

16-124

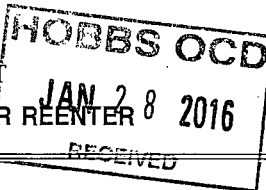
OCD Hobbs

R-111-POTASH

Form 3160-3
(March 2012)

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

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM108977 SL NMNM128367 BHL
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator EOG Resources, Inc (7377)		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. Box 2267 Midland, TX 79702	3b. Phone No. (include area code) 432-686-3689	8. Lease Name and Well No. (315962) Della 29 Fed Com 601H
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 250' FSL & 1270' FEL, SESE (P), Sec 29, 20S, 34E At proposed prod. zone 230' FNL & 330' FEL, NENE (A), Sec 29		9. API Well No. 30-025- 43053
14. Distance in miles and direction from nearest town or post office* Approximately +/- 27 miles Northwest from Eunice, New Mexico		10. Field and Pool, or Exploratory LEA, PS, SOUTH (37580)
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 230', 330' PP		11. Sec., T. R. M. or Blk. and Survey or Area Section 29, T20S, R34E
16. No. of acres in lease 600		12. County or Parish Lea
17. Spacing Unit dedicated to this well 160 ac.		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 880' from 602H		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3714' GL	22. Approximate date work will start* 04/01/2016	23. Estimated duration 25 days

UNORTHODOX
LOCATION

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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature	Name (Printed/Typed) Stan Wagner	Date 11/17/15
Title Regulatory Specialist		
Approved by (Signature) /s/George MacDonell	Name (Printed/Typed)	Date JAN 22 2016
Title FIELD MANAGER		
Office 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)

Capitan Controlled Water Basin

Witness Surface &
Intermediate Casing

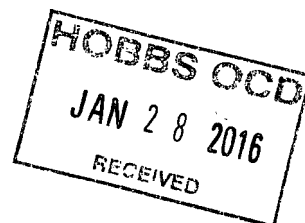
01/29/16

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

FEB 02 2016

EOG RESOURCES, INC.
DELLA 29 FED COM NO. 601H



1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,600'
Top of Salt	1,984'
Base of Salt / Top Anhydrite	3,500'
Base Anhydrite	3,736'
Yates	3,736'
Seven Rivers	4,218'
Cherry Canyon	5,550'
Brushy Canyon	7,030'
Bone Spring Lime	8,610'
1 st Bone Spring Sand	9,809'
2 nd Bone Spring Lime	10,033'
2 nd Bone Spring Sand	10,239'
3 rd Bone Spring Carb	10,699'
3 rd Bone Spring Sand	10,982'
TD	11,260'

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

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	5,550'	Oil
Brushy Canyon	7,030'	Oil
Bone Spring Lime	8,610'	Oil
1 st Bone Spring Sand	9,809'	Oil
2 nd Bone Spring Lime	10,033'	Oil
2 nd Bone Spring Sand	10,239'	Oil
3 rd Bone Spring Carb	10,699'	Oil
3 rd Bone Spring Sand	10,982'	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 1,625' and circulating cement back to surface.

EOG RESOURCES, INC.
DELLA 29 FED COM NO. 601H

4. CASING PROGRAM - NEW

See COA

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 - 1,625'	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' - 5,000'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0'-16,099'	5.5"	17#	HCP-110	BTC	1.125	1.25	1.60

5400

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Mix Water Gal/sk	Slurry Description
13-3/8" 1,625	700	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)
	300	14.8	1.34	6.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
9-5/8" 5,000' <i>5400</i>	1000	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" 16,099'	775	9.0	2.79	10.12	Lead: LiteCRETE + 0.10% D-065 + 0.20% D-046 + 0.40% D-167 + 0.20% D-198 + 0.04% D-208 + 2.0% D-174 (TOC @ 4,500')
	2100	14.4	1.28	5.69	Tail: Class H + 47.01 pps D-909 + 37.01 pps + 5.0% D-020 + 0.30% D-013 + 0.20% D-046 + 0.10% D-065 + 0.50% D-167 + 2.0% D-174

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.

See COA

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

See COA

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 (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.

EOG RESOURCES, INC.
DELLA 29 FED COM NO. 601H

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.

See
COA

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 - 1,625' ⁵⁴⁰⁰	Fresh - Gel	8.6-8.8	28-34	N/c
1,625' - 5,000'	Oil Base	8.7-9.4	58-68	N/c - 6
⁵⁴⁰⁰ 5,000' - 10,738'	Oil Base	8.7-9.4	58-68	N/c - 6
10,738' - 16,099' Lateral	Oil Base	10.0-10.5	58-68	N/c - 6

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.
DELLA 29 FED COM NO. 601H

See COA
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.

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

The estimated bottom-hole temperature (BHT) at TD is 170 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 4875 psig. ~~No~~^{yes} 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.

See COA
(A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. 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.

