

15-123

OCD Hobbs

HOBBES OCT

OCT 16 2015

Form 3160-3
(March 2012)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 20145. Lease Serial No.
NMNM26079

SHL - NM 15091

6. If Indian, Allottee or Tribe Name

(H)

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

8. Lease Name and Well No.
Streetcar 15 Fed 2H

(315310)

9. API Well No.

30-025- 42877

10. Field and Pool, or Exploratory
Red Hills; Upper Bone Spring Shale

(97900)

11. Sec., T. R. M. or Blk. and Survey or Area
Section 15, T25S, R33E12. County or Parish
Lea13. State
NM1a. Type of work: ☒ DRILL ☐ REENTER1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator EOG Resources, Inc

(7377)

3a. Address P.O. Box 2267 Midland, TX 79702

3b. Phone No. (include area code)
432-686-3689

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface 250' FSL & 560' FWL, SWSW (M), Sec 15, 25S, 33E

At proposed prod. zone 230' FNL & 885' FWL, NWNW (D), Sec 15

UNORTHODOX
LOCATION14. Distance in miles and direction from nearest town or post office*
Approximately +/- 30 miles Southwest from Jal, NM15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)

250' SL, 330' PP

16. No. of acres in lease
64017. Spacing Unit dedicated to this well
160 ac.18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.

504' frm 3H

19. Proposed Depth
14208' MD, 9400' TVD20. BLM/BIA Bond No. on file
NM 230821. Elevations (Show whether DF, KDB, RT, GL, etc.)
3370' GL22. Approximate date work will start*
07/01/201523. 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

Stan Wagner

Name (Printed/Typed)
Stan Wagner

Date

1/23/15

Title

Regulatory Specialist

Approved by (Signature)

/S/ STEPHEN J. CAFFEY

Name (Printed/Typed)

Date

OCT 07 2015

Title

FOR 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)

Carlsbad Controlled Water Basin

KZ
10/16/15SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

OCT 19 2015

**EOG RESOURCES, INC.
STRECAR 15 FED NO. 2H**

HOBBS OGD
OCT 16 2015

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

RECEIVED

Rustler	1,117'
Top of Salt	1,470'
Base of Salt / Top Anhydrite	4,815'
Base Anhydrite	5,025'
Lamar	5,025'
Bell Canyon	5,050'
Cherry Canyon	6,130'
Brushy Canyon	7,600'
Bone Spring Lime	9,220'
TD	9,400'

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

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	6,130'	Oil
Brushy Canyon	7,600'	Oil
Bone Spring Lime	9,220'	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 1,145' and circulating cement back to surface.

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 - 1,145'	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'-14,208'	5.500"	17#	P110 or HCP110	LTC	1.125	1.25	1.60

**EOG RESOURCES, INC.
STREECAR 15 FED NO. 2H**

Cementing Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft ³ /ft	Mix Water Gal/sk	Slurry Description
13-3/8" 1,145'	600	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" 5,000'	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" 14,208'	375	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 @ 4500')
	400	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
	1425	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:

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 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.

see COA 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.
STREECAR 15 FED 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 – 1,145'	Fresh Water Gel	8.6-8.8	28-34	N/c
1,145' – 5,000'	Saturated Brine	10.0-10.2	28-34	N/c
5,000' – 8,915'	Fresh Water	8.4-8.6	28-34	N/c
8,915' – 14,208'	Cut Brine Water	9.0-9.5	28-34	N/c
Lateral				

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.
STREECAR 15 FED NO. 2H

8. LOGGING, TESTING AND CORING PROGRAM:

see
COA

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:**

see
COA

The estimated bottom-hole temperature (BHT) at TD is 154 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 4070 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:

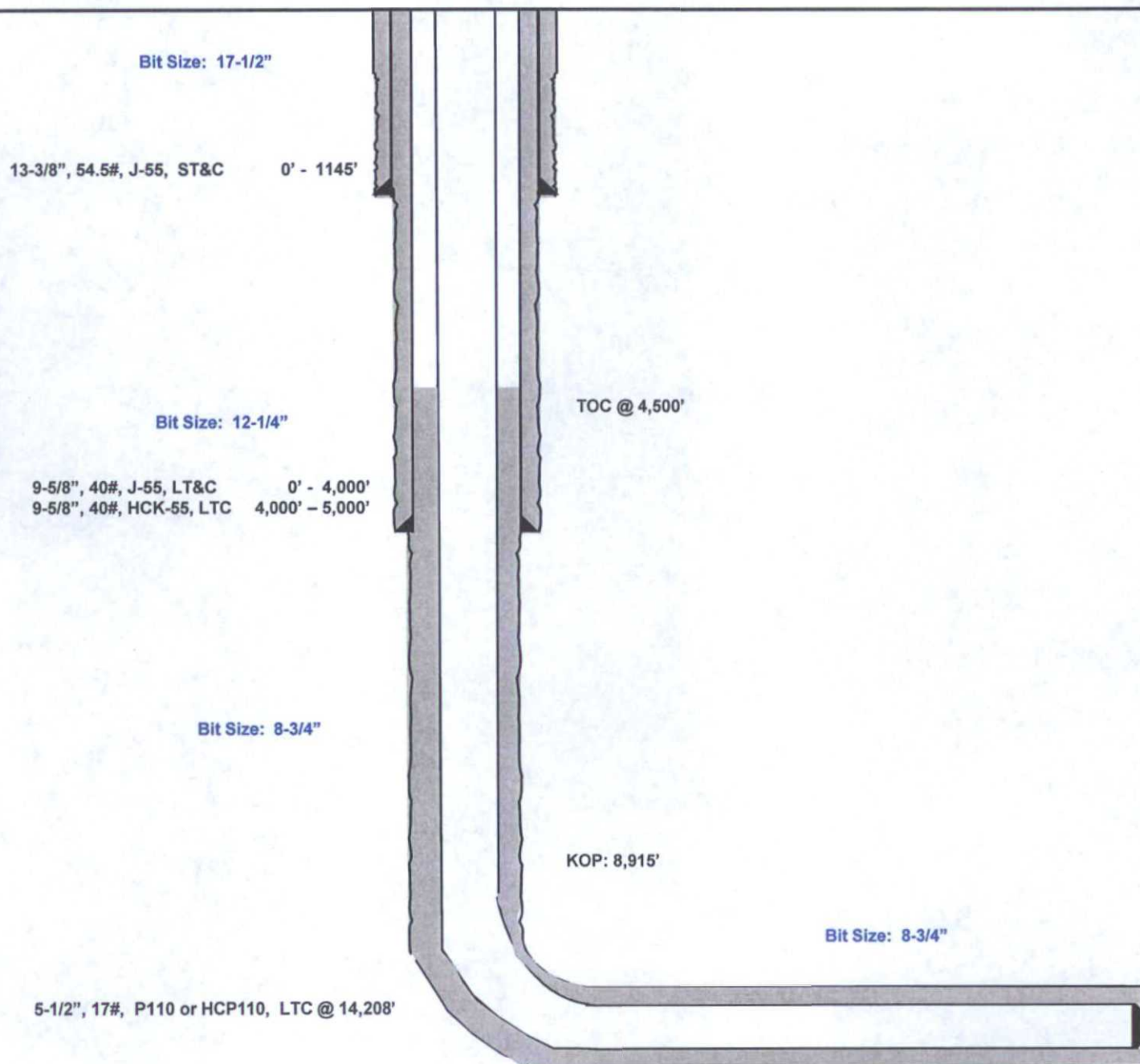
The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

Streetcar 15 Fed #2H
Lea County, New Mexico
Proposed Wellbore

250' FSL
560' FWL
Section 15
T-25-S, R-33-E

API: 30-025-*****

KB: 3,400'
GL: 3,370'



Lateral:
14,208' MD, 9,400' TVD
Upper Most Perf:
330' FSL & 885' FWL
Lower Most Perf:
330' FNL & 885' FWL
BH Location: 230' FNL & 885' FWL
Section 15
T-25-S, R-33-E



Lea County, NM (NAD 27 NME)

Streetcar 15 Fed #2H

Cactus 123

Plan #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: #2H

Ground Level: 3370.0
KB = 30 @ 3400.0usft (Cactus 123)
Northing: 409629.00 Easting: 737396.00 32° 7' 25.911 N 103° 33' 59.414 W

SECTION DETAILS

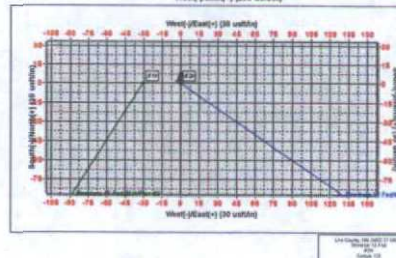
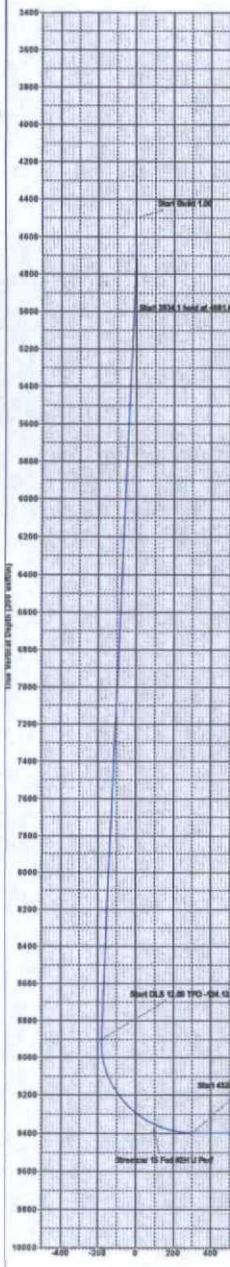
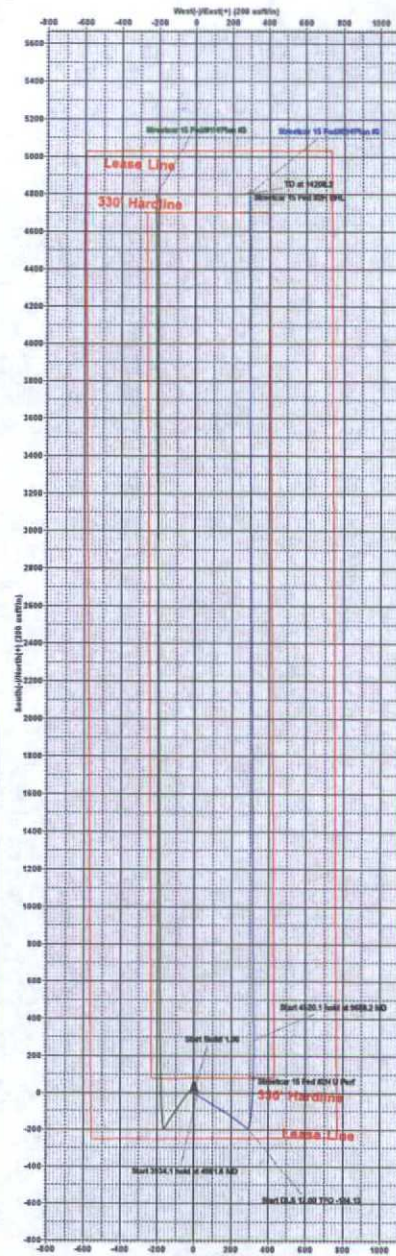
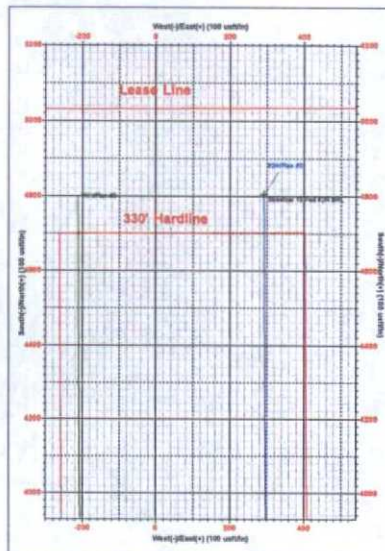
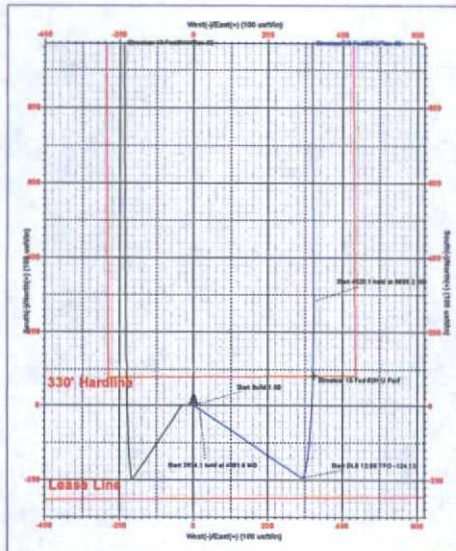
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	4590.0	0.00	0.00	4590.0	0.0	0.0	0.00	0.00	0.0		
3	4981.6	4.82	123.83	4981.0	-11.3	16.8	1.00	123.83	-10.3		
4	8916.7	4.82	123.83	8901.2	-195.2	291.1	0.00	0.00	-177.1		
5	9698.3	90.00	359.81	9400.0	292.0	323.8	12.00	-124.13	301.1		
6	14208.3	90.00	359.81	9400.0	4802.0	292.0	0.00	0.00	4810.9		Streetcar 15 Fed #2H BHL

