0	3.69	296.96	12,081.4	263.0	-517.1	292.4	0.00	0.00	0.00
12,144.7	3.69	296.96	12,126.0	264.3	-519.7	293.9	0.00	0.00	0.00
12,200.0	2.59	296.96	12,181.2	265.7	-522.4	295.4	2.00	-2.00	0.00
12,300.0	0.59	296.96	12,281.1	266.9	-524.9	296.8	2.00	-2.00	0.00
12,329.4	0.00	0.00	12,310.5	267.0	-525.0	296.9	2.00	-2.00	0.00
KOP(LB 9 Fed #709H)									
12,350.0	2.48	359.49	12,331.1	267.4	-525.0	297.3	12.00	12.00	0.00
12,375.0	5.48	359.49	12,356.1	269.2	-525.0	299.1	12.00	12.00	0.00
12,400.0	8.48	359.49	12,380.9	272.2	-525.0	302.1	12.00	12.00	0.00
12,425.0	11.48	359.49	12,405.5	276.5	-525.1	306.4	12.00	12.00	0.00
12,450.0	14.48	359.49	12,429.9	282.2	-525.1	312.0	12.00	12.00	0.00
12,475.0	17.48	359.49	12,453.9	289.0	-525.2	318.9	12.00	12.00	0.00
12,500.0	20.48	359.49	12,477.5	297.2	-525.3	327.0	12.00	12.00	0.00
12,525.0	23.48	359.49	12,500.7	306.5	-525.4	336.4	12.00	12.00	0.00
12,550.0	26.48	359.49	12,523.4	317.1	-525.4	346.9	12.00	12.00	0.00
12,575.0	29.48	359.49	12,545.4	328.8	-525.6	358.6	12.00	12.00	0.00
12,600.0	32.48	359.49	12,566.9	341.7	-525.7	371.5	12.00	12.00	0.00
12,625.0	35.48	359.49	12,587.6	355.6	-525.8	385.4	12.00	12.00	0.00
12,650.0	38.48	359.49	12,607.6	370.7	-525.9	400.4	12.00	12.00	0.00
12,675.0	41.48	359.49	12,626.7	386.7	-526.1	416.5	12.00	12.00	0.00
12,700.0	44.48	359.49	12,645.0	403.8	-526.2	433.5	12.00	12.00	0.00
12,725.0	47.48	359.49	12,662.4	421.7	-526.4	451.5	12.00	12.00	0.00
12,728.4	47.89	359.49	12,664.7	424.3	-526.4	454.0	12.00	12.00	0.00
FTP(LB 9 Fed #709H)									
12,750.0	50.48	359.49	12,678.8	440.6	-526.6	470.3	12.00	12.00	0.00
12,775.0	53.48	359.49	12,694.2	460.3	-526.7	490.0	12.00	12.00	0.00
12,800.0	56.48	359.49	12,708.5	480.8	-526.9	510.4	12.00	12.00	0.00
12,825.0	59.48	359.49	12,721.8	502.0	-527.1	531.6	12.00	12.00	0.00
12,850.0	62.48	359.49	12,733.9	523.8	-527.3	553.4	12.00	12.00	0.00
12,875.0	65.48	359.49	12,744.9	546.3	-527.5	575.8	12.00	12.00	0.00
12,900.0	68.48	359.49	12,754.7	569.3	-527.7	598.8	12.00	12.00	0.00
12,925.0	71.48	359.49	12,763.2	592.8	-527.9	622.3	12.00	12.00	0.00
12,950.0	74.48	359.49	12,770.5	616.7	-528.1	646.1	12.00	12.00	0.00
12,975.0	77.48	359.49	12,776.6	640.9	-528.3	670.4	12.00	12.00	0.00
13,000.0	80.48	359.49	12,781.4	665.5	-528.6	694.9	12.00	12.00	0.00
13,025.0	83.48	359.49	12,784.9	690.2	-528.8	719.6	12.00	12.00	0.00
13,050.0	86.48	359.49	12,787.1	715.1	-529.0	744.5	12.00	12.00	0.00
13,075.0	89.48	359.49	12,787.9	740.1	-529.2	769.4	12.00	12.00	0.00
13,079.4	90.00	359.49	12,788.0	744.4	-529.3	773.8	12.00	12.00	0.00
13,100.0	90.00	359.49	12,788.0	765.1	-529.4	794.4	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #709H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3339.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3339.0usft