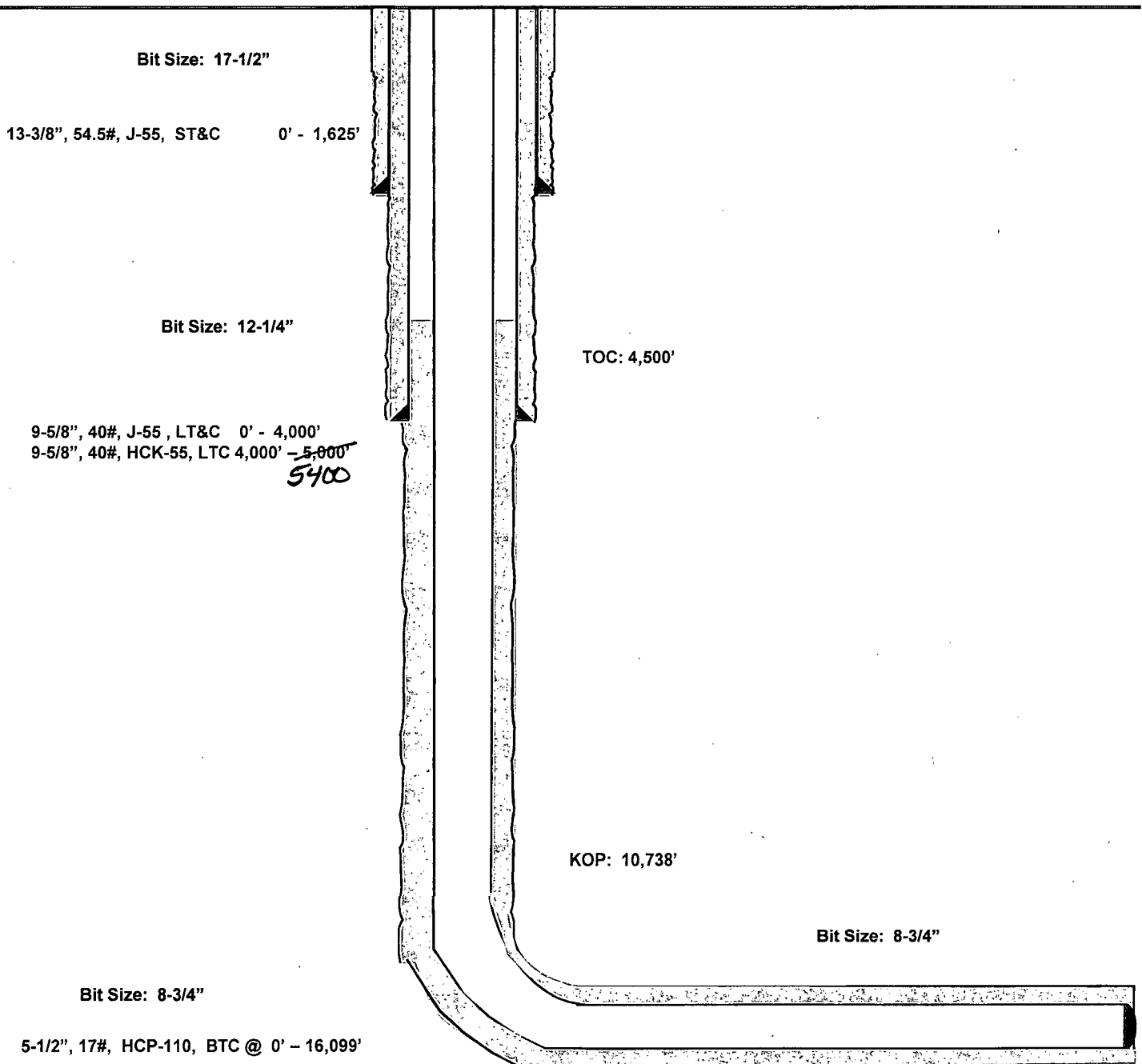
Della 29 Fed Com #601H

Lea County, New Mexico
Proposed Wellbore

250' FSL
1270' FEL
Section 29
T-20-S, R-34-E

API: 30-025-

KB: 3,744'
GL: 3,714'



Lateral: 16,099' MD, 11,260' TVD
Upper Most Perf:
330' FSL & 330' FEL Sec. 29
Lower Most Perf:
330' FNL & 330' FEL Sec. 29
BH Location: 230' FNL & 330' FEL
Section 29
T-20-S, R-34-E



Lea County, NM (NAD 27 NME)

Della 29 Fed #601H

Plan #0.3

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: #601H

Ground Level: 3714.0
KB = 25 @ 3739.0usft
Northing 560053.00 Easting 732943.00 Latitude 32° 32' 14.721 N Longitude 103° 34' 38.852 W

Azimuths to Grid North
True North: -0.41°
Magnetic North: 6.67°

Magnetic Field
Strength: 48216.45nT
Dip Angle: 60.36°
Date: 7/17/2016
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.67°
To convert a Magnetic Direction to a True Direction, Add 7.08° East
To convert a True Direction to a Grid Direction, Subtract 0.41°