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
Streetcar 15 Fed #2H BHL	9400.0	4802.0	292.0	414431.00	737689.00
Streetcar 15 Fed #2H U Perf	9400.0	82.0	324.6	409711.00	737720.00





EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Streetcar 15 Fed

#2H

OH

Plan: Plan #3

Standard Survey Report

09 January, 2015



EOG Resources, Inc.

Survey Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #2H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1 Single User Db

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	Streetcar 15 Fed		
Site Position:		Northing:	414,879.00 usft
From:	Map	Easting:	737,408.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 8' 17.863 N
		Longitude:	103° 33' 58.840 W
		Grid Convergence:	0.41 °

Well	#2H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 7' 25.911 N
		Longitude:	103° 33' 59.414 W
		Ground Level:	3,370.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF201014	5/15/2014	7.22
			Dip Angle
			(°)
			60.02
			Field Strength
			(nT)
			48,265

Design	Plan #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
			(°)
			3.48

Survey Tool Program	Date 1/8/2015		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
0.0	14,208.3	Plan #3 (OH)	MWD
			Description
			MWD - Standard

Planned Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/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	



EOG Resources, Inc.

Survey Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #2H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1 Single User Db

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)
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	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	123.83	4,600.0	-0.5	0.7	-0.4	1.00	1.00	0.00
4,700.0	2.00	123.83	4,700.0	-1.9	2.9	-1.8	1.00	1.00	0.00
4,800.0	3.00	123.83	4,799.9	-4.4	6.5	-4.0	1.00	1.00	0.00
4,900.0	4.00	123.83	4,899.7	-7.8	11.6	-7.1	1.00	1.00	0.00
4,981.6	4.82	123.83	4,981.0	-11.3	16.8	-10.2	1.00	1.00	0.00
5,000.0	4.82	123.83	4,999.4	-12.1	18.1	-11.0	0.00	0.00	0.00
5,100.0	4.82	123.83	5,099.0	-16.8	25.1	-15.2	0.00	0.00	0.00
5,200.0	4.82	123.83	5,198.7	-21.5	32.0	-19.5	0.00	0.00	0.00



EOG Resources, Inc.

Survey Report

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Streetcar 15 Fed
Well: #2H
Wellbore: OH
Design: Plan #3

Local Co-ordinate Reference: Well #2H
TVD Reference: KB = 30 @ 3400.0usft (Cactus 123)
MD Reference: KB = 30 @ 3400.0usft (Cactus 123)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	4.82	123.83	5,298.3	-26.1	39.0	-23.7	0.00	0.00	0.00
5,400.0	4.82	123.83	5,398.0	-30.8	46.0	-28.0	0.00	0.00	0.00
5,500.0	4.82	123.83	5,497.6	-35.5	53.0	-32.2	0.00	0.00	0.00
5,600.0	4.82	123.83	5,597.3	-40.2	59.9	-36.5	0.00	0.00	0.00
5,700.0	4.82	123.83	5,696.9	-44.8	66.9	-40.7	0.00	0.00	0.00
5,800.0	4.82	123.83	5,796.5	-49.5	73.9	-44.9	0.00	0.00	0.00
5,900.0	4.82	123.83	5,896.2	-54.2	80.8	-49.2	0.00	0.00	0.00
6,000.0	4.82	123.83	5,995.8	-58.9	87.8	-53.4	0.00	0.00	0.00
6,100.0	4.82	123.83	6,095.5	-63.5	94.8	-57.7	0.00	0.00	0.00
6,200.0	4.82	123.83	6,195.1	-68.2	101.8	-61.9	0.00	0.00	0.00
6,300.0	4.82	123.83	6,294.8	-72.9	108.7	-66.2	0.00	0.00	0.00
6,400.0	4.82	123.83	6,394.4	-77.6	115.7	-70.4	0.00	0.00	0.00
6,500.0	4.82	123.83	6,494.1	-82.2	122.7	-74.6	0.00	0.00	0.00
6,600.0	4.82	123.83	6,593.7	-86.9	129.7	-78.9	0.00	0.00	0.00
6,700.0	4.82	123.83	6,693.4	-91.6	136.6	-83.1	0.00	0.00	0.00
6,800.0	4.82	123.83	6,793.0	-96.3	143.6	-87.4	0.00	0.00	0.00
6,900.0	4.82	123.83	6,892.7	-100.9	150.6	-91.6	0.00	0.00	0.00
7,000.0	4.82	123.83	6,992.3	-105.6	157.5	-95.9	0.00	0.00	0.00
7,100.0	4.82	123.83	7,092.0	-110.3	164.5	-100.1	0.00	0.00	0.00
7,200.0	4.82	123.83	7,191.6	-115.0	171.5	-104.3	0.00	0.00	0.00
7,300.0	4.82	123.83	7,291.2	-119.6	178.5	-108.6	0.00	0.00	0.00
7,400.0	4.82	123.83	7,390.9	-124.3	185.4	-112.8	0.00	0.00	0.00
7,500.0	4.82	123.83	7,490.5	-129.0	192.4	-117.1	0.00	0.00	0.00
7,600.0	4.82	123.83	7,590.2	-133.7	199.4	-121.3	0.00	0.00	0.00
7,700.0	4.82	123.83	7,689.8	-138.3	206.4	-125.5	0.00	0.00	0.00
7,800.0	4.82	123.83	7,789.5	-143.0	213.3	-129.8	0.00	0.00	0.00
7,900.0	4.82	123.83	7,889.1	-147.7	220.3	-134.0	0.00	0.00	0.00
8,000.0	4.82	123.83	7,988.8	-152.4	227.3	-138.3	0.00	0.00	0.00
8,100.0	4.82	123.83	8,088.4	-157.0	234.3	-142.5	0.00	0.00	0.00
8,200.0	4.82	123.83	8,188.1	-161.7	241.2	-146.8	0.00	0.00	0.00
8,300.0	4.82	123.83	8,287.7	-166.4	248.2	-151.0	0.00	0.00	0.00
8,400.0	4.82	123.83	8,387.4	-171.0	255.2	-155.2	0.00	0.00	0.00
8,500.0	4.82	123.83	8,487.0	-175.7	262.1	-159.5	0.00	0.00	0.00
8,600.0	4.82	123.83	8,586.7	-180.4	269.1	-163.7	0.00	0.00	0.00
8,700.0	4.82	123.83	8,686.3	-185.1	276.1	-168.0	0.00	0.00	0.00
8,800.0	4.82	123.83	8,786.0	-189.7	283.1	-172.2	0.00	0.00	0.00
8,900.0	4.82	123.83	8,885.6	-194.4	290.0	-176.5	0.00	0.00	0.00
8,915.7	4.82	123.83	8,901.2	-195.2	291.1	-177.1	0.00	0.00	0.00
8,925.0	4.29	111.32	8,910.5	-195.5	291.8	-177.4	12.00	-5.65	-133.91
8,950.0	4.23	70.04	8,935.5	-195.5	293.5	-177.3	12.00	-0.24	-165.12
8,975.0	5.94	41.60	8,960.4	-194.2	295.2	-176.0	12.00	6.87	-113.77
9,000.0	8.41	27.71	8,985.2	-191.7	297.0	-173.3	12.00	9.87	-55.55
9,025.0	11.14	20.32	9,009.8	-187.8	298.6	-169.3	12.00	10.92	-29.56



EOG Resources, Inc.

Survey Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #2H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1 Single User Db

