

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTCarlsbad Field Office  
OCD HobbsFORM APPROVED  
BLM NO. 1004-0137  
Expires January 31, 20185. Lease Serial No.  
NM 118726**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.****SUBMIT IN TRIPLICATE - Other instructions on page 2****HOBBS OCD**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. ANTIETAM 9 FED COM 715H	
2. Name of Operator EOG RESOURCES INCORPORATED		9. API Well No.	
3a. Address MIDLAND, TX 79702		10. Field and Pool or Exploratory Area RED HILLS	
3b. Phone No. (include area code) Ph: 432-848-9133		11. County or Parish, State LEA COUNTY, NM	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 9 T25S R33E NENE 1052FNL 624FEL 32.149448 N Lat, 103.570786 W Lon			

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

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

EOG respectfully requests an amendment to our approved APD for this well to reflect changes in the casing design in accordance with the attached drill plan.

Attached please find the revised Permit Information and revised Wellbore Diagram.

14. I hereby certify that the foregoing is true and correct. <b>Electronic Submission #447800 verified by the BLM Well Information System For EOG RESOURCES INCORPORATED, sent to the Hobbs Committed to AFMSS for processing by PRISCILLA PEREZ on 12/14/2018 (19PP0634SE)</b>	
Name (Printed/Typed) SARAH MITCHELL	Title REGULATORY CONTRACTOR
Signature (Electronic Submission)	Date 12/14/2018

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By <u>DYLAN ROSSMANGO</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>01/11/2019</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office Hobbs

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

(Instructions on page 2)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

**Revised Permit Information 12/11/18:**

Well Name: Antietam 9 Fed Com No. 715H

**Location:**

SHL: 1052' FNL &amp; 624' FEL, Section 9, T-25-S, R-33-E, Lea Co., N.M.

BHL: 2540' FNL &amp; 330' FEL, Section 16, T-25-S, R-33-E, Lea Co., N.M.

**Casing Program:**

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF <sub>min</sub> Collapse	DF <sub>min</sub> Burst	DF <sub>min</sub> Tension
12.25"	0 – 1,135'	9.625"	40#	J55	LTC	1.125	1.25	1.60
8.75"	0 – 11,300'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 10,800'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	10,800' - 20,026'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.60

Variance is requested to wave 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 wave 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.

**Cement Program:**

Depth	No. Sacks	Wt. ppg	Yld Ft <sup>3</sup> /ft	Slurry Description
9-5/8" 1,135'	600	13.5	1.73	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl <sub>2</sub> + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	200	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
7-5/8" 11,300'	390	9.0	3.71	Lead: Class C + 5% Salt + 12% HGS-4K28 + 22% B-52 + 0.15% GXT-C + 0.3% CPT-30 + 0.4% CPT-24 (TOC @ Surface)
	175	11	2.54	Middle: Class C + 3% Salt + 1% PreMag-M + 0.15% GXT-C + 0.15% CPT-30 + 4 pps Blitz + 0.35% CPT-23
	180	14.2	1.11	Tail: Class H + 5% Salt + 0.2% CD-3 + 0.15% CPT-51A + 0.35% CPT-23 + 1% PreMag-M
5-1/2" 20,026'	950	14.1	1.26	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 11,100')

**Mud Program:**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,150'	Fresh - Gel	8.6-8.8	28-34	N/c
1,150' – 11,300'	Oil Base	8.7-9.4	58-68	N/c - 6
11,300' – 20,026' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