SECTION DETAILS

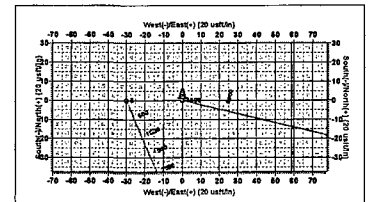
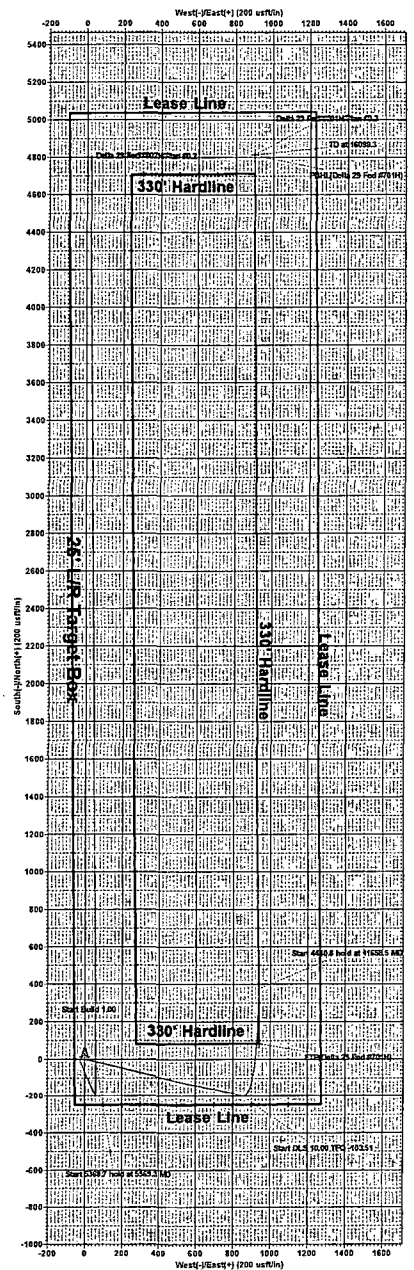
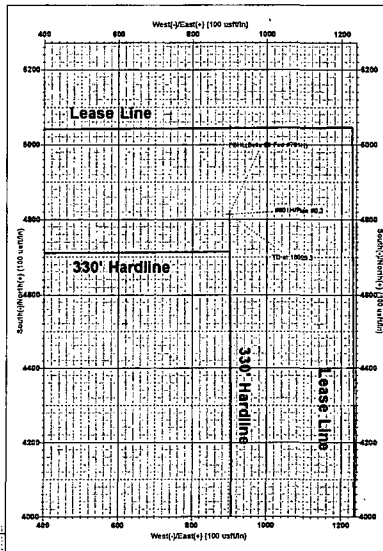
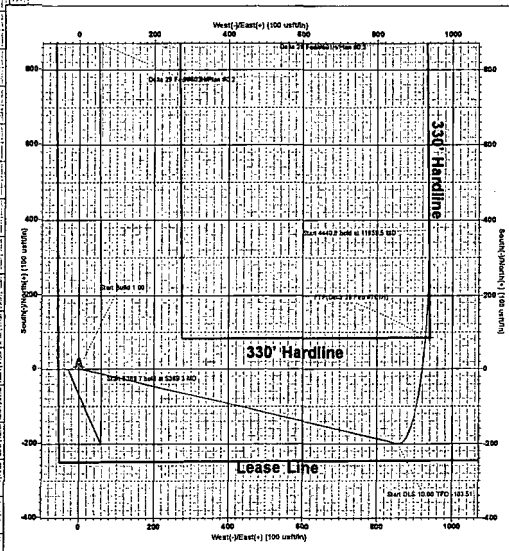
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSeet	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.0		
2	4590.0	0.00	0.00	4500.0	0.0	0.0	0.00	0.00	0.0		
3	5369.3	8.89	103.17	5369.0	-15.0	64.1	1.00	103.17	-3.0		
4	10738.0	8.89	103.17	10671.0	-200.0	954.2	0.00	0.00	-39.7		
6	11659.5	90.00	359.52	11260.0	373.4	936.6	10.00	-103.51	538.9		
6	16099.3	90.00	359.52	11260.0	4814.0	899.0	0.00	0.00	4897.2		PBHL(Della 29 Fed #701H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
PBHL(Della 29 Fed #701H)	11260.0	4814.0	899.0	564867.00	733942.00
FTP(Della 29 Fed #701H)	11260.0	84.0	899.0	560137.00	733892.00



Lea County, NM (NAD 27 NME)
Della 29 Fed #601H
Plan #0.3
7/17/2016



EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Della 29 Fed

#601H

OH

Plan: Plan #0.3

Standard Planning Report

03 November, 2015



EOG Resources, Inc.

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #601H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3739.0usft
Project:	Lea County, NM (NAD 27 NME)	MD Reference:	KB = 25 @ 3739.0usft
Site:	Della 29 Fed	North Reference:	Grid
Well:	#601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.3		

Project	Lea County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Della 29 Fed		
Site Position:		Northing:	560,053.00 usft
From:	Map	Easting:	732,943.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 32' 14.721 N
		Longitude:	103° 34' 38.852 W
		Grid Convergence:	0.41 °

Well	#601H		
Well Position	+N/-S	0.0 usft	Northing: 560,053.00 usft
	+E/-W	0.0 usft	Easting: 732,943.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 32' 14.721 N
		Longitude:	103° 34' 38.852 W
		Ground Level:	3,714.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	7/17/2016	7.08
			Dip Angle
			(°)
			60.36
			Field Strength
			(nT)
			48,216

Design	Plan #0.3		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			10.58

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,369.3	8.69	103.17	5,366.0	-15.0	64.1	1.00	1.00	0.00	103.17	
10,738.0	8.69	103.17	10,673.0	-200.0	854.2	0.00	0.00	0.00	0.00	
11,658.5	90.00	359.52	11,260.0	373.4	936.6	10.00	8.83	-11.26	-103.51	
16,099.3	90.00	359.52	11,260.0	4,814.0	899.0	0.00	0.00	0.00	0.00	PBHL(Della 29 Fed #)