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)	
9,050.0	13.98	15.85	9,034.2	-182.6	300.3	-164.0	12.00	11.36	-17.86	
9,075.0	16.88	12.88	9,058.3	-176.1	301.9	-157.5	12.00	11.58	-11.88	
9,100.0	19.80	10.77	9,082.0	-168.4	303.5	-149.7	12.00	11.70	-8.47	
9,125.0	22.75	9.17	9,105.3	-159.5	305.1	-140.7	12.00	11.78	-6.36	
9,150.0	25.71	7.93	9,128.1	-149.4	306.6	-130.5	12.00	11.83	-4.97	
9,175.0	28.67	6.93	9,150.3	-138.0	308.1	-119.1	12.00	11.86	-4.01	
9,200.0	31.64	6.10	9,172.0	-125.6	309.5	-106.6	12.00	11.88	-3.31	
9,225.0	34.62	5.40	9,192.9	-112.0	310.9	-92.9	12.00	11.90	-2.80	
9,250.0	37.60	4.80	9,213.1	-97.3	312.2	-78.2	12.00	11.92	-2.40	
9,275.0	40.58	4.28	9,232.5	-81.6	313.4	-62.4	12.00	11.93	-2.10	
9,300.0	43.56	3.81	9,251.0	-64.9	314.6	-45.7	12.00	11.94	-1.86	
9,325.0	46.55	3.40	9,268.7	-47.2	315.7	-28.0	12.00	11.94	-1.67	
9,350.0	49.53	3.02	9,285.4	-28.7	316.8	-9.4	12.00	11.95	-1.51	
9,375.0	52.52	2.67	9,301.1	-9.3	317.7	10.0	12.00	11.95	-1.38	
9,400.0	55.51	2.35	9,315.8	10.9	318.6	30.3	12.00	11.96	-1.27	
9,425.0	58.50	2.06	9,329.4	31.9	319.4	51.2	12.00	11.96	-1.19	
9,450.0	61.49	1.78	9,341.9	53.5	320.1	72.9	12.00	11.96	-1.11	
9,475.0	64.48	1.52	9,353.3	75.8	320.8	95.1	12.00	11.96	-1.05	
9,500.0	67.47	1.27	9,363.5	98.6	321.3	117.9	12.00	11.97	-1.00	
9,525.0	70.46	1.03	9,372.4	121.9	321.8	141.3	12.00	11.97	-0.96	
9,550.0	73.46	0.80	9,380.2	145.7	322.2	165.0	12.00	11.97	-0.92	
9,575.0	76.45	0.57	9,386.7	169.9	322.5	189.1	12.00	11.97	-0.89	
9,600.0	79.44	0.36	9,391.9	194.3	322.7	213.5	12.00	11.97	-0.87	
9,625.0	82.43	0.14	9,395.8	219.0	322.8	238.2	12.00	11.97	-0.86	
9,650.0	85.43	359.93	9,398.5	243.8	322.8	263.0	12.00	11.97	-0.84	
9,675.0	88.42	359.72	9,399.8	268.8	322.7	287.9	12.00	11.97	-0.84	
9,688.2	90.00	359.61	9,400.0	282.0	322.6	301.1	12.00	11.97	-0.83	
9,700.0	90.00	359.61	9,400.0	293.8	322.6	312.8	0.00	0.00	0.00	
9,800.0	90.00	359.61	9,400.0	393.8	321.9	412.6	0.00	0.00	0.00	
9,900.0	90.00	359.61	9,400.0	493.8	321.2	512.4	0.00	0.00	0.00	
10,000.0	90.00	359.61	9,400.0	593.8	320.5	612.2	0.00	0.00	0.00	
10,100.0	90.00	359.61	9,400.0	693.8	319.9	711.9	0.00	0.00	0.00	
10,200.0	90.00	359.61	9,400.0	793.8	319.2	811.7	0.00	0.00	0.00	
10,300.0	90.00	359.61	9,400.0	893.8	318.5	911.5	0.00	0.00	0.00	
10,400.0	90.00	359.61	9,400.0	993.8	317.8	1,011.2	0.00	0.00	0.00	
10,500.0	90.00	359.61	9,400.0	1,093.8	317.1	1,111.0	0.00	0.00	0.00	
10,600.0	90.00	359.61	9,400.0	1,193.8	316.5	1,210.8	0.00	0.00	0.00	
10,700.0	90.00	359.61	9,400.0	1,293.8	315.8	1,310.6	0.00	0.00	0.00	
10,800.0	90.00	359.61	9,400.0	1,393.8	315.1	1,410.3	0.00	0.00	0.00	
10,900.0	90.00	359.61	9,400.0	1,493.8	314.4	1,510.1	0.00	0.00	0.00	
11,000.0	90.00	359.61	9,400.0	1,593.8	313.8	1,609.9	0.00	0.00	0.00	
11,100.0	90.00	359.61	9,400.0	1,693.8	313.1	1,709.6	0.00	0.00	0.00	
11,200.0	90.00	359.61	9,400.0	1,793.8	312.4	1,809.4	0.00	0.00	0.00	



EOG Resources, Inc.

Survey Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #2H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1 Single User Db

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)
11,300.0	90.00	359.61	9,400.0	1,893.8	311.7	1,909.2	0.00	0.00	0.00
11,400.0	90.00	359.61	9,400.0	1,993.8	311.0	2,009.0	0.00	0.00	0.00
11,500.0	90.00	359.61	9,400.0	2,093.8	310.4	2,108.7	0.00	0.00	0.00
11,600.0	90.00	359.61	9,400.0	2,193.8	309.7	2,208.5	0.00	0.00	0.00
11,700.0	90.00	359.61	9,400.0	2,293.8	309.0	2,308.3	0.00	0.00	0.00
11,800.0	90.00	359.61	9,400.0	2,393.7	308.3	2,408.0	0.00	0.00	0.00
11,900.0	90.00	359.61	9,400.0	2,493.7	307.6	2,507.8	0.00	0.00	0.00
12,000.0	90.00	359.61	9,400.0	2,593.7	307.0	2,607.6	0.00	0.00	0.00
12,100.0	90.00	359.61	9,400.0	2,693.7	306.3	2,707.4	0.00	0.00	0.00
12,200.0	90.00	359.61	9,400.0	2,793.7	305.6	2,807.1	0.00	0.00	0.00
12,300.0	90.00	359.61	9,400.0	2,893.7	304.9	2,906.9	0.00	0.00	0.00
12,400.0	90.00	359.61	9,400.0	2,993.7	304.3	3,006.7	0.00	0.00	0.00
12,500.0	90.00	359.61	9,400.0	3,093.7	303.6	3,106.5	0.00	0.00	0.00
12,600.0	90.00	359.61	9,400.0	3,193.7	302.9	3,206.2	0.00	0.00	0.00
12,700.0	90.00	359.61	9,400.0	3,293.7	302.2	3,306.0	0.00	0.00	0.00
12,800.0	90.00	359.61	9,400.0	3,393.7	301.5	3,405.8	0.00	0.00	0.00
12,900.0	90.00	359.61	9,400.0	3,493.7	300.9	3,505.5	0.00	0.00	0.00
13,000.0	90.00	359.61	9,400.0	3,593.7	300.2	3,605.3	0.00	0.00	0.00
13,100.0	90.00	359.61	9,400.0	3,693.7	299.5	3,705.1	0.00	0.00	0.00
13,200.0	90.00	359.61	9,400.0	3,793.7	298.8	3,804.9	0.00	0.00	0.00
13,300.0	90.00	359.61	9,400.0	3,893.7	298.2	3,904.6	0.00	0.00	0.00
13,400.0	90.00	359.61	9,400.0	3,993.7	297.5	4,004.4	0.00	0.00	0.00
13,500.0	90.00	359.61	9,400.0	4,093.7	296.8	4,104.2	0.00	0.00	0.00
13,600.0	90.00	359.61	9,400.0	4,193.7	296.1	4,203.9	0.00	0.00	0.00
13,700.0	90.00	359.61	9,400.0	4,293.7	295.4	4,303.7	0.00	0.00	0.00
13,800.0	90.00	359.61	9,400.0	4,393.7	294.8	4,403.5	0.00	0.00	0.00
13,900.0	90.00	359.61	9,400.0	4,493.7	294.1	4,503.3	0.00	0.00	0.00
14,000.0	90.00	359.61	9,400.0	4,593.7	293.4	4,603.0	0.00	0.00	0.00
14,100.0	90.00	359.61	9,400.0	4,693.7	292.7	4,702.8	0.00	0.00	0.00
14,208.3	90.00	359.61	9,400.0	4,802.0	292.0	4,810.9	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Streetcar 15 Fed #2H BI - plan hits target center - Point	0.00	0.00	9,400.0	4,802.0	292.0	414,431.00	737,688.00	32° 8' 13.410 N	103° 33' 55.621 W
Streetcar 15 Fed #2H U - plan misses target center by 40.2usft at 9499.8usft MD (9363.4 TVD, 98.4 N, 321.3 E) - Point	0.00	0.00	9,400.0	82.0	324.0	409,711.00	737,720.00	32° 7' 26.700 N	103° 33' 55.640 W

Checked By: _____ Approved By: _____ Date: _____

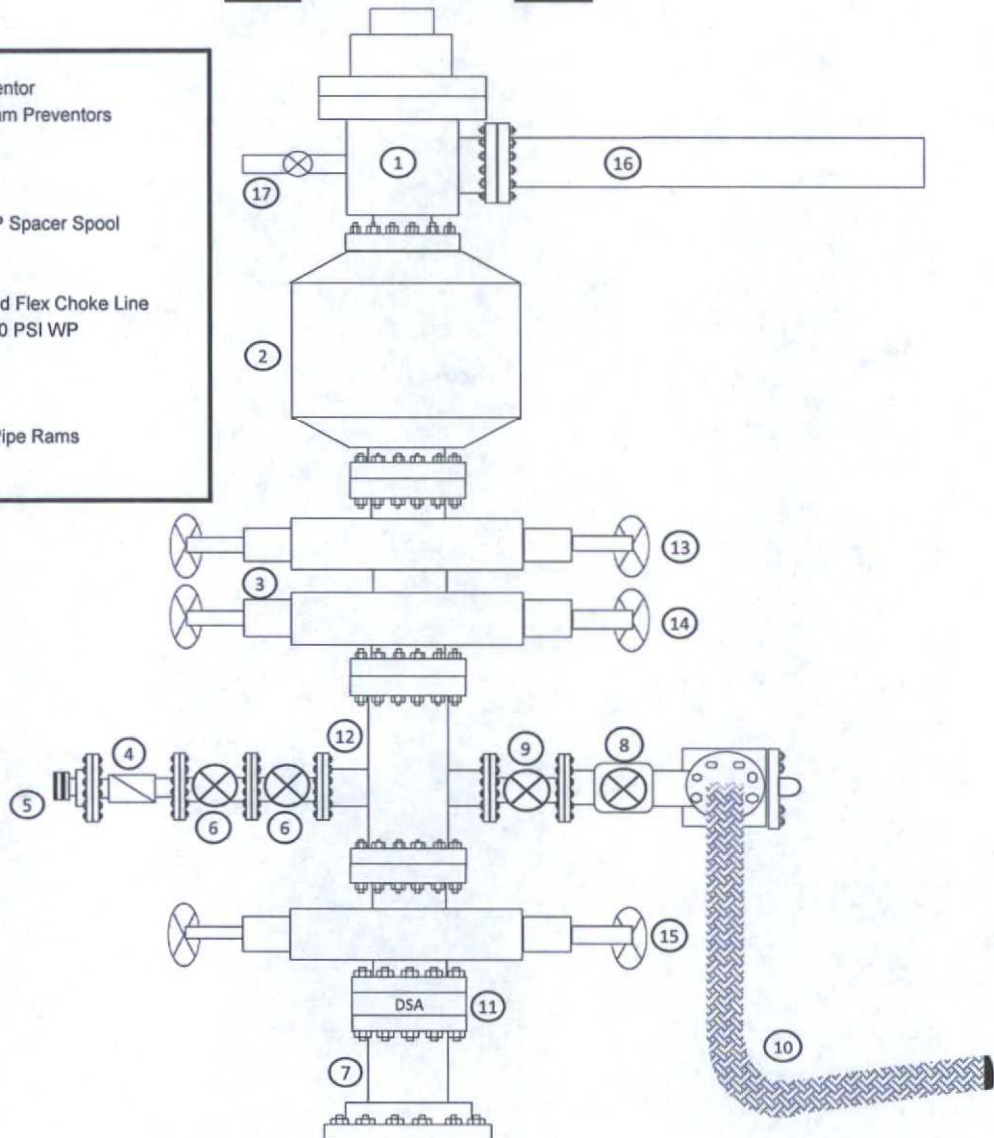
Exhibit 1

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





EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Streetcar 15 Fed

#2H

OH

Plan #3

Anticollision Report

30 September, 2015

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #2H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Reference Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	#2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #3	Offset TVD Reference:	Reference Datum

Reference	Plan #3		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	9/30/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	14,202.9	Plan #3 (OH)	MWD	MWD - Standard	