Site:	Lobo Blanco 9 Fed	**North Reference:**	Grid
Well:	#709H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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)
13,200.0	90.00	359.49	12,788.0	865.1	-530.3	894.3	0.00	0.00	0.00
13,300.0	90.00	359.49	12,788.0	965.1	-531.2	994.2	0.00	0.00	0.00
13,400.0	90.00	359.49	12,788.0	1,065.1	-532.1	1,094.0	0.00	0.00	0.00
13,500.0	90.00	359.49	12,788.0	1,165.1	-533.0	1,193.9	0.00	0.00	0.00
13,600.0	90.00	359.49	12,788.0	1,265.1	-533.9	1,293.8	0.00	0.00	0.00
13,700.0	90.00	359.49	12,788.0	1,365.1	-534.8	1,393.7	0.00	0.00	0.00
13,800.0	90.00	359.49	12,788.0	1,465.1	-535.7	1,493.6	0.00	0.00	0.00
13,900.0	90.00	359.49	12,788.0	1,565.1	-536.6	1,593.4	0.00	0.00	0.00
14,000.0	90.00	359.49	12,788.0	1,665.0	-537.5	1,693.3	0.00	0.00	0.00
14,100.0	90.00	359.49	12,788.0	1,765.0	-538.4	1,793.2	0.00	0.00	0.00
14,200.0	90.00	359.49	12,788.0	1,865.0	-539.3	1,893.1	0.00	0.00	0.00
14,300.0	90.00	359.49	12,788.0	1,965.0	-540.2	1,993.0	0.00	0.00	0.00
14,400.0	90.00	359.49	12,788.0	2,065.0	-541.1	2,092.8	0.00	0.00	0.00
14,500.0	90.00	359.49	12,788.0	2,165.0	-542.0	2,192.7	0.00	0.00	0.00
14,600.0	90.00	359.49	12,788.0	2,265.0	-542.8	2,292.6	0.00	0.00	0.00
14,700.0	90.00	359.49	12,788.0	2,365.0	-543.7	2,392.5	0.00	0.00	0.00
14,800.0	90.00	359.49	12,788.0	2,465.0	-544.6	2,492.4	0.00	0.00	0.00
14,900.0	90.00	359.49	12,788.0	2,565.0	-545.5	2,592.2	0.00	0.00	0.00
15,000.0	90.00	359.49	12,788.0	2,665.0	-546.4	2,692.1	0.00	0.00	0.00
15,100.0	90.00	359.49	12,788.0	2,765.0	-547.3	2,792.0	0.00	0.00	0.00
15,200.0	90.00	359.49	12,788.0	2,865.0	-548.2	2,891.9	0.00	0.00	0.00
15,300.0	90.00	359.49	12,788.0	2,965.0	-549.1	2,991.8	0.00	0.00	0.00
15,400.0	90.00	359.49	12,788.0	3,065.0	-550.0	3,091.6	0.00	0.00	0.00
15,500.0	90.00	359.49	12,788.0	3,165.0	-550.9	3,191.5	0.00	0.00	0.00
15,600.0	90.00	359.49	12,788.0	3,265.0	-551.8	3,291.4	0.00	0.00	0.00
15,700.0	90.00	359.49	12,788.0	3,365.0	-552.7	3,391.3	0.00	0.00	0.00
15,800.0	90.00	359.49	12,788.0	3,465.0	-553.6	3,491.2	0.00	0.00	0.00
15,900.0	90.00	359.49	12,788.0	3,565.0	-554.5	3,591.1	0.00	0.00	0.00
16,000.0	90.00	359.49	12,788.0	3,665.0	-555.4	3,690.9	0.00	0.00	0.00
16,100.0	90.00	359.49	12,788.0	3,765.0	-556.2	3,790.8	0.00	0.00	0.00
16,200.0	90.00	359.49	12,788.0	3,865.0	-557.1	3,890.7	0.00	0.00	0.00
16,300.0	90.00	359.49	12,788.0	3,965.0	-558.0	3,990.6	0.00	0.00	0.00
16,400.0	90.00	359.49	12,788.0	4,065.0	-558.9	4,090.5	0.00	0.00	0.00
16,500.0	90.00	359.49	12,788.0	4,164.9	-559.8	4,190.3	0.00	0.00	0.00
16,600.0	90.00	359.49	12,788.0	4,264.9	-560.7	4,290.2	0.00	0.00	0.00
16,700.0	90.00	359.49	12,788.0	4,364.9	-561.6	4,390.1	0.00	0.00	0.00
16,800.0	90.00	359.49	12,788.0	4,464.9	-562.5	4,490.0	0.00	0.00	0.00
16,900.0	90.00	359.49	12,788.0	4,564.9	-563.4	4,589.9	0.00	0.00	0.00