EOG Resources, Inc.
Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #601H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3739.0usft
Project:	Lea County, NM (NAD 27 NME)	MD Reference:	KB = 25 @ 3739.0usft
Site:	Della 29 Fed	North Reference:	Grid
Well:	#601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
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1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
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2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
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2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
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3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	1.00	103.17	4,600.0	-0.2	0.8	0.0	1.00	1.00	0.00
4,700.0	2.00	103.17	4,700.0	-0.8	3.4	-0.2	1.00	1.00	0.00
4,800.0	3.00	103.17	4,799.9	-1.8	7.6	-0.4	1.00	1.00	0.00
4,900.0	4.00	103.17	4,899.7	-3.2	13.6	-0.6	1.00	1.00	0.00
5,000.0	5.00	103.17	4,999.4	-5.0	21.2	-1.0	1.00	1.00	0.00
5,100.0	6.00	103.17	5,098.9	-7.2	30.6	-1.4	1.00	1.00	0.00
5,200.0	7.00	103.17	5,198.3	-9.7	41.6	-1.9	1.00	1.00	0.00
5,300.0	8.00	103.17	5,297.4	-12.7	54.3	-2.5	1.00	1.00	0.00



EOG Resources, Inc.

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #601H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3739.0usft
Project:	Lea County, NM (NAD 27 NME)	MD Reference:	KB = 25 @ 3739.0usft
Site:	Della 29 Fed	North Reference:	Grid
Well:	#601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,369.3	8.69	103.17	5,366.0	-15.0	64.1	-3.0	1.00	1.00	0.00
5,400.0	8.69	103.17	5,396.3	-16.1	68.6	-3.2	0.00	0.00	0.00
5,500.0	8.69	103.17	5,495.2	-19.5	83.3	-3.9	0.00	0.00	0.00
5,600.0	8.69	103.17	5,594.0	-22.9	98.0	-4.6	0.00	0.00	0.00
5,700.0	8.69	103.17	5,692.9	-26.4	112.8	-5.2	0.00	0.00	0.00
5,800.0	8.69	103.17	5,791.7	-29.8	127.5	-5.9	0.00	0.00	0.00
5,900.0	8.69	103.17	5,890.6	-33.3	142.2	-6.6	0.00	0.00	0.00
6,000.0	8.69	103.17	5,989.4	-36.7	156.9	-7.3	0.00	0.00	0.00
6,100.0	8.69	103.17	6,088.3	-40.2	171.6	-8.0	0.00	0.00	0.00
6,200.0	8.69	103.17	6,187.1	-43.6	186.3	-8.7	0.00	0.00	0.00
6,300.0	8.69	103.17	6,286.0	-47.1	201.1	-9.4	0.00	0.00	0.00
6,400.0	8.69	103.17	6,384.8	-50.5	215.8	-10.0	0.00	0.00	0.00
6,500.0	8.69	103.17	6,483.7	-54.0	230.5	-10.7	0.00	0.00	0.00
6,600.0	8.69	103.17	6,582.5	-57.4	245.2	-11.4	0.00	0.00	0.00
6,700.0	8.69	103.17	6,681.4	-60.8	259.9	-12.1	0.00	0.00	0.00
6,800.0	8.69	103.17	6,780.2	-64.3	274.6	-12.8	0.00	0.00	0.00
6,900.0	8.69	103.17	6,879.1	-67.7	289.4	-13.5	0.00	0.00	0.00
7,000.0	8.69	103.17	6,977.9	-71.2	304.1	-14.1	0.00	0.00	0.00
7,100.0	8.69	103.17	7,076.8	-74.6	318.8	-14.8	0.00	0.00	0.00
7,200.0	8.69	103.17	7,175.6	-78.1	333.5	-15.5	0.00	0.00	0.00
7,300.0	8.69	103.17	7,274.5	-81.5	348.2	-16.2	0.00	0.00	0.00
7,400.0	8.69	103.17	7,373.3	-85.0	362.9	-16.9	0.00	0.00	0.00
7,500.0	8.69	103.17	7,472.2	-88.4	377.7	-17.6	0.00	0.00	0.00
7,600.0	8.69	103.17	7,571.0	-91.8	392.4	-18.3	0.00	0.00	0.00
7,700.0	8.69	103.17	7,669.9	-95.3	407.1	-18.9	0.00	0.00	0.00
7,800.0	8.69	103.17	7,768.7	-98.7	421.8	-19.6	0.00	0.00	0.00
7,900.0	8.69	103.17	7,867.6	-102.2	436.5	-20.3	0.00	0.00	0.00
8,000.0	8.69	103.17	7,966.4	-105.6	451.2	-21.0	0.00	0.00	0.00
8,100.0	8.69	103.17	8,065.3	-109.1	466.0	-21.7	0.00	0.00	0.00
8,200.0	8.69	103.17	8,164.1	-112.5	480.7	-22.4	0.00	0.00	0.00
8,300.0	8.69	103.17	8,263.0	-116.0	495.4	-23.1	0.00	0.00	0.00
8,400.0	8.69	103.17	8,361.9	-119.4	510.1	-23.7	0.00	0.00	0.00
8,500.0	8.69	103.17	8,460.7	-122.9	524.8	-24.4	0.00	0.00	0.00
8,600.0	8.69	103.17	8,559.6	-126.3	539.5	-25.1	0.00	0.00	0.00
8,700.0	8.69	103.17	8,658.4	-129.7	554.3	-25.8	0.00	0.00	0.00
8,800.0	8.69	103.17	8,757.3	-133.2	569.0	-26.5	0.00	0.00	0.00
8,900.0	8.69	103.17	8,856.1	-136.6	583.7	-27.2	0.00	0.00	0.00
9,000.0	8.69	103.17	8,955.0	-140.1	598.4	-27.8	0.00	0.00	0.00
9,100.0	8.69	103.17	9,053.8	-143.5	613.1	-28.5	0.00	0.00	0.00
9,200.0	8.69	103.17	9,152.7	-147.0	627.8	-29.2	0.00	0.00	0.00
9,300.0	8.69	103.17	9,251.5	-150.4	642.6	-29.9	0.00	0.00	0.00
9,400.0	8.69	103.17	9,350.4	-153.9	657.3	-30.6	0.00	0.00	0.00
9,500.0	8.69	103.17	9,449.2	-157.3	672.0	-31.3	0.00	0.00	0.00
9,600.0	8.69	103.17	9,548.1	-160.7	686.7	-32.0	0.00	0.00	0.00
9,700.0	8.69	103.17	9,646.9	-164.2	701.4	-32.6	0.00	0.00	0.00
9,800.0	8.69	103.17	9,745.8	-167.6	716.1	-33.3	0.00	0.00	0.00
9,900.0	8.69	103.17	9,844.6	-171.1	730.9	-34.0	0.00	0.00	0.00
10,000.0	8.69	103.17	9,943.5	-174.5	745.6	-34.7	0.00	0.00	0.00
10,100.0	8.69	103.17	10,042.3	-178.0	760.3	-35.4	0.00	0.00	0.00
10,200.0	8.69	103.17	10,141.2	-181.4	775.0	-36.1	0.00	0.00	0.00
10,300.0	8.69	103.17	10,240.0	-184.9	789.7	-36.7	0.00	0.00	0.00
10,400.0	8.69	103.17	10,338.9	-188.3	804.4	-37.4	0.00	0.00	0.00
10,500.0	8.69	103.17	10,437.7	-191.8	819.2	-38.1	0.00	0.00	0.00
10,600.0	8.69	103.17	10,536.6	-195.2	833.9	-38.8	0.00	0.00	0.00



