Form 3160-3
(March 2012)

HOBBS OCD
JAN 09 2018
RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM02965A

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

8. Lease Name and Well No. (320563)
MAGNOLIA 15 FED COM 705H

2. Name of Operator
EOG RESOURCES INCORPORATED (7377)

9. API Well No.
30-025-44346

3a. Address
1111 Bagby Sky Lobby2 Houston TX 77002

3b. Phone No. *(include area code)*
(713)651-7000

10. Field and Pool, or Exploratory
98097
RED HILLS / WC-025 S263327G UPPR WC

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface NENW / 1080 FNL / 2159 FWL / LAT 32.047768 / LONG -103.5617489
At proposed prod. zone SESW / 230 FSL / 2315 FWL / LAT 32.0368462 / LONG -103.5612446

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 15 / T26S / R33E / NMP

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

12. County or Parish
LEA

13. State
NM

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

16. No. of acres in lease
2174.12

17. Spacing Unit dedicated to this well
240

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

19. Proposed Depth
12250 feet / 17121 feet

20. BLM/BIA Bond No. on file
FED: NM2308

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3301 feet

22. Approximate date work will start*
11/01/2017

23. Estimated duration
25 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

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 required by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Stan Wagner / Ph: (432)686-3689	05/11/2017

Title
Regulatory Specialsit

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	01/04/2018

Title	Office
Supervisor Multiple Resources	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.

(Continued on page 2)

*(Instructions on page 2)

APPROVED WITH CONDITIONS

Approval Date: 01/04/2018

KZ
01/10/18

Double sided

OCD Hobbs 17-455

AFMSS

U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed: 01/05/2018 07:19 AM

APD ID: 10400013001
APD Received Date: 05/11/2017 10:34 AM
Operator: EOG RESOURCES INCORPORATED (7377)
Well Status: AAPD
Well Name: MAGNOLIA 15 FED COM (320563)
Well Number: 705H

APD Package Report Contents

- Form 3160-3

- Operator Certification Report

- Application Report
- Application Attachments
  -- Well Plat: 1 file(s)

- Drilling Plan Report
- Drilling Plan Attachments
  -- Blowout Prevention Choke Diagram Attachment: 1 file(s)
  -- Blowout Prevention BOP Diagram Attachment: 3 file(s)
  -- Casing Taperd String Specs: 2 file(s)
  -- Casing Design Assumptions and Worksheet(s): 3 file(s)
  -- Hydrogen sulfide drilling operations plan: 1 file(s)
  -- Proposed horizontal/directional/multi-lateral plan submission: 2 file(s)
  -- Other Facets: 3 file(s)

- SUPO Report
- SUPO Attachments
  -- Existing Road Map: 1 file(s)
  -- New Road Map: 3 file(s)
  -- Attach Well map: 1 file(s)
  -- Production Facilities map: 1 file(s)
  -- Water source and transportation map: 1 file(s)
  -- Construction Materials source location attachment: 1 file(s)
  -- Well Site Layout Diagram: 3 file(s)
  -- Recontouring attachment: 1 file(s)
  -- Other SUPO Attachment: 4 file(s)

- PWD Report
- PWD Attachments
  -- None

HOBBS OCD
JAN 09 2017
RECEIVED

AFMSS

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

Operator Certification Data Report

01/05/2018

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Stan Wagner **Signed on:** 05/11/2017

Title: Regulatory Specialsit

Street Address: 5509 Champions Drive

City: Midland **State:** TX **Zip:** 79702

Phone: (432)686-3689

Email address: Stan_Wagner@eogresources.com

Field Representative

Representative Name: James Barwis

Street Address: 5509 Champions Drive

City: Midland **State:** TX **Zip:** 79706

Phone: (432)425-1204

Email address: james_barwis@eogresources.com

AFMSS

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

Application Data Report

01/05/2018

APD ID: 10400013001 **Submission Date:** 05/11/2017

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400013001 **Tie to previous NOS?** **Submission Date:** 05/11/2017

BLM Office: CARLSBAD **User:** Stan Wagner **Title:** Regulatory Specialsit

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM02965A **Lease Acres:** 2174.12

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? NO

Permitting Agent? NO **APD Operator:** EOG RESOURCES INCORPORATED

Operator letter of designation:

Operator Info

Operator Organization Name: EOG RESOURCES INCORPORATED

Operator Address: 1111 Bagby Sky Lobby2 **Zip:** 77002

Operator PO Box:

Operator City: Houston **State:** TX

Operator Phone: (713)651-7000

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Mater Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** RED HILLS **Pool Name:** WC-025 S263327G UPPR WC

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** MAGNOLIA 15 FED COM **Number:** 703H/704H/705H

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 22.5 Miles **Distance to nearest well:** 663 FT **Distance to lease line:** 330 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: Magnolia_15_FC_705H_Signed_C_102_05-11-2017.pdf

Well work start Date: 11/01/2017 **Duration:** 25 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	1080	FNL	2159	FWL	26S	33E	15	Aliquot NENW	32.047768	-103.5617489	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 02965A	3301	0	0
KOP Leg #1	52	FNL	2289	FWL	26S	33E	15	Aliquot NENW	32.050592	-103.5613015	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 02965A	-8405	11777	11706
PPP Leg #1	330	FNL	2309	FWL	26S	33E	15	Aliquot NENW	32.049828	-103.5612693	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 02965A	-8906	12392	12207

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT Leg #1	330	FSL	2315	FWL	26S	33E	15	Aliquot SESW	32.0371206	-103.5612458	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8949	17021	12250
BHL Leg #1	230	FSL	2315	FWL	26S	33E	15	Aliquot SESW	32.0368462	-103.5612446	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8949	17121	12250

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

Pressure Rating (PSI): 10M **Rating Depth:** 12250

Equipment: 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 (10,000-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 and Gas order No. 2.

Requesting Variance? YES

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

Testing Procedure: Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 5000/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 5000/ 250 psig. The intermediate casing will be tested to 2000 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 intermediate casing shoe.

