

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OGD

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

NOV 05 2015

RECEIVED

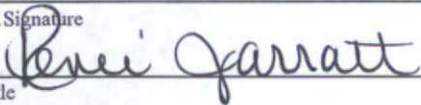
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work ☒ DRILL ☐ REENTER		7. 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. Mosley 16 State Com 2H (313918)
2. Name of Operator EOG Resources, Inc. (7377)		9. API Well No. 30-025- 42927
3a. Address P. O. Box 2267, Midland, TX 79702	3b. Phone No. (include area code) 432-686-3684	10. Field and Pool, or Exploratory Red Hills; Upper BS Shale (97900)
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 2010 FSL & 480 FWL, NWSW (L), Sec 16, T25S, R34E At proposed prod. zone 2409 FSL & 580 FWL, NWSW (L), Sec 9, T25S, R34E		11. Sec., T., R., M., or Blk. and Survey or Area Sec 16, T25S, R34E
14. Distance in miles and direction from nearest town or post office* Approximately +/- 17 miles W of Jal, NM		12. County or Parish Lea
15. Distance from proposed* location to nearest property or lease line, ft. 621 OL, 330 PP (Also to nearest drg. unit line, if any)		13. State NM
16. No. of Acres in lease 320 ST; 1679.79 Fed		17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 200' to 501H Lateral		19. Proposed Depth 14923 MD, 9500 TVD
20. BLM/BIA Bond No. on file NM 2308		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3347 GL	22. Approximate date work will start* 07/01/2015	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:

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

25. Signature 	Name (Printed/Typed) Renee Jarratt	Date 11/9/15
--	--	------------------------

Title Regulatory Analyst	
Approved by (Signature) IS/STEPHEN J. CAFFEY	Name (Printed/Typed) STEPHEN J. CAFFEY
Title FIELD MANAGER	Office BLM-CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

Ka
11/06/15

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Carlsbad Controlled Water Basin

Witness Surface Casing

NOV 09 2015

EOG RESOURCES, INC.
MOSLEY 16 STATE COM NO. 2H

HOBBS OCD

NOV 05 2015

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1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	940'
Top of Salt	1,278'
Base of Salt / Top Anhydrite	5,072'
Base Anhydrite	5,328'
Lamar	5,328'
Bell Canyon	5,353'
Cherry Canyon	6,332'
Brushy Canyon	7,950'
Bone Spring Lime	9,357'
TD	9,500'

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

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	6,332'	Oil
Brushy Canyon	7,950'	Oil
Bone Spring Lime	9,357'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13.375" casing at 965' and circulating cement back to surface.

4. CASING PROGRAM - NEW

See CO2

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 - 965'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4,000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4,000' - 5,200'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0'-14,923'	5.500"	17#	P110 or HCP110	LTC	1.125	1.25	1.60

**EOG RESOURCES, INC.
MOSLEY 16 STATE COM NO. 2H**

Cementing Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft ³ /ft	Mix Water Gal/sk	Slurry Description
13-3/8" 965'	325	13.5	1.73	9.13	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ surface)
	300	14.8	1.34	6.34	Tail: Class C + 0.005 pps Static Free + 2% CaCl ₂ + 0.25 pps CelloFlake + 0.005 gps FP-6L
9-5/8" 5,200'	800	12.7	2.22	12.38	Lead: Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static Free (TOC @ surface)
	200	14.8	1.32	6.33	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
5-1/2" 14,923'	225	10.8	3.67	21.7	Lead: 60:40:0 Class 'C' + 15.00 lb/sk BA-90 + 4.00% MPA-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sk Static Free (TOC @ 4700')
	200	11.8	2.38	13.25	Middle: 50:50:10 Class 'H' + 0.80% FL-52 + 0.45% ASA-301 + 0.40% SMS + 2.00% Salt + 3.00 lb/sx LCM-1 + 0.20% R-21 + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
	1400	14.2	1.28	5.75	Tail: 50:50:2 Class 'H' + 0.65% FL-52 + 0.20% CD-32 + 0.15% SMS + 2.00% Salt + 0.10% R-3 + 0.005 lb/sk Static Free

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). *See COA*

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a double ram-type (10,000 psi WP) preventer and an annular preventer (5000-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.

3000 psi BOPE is adequate for this application. Due to the 3000 psi BOPE requirement no FIT tests are planned.

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

EOG RESOURCES, INC.
MOSLEY 16 STATE COM NO. 2H

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000/ 250 psig and the annular preventer to 3000/ 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 - 965' 1030'	Fresh Water Gel	8.6-8.8	28-34	N/c
965' - 5,200'	Saturated Brine	10.0-10.2	28-34	N/c
5,200' - 8,928'	Fresh Water	8.4-8.6	28-34	N/c
8,928' - 14,923' Lateral	Cut Brine Water	9.0-9.5	28-34	N/c

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) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

EOG RESOURCES, INC.
MOSLEY 16 STATE COM NO. 2H

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 155 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 4113 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

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.