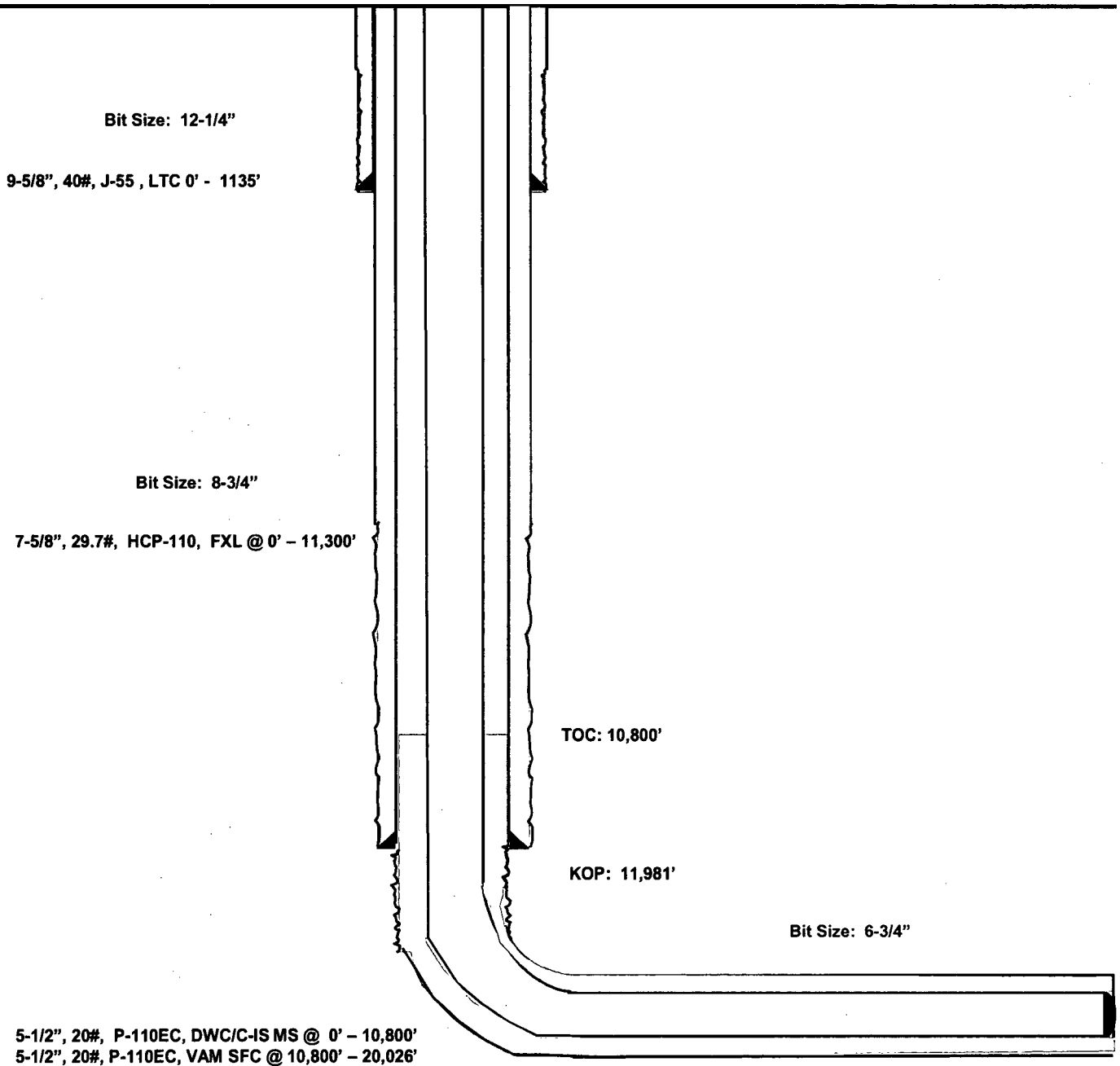
Antietam 9 Fed Com #715H  
Lea County, New Mexico