Choke Diagram Attachment:

Magnolia_15_FC_705H_10_M_Choke_Mainfold_05-11-2017.pdf

BOP Diagram Attachment:

Magnolia_15_FC_705H_10_M_BOP_Diagram_05-11-2017.pdf

Magnolia_15_FC_705H_Co_Flex_Hose_Certification_05-11-2017.PDF

Magnolia_15_FC_705H_Co_Flex_Hose_Chart_05-11-2017.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	855	0	855	3301	2446	855	J-55	40.5	STC	1.125	1.25	BUOY	1.6	BUOY	1.6
2	INTERMEDIATE	9.875	7.625	NEW	API	Y	0	11300	0	11300	3301	-7999	11300	HCP-110	29.7	LTC	1.125	1.25	BUOY	1.6	BUOY	1.6
3	PRODUCTION	6.75	5.5	NEW	API	Y	0	17121	0	12250	3301	-8949	17121	OTHER	20	OTHER - DWC/C-IS MS	1.125	1.25	BUOY	1.6	BUOY	1.6

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Magnolia_15_FC_705H_BLM_Plan_05-11-2017.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

See_previously_attached_Drill_Plan_05-11-2017.pdf

Casing Design Assumptions and Worksheet(s):

See_previously_attached_Drill_Plan_05-11-2017.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

See_previously_attached_Drill_Plan_05-11-2017.pdf

Casing Design Assumptions and Worksheet(s):

See_previously_attached_Drill_Plan_05-11-2017.pdf

Section 4 - Cement

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	855	325	1.73	13.5	562	25	Class C	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface)
SURFACE	Tail		855	855	200	1.34	14.8	268	25	Class C	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
INTERMEDIATE	Lead		0	11300	2250	1.38	14.8	3105	25	Class C	Class C + 5% Gypsum + 3% CaCl2 pumped via bradenhead (TOC@surface)
INTERMEDIATE	Tail		11300	11300	550	1.2	14.4	660	25	Class H	50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% CPT35 + 0.80% CPT16A + 0.25% CPT503P pumped conventionally
PRODUCTION	Lead		10800	17121	850	1.26	14.1	1071	25	Class H	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10800')

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: (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) H2S monitoring and detection equipment will be utilized from surface casing point to TD.
Describe the mud monitoring system 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.

Circulating Medium Table

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
855	11300	SALT SATURATED	8.8	10							
11300	17121	OIL-BASED MUD	10	14							
0	855	WATER-BASED MUD	8.6	8.8							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Open-hole logs are not planned for this well.

List of open and cased hole logs run in the well:

DS

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7325 **Anticipated Surface Pressure:** 4630

Anticipated Bottom Hole Temperature(F): 181

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Magnolia_15_FC_705H_H2S_Plan_Summary_05-11-2017.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Magnolia_15_FC_705H_Planning_Report_05-11-2017.pdf

Magnolia_15_FC_705H_Wall_Plot_05-11-2017.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

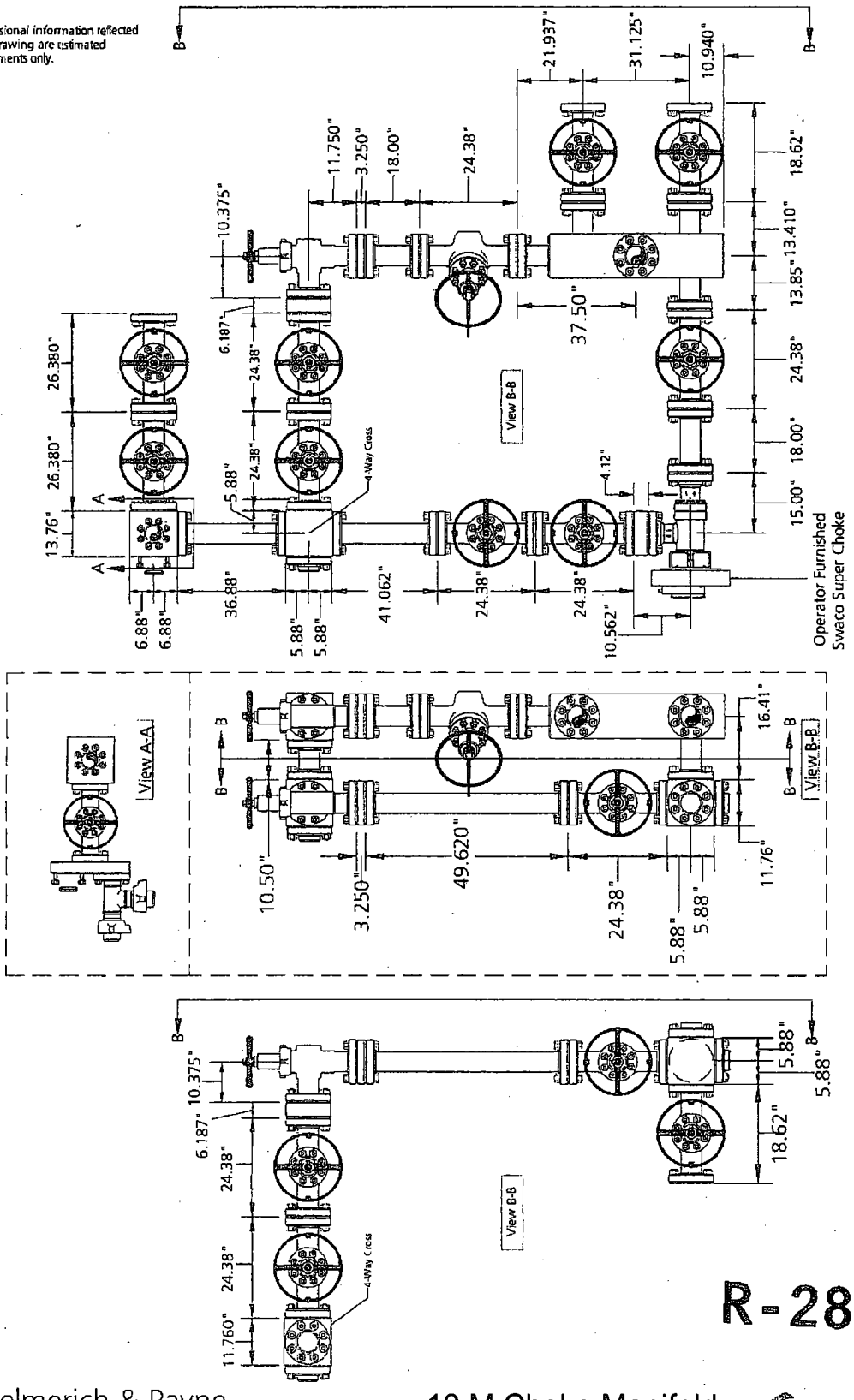
Magnolia_15_FC_705H_Rig_Layout_05-11-2017.pdf

Magnolia_15_FC_705H_Wellbore_05-11-2017.pdf

Magnolia_15_FC_705H_Wellhead_Cap_05-11-2017.pdf

Other Variance attachment:

Note: Dimensional information reflected on this drawing are estimated measurements only.