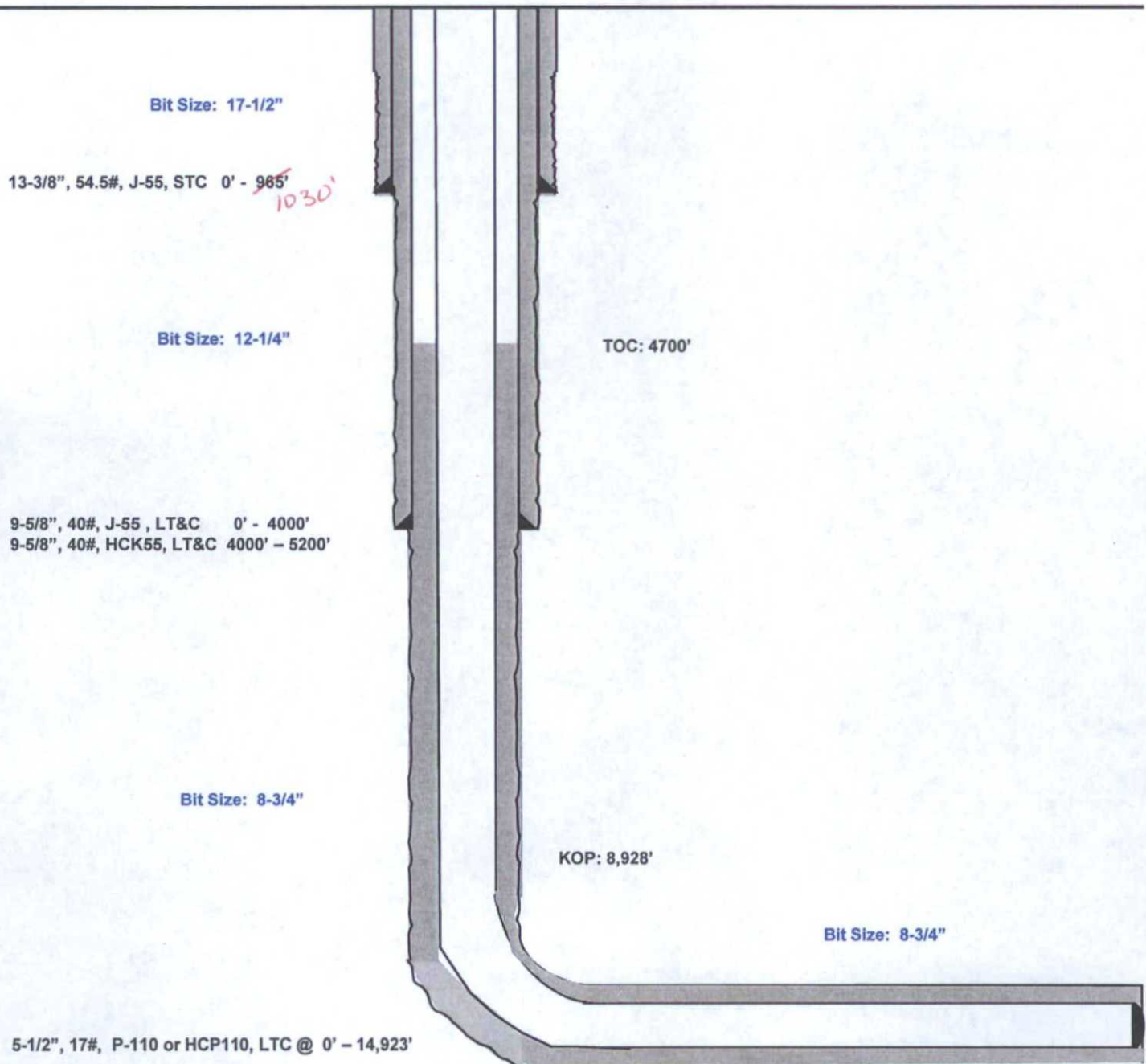
Mosley 16 State Com #2H
Lea County, New Mexico

2010' FSL
480' FWL
Section 16
T-25-S, R-34-E

Proposed Wellbore

API: 30-025-

KB: 3,372'
GL: 3,347'



Lateral: 14,923' MD, 9,500' TVD

BH Location: 2409' FSL & 580' FWL
Section 9
T-25-S, R-34-E



Lea County, NM (NAD 27 NME)

Mosley 16 State Com #2H

Cactus 123

Plan #1



Azimuths to Grid North
True North: 4.45°
Magnetic North: 6.68°

Magnetic Field
Strength: 48222.45nT
Dip Angle: 60.03°
Date: 12/1/2014
Model: IGRF201014

To convert a Magnetic Direction to a Grid Direction, Add 6.68°
To convert a Magnetic Direction to a True Direction, Add 7.11° East
To convert a True Direction to a Grid Direction, Subtract 0.45°

PROJECT DETAILS: Lea County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: #2H

Ground Level: 3347.0
KB = 30 @ 3377.0usft (Cactus 123)
Northing 411577.00 Easting 763722.00 32° 7' 41.231 N 103° 28' 53.128 W