EOG Resources, Inc.
Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #601H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3739.0usft
Project:	Lea County, NM (NAD 27 NME)	MD Reference:	KB = 25 @ 3739.0usft
Site:	Della 29 Fed	North Reference:	Grid
Well:	#601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.3		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,700.0	8.69	103.17	10,635.4	-198.6	848.6	-39.5	0.00	0.00	0.00	
10,738.0	8.69	103.17	10,673.0	-200.0	854.2	-39.7	0.00	0.00	0.00	
10,750.0	8.49	95.28	10,684.9	-200.2	855.9	-39.7	10.00	-1.67	-66.04	
10,800.0	9.41	63.24	10,734.3	-198.7	863.3	-36.9	10.00	1.83	-64.08	
10,850.0	12.43	41.89	10,783.4	-192.9	870.5	-29.8	10.00	6.05	-42.69	
10,900.0	16.44	29.75	10,831.8	-182.7	877.6	-18.5	10.00	8.01	-24.28	
10,950.0	20.87	22.45	10,879.2	-168.4	884.6	-3.1	10.00	8.86	-14.60	
11,000.0	25.50	17.66	10,925.1	-149.9	891.2	16.3	10.00	9.27	-9.58	
11,050.0	30.25	14.28	10,969.3	-127.4	897.6	39.6	10.00	9.49	-6.77	
11,100.0	35.06	11.74	11,011.4	-101.1	903.6	66.5	10.00	9.62	-5.07	
11,150.0	39.91	9.75	11,051.1	-71.2	909.3	96.9	10.00	9.70	-3.98	
11,200.0	44.79	8.12	11,088.0	-38.0	914.5	130.6	10.00	9.76	-3.25	
11,250.0	49.69	6.76	11,122.0	-1.6	919.2	167.2	10.00	9.80	-2.73	
11,300.0	54.60	5.58	11,152.6	37.7	923.4	206.6	10.00	9.82	-2.36	
11,350.0	59.52	4.53	11,179.8	79.5	927.1	248.3	10.00	9.85	-2.09	
11,392.4	63.70	3.73	11,200.0	116.7	929.8	285.4	10.00	9.86	-1.90	
FTP (Della 29 Fed #701H)										
11,400.0	64.45	3.59	11,203.3	123.5	930.2	292.1	10.00	9.87	-1.82	
11,450.0	69.39	2.72	11,222.9	169.4	932.8	337.7	10.00	9.87	-1.74	
11,500.0	74.33	1.90	11,238.5	216.9	934.7	384.7	10.00	9.88	-1.63	
11,550.0	79.27	1.13	11,249.9	265.5	936.0	432.8	10.00	9.89	-1.55	
11,600.0	84.21	0.38	11,257.0	315.0	936.6	481.5	10.00	9.89	-1.50	
11,650.0	89.16	359.64	11,259.9	364.9	936.6	530.6	10.00	9.89	-1.48	
11,658.5	90.00	359.52	11,260.0	373.4	936.6	538.9	10.00	9.89	-1.47	
11,700.0	90.00	359.52	11,260.0	414.9	936.2	579.7	0.00	0.00	0.00	
11,800.0	90.00	359.52	11,260.0	514.9	935.4	677.8	0.00	0.00	0.00	
11,900.0	90.00	359.52	11,260.0	614.9	934.5	776.0	0.00	0.00	0.00	
12,000.0	90.00	359.52	11,260.0	714.8	933.7	874.1	0.00	0.00	0.00	
12,100.0	90.00	359.52	11,260.0	814.8	932.8	972.2	0.00	0.00	0.00	
12,200.0	90.00	359.52	11,260.0	914.8	932.0	1,070.4	0.00	0.00	0.00	
12,300.0	90.00	359.52	11,260.0	1,014.8	931.1	1,168.5	0.00	0.00	0.00	
12,400.0	90.00	359.52	11,260.0	1,114.8	930.3	1,266.7	0.00	0.00	0.00	
12,500.0	90.00	359.52	11,260.0	1,214.8	929.4	1,364.8	0.00	0.00	0.00	
12,600.0	90.00	359.52	11,260.0	1,314.8	928.6	1,462.9	0.00	0.00	0.00	
12,700.0	90.00	359.52	11,260.0	1,414.8	927.7	1,561.1	0.00	0.00	0.00	
12,800.0	90.00	359.52	11,260.0	1,514.8	926.9	1,659.2	0.00	0.00	0.00	
12,900.0	90.00	359.52	11,260.0	1,614.8	926.1	1,757.4	0.00	0.00	0.00	
13,000.0	90.00	359.52	11,260.0	1,714.8	925.2	1,855.5	0.00	0.00	0.00	
13,100.0	90.00	359.52	11,260.0	1,814.8	924.4	1,953.7	0.00	0.00	0.00	
13,200.0	90.00	359.52	11,260.0	1,914.8	923.5	2,051.8	0.00	0.00	0.00	
13,300.0	90.00	359.52	11,260.0	2,014.8	922.7	2,149.9	0.00	0.00	0.00	
13,400.0	90.00	359.52	11,260.0	2,114.8	921.8	2,248.1	0.00	0.00	0.00	
13,500.0	90.00	359.52	11,260.0	2,214.8	921.0	2,346.2	0.00	0.00	0.00	
13,600.0	90.00	359.52	11,260.0	2,314.8	920.1	2,444.4	0.00	0.00	0.00	
13,700.0	90.00	359.52	11,260.0	2,414.8	919.3	2,542.5	0.00	0.00	0.00	
13,800.0	90.00	359.52	11,260.0	2,514.8	918.4	2,640.6	0.00	0.00	0.00	
13,900.0	90.00	359.52	11,260.0	2,614.8	917.6	2,738.8	0.00	0.00	0.00	
14,000.0	90.00	359.52	11,260.0	2,714.8	916.8	2,836.9	0.00	0.00	0.00	
14,100.0	90.00	359.52	11,260.0	2,814.8	915.9	2,935.1	0.00	0.00	0.00	
14,200.0	90.00	359.52	11,260.0	2,914.8	915.1	3,033.2	0.00	0.00	0.00	
14,300.0	90.00	359.52	11,260.0	3,014.8	914.2	3,131.4	0.00	0.00	0.00	
14,400.0	90.00	359.52	11,260.0	3,114.8	913.4	3,229.5	0.00	0.00	0.00	
14,500.0	90.00	359.52	11,260.0	3,214.8	912.5	3,327.6	0.00	0.00	0.00	