R-285

Helmerich & Payne
Rig Flex 3 Manifold with 3rd Choke Run

10 M Choke Manifold

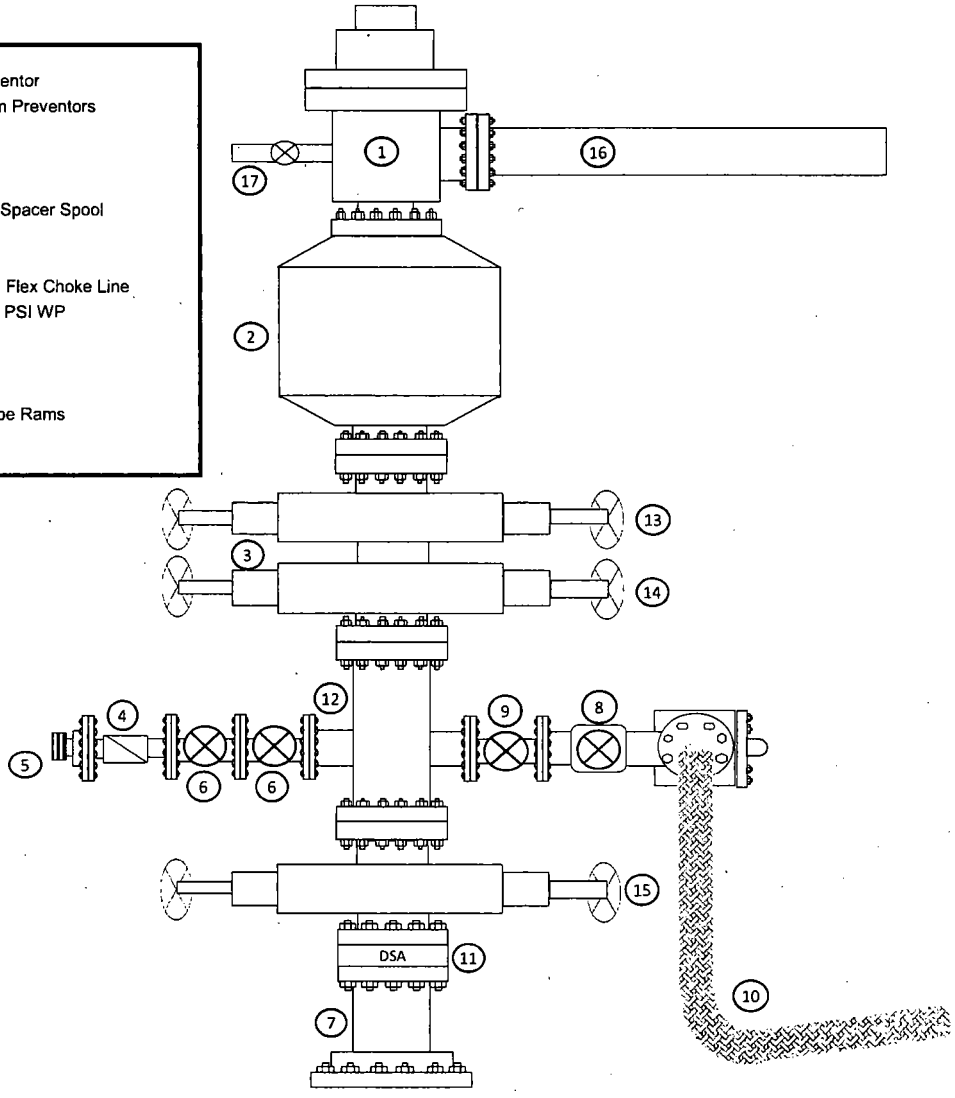
CAMERON

Name:	Jeanette	Date:	9-9-08	Working Pressure:	#	J-3737-3

Exhibit 1
EOG Resources
10M BOPE

Rig Floor

1. 13 5/8" Rotating Head
2. Hydril 13 5/8" 10,000 PSI WP GK Annular Preventor
3. 13 5/8" Cameron Type "U" 10,000 PSI WP Ram Preventors
4. 2 1/16" - 10,000 PSI WP Check Valve
5. 10,000 PSI WP - 1502 Union to kill line
6. 2 1/16" - 10,000 PSI WP Manual Valves
7. 13 5/8" 3,000 PSI WP x 13 5/8" 5,000 PSI WP Spacer Spool
8. 4 1/16" 10,000 PSI WP HCR Valve
9. 4 1/16" 10,000 PSI WP Manual Valve
10. 6" OD x 3" ID 10,000 PSI WP Steel Armoured Flex Choke Line
11. DSA - 13 5/8" 10,000 PSI WP x 13 5/8" 5,000 PSI WP
12. Mud Cross - 13 5/8" 10,000 PSI WP
13. Blind Rams
14. Pipe Rams
15. 13 5/8" Cameron Type "U" 10,000 PSI WP Pipe Rams
16. Flow Line
17. 2" Fill Line