SECTION DETAILS

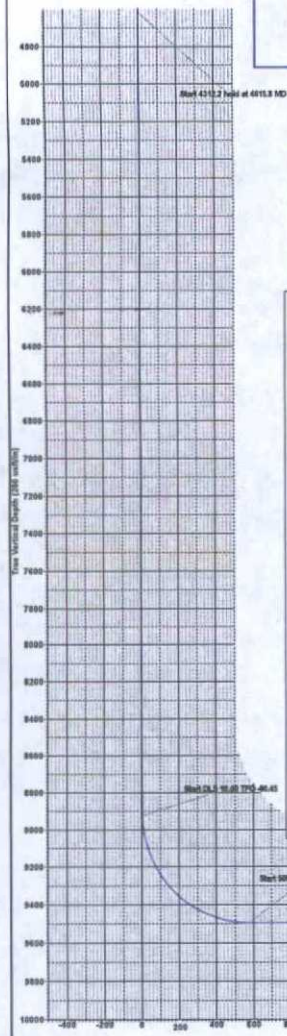
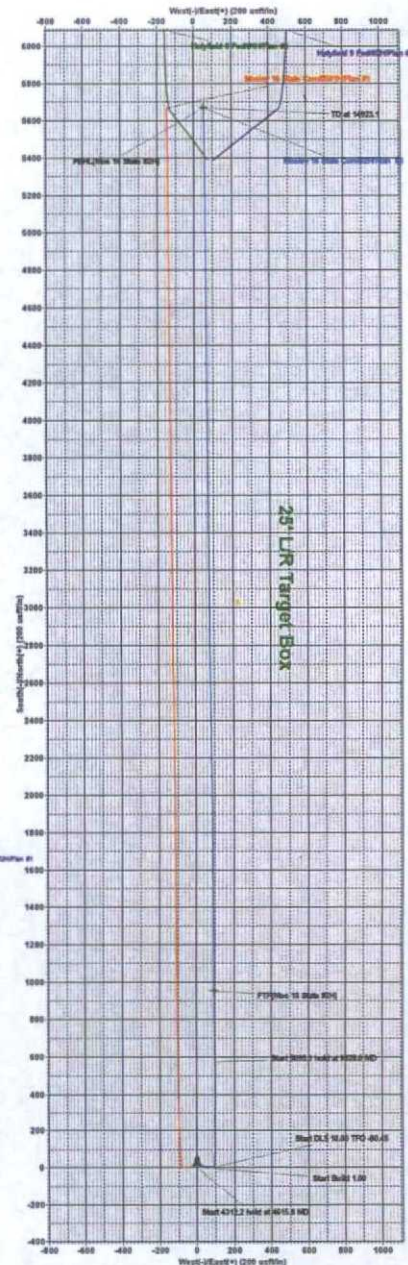
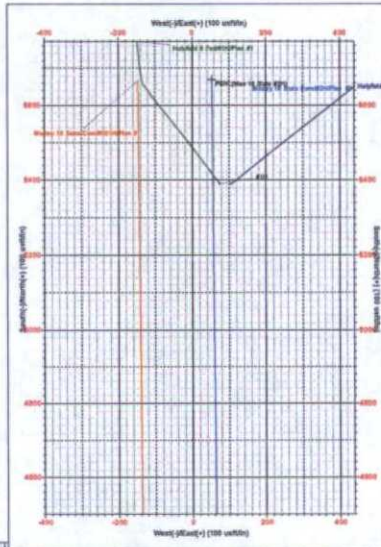
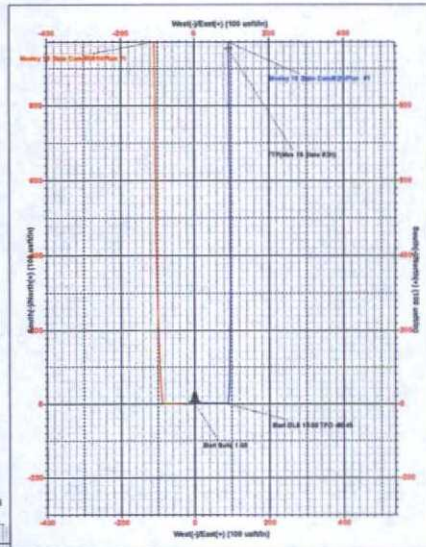
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dog	TFace	VFace	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	4500.0	0.00	0.00	4500.0	0.0	0.0	0.00	0.00	0.0		
3	4615.8	1.16	89.97	4615.8	0.0	1.2	1.00	89.97	0.0		
4	8926.0	1.16	89.97	8927.1	0.0	88.3	0.00	0.00	0.9		
5	9228.0	90.00	359.53	9500.0	873.1	86.1	10.80	-86.45	873.9		
6	14922.1	90.00	359.53	9500.0	5668.0	53.0	0.00	0.00	5668.2		PBH (Mos 16 State #2H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
FTP (Mos 16 State #2H)	9500.0	952.0	92.0	412529.00	763914.00
PBH (Mos 16 State #2H)	9500.0	5668.0	53.0	417246.00	763778.00



Start 4313.2 hole at 4615.8 MD

FTP (Mos 16 State #2H)

Start 4313.2 hole at 4615.8 MD

FTP (Mos 16 State #2H)

Vertical Section at 0.54\"/>



EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Mosley 16 State Com

#2H

OH

Plan: Plan #1

EOG PVA

01 December, 2014



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Mosley 16 State Com
Well: #2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #2H
KB = 30 @ 3377.0usft (Cactus 123)
KB = 30 @ 3377.0usft (Cactus 123)
Grid
Minimum Curvature
EDM 5000.1 Single User Db

Project: Lea County, NM (NAD 27 NME)

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site: Mosley 16 State Com

Site Position: Northing: 411,577.00 usft Latitude: 32° 7' 43.233 N
From: Easting: 763,692.00 usft Longitude: 103° 28' 53.477 W
Position Uncertainty: Map Slot Radius: 13-3/16 " Grid Convergence: 0.45 °

Well: Well Position: +N/-S 0.0 usft Latitude: 32° 7' 43.231 N
+E/-W 0.0 usft Longitude: 103° 28' 53.128 W
Position Uncertainty: Wellhead Elevation: 0.0 usft Ground Level: 3,347.0 usft

Wellbore: OH

Magnetics: Model Name: IGRF201014 Sample Date: 12/1/2014 Declination (°): 7.11 Dip Angle (°): 60.03 Field Strength (nT): 48,222

Design: Plan #1

Audit Notes: Version: Phase: PLAN Tie On Depth: 0.0

Vertical Section: Depth From (TVD) (usft): 0.0 +N/-S (usft): 0.0 +E/-W (usft): 0.0 Direction (°): 0.54