EOG Resources, Inc.

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Project:	Lea County, NM (NAD 27 NME)	MD Reference:	KB = 25 @ 3739.0usft
Site:	Della 29 Fed	North Reference:	Grid
Well:	#601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,600.0	90.00	359.52	11,260.0	3,314.8	911.7	3,425.8	0.00	0.00	0.00
14,700.0	90.00	359.52	11,260.0	3,414.8	910.8	3,523.9	0.00	0.00	0.00
14,800.0	90.00	359.52	11,260.0	3,514.7	910.0	3,622.1	0.00	0.00	0.00
14,900.0	90.00	359.52	11,260.0	3,614.7	909.1	3,720.2	0.00	0.00	0.00
15,000.0	90.00	359.52	11,260.0	3,714.7	908.3	3,818.4	0.00	0.00	0.00
15,100.0	90.00	359.52	11,260.0	3,814.7	907.5	3,916.5	0.00	0.00	0.00
15,200.0	90.00	359.52	11,260.0	3,914.7	906.6	4,014.6	0.00	0.00	0.00
15,300.0	90.00	359.52	11,260.0	4,014.7	905.8	4,112.8	0.00	0.00	0.00
15,400.0	90.00	359.52	11,260.0	4,114.7	904.9	4,210.9	0.00	0.00	0.00
15,500.0	90.00	359.52	11,260.0	4,214.7	904.1	4,309.1	0.00	0.00	0.00
15,600.0	90.00	359.52	11,260.0	4,314.7	903.2	4,407.2	0.00	0.00	0.00
15,700.0	90.00	359.52	11,260.0	4,414.7	902.4	4,505.3	0.00	0.00	0.00
15,800.0	90.00	359.52	11,260.0	4,514.7	901.5	4,603.5	0.00	0.00	0.00
15,900.0	90.00	359.52	11,260.0	4,614.7	900.7	4,701.6	0.00	0.00	0.00
16,000.0	90.00	359.52	11,260.0	4,714.7	899.8	4,799.8	0.00	0.00	0.00
16,099.3	90.00	359.52	11,260.0	4,814.0	899.0	4,897.2	0.00	0.00	0.00
PBHL(Della 29 Fed #701H)									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL(Della 29 Fed #701H)	0.00	0.01	11,260.0	4,814.0	899.0	564,867.00	733,842.00	32° 33' 2.292 N	103° 34' 27.950 W
- plan hits target center									
- Point									
FTP(Della 29 Fed #701H)	0.00	0.00	11,260.0	84.0	939.0	560,137.00	733,862.00	32° 32' 15.486 N	103° 34' 27.876 W
- plan misses target center by 69.0usft at 11392.4usft MD (11200.0 TVD, 116.7 N, 929.8 E)									
- Point									