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

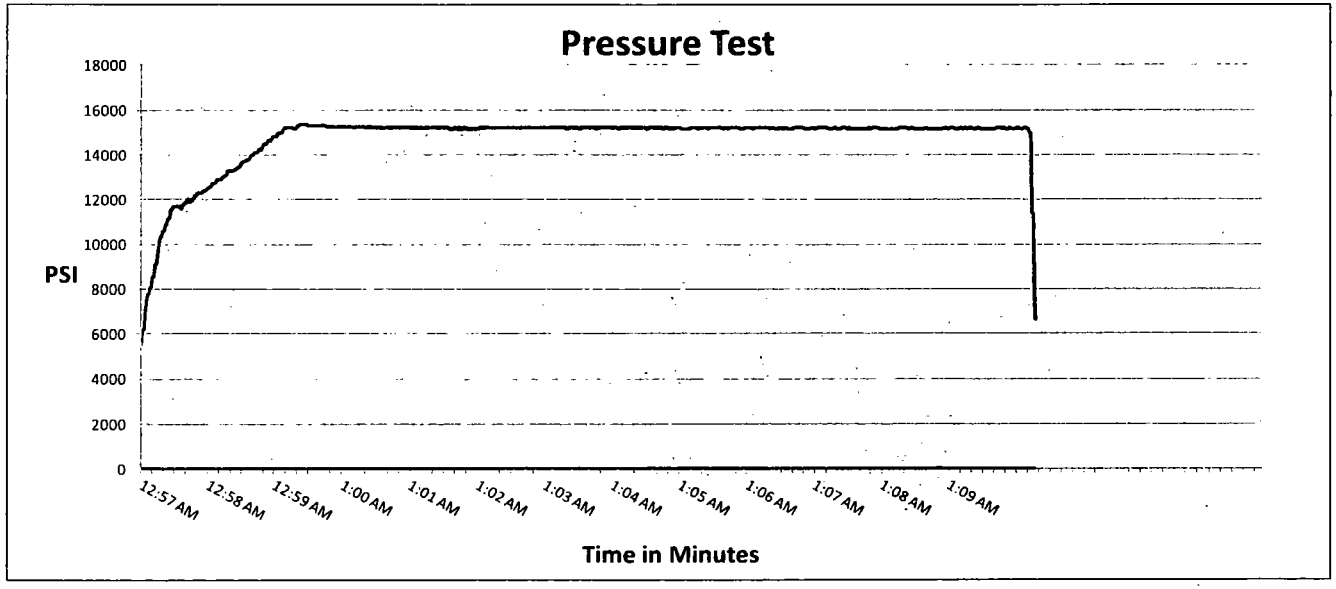
SALES ORDER# 90067

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

EOG RESOURCES, INC.
MAGNOLIA 15 FED COM NO. 705H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	830'
Top of Salt	1,160'
Base of Salt / Top Anhydrite	4,785'
Base Anhydrite	5,040'
Lamar	5,040'
Bell Canyon	5,070'
Cherry Canyon	6,100'
Brushy Canyon	7,690'
Bone Spring Lime	9,260'
1st Bone Spring Sand	10,185'
2nd Bone Spring Shale	10,370'
2nd Bone Spring Sand	10,690'
3rd Bone Spring Carb	11,205'
3rd Bone Spring Sand	11,765'
Wolfcamp	12,235'
TD	12,410'

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

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	6,100'	Oil
Brushy Canyon	7,690'	Oil
1st Bone Spring Sand	10,185'	Oil
2nd Bone Spring Shale	10,370'	Oil
2nd Bone Spring Sand	10,690'	Oil
3rd Bone Spring Carb	11,205'	Oil
3rd Bone Spring Sand	11,765'	Oil
Wolfcamp	12,235'	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 10.75" casing at 855' and circulating cement back to surface.

EOG RESOURCES, INC.
MAGNOLIA 15 FED COM NO. 705H

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
14.75"	0 – 855'	10.75"	40.5#	J55	STC	1.125	1.25	1.60
9.875"	0 – 1,000'	7.625"	29.7#	HCP-110	LTC	1.125	1.25	1.60
9.875"	1,000' – 3,000'	7.625"	29.7#	P-110EC	SLIJ II	1.125	1.25	1.60
8.75"	3,000' – 11,300'	7.625"	29.7#	HCP-110	FlushMax III	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'-17,121'	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.

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft^3/ft	Mix Water Gal/sk	Slurry Description
10-3/4" 855'	325	13.5	1.73	9.13	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% $CaCl_2$ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	200	14.8	1.34	6.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
7-5/8" 11,300'	250	14.8	1.38	6.48	Class C + 5% Gypsum + 3% CaCl2 pumped via Bradenhead (TOC @ Surface)
	2000	14.8	1.38	6.48	Class C + 5% Gypsum + 3% CaCl2 pumped via Bradenhead
	550	14.4	1.20	4.81	50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% CPT35 + 0.80% CPT16A + 0.25% CPT503P pumped Conventionally
5-1/2" 17,121'	850	14.1	1.26	5.80	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,800')

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 (10,000-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 5000/ 250 psig and the annular preventer to 5000/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 5000/ 250 psig. The intermediate casing will be tested to 2000 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 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 – 855'	Fresh - Gel	8.6-8.8	28-34	N/c
855' – 11,300'	Brine	8.8-10.0	28-34	N/c
11,300' – 17,121' 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 7325 psig (based on 11.5 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 7,300' 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 Durface 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 10-3/4" surface casing, a 13-5/8" 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 5000 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 Stream Flo FBD100 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.

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.

Both the surface and intermediate casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