Survey Tool Program: From (usft): 0.0 To (usft): 14,923.0 Date: 12/1/2014 Survey (Wellbore): Plan #1 (OH)

Tool Name: MWD Description: MWD - Standard



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
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Grid
Minimum Curvature
EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (")	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	EW (usft)	DLeg ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
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1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00



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EOG PVA

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2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.00	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	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
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3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
4,600.0	1.00	89.97	4,600.0	0.0	0.9	1.00	1.00	0.00	0.00	0.00
4,615.8	1.16	89.97	4,615.8	0.0	1.2	1.00	1.00	0.00	0.00	0.00
4,700.0	1.16	89.97	4,700.0	0.0	2.9	0.00	0.00	0.00	0.00	0.00
4,800.0	1.16	89.97	4,800.0	0.0	4.9	0.00	0.00	0.00	0.00	0.00
4,900.0	1.16	89.97	4,999.9	0.0	6.9	0.00	0.00	0.00	0.00	0.00
5,000.0	1.16	89.97	4,999.9	0.0	8.9	0.00	0.00	0.00	0.00	0.00
5,100.0	1.16	89.97	5,099.9	0.0	11.0	0.00	0.00	0.00	0.00	0.00
5,200.0	1.16	89.97	5,199.9	0.0	13.0	0.00	0.00	0.00	0.00	0.00



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Mosley 16 State Com
Well: #2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #2H
KB = 30 @ 3377.0usft (Cactus 123)
KB = 30 @ 3377.0usft (Cactus 123)
Grid
Minimum Curvature
EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi grid_north_azim	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
5,300.0	1.16	89.97	5,299.9	0.0	15.0	0.00	0.00	0.00	0.00	
5,400.0	1.16	89.97	5,399.8	0.0	17.0	0.00	0.00	0.00	0.00	
5,500.0	1.16	89.97	5,499.8	0.0	19.0	0.00	0.00	0.00	0.00	
5,600.0	1.16	89.97	5,599.8	0.0	21.1	0.00	0.00	0.00	0.00	
5,700.0	1.16	89.97	5,699.8	0.0	23.1	0.00	0.00	0.00	0.00	
5,800.0	1.16	89.97	5,799.8	0.0	25.1	0.00	0.00	0.00	0.00	
5,900.0	1.16	89.97	5,899.7	0.0	27.1	0.00	0.00	0.00	0.00	
6,000.0	1.16	89.97	5,999.7	0.0	29.1	0.00	0.00	0.00	0.00	
6,100.0	1.16	89.97	6,099.7	0.0	31.2	0.00	0.00	0.00	0.00	
6,200.0	1.16	89.97	6,199.7	0.0	33.2	0.00	0.00	0.00	0.00	
6,300.0	1.16	89.97	6,299.6	0.0	35.2	0.00	0.00	0.00	0.00	
6,400.0	1.16	89.97	6,399.6	0.0	37.2	0.00	0.00	0.00	0.00	
6,500.0	1.16	89.97	6,499.6	0.0	39.2	0.00	0.00	0.00	0.00	
6,600.0	1.16	89.97	6,599.6	0.0	41.3	0.00	0.00	0.00	0.00	
6,700.0	1.16	89.97	6,699.6	0.0	43.3	0.00	0.00	0.00	0.00	
6,800.0	1.16	89.97	6,799.5	0.0	45.3	0.00	0.00	0.00	0.00	
6,900.0	1.16	89.97	6,899.5	0.0	47.3	0.00	0.00	0.00	0.00	
7,000.0	1.16	89.97	6,999.5	0.0	49.3	0.00	0.00	0.00	0.00	
7,100.0	1.16	89.97	7,099.5	0.0	51.4	0.00	0.00	0.00	0.00	
7,200.0	1.16	89.97	7,199.5	0.0	53.4	0.00	0.00	0.00	0.00	
7,300.0	1.16	89.97	7,299.4	0.0	55.4	0.00	0.00	0.00	0.00	
7,400.0	1.16	89.97	7,399.4	0.0	57.4	0.00	0.00	0.00	0.00	
7,500.0	1.16	89.97	7,499.4	0.0	59.4	0.00	0.00	0.00	0.00	
7,600.0	1.16	89.97	7,599.4	0.0	61.5	0.00	0.00	0.00	0.00	
7,700.0	1.16	89.97	7,699.4	0.0	63.5	0.00	0.00	0.00	0.00	
7,800.0	1.16	89.97	7,799.3	0.0	65.5	0.00	0.00	0.00	0.00	
7,900.0	1.16	89.97	7,899.3	0.0	67.5	0.00	0.00	0.00	0.00	