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Road Runner Federal 25-33-9						
#1H - OH - Plan #1						Out of range
#2H - OH - Plan #1						Out of range
Streetcar 15 Fed						
#1H - OH - Plan #3	4,500.0	4,500.0	30.0	10.1	1.505	CC, ES, SF
#3H - OH - Plan #3	14,173.4	14,173.3	413.0	173.7	1.726	CC
#3H - OH - Plan #3	14,202.9	14,202.0	413.0	172.3	1.716	ES, SF
#4H - OH - Plan #3						Out of range
#5H - OH - Plan #3						Out of range
#6H - OH - Plan #2						Out of range
VacaDraw 15 Federal						
#1 - OH - OH	13,773.4	9,382.0	133.2	-169.9	0.440	Level 1, CC, ES, SF

Offset Design													Streetcar 15 Fed - #1H - OH - Plan #3		Offset Site Error:		0.0 usft
Survey Program: 0-MWD															Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
							+N/-S (usft)	+E/-W (usft)									
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-30.0	30.0								
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-30.0	30.0	29.8	0.16	190.674					
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-30.0	30.0	29.4	0.61	49.434					
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-30.0	30.0	28.9	1.06	28.398					
400.0	400.0	400.0	400.0	0.8	0.8	-90.00	0.0	-30.0	30.0	28.5	1.51	19.921					
500.0	500.0	500.0	500.0	1.0	1.0	-90.00	0.0	-30.0	30.0	28.0	1.96	15.342					
600.0	600.0	600.0	600.0	1.2	1.2	-90.00	0.0	-30.0	30.0	27.6	2.40	12.474					
700.0	700.0	700.0	700.0	1.4	1.4	-90.00	0.0	-30.0	30.0	27.1	2.85	10.510					
800.0	800.0	800.0	800.0	1.7	1.7	-90.00	0.0	-30.0	30.0	26.7	3.30	9.080					
900.0	900.0	900.0	900.0	1.9	1.9	-90.00	0.0	-30.0	30.0	26.2	3.75	7.992					
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.00	0.0	-30.0	30.0	25.8	4.20	7.138					
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-90.00	0.0	-30.0	30.0	25.3	4.65	6.448					
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.00	0.0	-30.0	30.0	24.9	5.10	5.880					
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.00	0.0	-30.0	30.0	24.4	5.55	5.404					
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-90.00	0.0	-30.0	30.0	24.0	6.00	4.999					
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	-90.00	0.0	-30.0	30.0	23.5	6.45	4.651					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #2H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Reference Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	#2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #3	Offset TVD Reference:	Reference Datum

Offset Design Streetcar 15 Fed - #1H - OH - Plan #3													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance		Minimum		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-90.00	0.0	-30.0	30.0	23.1	6.90	4.348		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-90.00	0.0	-30.0	30.0	22.7	7.35	4.082		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-90.00	0.0	-30.0	30.0	22.2	7.80	3.846		
1,900.0	1,900.0	1,900.0	1,900.0	4.1	4.1	-90.00	0.0	-30.0	30.0	21.8	8.25	3.637		
2,000.0	2,000.0	2,000.0	2,000.0	4.3	4.3	-90.00	0.0	-30.0	30.0	21.3	8.70	3.449		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-90.00	0.0	-30.0	30.0	20.9	9.15	3.279		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-90.00	0.0	-30.0	30.0	20.4	9.60	3.126		
2,300.0	2,300.0	2,300.0	2,300.0	5.0	5.0	-90.00	0.0	-30.0	30.0	20.0	10.05	2.986		
2,400.0	2,400.0	2,400.0	2,400.0	5.2	5.2	-90.00	0.0	-30.0	30.0	19.5	10.50	2.858		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-90.00	0.0	-30.0	30.0	19.1	10.95	2.741		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-90.00	0.0	-30.0	30.0	18.6	11.40	2.633		
2,700.0	2,700.0	2,700.0	2,700.0	5.9	5.9	-90.00	0.0	-30.0	30.0	18.2	11.85	2.533		
2,800.0	2,800.0	2,800.0	2,800.0	6.1	6.1	-90.00	0.0	-30.0	30.0	17.7	12.29	2.440		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-90.00	0.0	-30.0	30.0	17.3	12.74	2.354		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-90.00	0.0	-30.0	30.0	16.8	13.19	2.274		
3,100.0	3,100.0	3,100.0	3,100.0	6.8	6.8	-90.00	0.0	-30.0	30.0	16.4	13.64	2.199		
3,200.0	3,200.0	3,200.0	3,200.0	7.0	7.0	-90.00	0.0	-30.0	30.0	15.9	14.09	2.129		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-90.00	0.0	-30.0	30.0	15.5	14.54	2.063		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-90.00	0.0	-30.0	30.0	15.0	14.99	2.001		
3,500.0	3,500.0	3,500.0	3,500.0	7.7	7.7	-90.00	0.0	-30.0	30.0	14.6	15.44	1.943		
3,600.0	3,600.0	3,600.0	3,600.0	7.9	7.9	-90.00	0.0	-30.0	30.0	14.1	15.89	1.888		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-90.00	0.0	-30.0	30.0	13.7	16.34	1.836		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-90.00	0.0	-30.0	30.0	13.2	16.79	1.787		
3,900.0	3,900.0	3,900.0	3,900.0	8.6	8.6	-90.00	0.0	-30.0	30.0	12.8	17.24	1.740		
4,000.0	4,000.0	4,000.0	4,000.0	8.8	8.8	-90.00	0.0	-30.0	30.0	12.3	17.69	1.696		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-90.00	0.0	-30.0	30.0	11.9	18.14	1.654		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-90.00	0.0	-30.0	30.0	11.4	18.59	1.614		
4,300.0	4,300.0	4,300.0	4,300.0	9.5	9.5	-90.00	0.0	-30.0	30.0	11.0	19.04	1.576		
4,400.0	4,400.0	4,400.0	4,400.0	9.7	9.7	-90.00	0.0	-30.0	30.0	10.5	19.49	1.539		
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	-90.00	0.0	-30.0	30.0	10.1	19.94	1.505 CC, ES, SF		
4,600.0	4,600.0	4,599.7	4,599.7	10.2	10.2	136.73	-0.7	-30.5	31.1	10.8	20.33	1.531		
4,700.0	4,700.0	4,699.3	4,699.3	10.3	10.3	136.08	-2.9	-31.9	34.5	13.8	20.67	1.668		
4,800.0	4,799.9	4,798.8	4,798.7	10.5	10.5	135.25	-6.5	-34.3	40.1	19.1	21.01	1.907		
4,891.0	4,890.7	4,889.4	4,889.1	10.7	10.7	134.84	-10.7	-37.1	46.9	25.6	21.33	2.199		
4,900.0	4,899.7	4,898.4	4,898.1	10.7	10.7	134.87	-11.1	-37.4	47.6	26.3	21.36	2.230		
5,000.0	4,999.4	4,998.1	4,997.6	10.9	10.9	135.12	-15.8	-40.5	55.7	34.0	21.72	2.566		
5,100.0	5,099.2	5,097.7	5,097.1	11.1	11.1	135.30	-20.5	-43.6	63.8	41.7	22.08	2.890		
5,200.0	5,199.0	5,197.4	5,196.7	11.3	11.3	135.44	-25.2	-46.7	71.9	49.5	22.46	3.202		
5,300.0	5,298.7	5,297.1	5,296.2	11.5	11.5	135.56	-29.9	-49.8	80.0	57.2	22.83	3.504		
5,400.0	5,398.5	5,396.8	5,395.7	11.7	11.7	135.65	-34.6	-52.9	88.1	64.9	23.22	3.794		
5,500.0	5,498.3	5,496.4	5,495.2	11.9	11.9	135.73	-39.3	-56.0	96.2	72.6	23.61	4.075		
5,600.0	5,598.0	5,596.1	5,594.7	12.1	12.1	135.79	-44.0	-59.1	104.3	80.3	24.00	4.345		
5,700.0	5,697.8	5,695.8	5,694.2	12.3	12.3	135.85	-48.6	-62.2	112.4	88.0	24.40	4.606		
5,800.0	5,797.6	5,795.5	5,793.7	12.5	12.5	135.89	-53.3	-65.3	120.5	95.7	24.80	4.858		
5,900.0	5,897.3	5,895.1	5,893.2	12.7	12.7	135.94	-58.0	-68.5	128.6	103.4	25.21	5.101		
6,000.0	5,997.1	5,994.8	5,992.8	12.9	12.9	135.97	-62.7	-71.6	136.7	111.1	25.62	5.335		
6,100.0	6,096.9	6,094.5	6,092.3	13.1	13.1	136.01	-67.4	-74.7	144.8	118.7	26.03	5.561		
6,200.0	6,196.7	6,194.1	6,191.8	13.3	13.4	136.04	-72.1	-77.8	152.9	126.4	26.45	5.779		
6,300.0	6,296.4	6,293.8	6,291.3	13.5	13.6	136.06	-76.8	-80.9	161.0	134.1	26.87	5.990		
6,400.0	6,396.2	6,393.5	6,390.8	13.7	13.8	136.09	-81.5	-84.0	169.1	141.8	27.30	6.193		
6,500.0	6,496.0	6,493.2	6,490.3	14.0	14.0	136.11	-86.2	-87.1	177.1	149.4	27.72	6.390		
6,600.0	6,595.7	6,592.8	6,589.8	14.2	14.3	136.13	-90.8	-90.2	185.2	157.1	28.16	6.579		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #2H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Reference Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	#2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #3	Offset TVD Reference:	Reference Datum