Exhibit 1

EOG Resources

10M 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

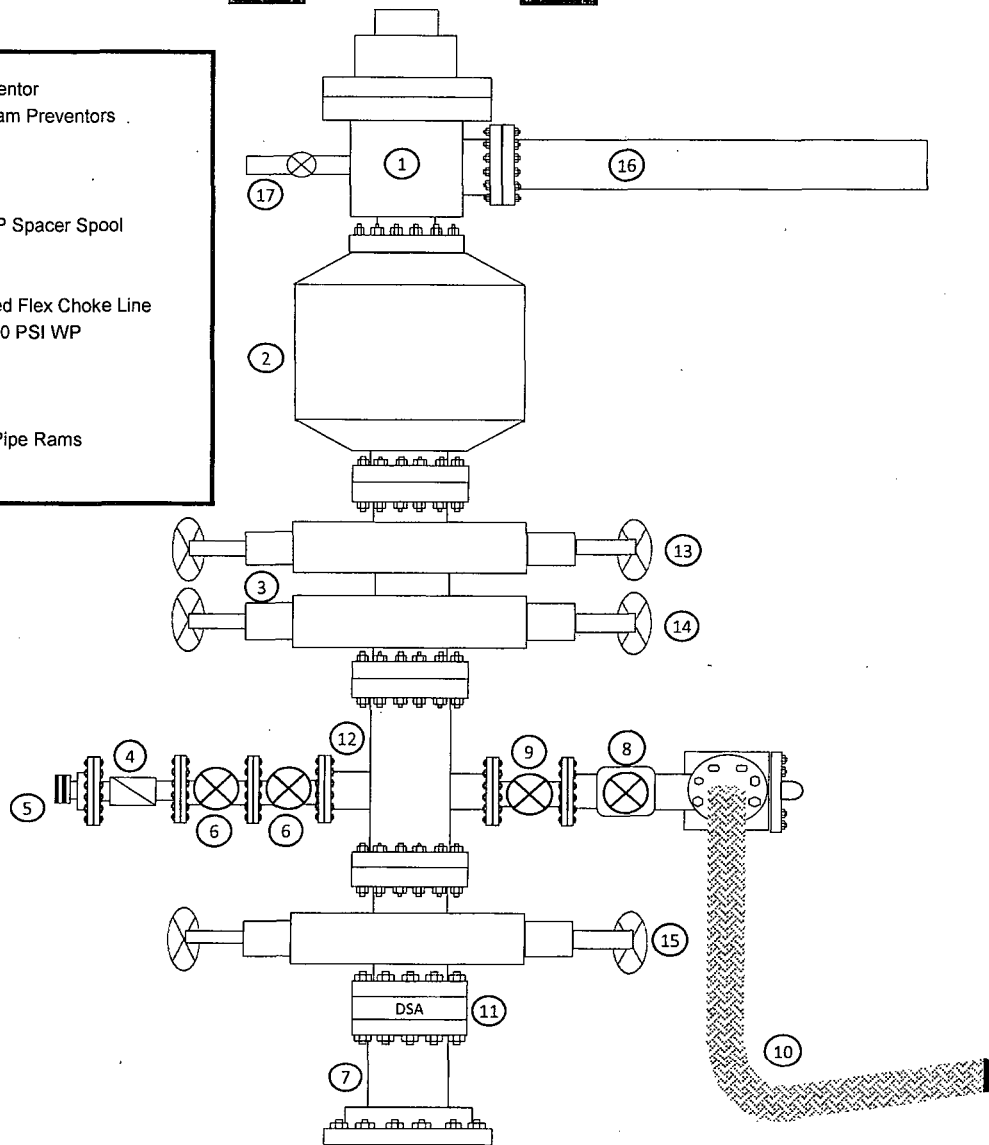
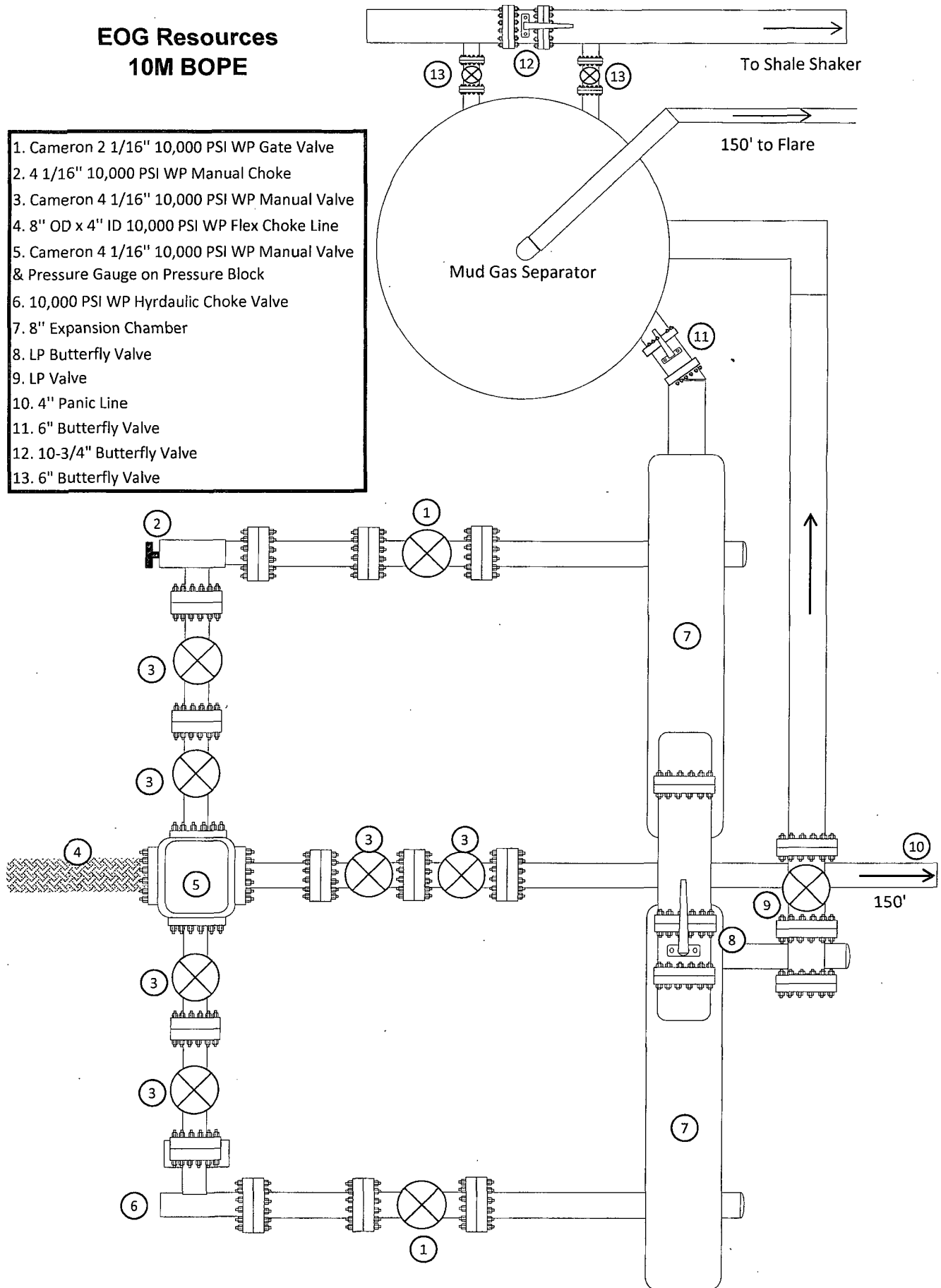