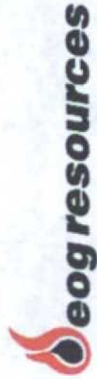
EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Mosley 16 State Com
Well: #2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
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Survey Calculation Method:
Database:
Well #2H
KB = 30 @ 3377.0usft (Cactus 123)
KB = 30 @ 3377.0usft (Cactus 123)
Grid
Minimum Curvature
EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (")	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
8,000.0	1.16	89.97	7,999.3	0.0	69.5	0.00	0.00	0.00	0.00	0.00
8,100.0	1.16	89.97	8,099.3	0.0	71.6	0.00	0.00	0.00	0.00	0.00
8,200.0	1.16	89.97	8,199.3	0.0	73.6	0.00	0.00	0.00	0.00	0.00
8,300.0	1.16	89.97	8,299.2	0.0	75.6	0.00	0.00	0.00	0.00	0.00
8,400.0	1.16	89.97	8,399.2	0.0	77.6	0.00	0.00	0.00	0.00	0.00
8,500.0	1.16	89.97	8,499.2	0.0	79.6	0.00	0.00	0.00	0.00	0.00
8,600.0	1.16	89.97	8,599.2	0.0	81.7	0.00	0.00	0.00	0.00	0.00
8,700.0	1.16	89.97	8,699.2	0.0	83.7	0.00	0.00	0.00	0.00	0.00
8,800.0	1.16	89.97	8,799.1	0.0	85.7	0.00	0.00	0.00	0.00	0.00
8,900.0	1.16	89.97	8,899.1	0.0	87.7	0.00	0.00	0.00	0.00	0.00
8,928.0	1.16	89.97	8,927.1	0.0	88.3	0.00	0.00	0.00	0.00	0.00
8,950.0	2.48	27.32	8,949.1	0.5	88.7	10.00	6.01	-284.24	0.00	0.00
9,000.0	7.29	8.62	8,998.9	4.6	89.7	10.00	9.61	-37.40	0.00	0.00
9,050.0	12.25	4.87	9,048.2	13.0	90.6	10.00	9.92	-7.50	0.00	0.00
9,100.0	17.23	3.26	9,096.5	25.7	91.5	10.00	9.97	-3.21	0.00	0.00
9,150.0	22.22	2.36	9,143.6	42.5	92.3	10.00	9.98	-1.80	0.00	0.00
9,200.0	27.22	1.78	9,189.0	63.4	93.1	10.00	9.99	-1.17	0.00	0.00
9,250.0	32.21	1.36	9,232.4	88.2	93.7	10.00	9.99	-0.83	0.00	0.00
9,300.0	37.21	1.05	9,273.5	116.6	94.3	10.00	9.99	-0.63	0.00	0.00
9,350.0	42.21	0.80	9,311.9	148.6	94.8	10.00	9.99	-0.50	0.00	0.00
9,400.0	47.21	0.60	9,347.4	183.7	95.3	10.00	10.00	-0.41	0.00	0.00
9,450.0	52.20	0.42	9,379.8	221.9	95.6	10.00	10.00	-0.35	0.00	0.00
9,500.0	57.20	0.27	9,408.6	262.7	95.9	10.00	10.00	-0.30	0.00	0.00
9,550.0	62.20	0.14	9,433.9	305.8	96.0	10.00	10.00	-0.27	0.00	0.00
9,600.0	67.20	0.01	9,455.2	351.0	96.1	10.00	10.00	-0.25	0.00	0.00
9,650.0	72.20	359.90	9,472.6	397.9	96.0	10.00	10.00	-0.23	0.00	0.00
9,700.0	77.20	359.79	9,485.8	446.1	95.9	10.00	10.00	-0.22	0.00	0.00



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Mosley 16 State Com
Well: #2H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #2H
KB = 30 @ 3377.0usft (Cactus 123)
KB = 30 @ 3377.0usft (Cactus 123)
Grid
Minimum Curvature
EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
9,750.0	82.20	359.68	9,494.7	495.3	95.7	10.00	10.00	-0.21		
9,800.0	87.20	359.58	9,499.3	545.0	95.4	10.00	10.00	-0.20		
9,828.0	90.00	359.53	9,500.0	573.1	95.1	10.00	10.00	-0.20		
9,900.0	90.00	359.53	9,500.0	645.0	94.5	0.00	0.00	0.00		
10,000.0	90.00	359.53	9,500.0	745.0	93.7	0.00	0.00	0.00		
10,100.0	90.00	359.53	9,500.0	845.0	92.9	0.00	0.00	0.00		
10,200.0	90.00	359.53	9,500.0	945.0	92.1	0.00	0.00	0.00		
10,207.0	90.00	359.53	9,500.0	952.0	92.0	0.00	0.00	0.00		
FTP(Mos 16 State #2H)										
10,300.0	90.00	359.53	9,500.0	1,045.0	91.2	0.00	0.00	0.00		
10,400.0	90.00	359.53	9,500.0	1,145.0	90.4	0.00	0.00	0.00		
10,500.0	90.00	359.53	9,500.0	1,245.0	89.6	0.00	0.00	0.00		
10,600.0	90.00	359.53	9,500.0	1,345.0	88.7	0.00	0.00	0.00		
10,700.0	90.00	359.53	9,500.0	1,445.0	87.9	0.00	0.00	0.00		
10,800.0	90.00	359.53	9,500.0	1,545.0	87.1	0.00	0.00	0.00		
10,900.0	90.00	359.53	9,500.0	1,645.0	86.3	0.00	0.00	0.00		
11,000.0	90.00	359.53	9,500.0	1,745.0	85.4	0.00	0.00	0.00		
11,100.0	90.00	359.53	9,500.0	1,845.0	84.6	0.00	0.00	0.00		
11,200.0	90.00	359.53	9,500.0	1,945.0	83.8	0.00	0.00	0.00		
11,300.0	90.00	359.53	9,500.0	2,045.0	83.0	0.00	0.00	0.00		
11,400.0	90.00	359.53	9,500.0	2,145.0	82.1	0.00	0.00	0.00		
11,500.0	90.00	359.53	9,500.0	2,245.0	81.3	0.00	0.00	0.00		
11,600.0	90.00	359.53	9,500.0	2,345.0	80.5	0.00	0.00	0.00		
11,700.0	90.00	359.53	9,500.0	2,445.0	79.7	0.00	0.00	0.00		
11,800.0	90.00	359.53	9,500.0	2,545.0	78.8	0.00	0.00	0.00		
11,900.0	90.00	359.53	9,500.0	2,645.0	78.0	0.00	0.00	0.00		
12,000.0	90.00	359.53	9,500.0	2,745.0	77.2	0.00	0.00	0.00		