Offset Design Streetcar 15 Fed - #1H - OH - Plan #3													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
6,700.0	6,695.5	6,692.5	6,689.3	14.4	14.5	136.15	-95.5	-93.3	193.3	164.7	28.59	5.763		
6,800.0	6,795.3	6,792.2	6,788.9	14.6	14.8	136.16	-100.2	-96.4	201.4	172.4	29.03	5.940		
6,900.0	6,895.0	6,891.8	6,888.4	14.8	15.0	136.18	-104.9	-99.5	209.5	180.1	29.47	7.111		
7,000.0	6,994.8	6,991.5	6,987.9	15.1	15.2	136.19	-109.6	-102.6	217.6	187.7	29.91	7.277		
7,100.0	7,094.6	7,091.2	7,087.4	15.3	15.5	136.21	-114.3	-105.7	225.7	195.4	30.35	7.437		
7,200.0	7,194.3	7,190.9	7,186.9	15.5	15.7	136.22	-119.0	-108.8	233.8	203.0	30.80	7.592		
7,300.0	7,294.1	7,290.5	7,286.4	15.7	16.0	136.23	-123.7	-112.0	241.9	210.7	31.25	7.742		
7,400.0	7,393.9	7,390.2	7,385.9	16.0	16.2	136.24	-128.4	-115.1	250.0	218.3	31.70	7.887		
7,500.0	7,493.6	7,489.9	7,485.4	16.2	16.5	136.25	-133.0	-118.2	258.1	226.0	32.15	8.028		
7,600.0	7,593.4	7,589.5	7,585.0	16.4	16.7	136.26	-137.7	-121.3	266.2	233.6	32.61	8.164		
7,700.0	7,693.2	7,689.2	7,684.5	16.7	17.0	136.27	-142.4	-124.4	274.3	241.2	33.06	8.296		
7,800.0	7,792.9	7,788.9	7,784.0	16.9	17.2	136.28	-147.1	-127.5	282.4	248.9	33.52	8.424		
7,900.0	7,892.7	7,888.6	7,883.5	17.1	17.5	136.29	-151.8	-130.6	290.5	256.5	33.98	8.549		
8,000.0	7,992.5	7,988.2	7,983.0	17.4	17.7	136.29	-156.5	-133.7	298.6	264.1	34.44	8.669		
8,100.0	8,092.2	8,087.9	8,082.5	17.6	18.0	136.30	-161.2	-136.8	306.7	271.8	34.91	8.786		
8,200.0	8,192.0	8,187.6	8,182.0	17.8	18.2	136.31	-165.9	-139.9	314.8	279.4	35.37	8.899		
8,300.0	8,291.8	8,287.2	8,281.6	18.1	18.5	136.31	-170.6	-143.0	322.9	287.0	35.84	9.009		
8,400.0	8,391.5	8,386.9	8,381.1	18.3	18.7	136.32	-175.2	-146.1	331.0	294.7	36.31	9.116		
8,500.0	8,491.3	8,486.6	8,480.6	18.5	19.0	136.33	-179.9	-149.2	339.1	302.3	36.77	9.220		
8,600.0	8,591.1	8,586.3	8,580.1	18.8	19.3	136.33	-184.6	-152.3	347.2	309.9	37.24	9.321		
8,700.0	8,690.8	8,685.9	8,679.6	19.0	19.5	136.34	-189.3	-155.5	355.3	317.5	37.72	9.419		
8,800.0	8,790.6	8,785.6	8,779.1	19.2	19.8	136.34	-194.0	-158.6	363.3	325.2	38.19	9.514		
8,900.0	8,890.4	8,885.3	8,878.6	19.5	20.0	136.35	-198.7	-161.7	371.4	332.8	38.66	9.607		
8,910.4	8,900.8	8,895.7	8,889.0	19.5	20.1	136.35	-199.2	-162.0	372.3	333.6	38.71	9.617		
8,925.0	8,915.3	8,910.2	8,903.5	19.5	20.1	161.56	-199.9	-162.4	373.5	334.7	38.78	9.630		
8,950.0	8,940.3	8,935.2	8,928.5	19.6	20.2	-144.11	-200.2	-163.2	375.5	336.6	38.89	9.656		
8,975.0	8,965.2	8,960.2	8,953.4	19.6	20.2	-119.25	-199.3	-164.0	377.5	338.5	38.98	9.684		
9,000.0	8,990.0	8,985.2	8,978.3	19.7	20.2	-109.23	-197.0	-164.8	379.5	340.5	39.07	9.715		
9,025.0	9,014.6	9,010.3	9,003.1	19.7	20.3	-104.09	-193.4	-165.6	381.5	342.4	39.15	9.746		
9,050.0	9,039.0	9,035.4	9,027.7	19.8	20.3	-100.99	-188.6	-166.4	383.5	344.3	39.22	9.779		
9,075.0	9,063.0	9,060.5	9,052.1	19.8	20.3	-98.89	-182.4	-167.3	385.5	346.2	39.28	9.813		
9,100.0	9,086.7	9,085.7	9,076.1	19.9	20.4	-97.38	-175.0	-168.1	387.4	348.1	39.34	9.848		
9,125.0	9,109.9	9,110.9	9,099.7	19.9	20.4	-96.23	-166.2	-168.9	389.3	349.9	39.39	9.882		
9,150.0	9,132.6	9,136.1	9,122.9	19.9	20.4	-95.31	-156.3	-169.7	391.2	351.7	39.45	9.916		
9,175.0	9,154.8	9,161.4	9,145.5	19.9	20.4	-94.66	-145.1	-170.5	393.0	353.5	39.50	9.949		
9,200.0	9,176.3	9,186.7	9,167.6	20.0	20.5	-93.94	-132.7	-171.2	394.7	355.2	39.55	9.980		
9,225.0	9,197.1	9,212.0	9,189.0	20.0	20.5	-93.41	-119.1	-172.0	396.4	356.8	39.61	10.007		
9,250.0	9,217.1	9,237.4	9,209.6	20.0	20.5	-92.95	-104.4	-172.8	398.0	358.4	39.68	10.032		
9,275.0	9,236.4	9,262.8	9,229.5	20.0	20.5	-92.55	-88.6	-173.5	399.6	359.9	39.75	10.052		
9,300.0	9,254.8	9,288.2	9,248.6	20.0	20.5	-92.20	-71.8	-174.2	401.1	361.3	39.84	10.067		
9,325.0	9,272.2	9,313.7	9,266.7	20.1	20.6	-91.89	-53.9	-174.9	402.6	362.6	39.95	10.076		
9,350.0	9,288.8	9,339.2	9,283.9	20.1	20.6	-91.61	-35.0	-175.6	403.9	363.8	40.07	10.079		
9,375.0	9,304.3	9,364.7	9,300.0	20.1	20.7	-91.36	-15.3	-176.2	405.2	365.0	40.22	10.074		
9,400.0	9,318.8	9,390.3	9,315.1	20.1	20.8	-91.14	5.3	-176.8	406.4	366.0	40.39	10.061		
9,425.0	9,332.2	9,415.9	9,329.1	20.1	20.9	-90.94	26.7	-177.4	407.5	366.9	40.58	10.040		
9,450.0	9,344.4	9,441.5	9,341.9	20.1	21.0	-90.77	48.9	-178.0	408.5	367.7	40.80	10.010		
9,475.0	9,355.5	9,467.1	9,353.6	20.1	21.1	-90.61	71.7	-178.5	409.4	368.3	41.06	9.971		
9,500.0	9,365.5	9,492.8	9,364.0	20.1	21.3	-90.48	95.1	-179.0	410.2	368.8	41.34	9.923		
9,525.0	9,374.2	9,518.4	9,373.1	20.2	21.6	-90.36	119.1	-179.4	410.9	369.2	41.65	9.865		
9,550.0	9,381.7	9,544.1	9,380.9	20.3	21.8	-90.26	143.5	-179.8	411.5	369.5	41.99	9.799		
9,575.0	9,387.9	9,569.8	9,387.5	20.4	22.1	-90.18	168.4	-180.2	412.0	369.6	42.37	9.724		
9,600.0	9,392.8	9,595.5	9,392.6	20.5	22.4	-90.11	193.5	-180.5	412.4	369.6	42.78	9.641		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #2H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Reference Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	#2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #3	Offset TVD Reference:	Reference Datum

Offset Design Streetcar 15 Fed - #1H - OH - Plan #3													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
9.625.0	9.396.5	9.621.2	9.396.4	20.6	22.7	-90.06	218.9	-180.8	412.7	369.5	43.21	9.550		
9.650.0	9.398.9	9.648.9	9.398.9	20.7	23.1	-90.02	244.5	-181.1	412.9	369.2	43.68	9.453		
9.675.0	9.399.9	9.672.6	9.399.9	20.8	23.4	-90.00	270.2	-181.3	413.0	368.8	44.17	9.350		
9.682.8	9.400.0	9.680.6	9.400.0	20.9	23.6	-90.00	278.2	-181.4	413.0	368.7	44.33	9.316		
9.700.0	9.400.0	9.697.8	9.400.0	21.0	23.8	-90.00	295.4	-181.5	413.0	368.3	44.68	9.243		
9.800.0	9.400.0	9.797.8	9.400.0	21.6	25.5	-90.00	395.4	-182.1	413.0	366.0	46.97	8.793		
9.900.0	9.400.0	9.897.8	9.400.0	22.3	27.5	-90.00	495.4	-182.8	413.0	363.4	49.62	8.323		
10.000.0	9.400.0	9.997.8	9.400.0	23.2	29.6	-90.00	595.4	-183.5	413.0	360.4	52.58	7.855		
10.100.0	9.400.0	10.097.8	9.400.0	24.1	31.8	-90.00	695.4	-184.2	413.0	357.2	55.80	7.401		
10.200.0	9.400.0	10.197.8	9.400.0	25.2	34.2	-90.00	795.4	-184.9	413.0	353.8	59.24	6.971		
10.300.0	9.400.0	10.297.8	9.400.0	26.3	36.7	-90.00	895.4	-185.5	413.0	350.1	62.86	6.570		
10.400.0	9.400.0	10.397.8	9.400.0	27.5	39.3	-90.00	995.4	-186.2	413.0	346.4	66.64	6.198		
10.500.0	9.400.0	10.497.8	9.400.0	28.8	41.9	-90.00	1,095.4	-186.9	413.0	342.5	70.54	5.855		
10.600.0	9.400.0	10.597.8	9.400.0	30.2	44.6	-90.00	1,195.4	-187.6	413.0	338.4	74.56	5.539		
10.700.0	9.400.0	10.697.8	9.400.0	31.5	47.3	-90.00	1,295.4	-188.2	413.0	334.3	78.66	5.250		
10.800.0	9.400.0	10.797.8	9.400.0	33.0	50.0	-90.00	1,395.4	-188.9	413.0	330.2	82.85	4.985		
10.900.0	9.400.0	10.897.8	9.400.0	34.4	52.8	-90.00	1,495.4	-189.6	413.0	325.9	87.11	4.741		
11.000.0	9.400.0	10.997.8	9.400.0	35.9	55.6	-90.00	1,595.4	-190.3	413.0	321.6	91.42	4.517		
11.100.0	9.400.0	11.097.8	9.400.0	37.5	58.5	-90.00	1,695.4	-191.0	413.0	317.2	95.79	4.312		
11.200.0	9.400.0	11.197.8	9.400.0	39.0	61.3	-90.00	1,795.4	-191.6	413.0	312.8	100.20	4.122		
11.300.0	9.400.0	11.297.8	9.400.0	40.6	64.2	-90.00	1,895.4	-192.3	413.0	308.3	104.65	3.946		
11.400.0	9.400.0	11.397.8	9.400.0	42.2	67.1	-90.00	1,995.3	-193.0	413.0	303.9	109.14	3.784		
11.500.0	9.400.0	11.497.8	9.400.0	43.8	70.0	-90.00	2,095.3	-193.7	413.0	299.3	113.66	3.634		
11.600.0	9.400.0	11.597.8	9.400.0	45.4	72.9	-90.00	2,195.3	-194.3	413.0	294.8	118.20	3.494		
11.700.0	9.400.0	11.697.8	9.400.0	47.1	75.8	-90.00	2,295.3	-195.0	413.0	290.2	122.77	3.364		
11.800.0	9.400.0	11.797.8	9.400.0	48.7	78.8	-90.00	2,395.3	-195.7	413.0	285.6	127.37	3.243		
11.900.0	9.400.0	11.897.8	9.400.0	50.4	81.7	-90.00	2,495.3	-196.4	413.0	281.0	131.98	3.129		
12.000.0	9.400.0	11.997.8	9.400.0	52.1	84.7	-90.00	2,595.3	-197.1	413.0	276.4	136.60	3.023		
12.100.0	9.400.0	12.097.8	9.400.0	53.8	87.6	-90.00	2,695.3	-197.7	413.0	271.8	141.25	2.924		
12.200.0	9.400.0	12.197.8	9.400.0	55.5	90.6	-90.00	2,795.3	-198.4	413.0	267.1	145.91	2.831		
12.300.0	9.400.0	12.297.8	9.400.0	57.2	93.5	-90.00	2,895.3	-199.1	413.0	262.4	150.58	2.743		
12.400.0	9.400.0	12.397.8	9.400.0	58.9	96.5	-90.00	2,995.3	-199.8	413.0	257.7	155.26	2.660		
12.500.0	9.400.0	12.497.8	9.400.0	60.6	99.5	-90.00	3,095.3	-200.4	413.0	253.0	159.96	2.582		
12.600.0	9.400.0	12.597.8	9.400.0	62.3	102.4	-90.00	3,195.3	-201.1	413.0	248.3	164.66	2.508		
12.700.0	9.400.0	12.697.8	9.400.0	64.0	105.4	-90.00	3,295.3	-201.8	413.0	243.6	169.38	2.438		
12.800.0	9.400.0	12.797.8	9.400.0	65.8	108.4	-90.00	3,395.3	-202.5	413.0	238.9	174.10	2.372		
12.900.0	9.400.0	12.897.8	9.400.0	67.5	111.4	-90.00	3,495.3	-203.2	413.0	234.2	178.83	2.310		
13.000.0	9.400.0	12.997.8	9.400.0	69.3	114.4	-90.00	3,595.3	-203.8	413.0	229.4	183.56	2.250		
13.100.0	9.400.0	13.097.8	9.400.0	71.0	117.4	-90.00	3,695.3	-204.5	413.0	224.7	188.31	2.193		
13.200.0	9.400.0	13.197.8	9.400.0	72.8	120.4	-90.00	3,795.3	-205.2	413.0	219.9	193.06	2.139		
13.300.0	9.400.0	13.297.8	9.400.0	74.5	123.4	-90.00	3,895.3	-205.9	413.0	215.2	197.81	2.088		
13.400.0	9.400.0	13.397.8	9.400.0	76.3	126.4	-90.00	3,995.3	-206.6	413.0	210.4	202.57	2.039		
13.500.0	9.400.0	13.497.8	9.400.0	78.1	129.4	-90.00	4,095.3	-207.2	413.0	205.7	207.34	1.992		
13.600.0	9.400.0	13.597.8	9.400.0	79.8	132.4	-90.00	4,195.3	-207.9	413.0	200.9	212.11	1.947		
13.700.0	9.400.0	13.697.8	9.400.0	81.6	135.4	-90.00	4,295.3	-208.6	413.0	196.1	216.88	1.904		
13.800.0	9.400.0	13.797.8	9.400.0	83.4	138.4	-90.00	4,395.3	-209.3	413.0	191.3	221.66	1.863		
13.900.0	9.400.0	13.897.8	9.400.0	85.1	141.4	-90.00	4,495.3	-209.9	413.0	186.6	226.45	1.824		
14.000.0	9.400.0	13.997.8	9.400.0	86.9	144.4	-90.00	4,595.3	-210.6	413.0	181.8	231.23	1.786		
14.100.0	9.400.0	14.097.8	9.400.0	88.7	147.4	-90.00	4,695.3	-211.3	413.0	177.0	236.02	1.750		
14.202.9	9.400.0	14.200.7	9.400.0	90.5	150.5	-90.00	4,796.2	-212.0	413.0	172.1	240.95	1.714		