Exhibit 1a

EOG Resources 10M 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 Hydraulic 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		
<u>Hose assembly pressure tested with water at ambient temperature.</u>		
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'

I.D.

4"

O.D.

8"

Working Pressure

10000 PSI

Burst Pressure

Standard Safety Multiplier Applies

Verification

Type of Fitting

4 1/16 10K

Die Size

6.62"

Coupling Method

Swage

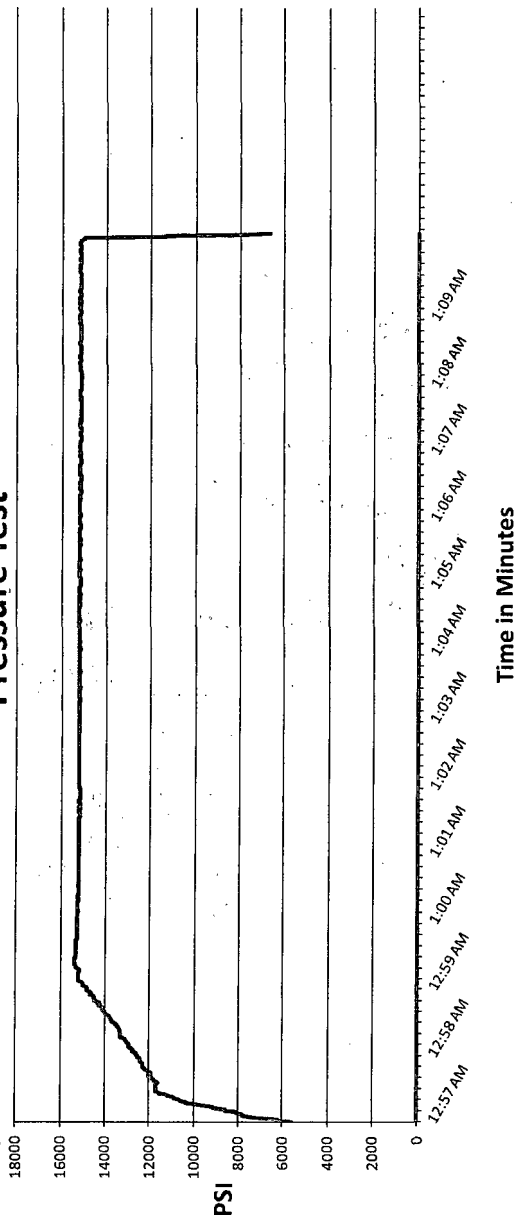
Final O.D.

6.68"

Hose Assembly Serial #

90067

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

Exhibit 4

EOG Resources

Della 29 Fed Com #601H

Well Site Diagram