1052' FNL  
624' FEL  
Section 9  
T-25-S, R-33-E

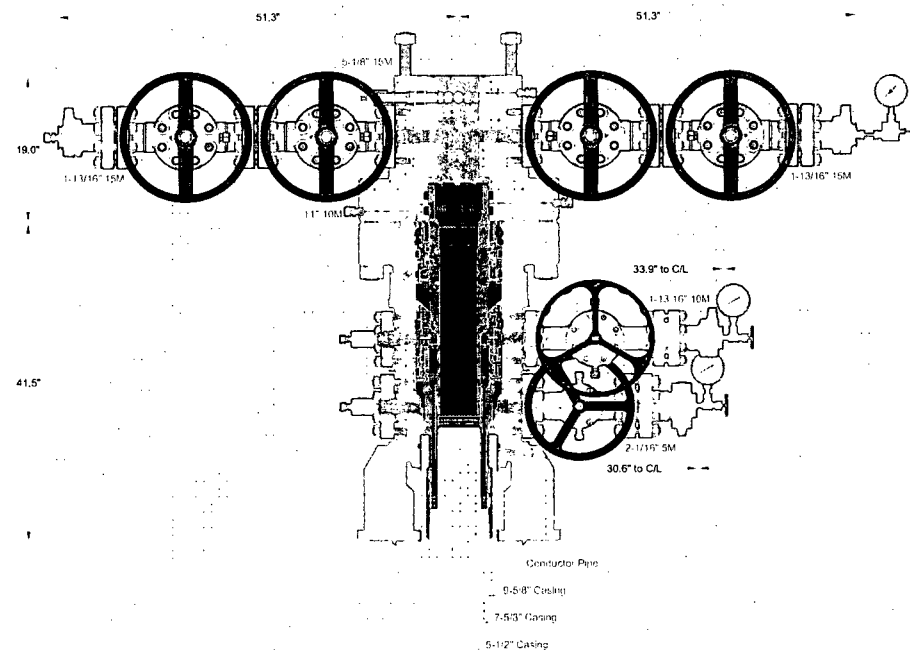
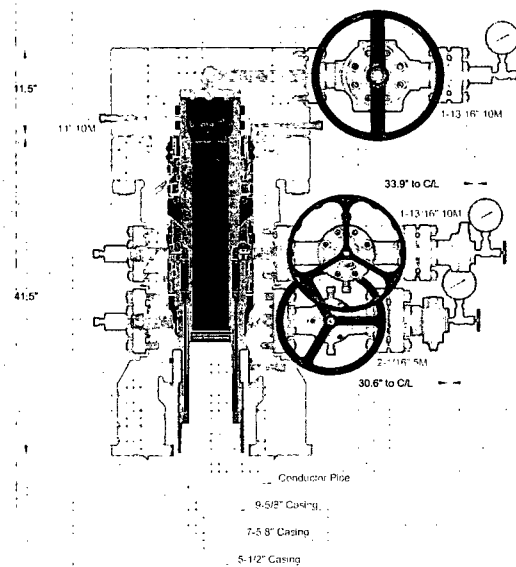
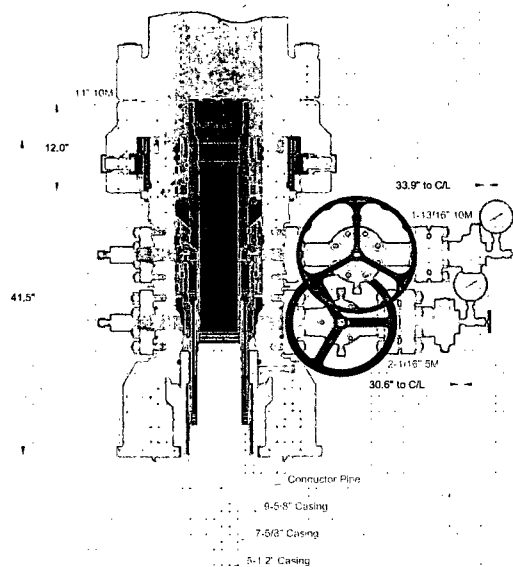
Proposed Wellbore

API: 30-025-\*\*\*\*\*

KB: 3,442'  
GL: 3,417'



Lateral: 20,026' MD, 12,397' TVD  
Upper Most Perf:  
100' FNL & 330' FEL Sec. 9  
Lower Most Perf:  
2540' FNL & 330' FEL Sec. 16  
BH Location: 2540' FNL & 330' FEL  
Section 16  
T-25-S, R-33-E



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## CACTUS WELLHEAD LLC

20" x 9-5/8" x 7-5/8" x 5-1/2" MBU-T-SF SOW Wellhead System  
With 11" 10M x 5-1/8" 15M CMT-DBLHPS-SB Tubing Head,  
Mandrel Hangers, Quick Connect Drilling Adapter And TA Cap

ALL DIMENSIONS APPROXIMATE  
EOG RESOURCES  
DELAWARE

DLE 23OCT18

HBE0000010

# PECOS DISTRICT DRILLING OPERATIONS CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EOG RESOURCES INCORPORATED
LEASE NO.:	NMNM118726
WELL NAME & NO.:	ANTIETAM 9 FED COM 715H
SURFACE HOLE FOOTAGE:	1052'/N & 624'/E
BOTTOM HOLE FOOTAGE:	2540'/N & 330'/E
LOCATION:	T-25S, R-33E, S9. NMPM
COUNTY:	LEA, NM

Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP

## A. CASING

1. The **9-5/8** inch surface casing shall be set at approximately **1135** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:
  - a. Cement to surface. If cement does not circulate see B.1.a, c-d above.
  - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

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

**All other previous conditions of approval still apply.**

DR 1/11/2019