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #2H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Reference Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	#2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #3	Offset TVD Reference:	Reference Datum

Offset Design Streetcar 15 Fed - #3H - OH - Plan #3													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,500.0	8,491.3	8,514.8	8,511.5	18.5	19.4	-43.42	-175.1	684.4	495.1	458.2	36.90	13.417		
8,600.0	8,591.1	8,614.4	8,610.9	18.8	19.7	-43.42	-179.8	680.3	486.1	448.7	37.37	13.006		
8,700.0	8,690.8	8,714.0	8,710.3	19.0	19.9	-43.42	-184.5	676.3	477.1	439.2	37.85	12.605		
8,800.0	8,790.6	8,813.5	8,809.7	19.2	20.2	-43.42	-189.1	672.2	468.0	429.7	38.32	12.214		
8,900.0	8,890.4	8,913.1	8,909.1	19.5	20.5	-43.43	-193.8	668.2	459.0	420.2	38.79	11.832		
8,910.4	8,900.8	8,923.6	8,919.5	19.5	20.5	-43.45	-194.1	667.8	458.1	419.2	38.84	11.793		
8,925.0	8,915.3	8,938.1	8,934.0	19.5	20.5	-18.25	-194.1	667.2	456.7	417.8	38.90	11.740		
8,950.0	8,940.3	8,963.0	8,958.9	19.6	20.6	36.12	-193.2	666.2	454.5	415.5	39.00	11.652		
8,975.0	8,965.2	8,987.9	8,983.6	19.6	20.6	61.00	-190.9	665.1	452.2	413.1	39.10	11.567		
9,000.0	8,990.0	9,012.7	9,008.2	19.7	20.7	71.05	-187.4	664.1	450.0	410.8	39.18	11.486		
9,025.0	9,014.6	9,037.5	9,032.5	19.7	20.7	76.22	-182.6	663.1	447.8	408.5	39.25	11.407		
9,050.0	9,039.0	9,062.3	9,056.5	19.8	20.7	79.36	-176.6	662.0	445.6	406.2	39.32	11.332		
9,075.0	9,063.0	9,087.0	9,080.1	19.8	20.7	81.48	-169.3	661.0	443.4	404.0	39.38	11.259		
9,100.0	9,086.7	9,111.7	9,103.3	19.9	20.8	83.02	-160.8	660.0	441.2	401.8	39.44	11.189		
9,125.0	9,109.9	9,136.4	9,126.0	19.9	20.8	84.20	-151.2	659.0	439.2	399.7	39.49	11.121		
9,150.0	9,132.6	9,161.0	9,148.1	19.9	20.8	85.15	-140.4	658.0	437.1	397.6	39.54	11.054		
9,175.0	9,154.8	9,185.7	9,189.6	19.9	20.8	85.92	-128.4	657.1	435.1	395.5	39.59	10.989		
9,200.0	9,176.3	9,210.3	9,190.5	20.0	20.8	86.57	-115.4	656.1	433.2	393.5	39.65	10.925		
9,225.0	9,197.1	9,234.8	9,210.6	20.0	20.8	87.13	-101.4	655.2	431.3	391.6	39.71	10.861		
9,250.0	9,217.1	9,259.4	9,230.0	20.0	20.8	87.61	-86.3	654.3	429.5	389.7	39.78	10.797		
9,275.0	9,236.4	9,283.9	9,248.6	20.0	20.9	88.04	-70.3	653.5	427.8	387.9	39.86	10.732		
9,300.0	9,254.8	9,308.5	9,286.3	20.0	20.9	88.41	-53.4	652.6	426.1	386.1	39.95	10.666		
9,325.0	9,272.2	9,333.0	9,283.1	20.1	20.9	88.74	-35.6	651.8	424.5	384.5	40.06	10.598		
9,350.0	9,288.8	9,357.5	9,299.0	20.1	20.9	89.04	-16.9	651.0	423.0	382.9	40.18	10.527		
9,375.0	9,304.3	9,382.0	9,313.9	20.1	21.0	89.30	2.5	650.3	421.6	381.3	40.33	10.455		
9,400.0	9,318.8	9,406.4	9,327.7	20.1	21.0	89.54	22.6	649.6	420.3	379.8	40.50	10.379		
9,425.0	9,332.2	9,430.9	9,340.5	20.1	21.1	89.75	43.5	648.9	419.1	378.4	40.69	10.301		
9,450.0	9,344.4	9,455.3	9,352.2	20.1	21.2	89.94	64.9	648.3	418.0	377.1	40.91	10.219		
9,475.0	9,355.5	9,479.8	9,362.8	20.1	21.3	90.10	86.9	647.7	417.0	375.9	41.15	10.133		
9,500.0	9,365.5	9,504.2	9,372.3	20.1	21.5	90.24	109.4	647.2	416.1	374.7	41.43	10.045		
9,525.0	9,374.2	9,528.6	9,380.6	20.2	21.7	90.36	132.4	646.7	415.4	373.6	41.73	9.953		
9,550.0	9,381.7	9,553.0	9,387.7	20.3	21.9	90.46	155.7	646.2	414.7	372.6	42.06	9.859		
9,575.0	9,387.9	9,577.4	9,393.6	20.4	22.1	90.55	179.4	645.8	414.1	371.7	42.42	9.762		
9,600.0	9,392.8	9,601.8	9,398.3	20.5	22.4	90.61	203.4	645.5	413.7	370.9	42.81	9.662		
9,625.0	9,396.5	9,626.2	9,401.7	20.6	22.7	90.66	227.5	645.2	413.4	370.1	43.23	9.561		
9,650.0	9,398.9	9,650.6	9,404.0	20.7	23.1	90.68	251.8	644.9	413.1	369.5	43.68	9.459		
9,675.0	9,399.9	9,675.0	9,404.9	20.8	23.4	90.69	276.1	644.7	413.0	368.9	44.14	9.357		
9,682.8	9,400.0	9,682.7	9,405.0	20.9	23.5	90.69	283.8	644.6	413.0	368.7	44.30	9.324		
9,700.0	9,400.0	9,699.8	9,405.0	21.0	23.8	90.69	301.0	644.5	413.0	368.4	44.64	9.252		
9,800.0	9,400.0	9,799.8	9,405.0	21.6	25.5	90.69	401.0	643.9	413.0	366.1	46.91	8.805		
9,900.0	9,400.0	9,899.8	9,405.0	22.3	27.4	90.69	501.0	643.2	413.0	363.5	49.54	8.337		
10,000.0	9,400.0	9,999.8	9,405.0	23.2	29.5	90.69	601.0	642.5	413.0	360.6	52.49	7.869		
10,100.0	9,400.0	10,099.8	9,405.0	24.1	31.8	90.69	701.0	641.8	413.0	357.3	55.70	7.415		
10,200.0	9,400.0	10,199.8	9,405.0	25.2	34.1	90.69	801.0	641.1	413.0	353.9	59.13	6.985		
10,300.0	9,400.0	10,299.8	9,405.0	26.3	36.6	90.69	901.0	640.5	413.0	350.3	62.74	6.583		
10,400.0	9,400.0	10,399.8	9,405.0	27.5	39.2	90.69	1,001.0	639.8	413.0	346.5	66.51	6.210		
10,500.0	9,400.0	10,499.8	9,405.0	28.8	41.8	90.69	1,101.0	639.1	413.0	342.6	70.41	5.866		
10,600.0	9,400.0	10,599.8	9,405.0	30.2	44.5	90.69	1,201.0	638.4	413.0	338.6	74.42	5.550		
10,700.0	9,400.0	10,699.8	9,405.0	31.5	47.2	90.69	1,301.0	637.7	413.0	334.5	78.52	5.260		
10,800.0	9,400.0	10,799.8	9,405.0	33.0	49.9	90.69	1,401.0	637.1	413.0	330.3	82.70	4.994		
10,900.0	9,400.0	10,899.8	9,405.0	34.4	52.7	90.69	1,501.0	636.4	413.0	326.1	86.96	4.750		
11,000.0	9,400.0	10,999.8	9,405.0	35.9	55.5	90.69	1,601.0	635.7	413.0	321.8	91.27	4.526		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #2H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Reference Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	#2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #3	Offset TVD Reference:	Reference Datum