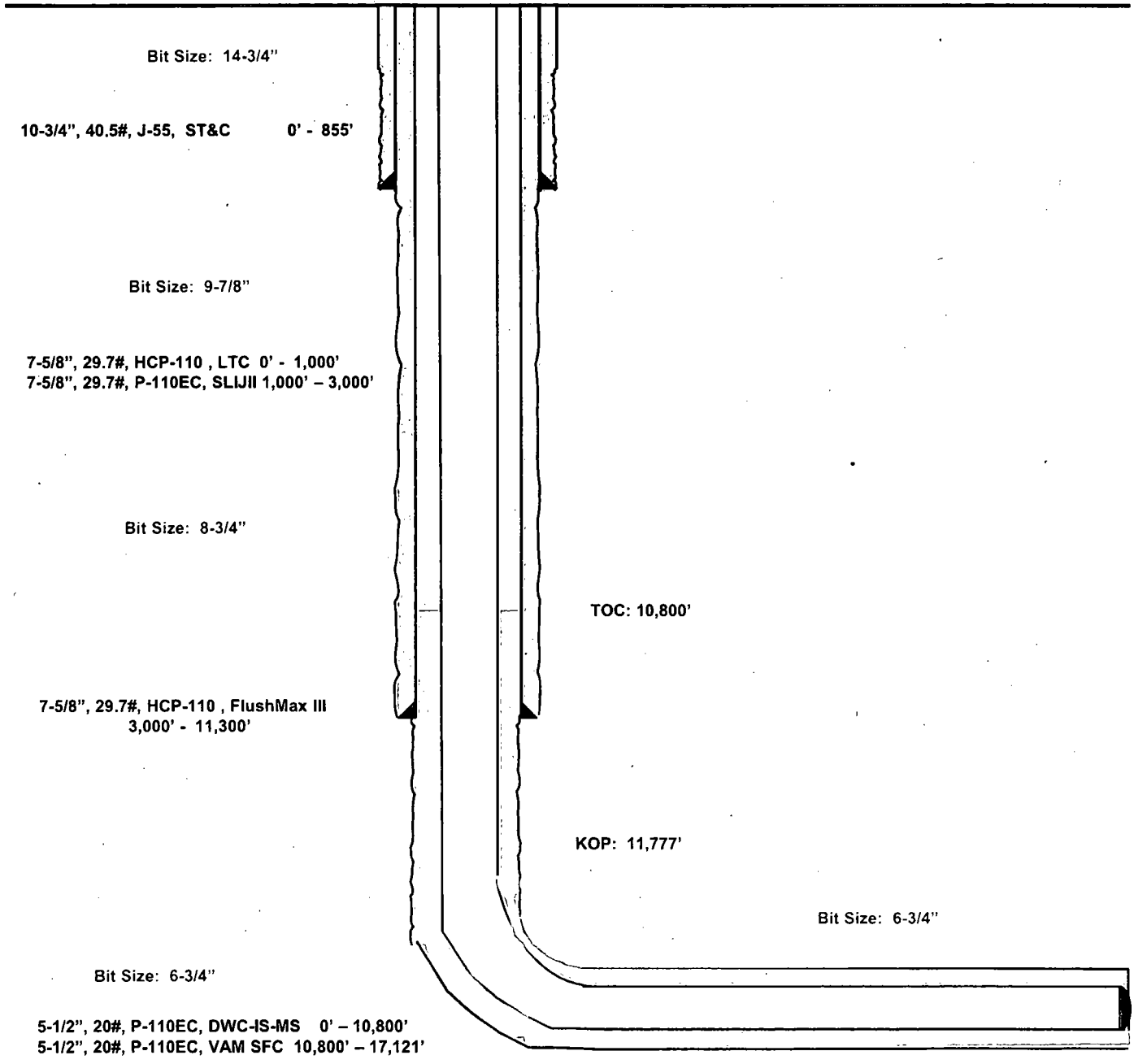
Magnolia 15 Fed Com #705H

Lea County, New Mexico
Proposed Wellbore

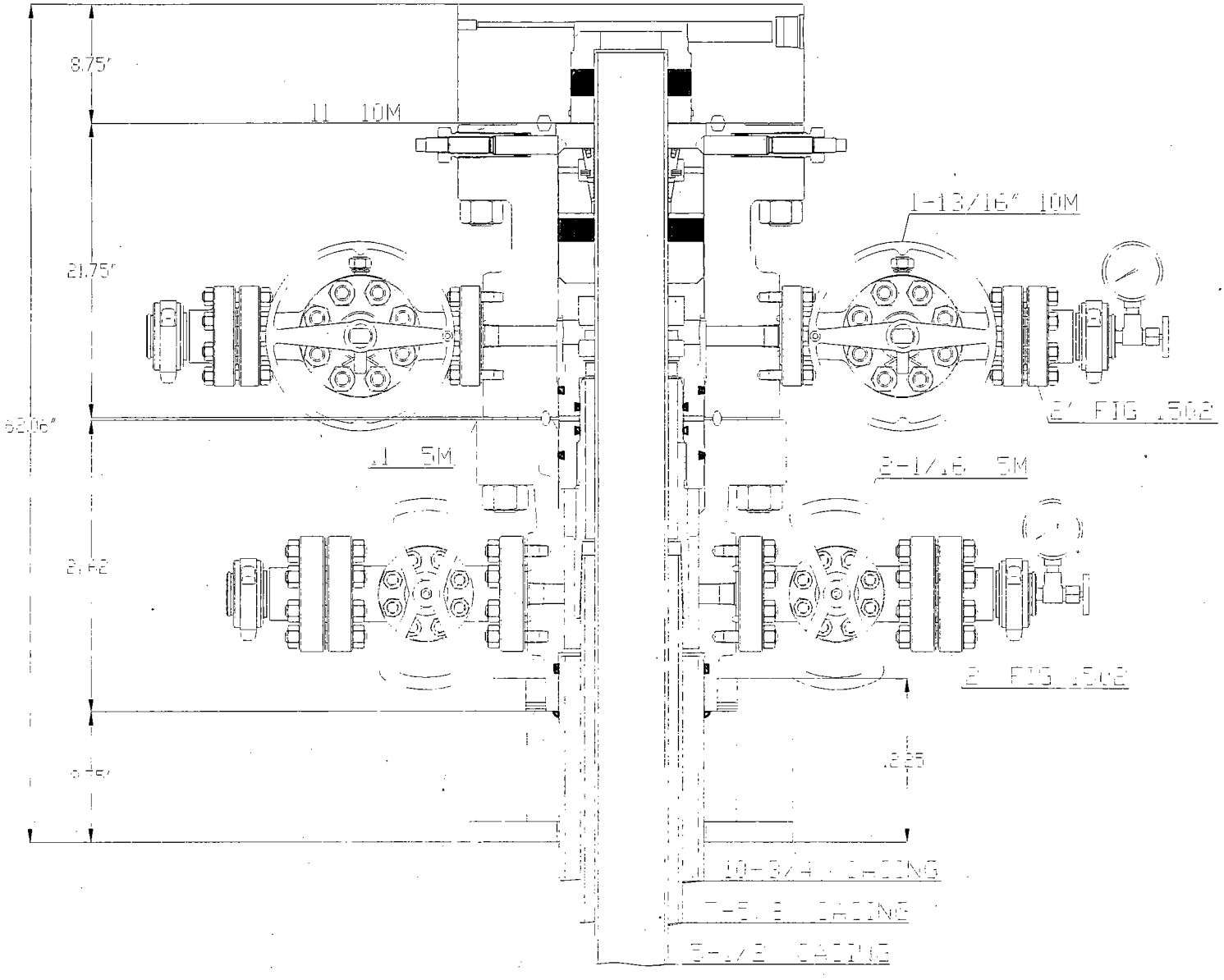
1080' FNL
2159' FWL
Section 15
T-26-S, R-33-E

API: 30-025-*****

KB: 3,326'
GL: 3,301'



Lateral: 17,121' MD, 12,250' TVD
Upper Most Perf:
330' FNL & 2309' FWL Sec. 15
Lower Most Perf:
330' FSL & 2315' FWL Sec. 15
BH Location: 230' FSL & 2315' FWL
Section 15
T-26-S, R-33-E



PIONEER™ QUOTE DRAWING
DIMENSIONAL APPROXIMATE

FOR REFERENCE

10-3/4" x 7-5/8" x 5-1/2"
FBD-100 WELLHEAD SYSTEM
QUOTE NO: 10210

DWN	BA	3.23.17
CHK		
APP		
	BY	DATE

Stream Flo
Worldwide Expertise · Global Strength

DRAWING NO
1W4-15518

APD ID: 10400013001 **Submission Date:** 05/11/2017

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

MAGNOLIA15FC705H_vicinity_05-08-2017.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

MAGNOLIA15FC_INFRASTRUCTURE_05-08-2017.pdf
MAGNOLIA15FC705H_padsite_05-08-2017.pdf
MAGNOLIA15FC705H_wellsite_05-08-2017.pdf

New road type: RESOURCE

Length: 827 Feet **Width (ft.):** 24

Max slope (%): 2 **Max grade (%):** 20

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 24

New road access erosion control: Newly constructed or reconstructed roads will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road. We plan to grade and water twice a year.

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: 6" of Compacted Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: An adequate amount of topsoil/root zone will be stripped by dozer from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram / survey plat.
Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: No drainage crossings

Road Drainage Control Structures (DCS) description: N/A

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

MAGNOLIA15FC705H_radius_05-08-2017.pdf

Existing Wells description:

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Magnolia 15 Fed Com central tank battery is located in the NE/4 of section 15

Production Facilities map:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

MAGNOLIA15FC_INFRASTRUCTURE_05-08-2017.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: OTHER **Water source type:** RECYCLED

Describe type:

Source latitude: **Source longitude:**

Source datum:

Water source permit type: WATER RIGHT

Source land ownership: FEDERAL

Water source transport method: PIPELINE,TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 0 **Source volume (acre-feet):** 0

Source volume (gal): 0

Water source and transportation map:

Magnolia_15_Fed_Com_Water_Source_and_Caliche_Map_05-08-2017.pdf

Water source comments:

New water well? NO

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Caliche will be supplied from pits shown on the attached caliche source map. Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows: * -An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat. -An area will be used within the proposed well site dimensions to excavate caliche. Subsoil will be removed and stockpiled within the surveyed well pad dimensions. -Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions. -Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available). -Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat. * In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

Construction Materials source location attachment:

Magnolia_15_Fed_Com_Water_Source_and_Caliche_Map_05-08-2017.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly. Human waste and grey water will be properly contained of and disposed of properly. After drilling and completion operations; trash, chemicals, salts, frac sand, and other waste material will be removed and disposed of properly at a state approved disposal facility.