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Mosley 16 State Com
Well: #2H
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Local Co-ordinate Reference:
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Well #2H
KB = 30 @ 3377.0usft (Cactus 123)
KB = 30 @ 3377.0usft (Cactus 123)
Grid
Minimum Curvature
EDM 5000.1 Single User Db

Planned Survey									
MD (usft)	Inc (")	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg ("/100usft)	Build ("/100usft)	Turn ("/100usft)	Right to Plan (usft)
12,100.0	90.00	359.53	9,500.0	2,844.9	76.3	0.00	0.00	0.00	0.00
12,200.0	90.00	359.53	9,500.0	2,844.9	75.5	0.00	0.00	0.00	0.00
12,300.0	90.00	359.53	9,500.0	3,044.9	74.7	0.00	0.00	0.00	0.00
12,400.0	90.00	359.53	9,500.0	3,144.9	73.9	0.00	0.00	0.00	0.00
12,500.0	90.00	359.53	9,500.0	3,244.9	73.0	0.00	0.00	0.00	0.00
12,600.0	90.00	359.53	9,500.0	3,344.9	72.2	0.00	0.00	0.00	0.00
12,700.0	90.00	359.53	9,500.0	3,444.9	71.4	0.00	0.00	0.00	0.00
12,800.0	90.00	359.53	9,500.0	3,544.9	70.6	0.00	0.00	0.00	0.00
12,900.0	90.00	359.53	9,500.0	3,644.9	69.7	0.00	0.00	0.00	0.00
13,000.0	90.00	359.53	9,500.0	3,744.9	68.9	0.00	0.00	0.00	0.00
13,100.0	90.00	359.53	9,500.0	3,844.9	68.1	0.00	0.00	0.00	0.00
13,200.0	90.00	359.53	9,500.0	3,944.9	67.2	0.00	0.00	0.00	0.00
13,300.0	90.00	359.53	9,500.0	4,044.9	66.4	0.00	0.00	0.00	0.00
13,400.0	90.00	359.53	9,500.0	4,144.9	65.6	0.00	0.00	0.00	0.00
13,500.0	90.00	359.53	9,500.0	4,244.9	64.8	0.00	0.00	0.00	0.00
13,600.0	90.00	359.53	9,500.0	4,344.9	63.9	0.00	0.00	0.00	0.00
13,700.0	90.00	359.53	9,500.0	4,444.9	63.1	0.00	0.00	0.00	0.00
13,800.0	90.00	359.53	9,500.0	4,544.9	62.3	0.00	0.00	0.00	0.00
13,900.0	90.00	359.53	9,500.0	4,644.9	61.5	0.00	0.00	0.00	0.00
14,000.0	90.00	359.53	9,500.0	4,744.9	60.6	0.00	0.00	0.00	0.00
14,100.0	90.00	359.53	9,500.0	4,844.9	59.8	0.00	0.00	0.00	0.00
14,200.0	90.00	359.53	9,500.0	4,944.9	59.0	0.00	0.00	0.00	0.00
14,300.0	90.00	359.53	9,500.0	5,044.9	58.2	0.00	0.00	0.00	0.00
14,400.0	90.00	359.53	9,500.0	5,144.9	57.3	0.00	0.00	0.00	0.00
14,500.0	90.00	359.53	9,500.0	5,244.9	56.5	0.00	0.00	0.00	0.00
14,600.0	90.00	359.53	9,500.0	5,344.9	55.7	0.00	0.00	0.00	0.00
14,700.0	90.00	359.53	9,500.0	5,444.9	54.8	0.00	0.00	0.00	0.00



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EOG PVA

Company: EOG Resources - Midland
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EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	D/Leg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
14,800.0	90.00	359.53	9,500.0	5,544.9	54.0	0.00	0.00	0.00	0.00	
14,900.0	90.00	359.53	9,500.0	5,644.9	53.2	0.00	0.00	0.00	0.00	
14,923.1	90.00	359.53	9,500.0	5,668.0	53.0	0.00	0.00	0.00	0.00	

PBHL(Mos 16 State #2H)

Checked By: _____

Approved By: _____

Date: _____

Exhibit 1

EOG Resources

5M BOPE

Rig Floor

1. 13 5/8" Rotating Head
2. NOV 13 5/8" 5,000 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