17,000.0	90.00	359.49	12,788.0	4,664.9	-564.3	4,689.7	0.00	0.00	0.00
17,100.0	90.00	359.49	12,788.0	4,764.9	-565.2	4,789.6	0.00	0.00	0.00
17,200.0	90.00	359.49	12,788.0	4,864.9	-566.1	4,889.5	0.00	0.00	0.00
17,300.0	90.00	359.49	12,788.0	4,964.9	-567.0	4,989.4	0.00	0.00	0.00
17,400.0	90.00	359.49	12,788.0	5,064.9	-567.9	5,089.3	0.00	0.00	0.00
17,500.0	90.00	359.49	12,788.0	5,164.9	-568.7	5,189.1	0.00	0.00	0.00
17,600.0	90.00	359.49	12,788.0	5,264.9	-569.6	5,289.0	0.00	0.00	0.00
17,700.0	90.00	359.49	12,788.0	5,364.9	-570.5	5,388.9	0.00	0.00	0.00
17,800.0	90.00	359.49	12,788.0	5,464.9	-571.4	5,488.8	0.00	0.00	0.00
17,900.0	90.00	359.49	12,788.0	5,564.9	-572.3	5,588.7	0.00	0.00	0.00
18,000.0	90.00	359.49	12,788.0	5,664.9	-573.2	5,688.5	0.00	0.00	0.00
18,100.0	90.00	359.49	12,788.0	5,764.9	-574.1	5,788.4	0.00	0.00	0.00
18,200.0	90.00	359.49	12,788.0	5,864.9	-575.0	5,888.3	0.00	0.00	0.00
18,300.0	90.00	359.49	12,788.0	5,964.9	-575.9	5,988.2	0.00	0.00	0.00
18,400.0	90.00	359.49	12,788.0	6,064.9	-576.8	6,088.1	0.00	0.00	0.00
18,500.0	90.00	359.49	12,788.0	6,164.9	-577.7	6,187.9	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #709H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3339.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3339.0usft
Site:	Lobo Blanco 9 Fed	**North Reference:**	Grid
Well:	#709H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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)
18,600.0	90.00	359.49	12,788.0	6,264.9	-578.6	6,287.8	0.00	0.00	0.00
18,700.0	90.00	359.49	12,788.0	6,364.9	-579.5	6,387.7	0.00	0.00	0.00
18,800.0	90.00	359.49	12,788.0	6,464.9	-580.4	6,487.6	0.00	0.00	0.00
18,900.0	90.00	359.49	12,788.0	6,564.9	-581.3	6,587.5	0.00	0.00	0.00
19,000.0	90.00	359.49	12,788.0	6,664.8	-582.1	6,687.4	0.00	0.00	0.00
19,100.0	90.00	359.49	12,788.0	6,764.8	-583.0	6,787.2	0.00	0.00	0.00
19,200.0	90.00	359.49	12,788.0	6,864.8	-583.9	6,887.1	0.00	0.00	0.00
19,300.0	90.00	359.49	12,788.0	6,964.8	-584.8	6,987.0	0.00	0.00	0.00
19,400.0	90.00	359.49	12,788.0	7,064.8	-585.7	7,086.9	0.00	0.00	0.00
19,500.0	90.00	359.49	12,788.0	7,164.8	-586.6	7,186.8	0.00	0.00	0.00
19,600.0	90.00	359.49	12,788.0	7,264.8	-587.5	7,286.6	0.00	0.00	0.00
19,700.0	90.00	359.49	12,788.0	7,364.8	-588.4	7,386.5	0.00	0.00	0.00
19,800.0	90.00	359.49	12,788.0	7,464.8	-589.3	7,486.4	0.00	0.00	0.00
19,900.0	90.00	359.49	12,788.0	7,564.8	-590.2	7,586.3	0.00	0.00	0.00
20,000.0	90.00	359.49	12,788.0	7,664.8	-591.1	7,686.2	0.00	0.00	0.00
20,100.0	90.00	359.49	12,788.0	7,764.8	-592.0	7,786.0	0.00	0.00	0.00
20,200.0	90.00	359.49	12,788.0	7,864.8	-592.9	7,885.9	0.00	0.00	0.00
20,300.0	90.00	359.49	12,788.0	7,964.8	-593.8	7,985.8	0.00	0.00	0.00
20,400.0	90.00	359.49	12,788.0	8,064.8	-594.6	8,085.7	0.00	0.00	0.00