Amount of waste: 0 barrels

Waste disposal frequency : Daily

Safe containment description: Steel Tanks

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Trucked to NMOCD approved disposal facility

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Closed Loop System. Drill cuttings will be disposed of into steel tanks and taken to an NMOCD approved disposal facility.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

MAGNOLIA15FC705H_padsite_05-08-2017.pdf
MAGNOLIA15FC705H_wellsite_05-08-2017.pdf
Magnolia_15_FC_705H_Rig_Layout_05-11-2017.pdf
Comments: Exhibit 2A-Wellsite & Exhibit 2B-Padsite Rig Layout Exhibit 4

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** MAGNOLIA 15 FED COM

Multiple Well Pad Number: 703H/704H/705H

Recontouring attachment:

MAGNOLIA15FC705H_reclamation_05-08-2017.pdf

Drainage/Erosion control construction: Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

Drainage/Erosion control reclamation: The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Wellpad long term disturbance (acres): 3.581267

Wellpad short term disturbance (acres): 4.499541

Access road long term disturbance (acres): 0.455647

Access road short term disturbance (acres): 0.455647

Pipeline long term disturbance (acres): 0.5750689

Pipeline short term disturbance (acres): 0.9584481

Other long term disturbance (acres): 0

Other short term disturbance (acres): 0

Total long term disturbance: 4.611983

Total short term disturbance: 5.913636

Reconstruction method: In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. Areas planned for interim reclamation will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts and fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

Soil treatment: Re-seed according to BLM standards. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

Existing Vegetation at the well pad: Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respreads evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type: **Seed source:**

Seed name:

Source name: **Source address:**

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre: **Proposed seeding season:**

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

Operator Contact/Responsible Official Contact Info

First Name: Stan **Last Name:** Wagner

Phone: (432)686-3689 **Email:** stan_wagner@eogresources.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds. Weeds will be treated if found.
Weed treatment plan attachment:

Monitoring plan description: Reclamation will be completed within 6 months of well plugging. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds.
Monitoring plan attachment:

Success standards: N/A

Pit closure description: NA

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

USFS Forest/Grassland: **USFS Ranger District:**

Fee Owner: Oliver Kiehne **Fee Owner Address:** P.O. Box 135 Orla, TX 79770

Phone: (575)399-9281 **Email:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: surface use agreement

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information: An onsite meeting was conducted 2/16/17. Poly lines are planned to transport water for operations. Will truck if necessary. See attached SUPO Plan.
Use a previously conducted onsite? NO

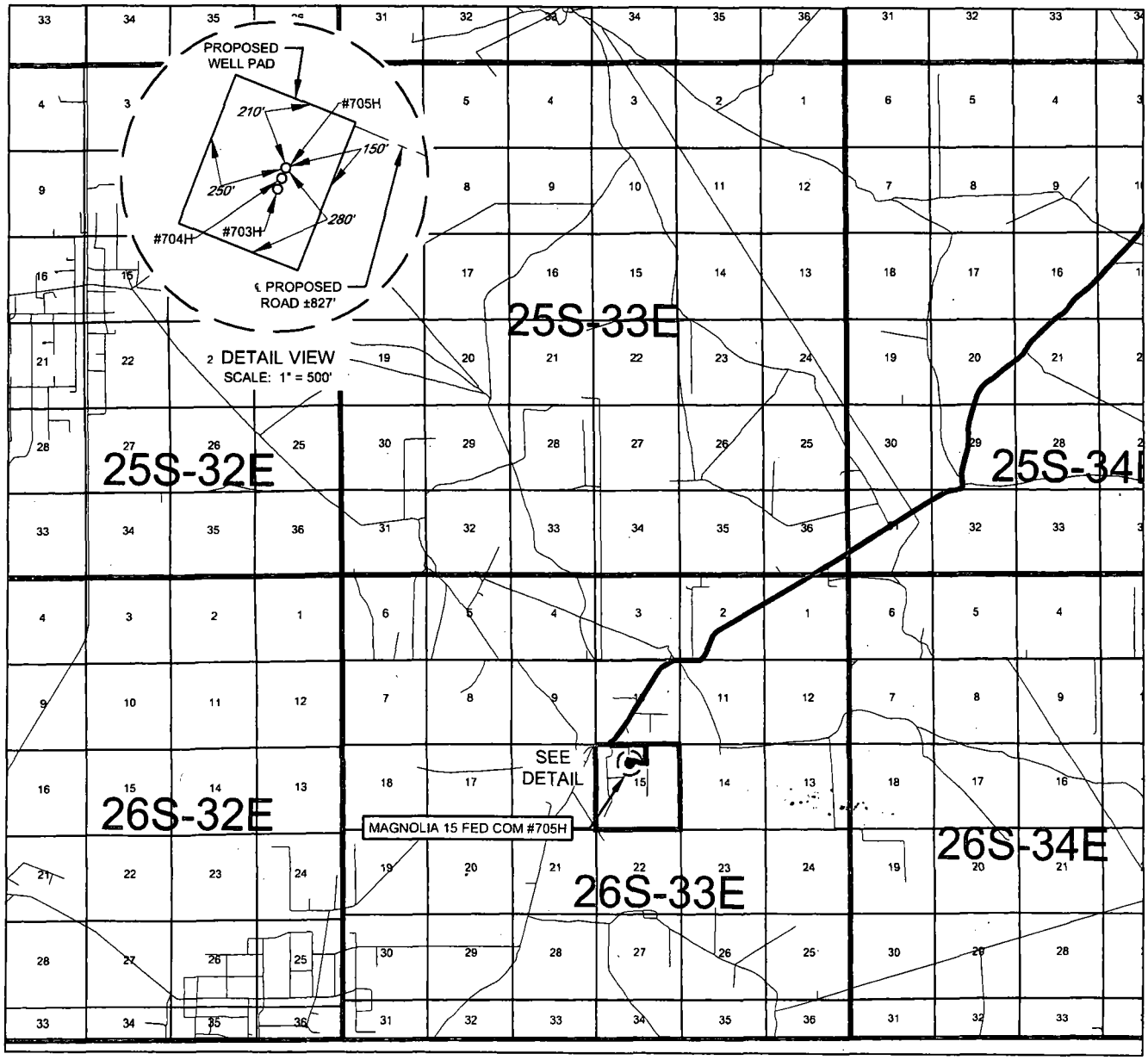
Previous Onsite information:

Other SUPO Attachment

MAGNOLIA15FC705H_elevation_05-08-2017.pdf
SUPO_Magnolia_15_Fed_Com_705H_05-08-2017.pdf
Magnolia15FC705_deficiency_response_07-10-2017.pdf
Magnolia_15_FC_705_deficiency_response_7_31_17_07-31-2017.pdf

EXHIBIT 2

VICINITY MAP



eog resources, inc.