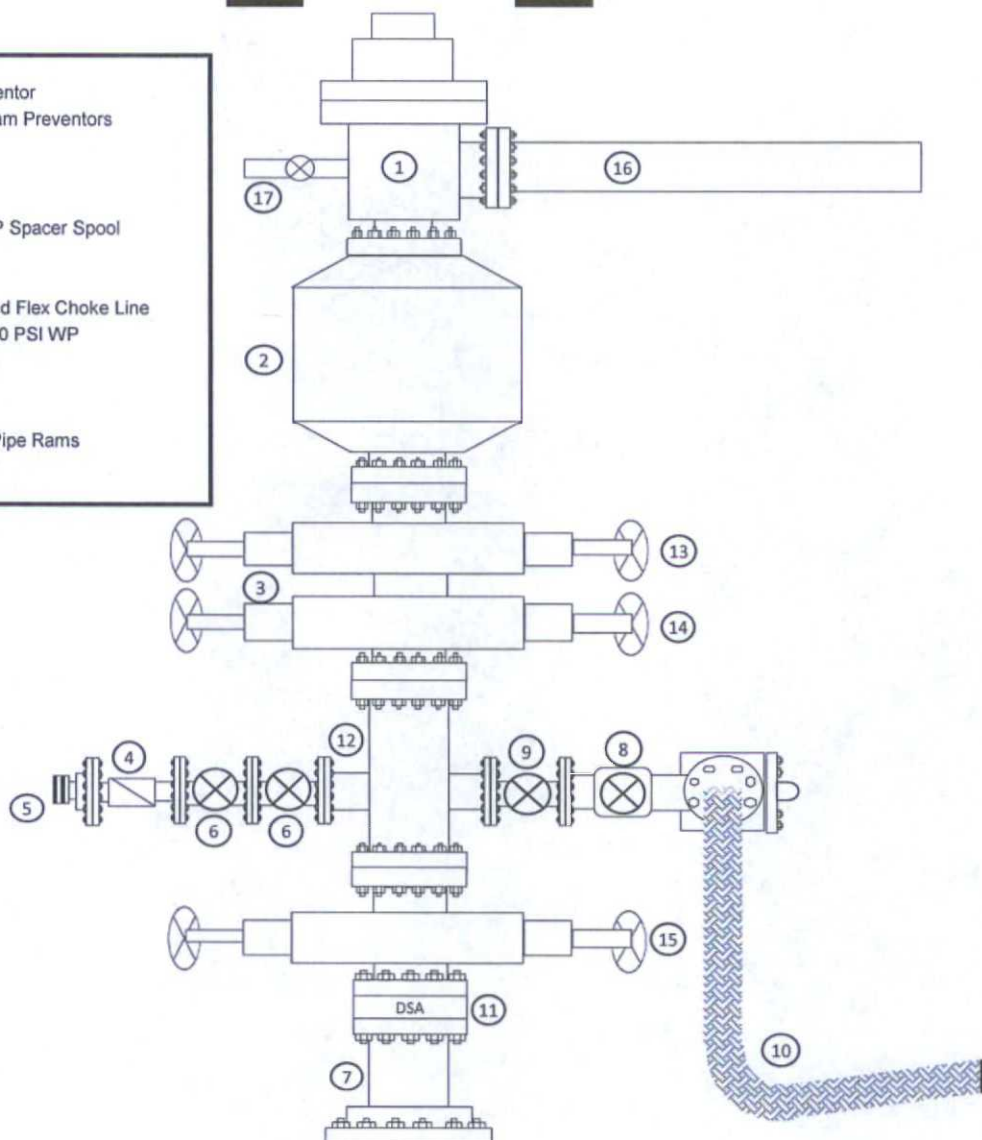
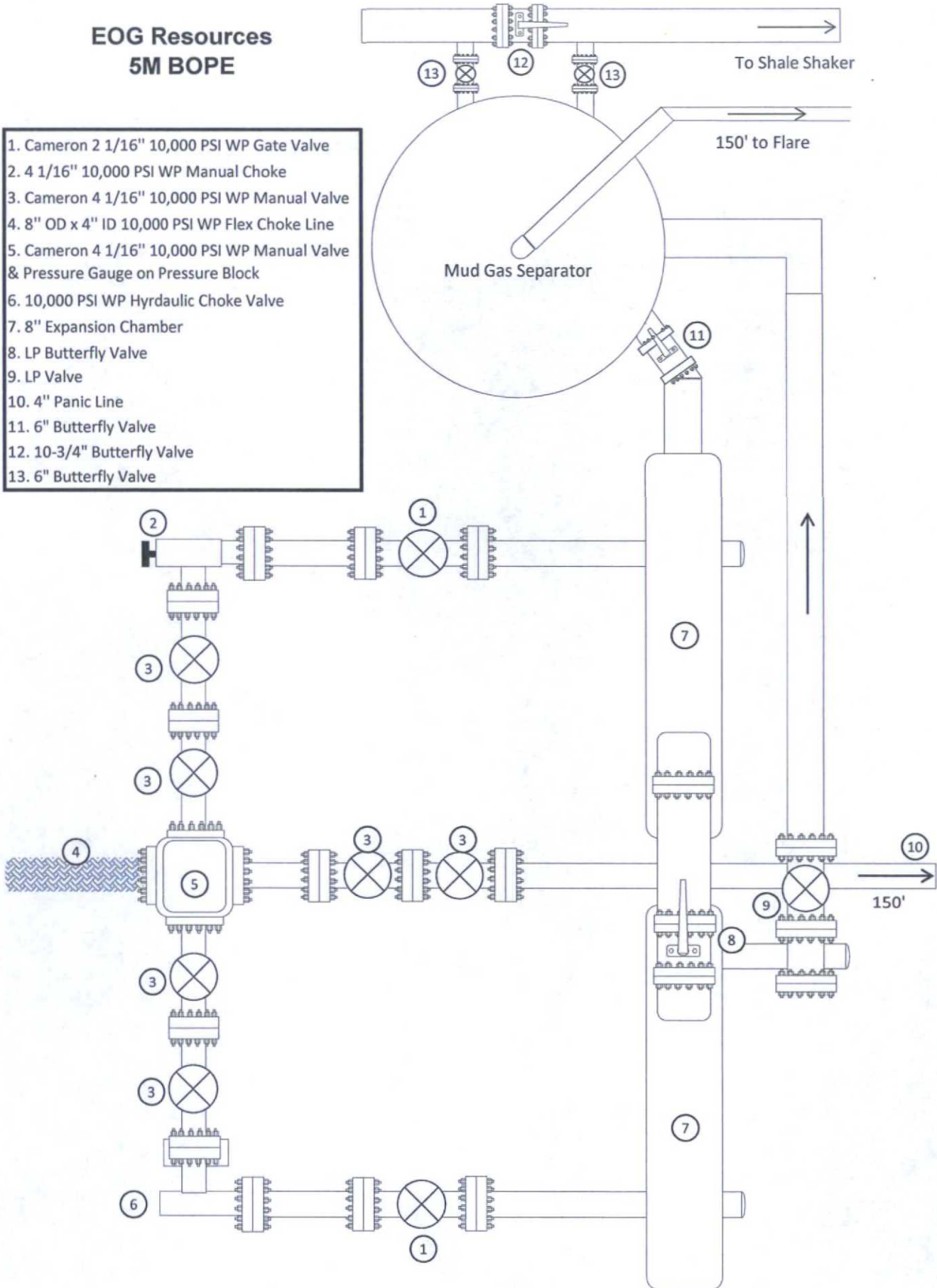