20,500.0	90.00	359.49	12,788.0	8,164.8	-595.5	8,185.6	0.00	0.00	0.00
20,600.0	90.00	359.49	12,788.0	8,264.8	-596.4	8,285.4	0.00	0.00	0.00
20,700.0	90.00	359.49	12,788.0	8,364.8	-597.3	8,385.3	0.00	0.00	0.00
20,800.0	90.00	359.49	12,788.0	8,464.8	-598.2	8,485.2	0.00	0.00	0.00
20,900.0	90.00	359.49	12,788.0	8,564.8	-599.1	8,585.1	0.00	0.00	0.00
21,000.0	90.00	359.49	12,788.0	8,664.8	-600.0	8,685.0	0.00	0.00	0.00
21,100.0	90.00	359.49	12,788.0	8,764.8	-600.9	8,784.8	0.00	0.00	0.00
21,200.0	90.00	359.49	12,788.0	8,864.8	-601.8	8,884.7	0.00	0.00	0.00
21,300.0	90.00	359.49	12,788.0	8,964.8	-602.7	8,984.6	0.00	0.00	0.00
21,400.0	90.00	359.49	12,788.0	9,064.8	-603.6	9,084.5	0.00	0.00	0.00
21,500.0	90.00	359.49	12,788.0	9,164.8	-604.5	9,184.4	0.00	0.00	0.00
21,600.0	90.00	359.49	12,788.0	9,264.7	-605.4	9,284.2	0.00	0.00	0.00
21,700.0	90.00	359.49	12,788.0	9,364.7	-606.3	9,384.1	0.00	0.00	0.00
21,800.0	90.00	359.49	12,788.0	9,464.7	-607.2	9,484.0	0.00	0.00	0.00
21,900.0	90.00	359.49	12,788.0	9,564.7	-608.0	9,583.9	0.00	0.00	0.00
22,000.0	90.00	359.49	12,788.0	9,664.7	-608.9	9,683.8	0.00	0.00	0.00
22,100.0	90.00	359.49	12,788.0	9,764.7	-609.8	9,783.6	0.00	0.00	0.00
22,200.0	90.00	359.49	12,788.0	9,864.7	-610.7	9,883.5	0.00	0.00	0.00
22,300.0	90.00	359.49	12,788.0	9,964.7	-611.6	9,983.4	0.00	0.00	0.00
22,400.0	90.00	359.49	12,788.0	10,064.7	-612.5	10,083.3	0.00	0.00	0.00
22,500.0	90.00	359.49	12,788.0	10,164.7	-613.4	10,183.2	0.00	0.00	0.00
22,600.0	90.00	359.49	12,788.0	10,264.7	-614.3	10,283.1	0.00	0.00	0.00
22,700.0	90.00	359.49	12,788.0	10,364.7	-615.2	10,382.9	0.00	0.00	0.00
22,800.0	90.00	359.49	12,788.0	10,464.7	-616.1	10,482.8	0.00	0.00	0.00
22,900.0	90.00	359.49	12,788.0	10,564.7	-617.0	10,582.7	0.00	0.00	0.00
23,000.0	90.00	359.49	12,788.0	10,664.7	-617.9	10,682.6	0.00	0.00	0.00
23,014.3	90.00	359.49	12,788.0	10,679.0	-618.0	10,696.9	0.00	0.00	0.00
PBHL(LB 9 Fed #709H)									

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #709H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25 @ 3339.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25 @ 3339.0usft
Site:	Lobo Blanco 9 Fed	**North Reference:**	Grid
Well:	#709H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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
KOP(LB 9 Fed #709H) - plan hits target center - Point	0.00	0.00	12,310.5	267.0	-525.0	383,307.00	809,119.00	32° 3' 3.039 N	103° 28' 8.493 W
PBHL(LB 9 Fed #709H) - plan hits target center - Point	0.00	0.00	12,788.0	10,679.0	-618.0	393,719.00	809,026.00	32° 4' 46.075 N	103° 28' 8.605 W
FTP(LB 9 Fed #709H) - plan misses target center by 163.4usft at 12728.4usft MD (12664.7 TVD, 424.3 N, -526.4 E) - Point	0.00	0.00	12,788.0	317.0	-525.0	383,357.00	809,119.00	32° 3' 3.534 N	103° 28' 8.489 W