LEASE NAME & WELL NO.: MAGNOLIA 15 FED COM #705H

SECTION 15 TWP 26-S RGE 33-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 1080' FNL & 2159' FWL

DISTANCE & DIRECTION

FROM INT. OF NM-18 N & NM-128, GO WEST ON NM-128 W ±14.1 MILES, THENCE SOUTHWEST (LEFT) ON BATTLE AXE RD. ±13.2 MILES, THENCE WEST (RIGHT) ON BATTLE AXE RD./ J-2 ±1.5 MILES, THENCE SOUTH (LEFT) ON LEASE RD. ±246 FEET, THENCE EAST (LEFT) ON LEASE RD. ±0.4 MILES, THENCE SOUTH (RIGHT) ON A PROPOSED RD. ±0.21 MILES, THENCE WEST (RIGHT) ±828 FEET TO A POINT ±273 FEET NORTHEAST OF THE LOCATION.

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 STATE PLANE COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1983, U.S. SURVEY FEET.

SCALE: 1" = 10000'

0' 5000' 10000'

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE
620 E. GREENE ST.
CARLSBAD, NM 88220
BLM_NM_CFO_APD@BLM.GOV

In Reply To:
3160 (Office Code)
[NMNM02965A]

07/18/2017

Attn: STAN WAGNER
EOG RESOURCES INCORPORATED
1111 BAGBY SKY LOBBY2
HOUSTON, TX 77002

Re: Receipt and Acceptability of Application for Permit to Drill (APD)
FEDERAL - NMNM02965A

Well Name / Number:	**MAGNOLIA 15 FED COM / 705H**
Legal Description:	T26S, R33E, SEC 15, NENW
County, State:	LEA, NM
Date APD Received:	05/11/2017

Dear Operator:

This is the subsequent deficiency letter pursuant to Onshore Oil and Gas Order, Number 1, Section III.E.2.a.

The BLM received your initial Application for Permit to Drill (APD), for the referenced well, on 07/10/2017 . The BLM reviewed the revised APD package pursuant to part III.B.2 of Onshore Oil and Gas Order No.1 and it is:

1. ☑ Incomplete/Deficient (*The BLM cannot process the APD until you submit the identified items within 45 calendar days of the date of the original notice or the BLM will return your APD.*)

   - ☐ Well Plat
   - ☑ Drilling Plan
   - ☑ Surface Use Plan of Operations (SUPO)
     - ☐ Certification of Private Surface Owner Access Agreement
   - ☐ Bonding
   - ☐ Onsite (The BLM has scheduled the onsite to be on)
     This requirement is exempt of the 45-day timeframe to submit deficiencies. This requirement will be satisfied on the date of the onsite.
   - ☐ Other

[Please See Addendum for further clarification of deficiencies]

Responded 7/31/17

2. ☐ Missing Necessary Information (*The BLM can start, but cannot complete the analysis until you submit the identified items. This is an early notice and the BLM will restate this in a 30-day deferral letter, if you have not submitted the information at that time. You will have two (2) years from the date of the deferral to submit this information or the BLM will deny your APD.*)

|Please See Addendum for further clarification of deficiencies|

NOTE: The BLM will return your revised APD package to you, unless you correct all deficiencies identified above (item 1) within 45 calendar days of the original deficiency notice.

- The BLM will not refund an APD processing fee or apply it to another APD for any returned APD.

Extension Requests:

- If you know you will not be able to meet the 45-day timeframe for reasons beyond your control, you must submit a written request through email/standard mail for extension before to the 45th calendar day from this original deficiency notice, **09/01/2017.**

- The BLM will consider the extension request if you can demonstrate your diligence (providing reasons and examples of why the delay is occurring beyond your control) in attempting to correct the deficiencies and can provide a date by which you will correct the deficiencies. If the BLM determines that the request does not warrant an extension, the BLM will return the APD as incomplete after the original 45 calendar days have elapsed.

    - The BLM will determine whether to grant an extension beyond the required 45 calendar days and will document this request in the well file. If you fail to submit deficiencies by the date defined in the extension request, the BLM will return the APD.

APDs remaining Incomplete:

- If the APD is still not complete, the BLM will notify you and allow 10 additional business days following the end of the original 45 calendar day period to submit a written request to the BLM for an extension. The request must describe how you will address all outstanding deficiencies and the timeframe you request to complete the deficiencies.

    - The BLM will consider the extension request if you can prove your diligence (providing reasons and examples of why the delay is occurring) in attempting to correct the deficiencies and you can provide a date by which you will correct the deficiencies. If the BLM determines that the request does not warrant an additional extension, the BLM will return the APD as incomplete.

If you have any questions, please contact Deborah McKinney at (575) 234-5931.

Sincerely,

Cody Layton
Assistant Field Manager

cc: Official File

ADDENDUM - Incomplete/Deficient Clarifications

ADDENDUM - Deficient

Surface Comments

- Location of Existing and/or Proposed Production Facilities Deficiency:
  Battery was going to be onsite. Facility not on-sited. Corrected 6/23/17

- Location and Type of Water Supply Deficiency:
  Please provide a better resolution map for the caliche and water sources. corrected 6/23/17

- Well Site Layout Deficiency:
  Need a plat with elevation of corners to determine if a cut and fill diagram is needed. Corrected 6/23/17

- Plans for Surface Reclamation Deficiency:
  Please reclaim areas agreed upon onsite. Corrected 6/23/17

- SUPO Review: Other submitted information are inadequate and/or incomplete
  Please provide cut and fill diagram. Not Corrected 7/12/17

Engineering Comments

- Engineering Review: Other identified drilling plan deficiencies
  Not a deficiency but cannot approve APD without a waste minimization plan. Please attach state submitted gas capture plan (this will be a sufficient substitute for waste minimization plan). Corrected. 07/17/2017. CLN.

