

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-9720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Sante Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources  
Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Sante Fe, NM 87505

HOBBS OCD

SEP 29 2015

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

AMENDED REPORT

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-42816		<sup>2</sup> Pool Code 98097	<sup>3</sup> Pool Name WC-025 G-09 S263327G; Upper Wolfcamp
<sup>4</sup> Property Code 315282	<sup>5</sup> Property Name THOR 21 FED COM		<sup>6</sup> Well Number #704H
<sup>7</sup> OGRID No. 7377	<sup>8</sup> Operator Name EOG RESOURCES, INC.		<sup>9</sup> Elevation 3257'

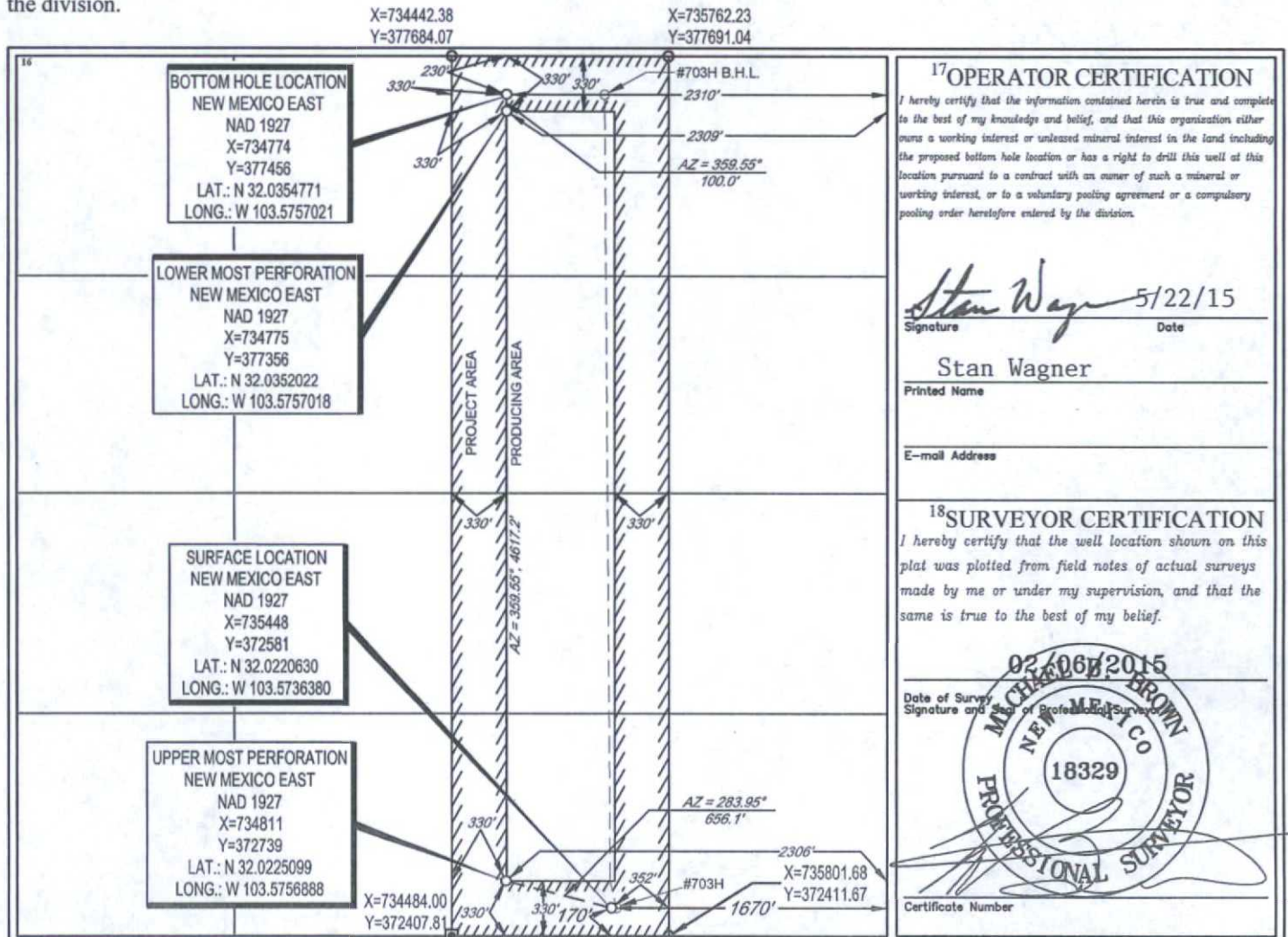
<sup>10</sup>Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	21	26-S	33-E	-	170'	SOUTH	1670'	EAST	LEA

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	21	26-S	33-E	-	230'	NORTH	2310'	EAST	LEA

<sup>12</sup> Dedicated Acres 160.00	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



<sup>17</sup>OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Stan Wagner* 5/22/15  
Signature Date

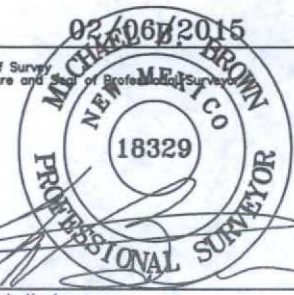
Stan Wagner  
Printed Name

E-mail Address

<sup>18</sup>SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

02/06/2015  
Date of Survey  
Signature and Seal of Professional Surveyor



Certificate Number

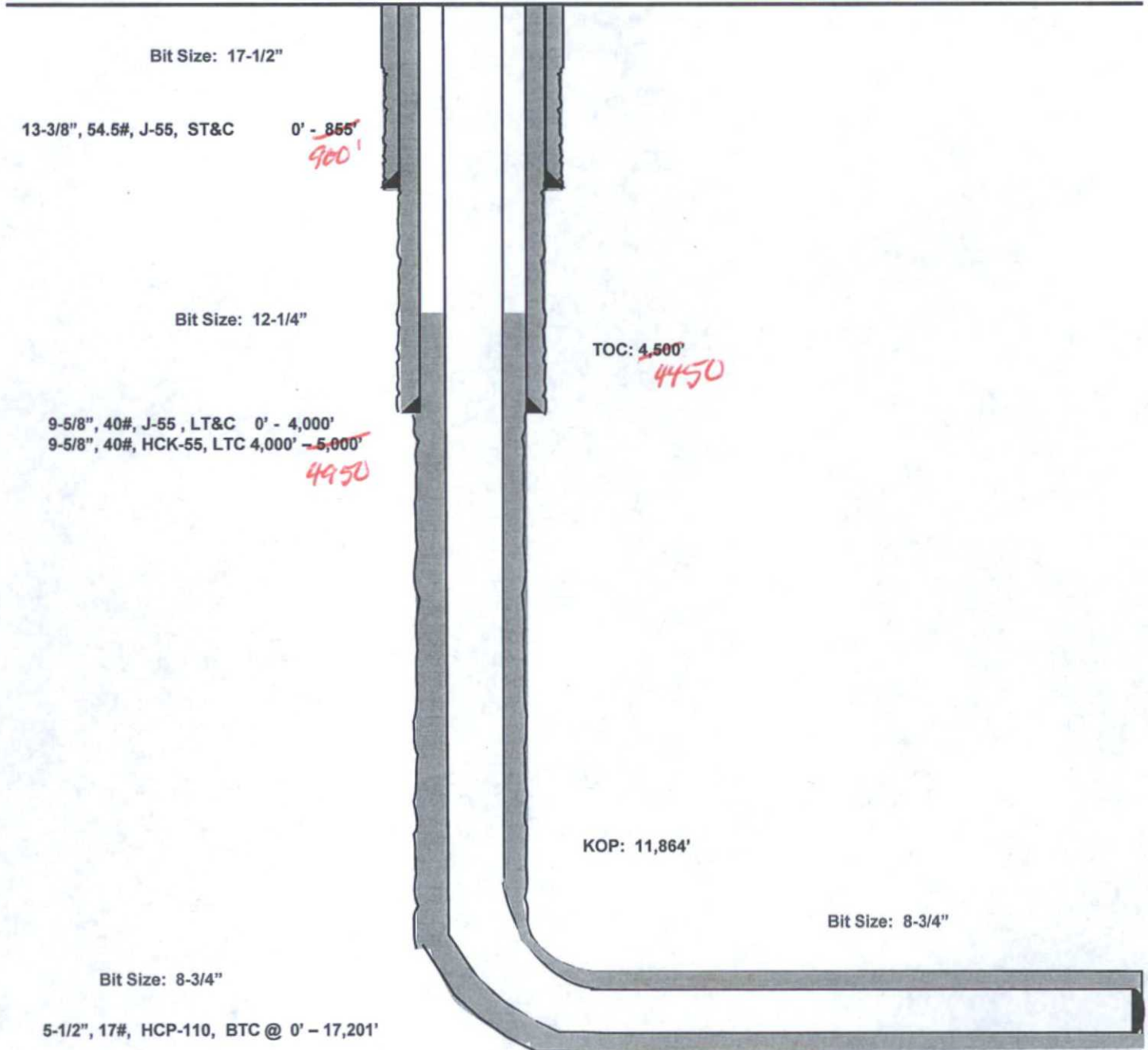
Thor 21 Fed Com #704H

Lea County, New Mexico  
Proposed Wellbore

170' FSL  
1670' FEL  
Section 21  
T-26-S, R-33-E

API: 30-025-

KB: 3,287'  
GL: 3,257'



Lateral: 17,201' MD, 12,420' TVD  
Upper Most Perf:  
330' FSL & 2306' FEL Sec. 21  
Lower Most Perf:  
330' FNL & 2309' FEL  
BH Location: 230' FNL & 2310' FEL  
Section 21  
T-26-S, R-33-E



Lea County, NM (NAD 27 NME)

Thor 21 Fed Com #704H

H&P 651

Plan #1

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: #704H

Ground Level: 3257.0  
 KB = 25 @ 3282.0uoft (H&P 651)  
 Northing: 372581.00 Easting: 735448.00  
 Latitude: 32° 1' 19.430 N Longitude: 103° 34' 53.098 W

Azimuths to Grid North  
 True North: -0.40°  
 Magnetic North: 6.76°

Magnetic Field  
 Strength: 48021.8anT  
 Dip Angle: 59.90°  
 Date: 5/21/2015  
 Model: IGRF2015



To convert a Magnetic Direction to a Grid Direction, Add 6.76°  
 To convert a Magnetic Direction to a True Direction, Add 7.16° East  
 To convert a True Direction to a Grid Direction, Subtract 0.40°

SECTION DETAILS

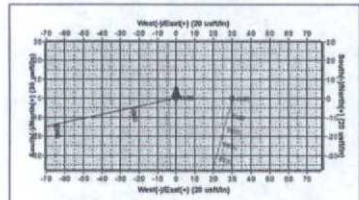
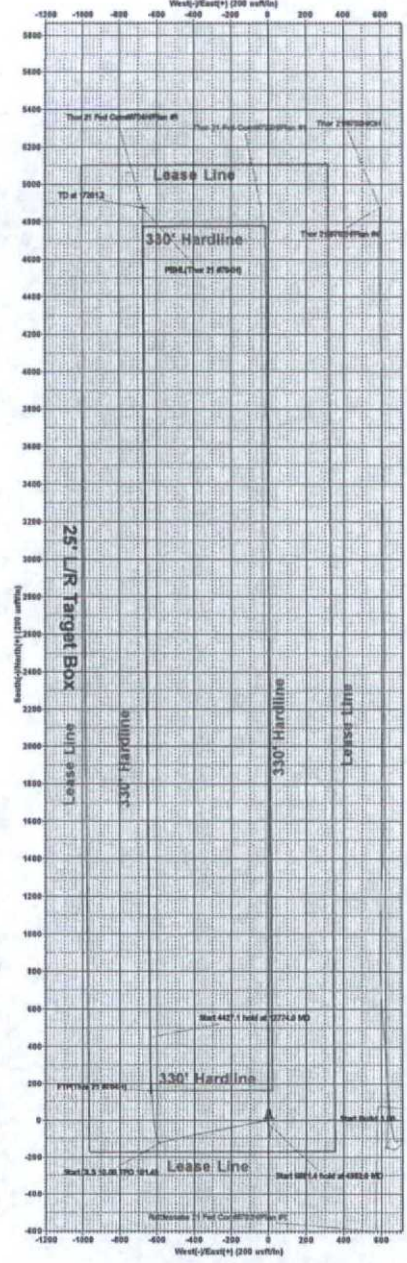
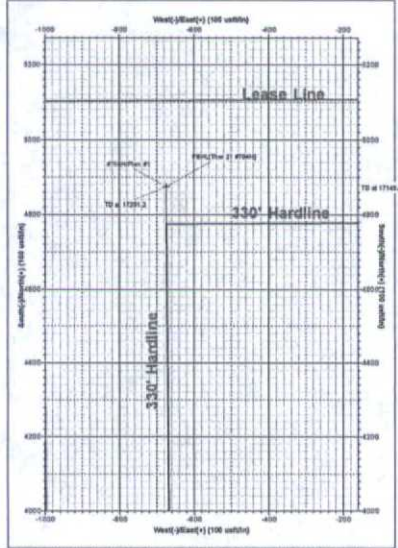
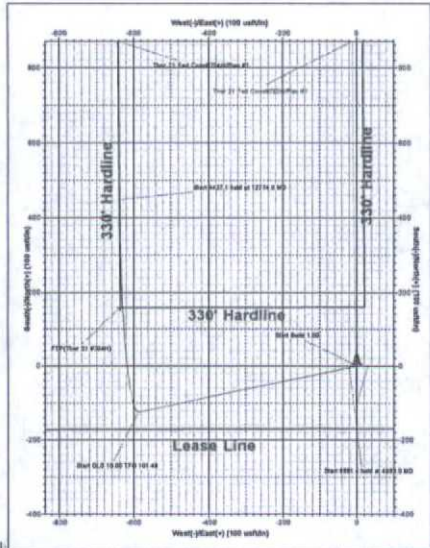
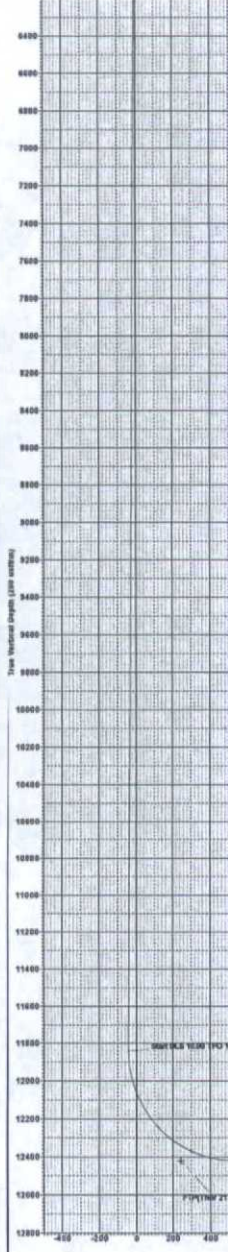
Sec	MD	Inc	Azi	TVD	+N-E	+E-W	Dleg	TFace	VSeet	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	4890.0	0.00	0.00	4890.0	0.0	0.0	0.00	0.00	0.0		
3	4892.0	4.83	258.02	4892.4	-4.2	-19.9	1.00	258.02	-1.5		
4	11884.4	4.83	258.02	11838.4	-134.8	-586.7	0.00	0.00	-42.9		
8	12774.0	90.00	359.55	12420.0	448.0	-439.3	10.00	101.49	501.3		
8	17291.2	90.00	359.55	12420.0	4876.0	-474.9	0.00	0.00	4921.4		PBH(Thor 21 #704H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-E	+E-W	Northing	Easting
PBH(Thor 21 #704H)	12420.0	4876.0	-474.9	377486.00	734774.00
FTP(Thor 21 #704H)	12420.0	198.0	-437.0	372739.00	734811.00



Plan #1  
 Date: 5/21/2015  
 Scale: 1" = 100'



## **EOG Resources - Midland**

**Lea County, NM (NAD 27 NME)**

**Thor 21 Fed Com**

**#704H**

**OH**

**Plan: Plan #1**

## **Standard Planning Report**

**21 May, 2015**



**EOG Resources, Inc.**  
Planning Report

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well #704H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25 @ 3282.0usft (H&P 651)
<b>Project:</b>	Lea County, NM (NAD 27 NME)	<b>MD Reference:</b>	KB = 25 @ 3282.0usft (H&P 651)
<b>Site:</b>	Thor 21 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#704H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

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

<b>Site</b>	Thor 21 Fed Com				
<b>Site Position:</b>		<b>Northing:</b>	372,581.00 usft	<b>Latitude:</b>	32° 1' 19.428 N
<b>From:</b>	Map	<b>Easting:</b>	735,478.00 usft	<b>Longitude:</b>	103° 34' 24.750 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.40 °

<b>Well</b>	#704H					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	372,581.00 usft	<b>Latitude:</b>	32° 1' 19.430 N
	<b>+E/-W</b>	-30.0 usft	<b>Easting:</b>	735,448.00 usft	<b>Longitude:</b>	103° 34' 25.098 W
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	0.0 usft	<b>Ground Level:</b>	3,257.0 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	5/21/2015	7.16	59.90	48,032

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	352.13

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		
4,983.0	4.83	258.02	4,982.4	-4.2	-19.9	1.00	1.00	0.00	258.02		
11,864.4	4.83	258.02	11,839.4	-124.5	-586.7	0.00	0.00	0.00	0.00		
12,774.0	90.00	359.55	12,420.0	448.0	-639.3	10.00	9.36	11.16	101.49		
17,201.2	90.00	359.55	12,420.0	4,875.0	-674.0	0.00	0.00	0.00	0.00	0.00	PBHL(Thor 21 #704H)



EOG Resources, Inc.

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #704H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3282.0usft (H&P 651)
Project:	Lea County, NM (NAD 27 NME)	MD Reference:	KB = 25 @ 3282.0usft (H&P 651)
Site:	Thor 21 Fed Com	North Reference:	Grid
Well:	#704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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
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	258.02	4,600.0	-0.2	-0.9	-0.1	1.00	1.00	0.00
4,700.0	2.00	258.02	4,700.0	-0.7	-3.4	-0.2	1.00	1.00	0.00
4,800.0	3.00	258.02	4,799.9	-1.6	-7.7	-0.6	1.00	1.00	0.00
4,900.0	4.00	258.02	4,899.7	-2.9	-13.7	-1.0	1.00	1.00	0.00
4,983.0	4.83	258.02	4,982.4	-4.2	-19.9	-1.5	1.00	1.00	0.00
5,000.0	4.83	258.02	4,999.4	-4.5	-21.3	-1.6	0.00	0.00	0.00
5,100.0	4.83	258.02	5,099.0	-6.3	-29.5	-2.2	0.00	0.00	0.00
5,200.0	4.83	258.02	5,198.7	-8.0	-37.8	-2.8	0.00	0.00	0.00



**EOG Resources, Inc.**  
Planning Report

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well #704H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25 @ 3282.0usft (H&P 651)
<b>Project:</b>	Lea County, NM (NAD 27 NME)	<b>MD Reference:</b>	KB = 25 @ 3282.0usft (H&P 651)
<b>Site:</b>	Thor 21 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#704H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

**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	4.83	258.02	5,298.3	-9.8	-46.0	-3.4	0.00	0.00	0.00
5,400.0	4.83	258.02	5,397.9	-11.5	-54.3	-4.0	0.00	0.00	0.00
5,500.0	4.83	258.02	5,497.6	-13.3	-62.5	-4.6	0.00	0.00	0.00
5,600.0	4.83	258.02	5,597.2	-15.0	-70.7	-5.2	0.00	0.00	0.00
5,700.0	4.83	258.02	5,696.9	-16.8	-79.0	-5.8	0.00	0.00	0.00
5,800.0	4.83	258.02	5,796.5	-18.5	-87.2	-6.4	0.00	0.00	0.00
5,900.0	4.83	258.02	5,896.2	-20.2	-95.4	-7.0	0.00	0.00	0.00
6,000.0	4.83	258.02	5,995.8	-22.0	-103.7	-7.6	0.00	0.00	0.00
6,100.0	4.83	258.02	6,095.5	-23.7	-111.9	-8.2	0.00	0.00	0.00
6,200.0	4.83	258.02	6,195.1	-25.5	-120.1	-8.8	0.00	0.00	0.00
6,300.0	4.83	258.02	6,294.8	-27.2	-128.4	-9.4	0.00	0.00	0.00
6,400.0	4.83	258.02	6,394.4	-29.0	-136.6	-10.0	0.00	0.00	0.00
6,500.0	4.83	258.02	6,494.0	-30.7	-144.9	-10.6	0.00	0.00	0.00
6,600.0	4.83	258.02	6,593.7	-32.5	-153.1	-11.2	0.00	0.00	0.00
6,700.0	4.83	258.02	6,693.3	-34.2	-161.3	-11.8	0.00	0.00	0.00
6,800.0	4.83	258.02	6,793.0	-36.0	-169.6	-12.4	0.00	0.00	0.00
6,900.0	4.83	258.02	6,892.6	-37.7	-177.8	-13.0	0.00	0.00	0.00
7,000.0	4.83	258.02	6,992.3	-39.5	-186.0	-13.6	0.00	0.00	0.00
7,100.0	4.83	258.02	7,091.9	-41.2	-194.3	-14.2	0.00	0.00	0.00
7,200.0	4.83	258.02	7,191.6	-43.0	-202.5	-14.8	0.00	0.00	0.00
7,300.0	4.83	258.02	7,291.2	-44.7	-210.7	-15.4	0.00	0.00	0.00
7,400.0	4.83	258.02	7,390.8	-46.5	-219.0	-16.0	0.00	0.00	0.00
7,500.0	4.83	258.02	7,490.5	-48.2	-227.2	-16.6	0.00	0.00	0.00
7,600.0	4.83	258.02	7,590.1	-50.0	-235.5	-17.2	0.00	0.00	0.00
7,700.0	4.83	258.02	7,689.8	-51.7	-243.7	-17.8	0.00	0.00	0.00
7,800.0	4.83	258.02	7,789.4	-53.4	-251.9	-18.4	0.00	0.00	0.00
7,900.0	4.83	258.02	7,889.1	-55.2	-260.2	-19.0	0.00	0.00	0.00
8,000.0	4.83	258.02	7,988.7	-56.9	-268.4	-19.6	0.00	0.00	0.00
8,100.0	4.83	258.02	8,088.4	-58.7	-276.6	-20.2	0.00	0.00	0.00
8,200.0	4.83	258.02	8,188.0	-60.4	-284.9	-20.9	0.00	0.00	0.00
8,300.0	4.83	258.02	8,287.6	-62.2	-293.1	-21.5	0.00	0.00	0.00
8,400.0	4.83	258.02	8,387.3	-63.9	-301.4	-22.1	0.00	0.00	0.00
8,500.0	4.83	258.02	8,486.9	-65.7	-309.6	-22.7	0.00	0.00	0.00
8,600.0	4.83	258.02	8,586.6	-67.4	-317.8	-23.3	0.00	0.00	0.00
8,700.0	4.83	258.02	8,686.2	-69.2	-326.1	-23.9	0.00	0.00	0.00
8,800.0	4.83	258.02	8,785.9	-70.9	-334.3	-24.5	0.00	0.00	0.00
8,900.0	4.83	258.02	8,885.5	-72.7	-342.5	-25.1	0.00	0.00	0.00
9,000.0	4.83	258.02	8,985.2	-74.4	-350.8	-25.7	0.00	0.00	0.00
9,100.0	4.83	258.02	9,084.8	-76.2	-359.0	-26.3	0.00	0.00	0.00
9,200.0	4.83	258.02	9,184.5	-77.9	-367.2	-26.9	0.00	0.00	0.00
9,300.0	4.83	258.02	9,284.1	-79.7	-375.5	-27.5	0.00	0.00	0.00
9,400.0	4.83	258.02	9,383.7	-81.4	-383.7	-28.1	0.00	0.00	0.00
9,500.0	4.83	258.02	9,483.4	-83.2	-392.0	-28.7	0.00	0.00	0.00
9,600.0	4.83	258.02	9,583.0	-84.9	-400.2	-29.3	0.00	0.00	0.00
9,700.0	4.83	258.02	9,682.7	-86.6	-408.4	-29.9	0.00	0.00	0.00
9,800.0	4.83	258.02	9,782.3	-88.4	-416.7	-30.5	0.00	0.00	0.00
9,900.0	4.83	258.02	9,882.0	-90.1	-424.9	-31.1	0.00	0.00	0.00
10,000.0	4.83	258.02	9,981.6	-91.9	-433.1	-31.7	0.00	0.00	0.00
10,100.0	4.83	258.02	10,081.3	-93.6	-441.4	-32.3	0.00	0.00	0.00
10,200.0	4.83	258.02	10,180.9	-95.4	-449.6	-32.9	0.00	0.00	0.00
10,300.0	4.83	258.02	10,280.5	-97.1	-457.9	-33.5	0.00	0.00	0.00
10,400.0	4.83	258.02	10,380.2	-98.9	-466.1	-34.1	0.00	0.00	0.00
10,500.0	4.83	258.02	10,479.8	-100.6	-474.3	-34.7	0.00	0.00	0.00
10,600.0	4.83	258.02	10,579.5	-102.4	-482.6	-35.3	0.00	0.00	0.00



**EOG Resources, Inc.**  
Planning Report

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well #704H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25 @ 3282.0usft (H&P 651)
<b>Project:</b>	Lea County, NM (NAD 27 NME)	<b>MD Reference:</b>	KB = 25 @ 3282.0usft (H&P 651)
<b>Site:</b>	Thor 21 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#704H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

**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	4.83	258.02	10,679.1	-104.1	-490.8	-35.9	0.00	0.00	0.00
10,800.0	4.83	258.02	10,778.8	-105.9	-499.0	-36.5	0.00	0.00	0.00
10,900.0	4.83	258.02	10,878.4	-107.6	-507.3	-37.1	0.00	0.00	0.00
11,000.0	4.83	258.02	10,978.1	-109.4	-515.5	-37.7	0.00	0.00	0.00
11,100.0	4.83	258.02	11,077.7	-111.1	-523.7	-38.3	0.00	0.00	0.00
11,200.0	4.83	258.02	11,177.4	-112.9	-532.0	-38.9	0.00	0.00	0.00
11,300.0	4.83	258.02	11,277.0	-114.6	-540.2	-39.5	0.00	0.00	0.00
11,400.0	4.83	258.02	11,376.6	-116.4	-548.5	-40.1	0.00	0.00	0.00
11,500.0	4.83	258.02	11,476.3	-118.1	-556.7	-40.7	0.00	0.00	0.00
11,600.0	4.83	258.02	11,575.9	-119.8	-564.9	-41.3	0.00	0.00	0.00
11,700.0	4.83	258.02	11,675.6	-121.6	-573.2	-42.0	0.00	0.00	0.00
11,800.0	4.83	258.02	11,775.2	-123.3	-581.4	-42.6	0.00	0.00	0.00
11,864.4	4.83	258.02	11,839.4	-124.5	-586.7	-42.9	0.00	0.00	0.00
11,900.0	5.40	298.34	11,874.9	-124.0	-589.7	-42.1	10.00	1.59	113.24
11,950.0	6.94	327.80	11,924.5	-119.6	-593.8	-37.1	10.00	7.09	58.93
12,000.0	13.44	339.28	11,973.5	-110.8	-597.9	-27.9	10.00	9.00	22.96
12,050.0	18.20	344.97	12,021.6	-97.9	-602.0	-14.5	10.00	9.52	11.37
12,100.0	23.06	348.34	12,068.4	-80.7	-606.0	3.0	10.00	9.72	6.74
12,150.0	27.97	350.58	12,113.5	-59.5	-609.9	24.5	10.00	9.81	4.49
12,200.0	32.90	352.20	12,156.6	-34.5	-613.7	49.9	10.00	9.87	3.24
12,250.0	37.85	353.43	12,197.4	-5.8	-617.3	78.8	10.00	9.90	2.47
12,300.0	42.81	354.42	12,235.5	26.4	-620.7	111.1	10.00	9.92	1.98
12,350.0	47.77	355.24	12,270.6	61.7	-623.9	146.6	10.00	9.93	1.64
12,400.0	52.75	355.94	12,302.6	100.1	-626.8	185.0	10.00	9.94	1.40
12,450.0	57.72	356.55	12,331.1	141.0	-629.5	225.9	10.00	9.95	1.22
12,500.0	62.70	357.10	12,355.9	184.4	-631.9	269.2	10.00	9.95	1.10
12,503.2	63.02	357.13	12,357.4	187.2	-632.0	272.0	10.00	9.96	1.04
<b>FTP(Thor 21 #704H)</b>									
12,550.0	67.68	357.60	12,376.9	229.7	-634.0	314.3	10.00	9.96	1.00
12,600.0	72.66	358.07	12,393.9	276.7	-635.8	361.1	10.00	9.96	0.93
12,650.0	77.64	358.51	12,406.7	325.0	-637.2	409.2	10.00	9.96	0.88
12,700.0	82.62	358.94	12,415.2	374.2	-638.3	458.1	10.00	9.96	0.85
12,750.0	87.60	359.35	12,419.5	424.0	-639.0	507.5	10.00	9.97	0.83
12,774.0	90.00	359.55	12,420.0	448.0	-639.3	531.3	10.00	9.97	0.83
12,800.0	90.00	359.55	12,420.0	474.0	-639.5	557.1	0.00	0.00	0.00
12,900.0	90.00	359.55	12,420.0	574.0	-640.3	656.2	0.00	0.00	0.00
13,000.0	90.00	359.55	12,420.0	674.0	-641.0	755.4	0.00	0.00	0.00
13,100.0	90.00	359.55	12,420.0	774.0	-641.8	854.6	0.00	0.00	0.00
13,200.0	90.00	359.55	12,420.0	874.0	-642.6	953.7	0.00	0.00	0.00
13,300.0	90.00	359.55	12,420.0	974.0	-643.4	1,052.9	0.00	0.00	0.00
13,400.0	90.00	359.55	12,420.0	1,074.0	-644.2	1,152.1	0.00	0.00	0.00
13,500.0	90.00	359.55	12,420.0	1,174.0	-645.0	1,251.2	0.00	0.00	0.00
13,600.0	90.00	359.55	12,420.0	1,274.0	-645.8	1,350.4	0.00	0.00	0.00
13,700.0	90.00	359.55	12,420.0	1,373.9	-646.5	1,449.5	0.00	0.00	0.00
13,800.0	90.00	359.55	12,420.0	1,473.9	-647.3	1,548.7	0.00	0.00	0.00
13,900.0	90.00	359.55	12,420.0	1,573.9	-648.1	1,647.9	0.00	0.00	0.00
14,000.0	90.00	359.55	12,420.0	1,673.9	-648.9	1,747.0	0.00	0.00	0.00
14,100.0	90.00	359.55	12,420.0	1,773.9	-649.7	1,846.2	0.00	0.00	0.00
14,200.0	90.00	359.55	12,420.0	1,873.9	-650.5	1,945.4	0.00	0.00	0.00
14,300.0	90.00	359.55	12,420.0	1,973.9	-651.2	2,044.5	0.00	0.00	0.00
14,400.0	90.00	359.55	12,420.0	2,073.9	-652.0	2,143.7	0.00	0.00	0.00
14,500.0	90.00	359.55	12,420.0	2,173.9	-652.8	2,242.8	0.00	0.00	0.00
14,600.0	90.00	359.55	12,420.0	2,273.9	-653.6	2,342.0	0.00	0.00	0.00





**EOG Resources, Inc.**  
Planning Report

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well #704H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25 @ 3282.0usft (H&P 651)
<b>Project:</b>	Lea County, NM (NAD 27 NME)	<b>MD Reference:</b>	KB = 25 @ 3282.0usft (H&P 651)
<b>Site:</b>	Thor 21 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#704H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

**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)
14,700.0	90.00	359.55	12,420.0	2,373.9	-654.4	2,441.2	0.00	0.00	0.00
14,800.0	90.00	359.55	12,420.0	2,473.9	-655.2	2,540.3	0.00	0.00	0.00
14,900.0	90.00	359.55	12,420.0	2,573.9	-656.0	2,639.5	0.00	0.00	0.00
15,000.0	90.00	359.55	12,420.0	2,673.9	-656.7	2,738.7	0.00	0.00	0.00
15,100.0	90.00	359.55	12,420.0	2,773.9	-657.5	2,837.8	0.00	0.00	0.00
15,200.0	90.00	359.55	12,420.0	2,873.9	-658.3	2,937.0	0.00	0.00	0.00
15,300.0	90.00	359.55	12,420.0	2,973.9	-659.1	3,036.1	0.00	0.00	0.00
15,400.0	90.00	359.55	12,420.0	3,073.9	-659.9	3,135.3	0.00	0.00	0.00
15,500.0	90.00	359.55	12,420.0	3,173.9	-660.7	3,234.5	0.00	0.00	0.00
15,600.0	90.00	359.55	12,420.0	3,273.9	-661.4	3,333.6	0.00	0.00	0.00
15,700.0	90.00	359.55	12,420.0	3,373.9	-662.2	3,432.8	0.00	0.00	0.00
15,800.0	90.00	359.55	12,420.0	3,473.9	-663.0	3,532.0	0.00	0.00	0.00
15,900.0	90.00	359.55	12,420.0	3,573.9	-663.8	3,631.1	0.00	0.00	0.00
16,000.0	90.00	359.55	12,420.0	3,673.9	-664.6	3,730.3	0.00	0.00	0.00
16,100.0	90.00	359.55	12,420.0	3,773.9	-665.4	3,829.4	0.00	0.00	0.00
16,200.0	90.00	359.55	12,420.0	3,873.9	-666.1	3,928.6	0.00	0.00	0.00
16,300.0	90.00	359.55	12,420.0	3,973.9	-666.9	4,027.8	0.00	0.00	0.00
16,400.0	90.00	359.55	12,420.0	4,073.9	-667.7	4,126.9	0.00	0.00	0.00
16,500.0	90.00	359.55	12,420.0	4,173.9	-668.5	4,226.1	0.00	0.00	0.00
16,600.0	90.00	359.55	12,420.0	4,273.9	-669.3	4,325.2	0.00	0.00	0.00
16,700.0	90.00	359.55	12,420.0	4,373.9	-670.1	4,424.4	0.00	0.00	0.00
16,800.0	90.00	359.55	12,420.0	4,473.9	-670.9	4,523.6	0.00	0.00	0.00
16,900.0	90.00	359.55	12,420.0	4,573.8	-671.6	4,622.7	0.00	0.00	0.00
17,000.0	90.00	359.55	12,420.0	4,673.8	-672.4	4,721.9	0.00	0.00	0.00
17,100.0	90.00	359.55	12,420.0	4,773.8	-673.2	4,821.1	0.00	0.00	0.00
17,201.2	90.00	359.55	12,420.0	4,875.0	-674.0	4,921.4	0.00	0.00	0.00

**PBHL(Thor 21 #704H)**

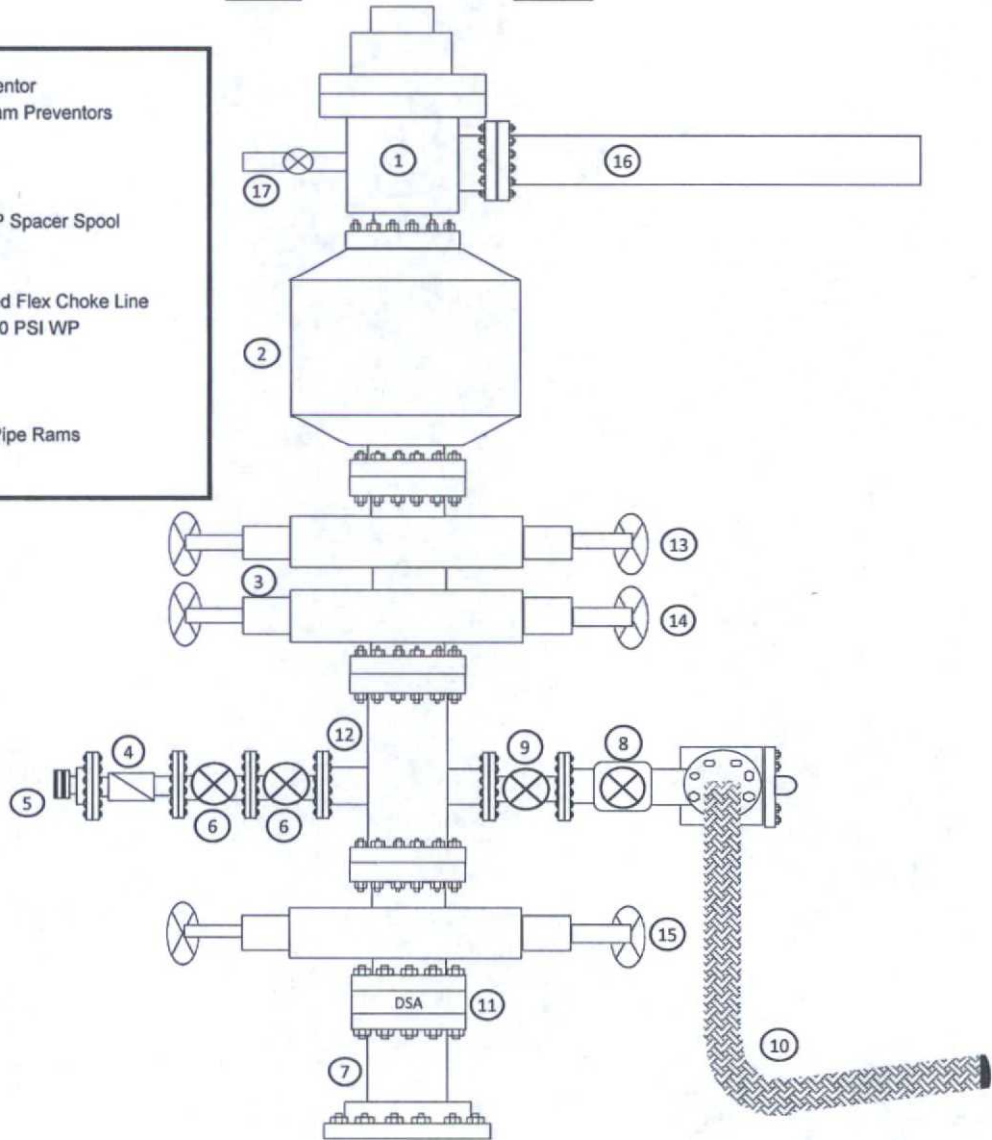
**Design Targets**

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL(Thor 21 #704H) - hit/miss target - Shape - plan hits target center - Point	0.00	0.00	12,420.0	4,875.0	-674.0	377,456.00	734,774.00	32° 2' 7.719 N	103° 34' 32.530 W
FTP(Thor 21 #704H) - plan misses target center by 69.3usft at 12503.2usft MD (12357.4 TVD, 187.2 N, -632.0 E) - Point	0.00	0.00	12,420.0	158.0	-637.0	372,739.00	734,811.00	32° 1' 21.038 N	103° 34' 32.484 W

# Exhibit 1 EOG Resources 10M BOPE

Rig Floor

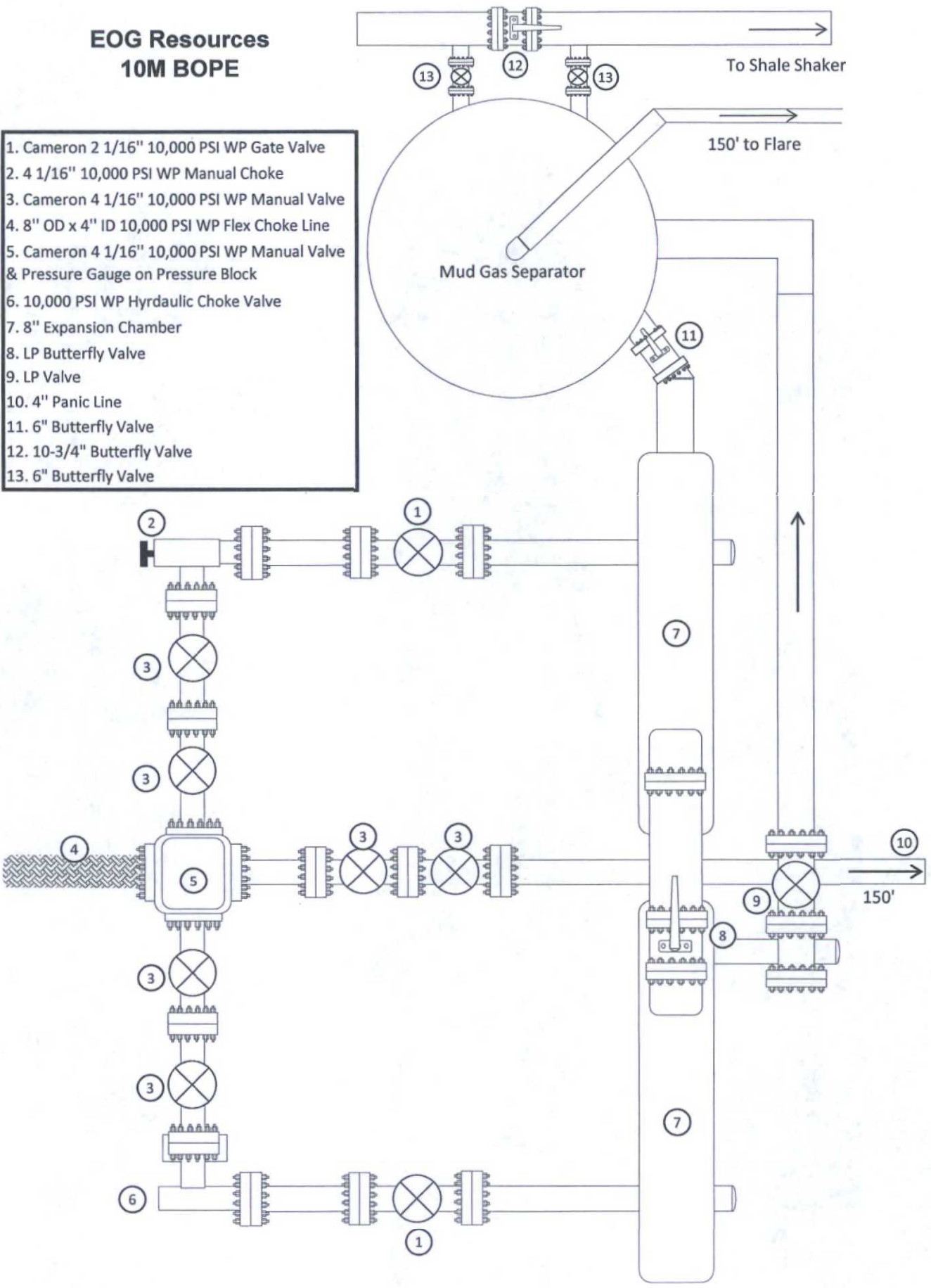
- |  |
|--|
| 1. 13 5/8" Rotating Head                                       |
| 2. NOV 13 5/8" 5,000 PSI WP GK Annular Preventor               |
| 3. 13 5/8" Cameron Type "U" 10,000 PSI WP Ram Preventors       |
| 4. 2 1/16" - 10,000 PSI WP Check Valve                         |
| 5. 10,000 PSI WP - 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 Hyrdraulic Choke Valve
7. 8" Expansion Chamber
8. LP Butterfly Valve
9. LP Valve
10. 4" Panic Line
11. 6" Butterfly Valve
12. 10-3/4" Butterfly Valve
13. 6" Butterfly Valve



**Manufacturer: Midwest Hose & Specialty**

**Serial Number: SN#90067**

**Length: 35'**

**Size: OD = 8" ID = 4"**

**Ends: Flanges Size: 4-1/16"**

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

**MIDWEST  
HOSE AND SPECIALTY INC.**

<b>INTERNAL HYDROSTATIC TEST REPORT</b>		
<b>Customer:</b> CACTUS		<b>P.O. Number:</b> RIG #123 Asset # M10761
<b>HOSE SPECIFICATIONS</b>		
<b>Type:</b> CHOKE LINE		<b>Length:</b> 35'
<b>I.D.</b> 4" INCHES		<b>O.D.</b> 8" INCHES
<b>WORKING PRESSURE</b> 10,000 PSI	<b>TEST PRESSURE</b> 15,000 PSI	<b>BURST PRESSURE</b> PSI
<b>COUPLINGS</b>		
<b>Type of End Fitting</b> 4 1/16 10K FLANGE		
<b>Type of Coupling:</b> SWEDGED		<b>MANUFACTURED BY</b> MIDWEST HOSE & SPECIALTY
<b>PROCEDURE</b>		
<i>Hose assembly pressure tested with water at ambient temperature.</i>		
<b>TIME HELD AT TEST PRESSURE</b> 1 MIN.		<b>ACTUAL BURST PRESSURE:</b> 0 PSI
<b>COMMENTS:</b> 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		
<b>Date:</b> 6/6/2011	<b>Tested By:</b> BOBBY FINK	<b>Approved:</b> MENDI JACKSON



Midwest Hose & Specialty, Inc.

# Internal Hydrostatic Test Graph

Customer: CACTUS

SALES ORDER# 90067

### Hose Specifications

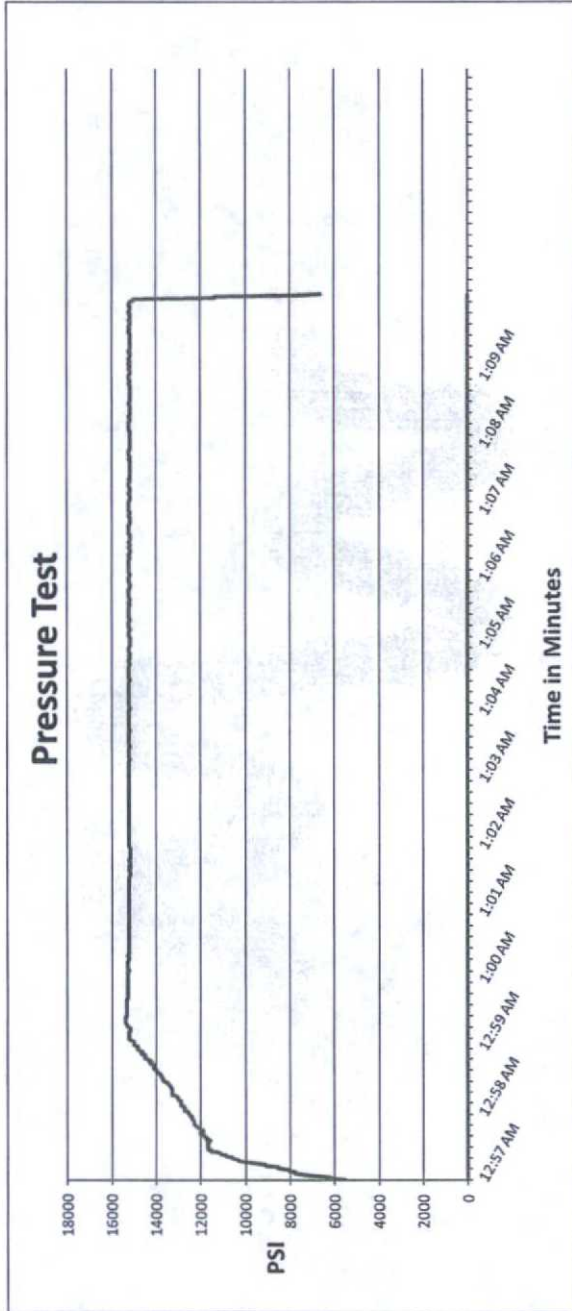
Hose Type: C & K  
I.D.: 4"  
Working Pressure: 10000 PSI

Length: 35'  
O.D.: 8"

### Verification

Type of Fitting: 4 1/16 10K  
Die Size: 6.62"  
Hose Serial #: 90067  
Coupling Method: Swage  
Final O.D.: 6.68"  
Hose Assembly Serial #: 90067

Standard Safety Multiplier Applies



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

*Bobby Fink*

*Mendi Jackson*

Exhibit 4  
EOG Resources  
Thor 21 Fed Com #704H

Well Site Diagram

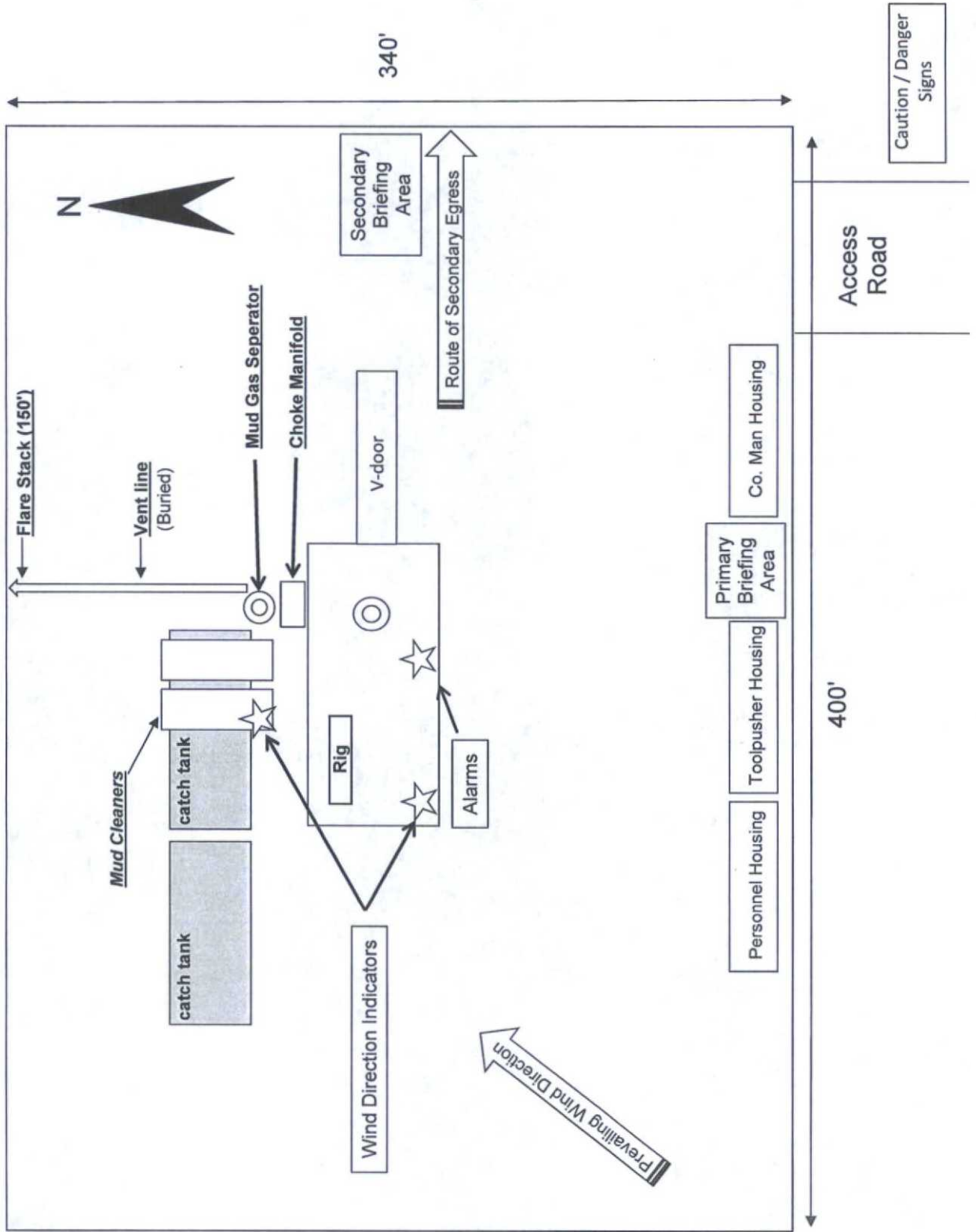


Exhibit 4 (A) Option  
EOG Resources  
Thor 21 Fed Com #704H

Well Site Diagram