Exhibit 1a

EOG Resources 5M BOPE

1. Cameron 2 1/16" 10,000 PSI WP Gate Valve
2. 4 1/16" 10,000 PSI WP Manual Choke
3. Cameron 4 1/16" 10,000 PSI WP Manual Valve
4. 8" OD x 4" ID 10,000 PSI WP Flex Choke Line
5. Cameron 4 1/16" 10,000 PSI WP Manual Valve & Pressure Gauge on Pressure Block
6. 10,000 PSI WP Hyrdraulic Choke Valve
7. 8" Expansion Chamber
8. LP Butterfly Valve
9. LP Valve
10. 4" Panic Line
11. 6" Butterfly Valve
12. 10-3/4" Butterfly Valve
13. 6" Butterfly Valve



Manufacturer: Midwest Hose & Specialty

Serial Number: SN#90067

Length: 35'

Size: OD = 8" ID = 4"

Ends: Flanges Size: 4-1/16"

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

MIDWEST
HOSE AND SPECIALTY INC.

INTERNAL HYDROSTATIC TEST REPORT		
Customer: CACTUS		P.O. Number: RIG #123 Asset # M10761
HOSE SPECIFICATIONS		
Type: CHOKER LINE		Length: 35'
I.D. 4" INCHES		O.D. 8" INCHES
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE PSI
COUPLINGS		
Type of End Fitting 4 1/16 10K FLANGE		
Type of Coupling: SWEDGED		MANUFACTURED BY MIDWEST HOSE & SPECIALTY
PROCEDURE		
<i>Hose assembly pressure tested with water at ambient temperature.</i>		
TIME HELD AT TEST PRESSURE 1 MIN.		ACTUAL BURST PRESSURE: 0 PSI
COMMENTS: SN#90067 M10761 Hose is covered with stainless steel armour cover and wrapped with fire resistant vermiculite coated fiberglass insulation rated for 1500 degrees complete with lifting eyes		
Date: 6/6/2011	Tested By: BOBBY FINK	Approved: MENDI JACKSON



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: CACTUS

SALES ORDER# 90067

Hose Specifications

Hose Type
C & K

Length
35'

Type of Fitting
4 1/16 10K

Coupling Method
Swage

I.D.
4"

O.D.
8"

Die Size
6.62"

Final O.D.
6.68"

Working Pressure
10000 PSI

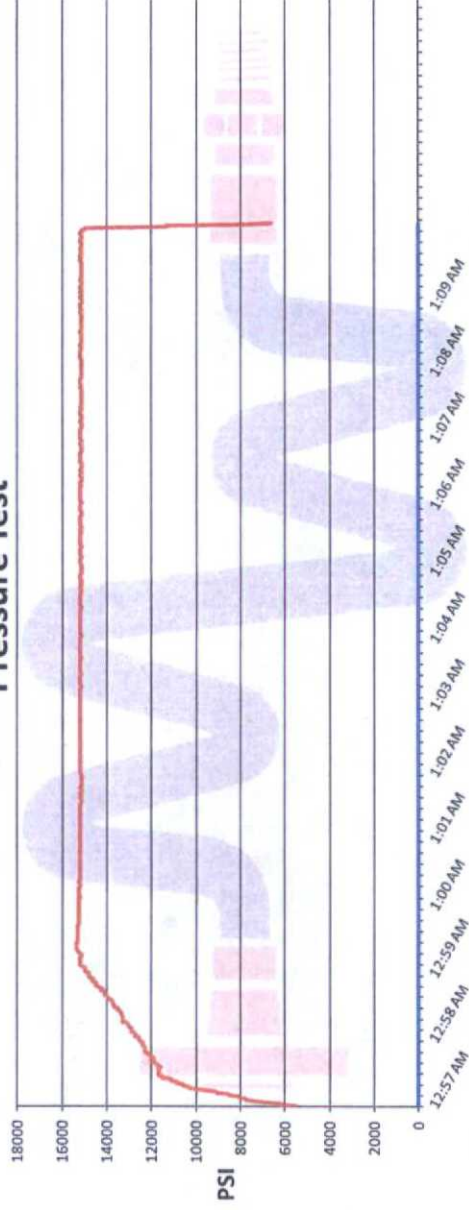
Burst Pressure
Standard Safety Multiplier Applies

Hose Serial #

Hose Assembly Serial #
90067

Verification

Pressure Test



Test Pressure
15000 PSI

Time Held at Test Pressure
11 1/4 Minutes

Actual Burst Pressure

Peak Pressure
15439 PSI

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

Tested By: Bobby Fink

Approved By: Mendi Jackson

Mendi Jackson