Offset Design		Streetcar 15 Fed - #3H - OH - Plan #3											Offset Site Error: 0.0 usft	
Survey Program: 0-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
							+N/-S (usft)	+E/-W (usft)						
11,100.0	9,400.0	11,099.8	9,405.0	37.5	58.4	90.69	1,701.0	635.0	413.0	317.4	95.63	4.319		
11,200.0	9,400.0	11,199.8	9,405.0	39.0	61.2	90.69	1,801.0	634.4	413.0	313.0	100.04	4.129		
11,300.0	9,400.0	11,299.8	9,405.0	40.6	64.1	90.69	1,901.0	633.7	413.0	308.5	104.49	3.953		
11,400.0	9,400.0	11,399.8	9,405.0	42.2	67.0	90.69	2,000.9	633.0	413.0	304.1	108.98	3.790		
11,500.0	9,400.0	11,499.8	9,405.0	43.8	69.9	90.69	2,100.9	632.3	413.0	299.5	113.49	3.639		
11,600.0	9,400.0	11,599.8	9,405.0	45.4	72.8	90.69	2,200.9	631.6	413.0	295.0	118.04	3.499		
11,700.0	9,400.0	11,699.8	9,405.0	47.1	75.7	90.69	2,300.9	631.0	413.0	290.4	122.60	3.369		
11,800.0	9,400.0	11,799.8	9,405.0	48.7	78.6	90.69	2,400.9	630.3	413.0	285.8	127.19	3.247		
11,900.0	9,400.0	11,899.8	9,405.0	50.4	81.6	90.69	2,500.9	629.6	413.0	281.2	131.80	3.134		
12,000.0	9,400.0	11,999.8	9,405.0	52.1	84.5	90.69	2,600.9	628.9	413.0	276.6	136.43	3.027		
12,100.0	9,400.0	12,099.8	9,405.0	53.8	87.5	90.69	2,700.9	628.3	413.0	272.0	141.07	2.928		
12,200.0	9,400.0	12,199.8	9,405.0	55.5	90.4	90.69	2,800.9	627.6	413.0	267.3	145.73	2.834		
12,300.0	9,400.0	12,299.8	9,405.0	57.2	93.4	90.69	2,900.9	626.9	413.0	262.6	150.40	2.746		
12,400.0	9,400.0	12,399.8	9,405.0	58.9	96.3	90.69	3,000.9	626.2	413.0	258.0	155.08	2.663		
12,500.0	9,400.0	12,499.8	9,405.0	60.6	99.3	90.69	3,100.9	625.5	413.0	253.3	159.78	2.585		
12,600.0	9,400.0	12,599.8	9,405.0	62.3	102.3	90.69	3,200.9	624.9	413.0	248.6	164.48	2.511		
12,700.0	9,400.0	12,699.8	9,405.0	64.0	105.3	90.69	3,300.9	624.2	413.0	243.8	169.19	2.441		
12,800.0	9,400.0	12,799.8	9,405.0	65.8	108.3	90.69	3,400.9	623.5	413.0	239.1	173.92	2.375		
12,900.0	9,400.0	12,899.8	9,405.0	67.5	111.2	90.69	3,500.9	622.8	413.0	234.4	178.64	2.312		
13,000.0	9,400.0	12,999.8	9,405.0	69.3	114.2	90.69	3,600.9	622.2	413.0	229.7	183.38	2.252		
13,100.0	9,400.0	13,099.8	9,405.0	71.0	117.2	90.69	3,700.9	621.5	413.0	224.9	188.12	2.196		
13,200.0	9,400.0	13,199.8	9,405.0	72.8	120.2	90.69	3,800.9	620.8	413.0	220.2	192.87	2.141		
13,300.0	9,400.0	13,299.8	9,405.0	74.5	123.2	90.69	3,900.9	620.1	413.0	215.4	197.63	2.090		
13,400.0	9,400.0	13,399.8	9,405.0	76.3	126.2	90.69	4,000.9	619.4	413.0	210.6	202.39	2.041		
13,500.0	9,400.0	13,499.8	9,405.0	78.1	129.2	90.69	4,100.9	618.8	413.0	205.9	207.15	1.994		
13,600.0	9,400.0	13,599.8	9,405.0	79.8	132.2	90.69	4,200.9	618.1	413.0	201.1	211.92	1.949		
13,700.0	9,400.0	13,699.8	9,405.0	81.6	135.2	90.69	4,300.9	617.4	413.0	196.3	216.70	1.906		
13,800.0	9,400.0	13,799.8	9,405.0	83.4	138.2	90.69	4,400.9	616.7	413.0	191.6	221.47	1.865		
13,900.0	9,400.0	13,899.8	9,405.0	85.1	141.2	90.69	4,500.9	616.0	413.0	186.8	226.26	1.826		
14,000.0	9,400.0	13,999.8	9,405.0	86.9	144.2	90.69	4,600.9	615.4	413.0	182.0	231.04	1.788		
14,100.0	9,400.0	14,099.8	9,405.0	88.7	147.2	90.69	4,700.9	614.7	413.0	177.2	235.83	1.751		
14,173.4	9,400.0	14,173.3	9,405.0	90.0	149.4	90.69	4,774.3	614.2	413.0	173.7	239.35	1.726 CC		
14,202.9	9,400.0	14,202.0	9,405.0	90.5	150.3	90.69	4,803.0	614.0	413.0	172.3	240.74	1.716 ES, SF		

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #2H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Reference Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3400.0usft (Cactus 123)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	#2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #3	Offset TVD Reference:	Reference Datum

Offset Design VacaDraw 15 Federal - #1 - OH - OH													Offset Site Error:	0.0 usft
Survey Program: 227-Inclinometer only													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,300.0	9,400.0	9,382.0	9,400.0	74.5	220.3	-90.00	4,370.6	70.7	491.8	197.1	294.72	1.669		
13,400.0	9,400.0	9,382.0	9,400.0	76.3	220.3	-90.00	4,370.6	70.7	396.5	100.0	296.48	1.337	Level 3	
13,500.0	9,400.0	9,382.0	9,400.0	78.1	220.3	-90.00	4,370.6	70.7	304.1	5.9	298.25	1.020	Level 2	
13,600.0	9,400.0	9,382.0	9,400.0	79.8	220.3	-90.00	4,370.6	70.7	218.7	-81.3	300.02	0.729	Level 1	
13,700.0	9,400.0	9,382.0	9,400.0	81.6	220.3	-90.00	4,370.6	70.7	152.1	-149.7	301.79	0.504	Level 1	
13,773.4	9,400.0	9,382.0	9,400.0	82.9	220.3	-90.00	4,370.6	70.7	133.2	-189.9	303.09	0.440	Level 1, CC, ES, SF	
13,800.0	9,400.0	9,382.0	9,400.0	83.4	220.3	-90.00	4,370.6	70.7	135.9	-167.7	303.56	0.448	Level 1	
13,900.0	9,400.0	9,382.0	9,400.0	85.1	220.3	-90.00	4,370.6	70.7	183.8	-121.6	305.34	0.602	Level 1	
14,000.0	9,400.0	9,382.0	9,400.0	86.9	220.3	-90.00	4,370.6	70.7	262.9	-44.3	307.11	0.856	Level 1	
14,100.0	9,400.0	9,382.0	9,400.0	88.7	220.3	-90.00	4,370.6	70.7	352.7	43.8	308.89	1.142	Level 2	
14,202.9	9,400.0	9,382.0	9,400.0	90.5	220.3	-90.00	4,370.6	70.7	449.7	139.0	310.73	1.447	Level 3	

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 27 NME)
 Reference Site: Streetcar 15 Fed
 Site Error: 0.0 usft
 Reference Well: #2H
 Well Error: 0.0 usft
 Reference Wellbore: OH
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #2H
 TVD Reference: KB = 30 @ 3400.0usft (Cactus 123)
 MD Reference: KB = 30 @ 3400.0usft (Cactus 123)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Single User Db
 Offset TVD Reference: Reference Datum

Reference Depths are relative to KB = 30 @ 3400.0usft (Cactus 123)

Offset Depths are relative to Offset Datum

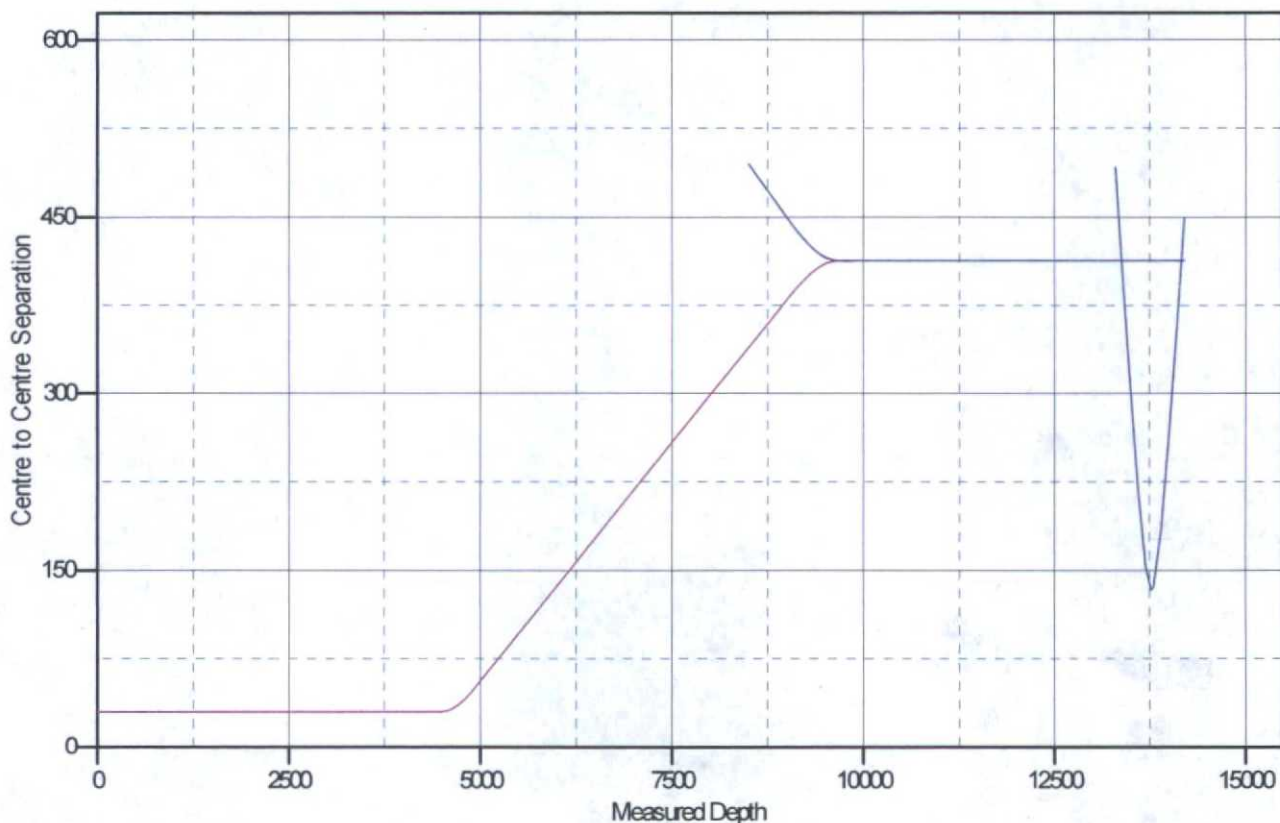
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: #2H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.41°

Ladder Plot



LEGEND

◆ #1H, OH, Plan #3 V0
 ✕ #3H, OH, Plan #3 V0
 ▲ #1, OH, OH V0

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 27 NME)
 Reference Site: Streetcar 15 Fed
 Site Error: 0.0 usft
 Reference Well: #2H
 Well Error: 0.0 usft
 Reference Wellbore: OH
 Reference Design: Plan #3

Local Co-ordinate Reference: Well #2H
 TVD Reference: KB = 30 @ 3400.0usft (Cactus 123)
 MD Reference: KB = 30 @ 3400.0usft (Cactus 123)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Single User Db
 Offset TVD Reference: Reference Datum

Reference Depths are relative to KB = 30 @ 3400.0usft (Cactus 123)

Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: #2H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.41°

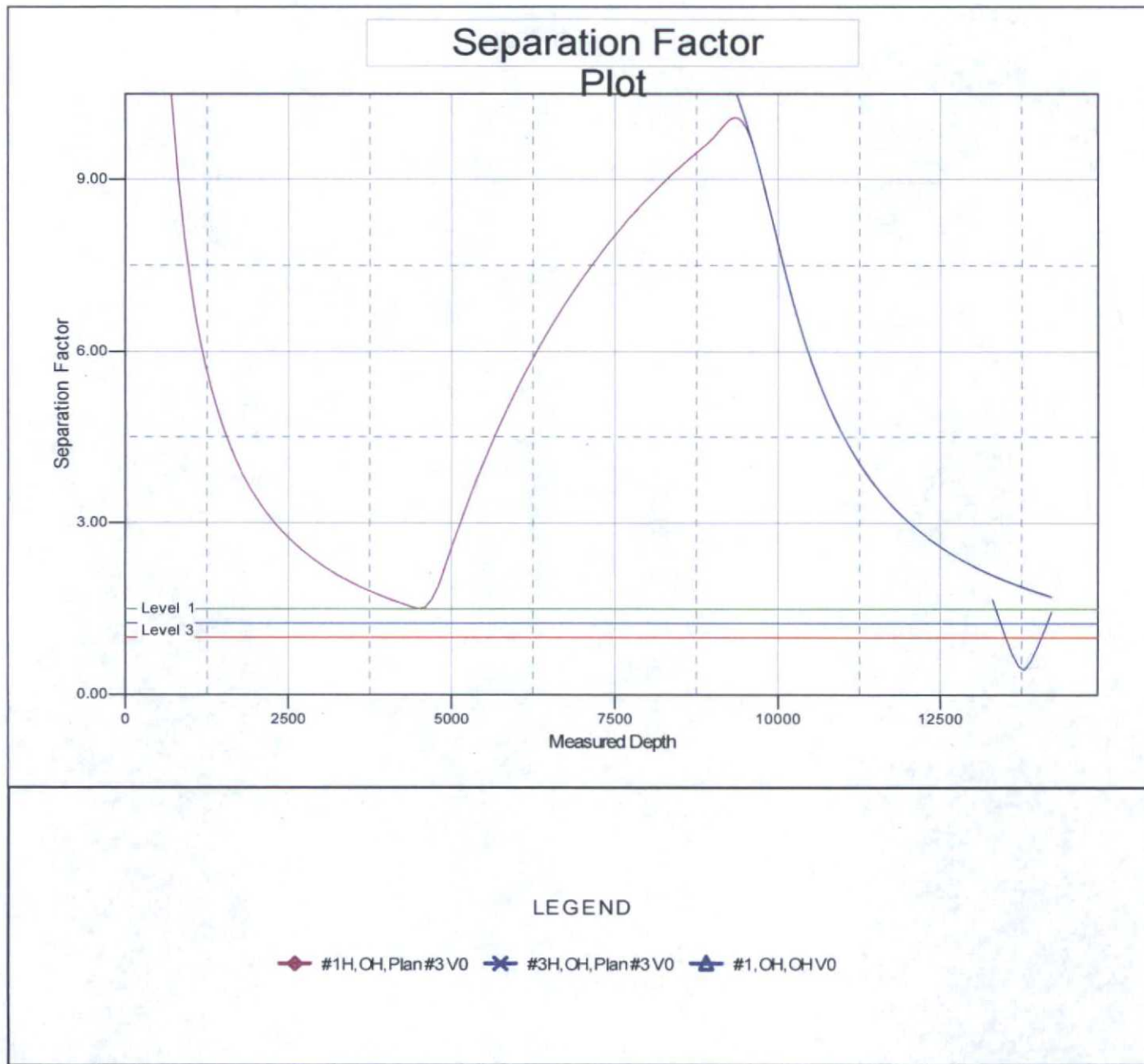
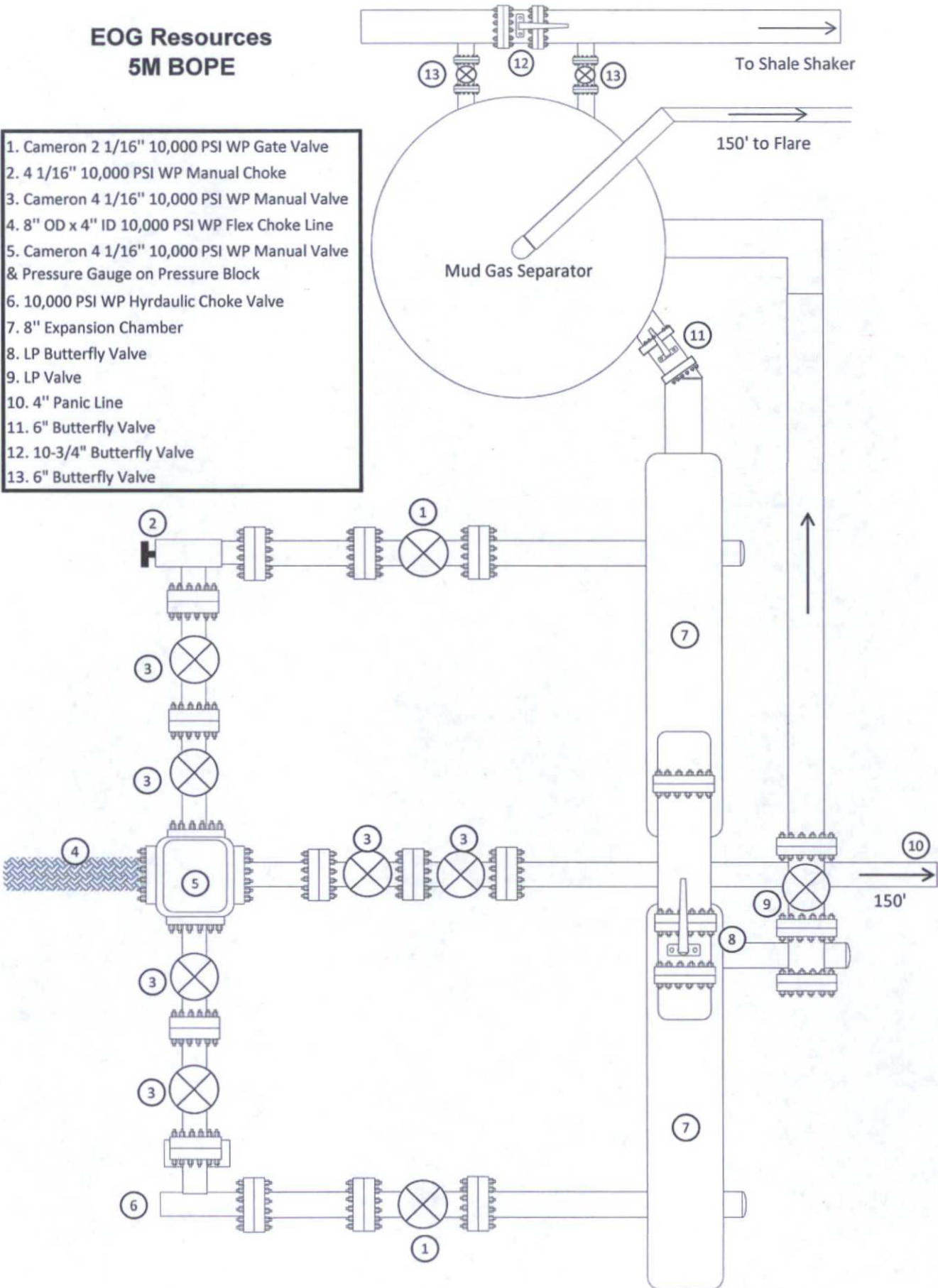


Exhibit 1a

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

M I D W E S T
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'

I.D.

4"

O.D.

8"

Working Pressure

10000 PSI

Burst Pressure

Standard Safety Multiplier Applies

Verification

Type of Fitting

4 1/16 10K

Coupling Method

Swage

Final O.D.

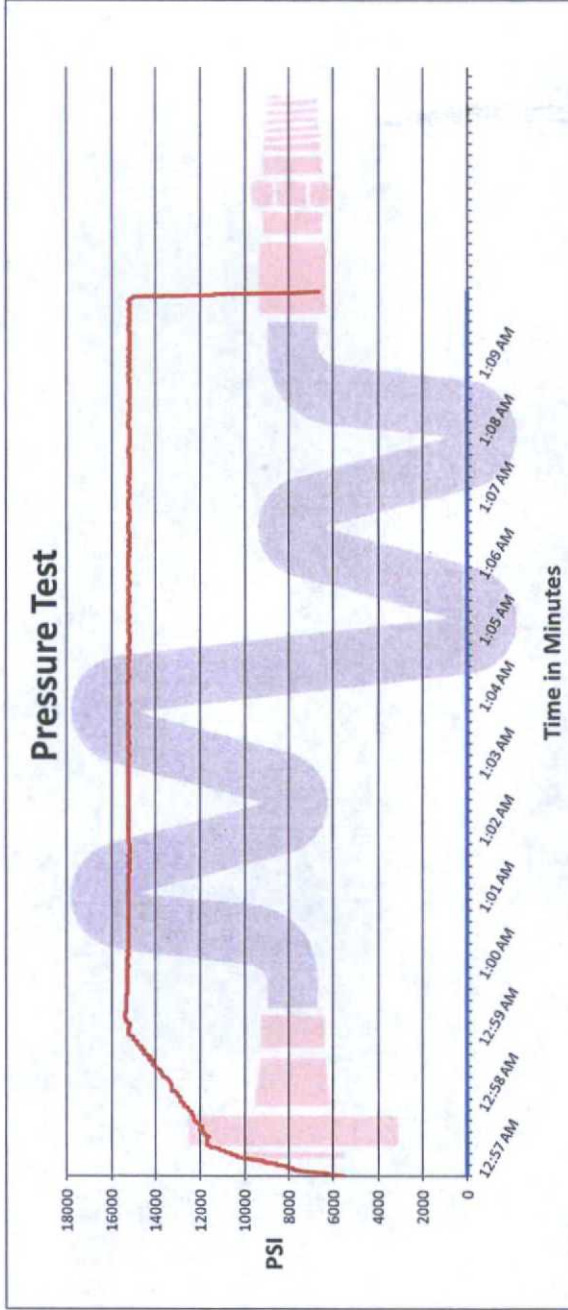
6.68"

Hose Serial #

90067

Hose Assembly Serial #

90067



Test Pressure

15000 PSI

Time Held at Test Pressure

11 1/4 Minutes

Actual Burst Pressure

15439 PSI

Peak Pressure

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

Tested By: Bobby Fink

Approved By: Mendi Jackson

Mendi Jackson