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

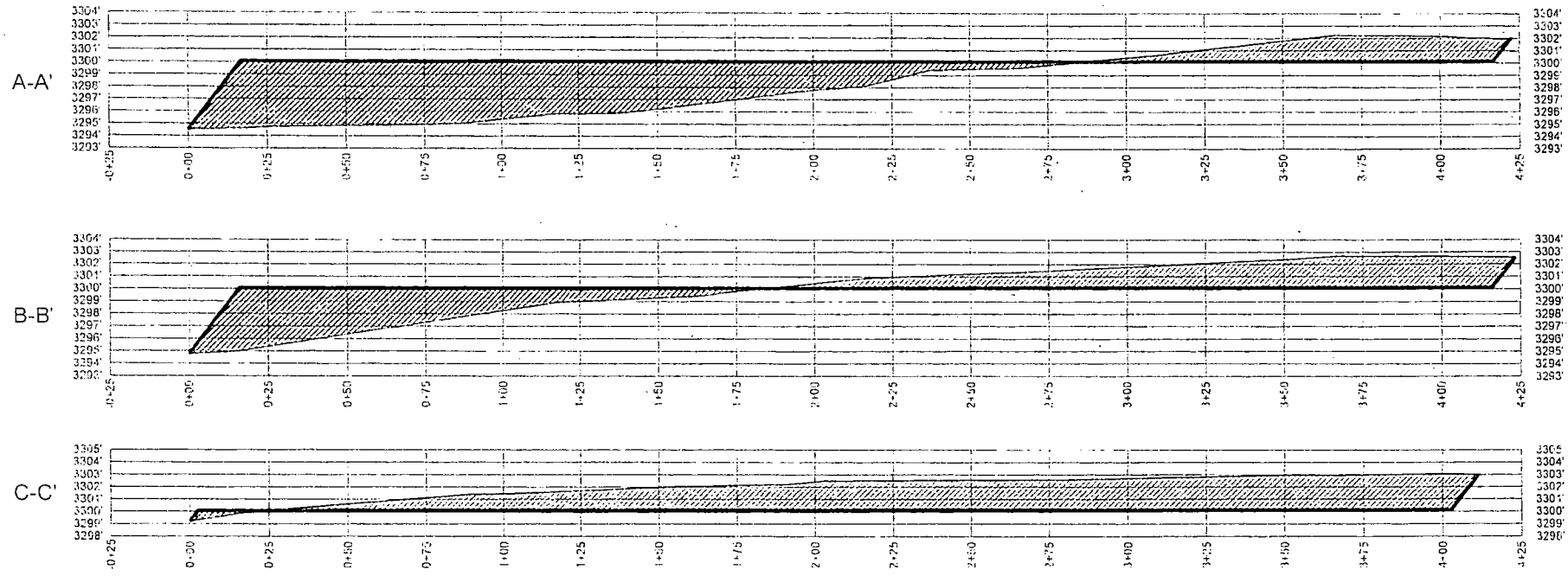
Lined pit bond amount:

Additional bond information attachment:

EXHIBIT 6

SECTION 16, TOWNSHIP 26-S, RANGE 30-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

eog resources, inc.



Horizontal Scale = 1:40
Vertical Scale = 1:10

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1460 EVERMAN PARKWAY, Ste. 107 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

MAGNOLIA 15 FED COM #703H-#705H SITE	REVISION: INT	DATE
DATE: 07/28/17		
FILE: CD_MAGNOLIA_15_FED_COM_703H-705H_SITE_PRO		
DRAWN BY: GJU		
SHEET: 2 OF 2		

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 STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1983.
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

Michael Blake Brown, P.S. No. 18329
JULY 28, 2017
Field note description of even date accompanies this plat.

S:\SURVEY\EOG_MIDLAND\MAGNOLIA_15_FED_COM\FINAL_PRODUCTS\CD_MAGNOLIA_15_FED_COM_703H-705H_SITE_PRO.DWG 7/28/2017 1:13:25 PM gurena

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

01/05/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: NM2308

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE
620 E. GREENE ST.
CARLSBAD, NM 88220
BLM_NM_CFO_APD@BLM.GOV

In Reply To:
3160 (Office Code)
[NMNM02965A]

06/05/2017

Attn: STAN WAGNER
EOG RESOURCES INC
1111 BAGBY SKY LOBBY2
HOUSTON, TX 77002

Re: Receipt and Acceptability of Application for Permit to Drill (APD)

FEDERAL - NMNM02965A

Well Name / Number:	**MAGNOLIA 15 FED COM / 705H**
Legal Description:	T26S, R33E, SEC 15, NENW
County, State:	LEA, NM
Date APD Received:	05/11/2017

Dear Operator:

The BLM received your Application for Permit to Drill (APD), for the referenced well, on 05/11/2017 . The BLM reviewed the APD package pursuant to part III.D of Onshore Oil and Gas Order No.1 and it is:

1. ☑ Incomplete/Deficient (*The BLM cannot process the APD until you submit the identified items within 45 calendar days of the date of this notice or the BLM will return your APD.*)

- ☐ Well Plat
- ☑ Drilling Plan
- ☑ Surface Use Plan of Operations (SUPO)
  - ☐ Certification of Private Surface Owner Access Agreement
- ☐ Bonding
- ☐ Onsite (The BLM has scheduled the onsite to be on)
  This requirement is exempt of the 45-day timeframe to submit deficiencies. This requirement will be satisfied on the date of the onsite.
- ☐ Other

[***Please See Addendum for further clarification of deficiencies***]

APD ID: 10400013001 **Submission Date:** 05/11/2017

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MAGNOLIA 15 FED COM **Well Number:** 705H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	PERMIAN	3307	0	0		NONE	No
2	RUSTLER	2471	830	830	ANHYDRITE	NONE	No
3	TOP SALT	2147	1160	1160	SALT	NONE	No
4	BASE OF SALT	-1478	4785	4785	SALT	NONE	No
5	LAMAR	-1733	5040	5040	LIMESTONE	NONE	No
6	BELL CANYON	-1763	5070	5070	SANDSTONE	NATURAL GAS,OIL	No
7	CHERRY CANYON	-2793	6100	6100	SANDSTONE	NATURAL GAS,OIL	No
8	BRUSHY CANYON	-4383	7690	7690	SANDSTONE	NATURAL GAS,OIL	No
9	BONE SPRING LIME	-5953	9260	9260	LIMESTONE	NONE	No
10	FIRST BONE SPRING SAND	-6878	10185	10185	SANDSTONE	NATURAL GAS,OIL	No
11	BONE SPRING 2ND	-7383	10690	10690	SANDSTONE	NATURAL GAS,OIL	No
12	BONE SPRING 3RD	-8458	11765	11765	SANDSTONE	NATURAL GAS,OIL	No
13	WOLFCAMP	-8928	12235	12235	SHALE	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention