

HOBBS OCD

FEB 27 2014

Permit Information:

30-025-41681

Well Name: Ophelia 27 No. 6H

RECEIVED

Location:

SL: 2420' FNL & 1999' FEL, Section 27, T-26-S, R-33-E, Lea Co., N.M.

BHL: 2410' FSL & 1870' FEL, Section 22, T-26-S, R-33-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 - 875'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4000' - 5100'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.60
8.75"	0'-14,511'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
875'	300	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	200	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
5,100'	800	12.7	2.22	Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static Free
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
14,511'	375	10.8	3.67	60:40:0 Class C + 15.0 pps BA-90 + 4% MPA-5 + 3.0% SMS + 5.0% A-10 + 1.0% BA-10A + 0.80% ASA-301 + 2.55% R-21 + 8.0 pps LCM-1
	400	11.8	2.38	50:50:10 Class H + 0.80% FL-52 + 0.30% ASA-301 + 0.40% SMS + 2.0% Salt + 0.30% R-21 + 3.0 pps LCM-1 + 0.25 pps Celloflake
	1400	14.2	1.28	50:50:2 Class H + 0.65% FL-52 + 0.45% CD-32 + 0.10% SMS + 2.0% Salt

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 875'	Fresh - Gel	8.6-8.8	28-34	N/c
875' - 5,100'	Brine	10.0-10.2	28-34	N/c
5,100' - 9,397'	Cut Brine	8.4-9.0	28-34	N/c
9,397' - 14,511' Lateral	Cut Brine	9.0-9.5	40-42	8-10

FEB 27 2014

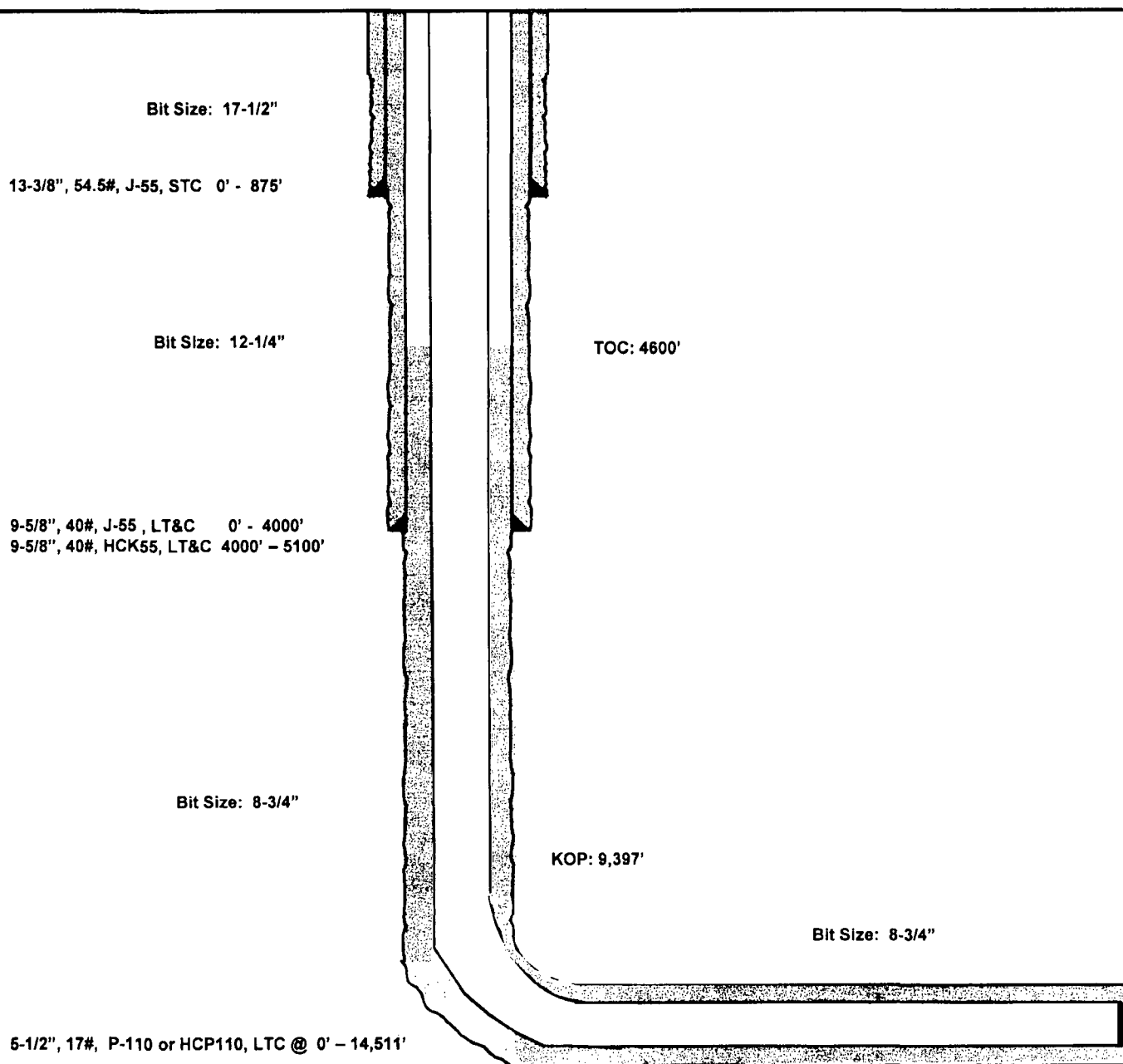
Ophelia 27 #6H
Lea County, New Mexico

2420' FNL
1999' FEL
Section 27
T-26-S, R-33-E

Proposed Wellbore

API: 30-025-

KB: 3,305'
GL: 3,278'



Lateral: 14,511' MD, 9,856' TVD

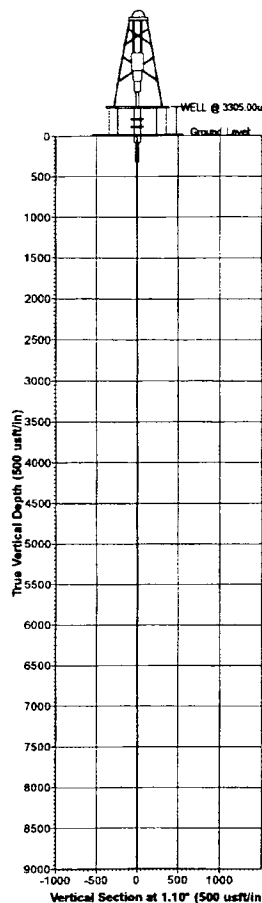
BH Location: 2410' FSL & 1870' FEL
Section 22
T-26-S, R-33-E



Project: Lea County, NM (NAD27 NME)
 Site: Ophelia 27
 Well: #6H
 Wellbore: Wellbore #1 Job #1410308
 Design: Plan #1 02-24-14
 Rig: Patterson 452



Azimuths to Grid North
 True North: -0.41°
 Magnetic North: 6.82°
 Magnetic Field
 Strength: 48224.1nT
 Dip Angle: 59.93°
 Date: 02/20/2014
 Model: IGRF2010_14



WELL DETAILS									
	+N-S	+E-W	North	Ground Level	Easting	Latitude	Longitude		
	0.00	0.00	370018.00	3278.00	740431.00	32° 0' 53.71702 N	103° 33' 27.43546 W		

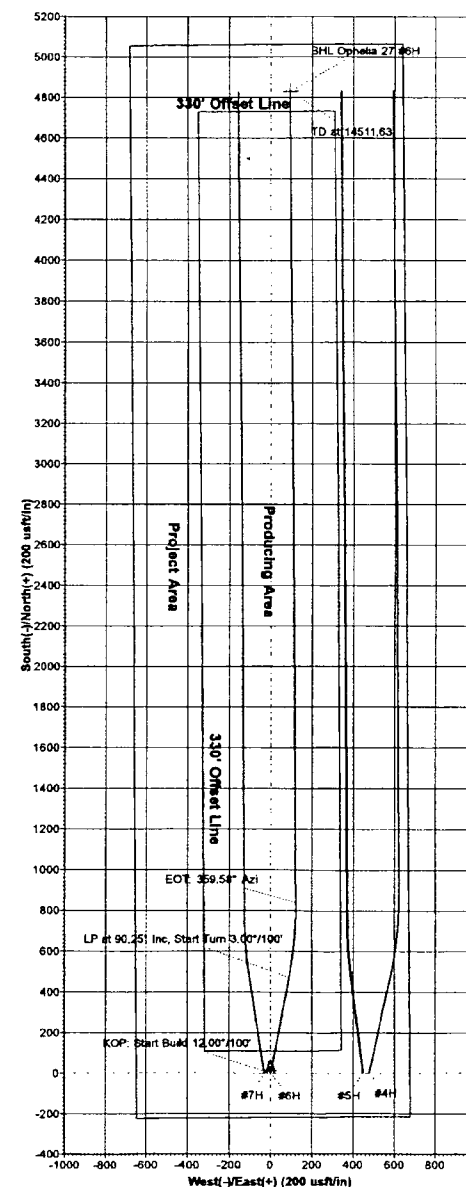
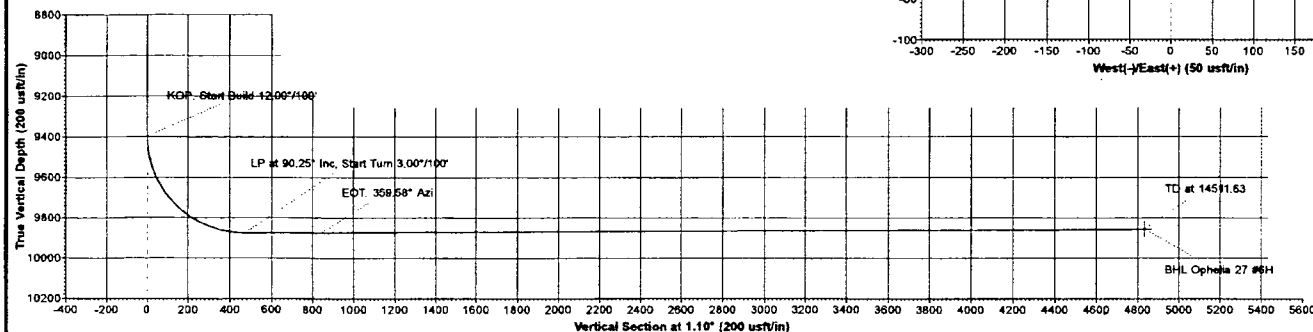
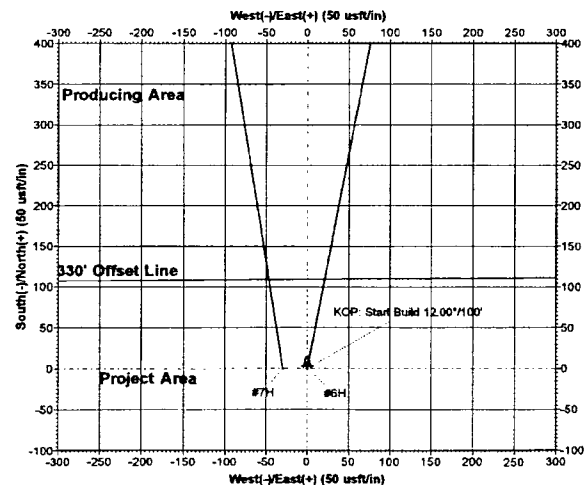
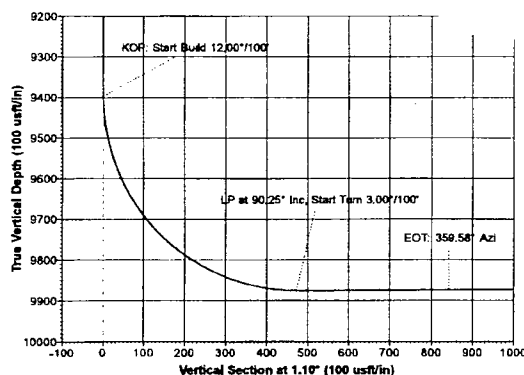
SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Diag	TFace	VFace	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	8397.54	0.00	0.00	8397.54	0.00	0.00	0.00	0.00	0.00		KOP: Start Build 12.00°/100'
3	10149.82	90.25	10.70	9875.00	471.21	89.94	12.00	10.70	472.84		LP at 90.25° Inc, Start Turn 3.00°/100'
4	10520.25	90.25	359.58	9873.38	836.77	122.19	3.00	-69.58	841.96		EOT: 359.58° Azi
5	14511.63	90.25	359.58	9856.00	4831.00	85.00	0.00	0.00	4831.90	BHL Ophelia 27 #6H	TD at 14511.63

DESIGN TARGET DETAILS									
Name	TVD	+N-S	+E-W	North	Easting	Latitude	Longitude	Shape	
BHL Ophelia 27 #6H	9856.00	4831.00	85.00	374848.00	740524.00	32° 1' 41.51888 N	103° 33' 25.95235 W	Point	

Map System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone Name: New Mexico East 3001
 Local Origin: Well #6H, Grid North
 Latitude: 32° 0' 53.71702 N
 Longitude: 103° 33' 27.43546 W
 Grid East: 740431.00
 Grid North: 370018.00
 Scale Factor: 1.000
 Geomagnetic Model: IGRF2010_14
 Sample Date: 20-Feb-14
 Magnetic Declination: 7.23°
 Dip Angle from Horizontal: 59.93°
 Magnetic Field Strength: 48224
 To convert a Magnetic Direction to a Grid Direction, Add 6.82°
 To convert a Magnetic Direction to a True Direction, Add 7.23° East
 To convert a True Direction to a Grid Direction, Subtract 0.41°

LEGEND

- #4H, Wellbore #1 Job #1410306, Plan #1 02-24-14 V0
- #7H, Wellbore #1 Job #1410309, Plan #1 02-24-14 V0
- #5H, Wellbore #1 Job #1410307, Plan #1 02-24-14 V0
- Plan #1 02-24-14





EOG Resources

Lea County, NM (NAD27 NME)

Ophelia 27

#6H

Wellbore #1 Job #1410308

Plan: Plan #1 02-24-14

Planning Report

24 February, 2014





Phoenix Technology Services
Planning Report



Company: EOG Resources
Project: Lea County, NM (NAD27 NME)
Site: Ophelia 27
Well: #6H
Wellbore: Wellbore #1 Job #1410308
Design: Plan #1 02-24-14

Local Co-ordinate Reference: Well #6H
TVD Reference: WELL @ 3305.00usft (Patterson 452)
MD Reference: WELL @ 3305.00usft (Patterson 452)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR DB

Project	Lea County, NM (NAD27 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	Ophelia 27		
Site Position:		Northing:	370,025.00 usft
From:	Map	Easting:	741,483.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 0' 53.71140 N
		Longitude:	103° 33' 15.21704 W
		Grid Convergence:	0.41 °

Well	#6H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 0' 53.71702 N
		Longitude:	103° 33' 27.43546 W
		Ground Level:	3,278.00 usft

Wellbore	Wellbore #1 Job #1410308					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
			(°)	(°)	(nT)	
	IGRF2010_14	02/20/14	7.23	59.93	48,224	

Design	Plan #1 02-24-14			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	1.10

Survey Tool Program	Date	02/24/14		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
0.00	14,511.63	Plan #1 02-24-14 (Wellbore #1 Job #1410	MWD	MWD - Standard



Phoenix Technology Services
Planning Report



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Well: #6H
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Design: Plan #1 02-24-14

Local Co-ordinate Reference: Well #6H
TVD Reference: WELL @ 3305.00usft (Patterson 452)
MD Reference: WELL @ 3305.00usft (Patterson 452)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR DB

Planned Survey

MD (usft)	Inc (")	Azi (azimuth) (")	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg ("/100usft)
0.00	0.00	0.00	-3,305.00	0.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
100.00	0.00	0.00	-3,205.00	100.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
200.00	0.00	0.00	-3,105.00	200.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
300.00	0.00	0.00	-3,005.00	300.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
400.00	0.00	0.00	-2,905.00	400.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
500.00	0.00	0.00	-2,805.00	500.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
600.00	0.00	0.00	-2,705.00	600.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
700.00	0.00	0.00	-2,605.00	700.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
800.00	0.00	0.00	-2,505.00	800.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
900.00	0.00	0.00	-2,405.00	900.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
1,000.00	0.00	0.00	-2,305.00	1,000.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
1,100.00	0.00	0.00	-2,205.00	1,100.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
1,200.00	0.00	0.00	-2,105.00	1,200.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
1,300.00	0.00	0.00	-2,005.00	1,300.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
1,400.00	0.00	0.00	-1,905.00	1,400.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
1,500.00	0.00	0.00	-1,805.00	1,500.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
1,600.00	0.00	0.00	-1,705.00	1,600.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
1,700.00	0.00	0.00	-1,605.00	1,700.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
1,800.00	0.00	0.00	-1,505.00	1,800.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
1,900.00	0.00	0.00	-1,405.00	1,900.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
2,000.00	0.00	0.00	-1,305.00	2,000.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
2,100.00	0.00	0.00	-1,205.00	2,100.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
2,200.00	0.00	0.00	-1,105.00	2,200.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
2,300.00	0.00	0.00	-1,005.00	2,300.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
2,400.00	0.00	0.00	-905.00	2,400.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
2,500.00	0.00	0.00	-805.00	2,500.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
2,600.00	0.00	0.00	-705.00	2,600.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00



Phoenix Technology Services
Planning Report



Company: EOG Resources
Project: Lea County, NM (NAD27 NME)
Site: Ophelia 27
Well: #6H
Wellbore: Wellbore #1 Job #1410308
Design: Plan #1 02-24-14

Local Co-ordinate Reference: Well #6H
TVD Reference: WELL @ 3305.00usft (Patterson 452)
MD Reference: WELL @ 3305.00usft (Patterson 452)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR DB

Planned Survey

MD (usft)	Inc (")	Azi (azimuth) (")	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLog ("/100usft)
2,700.00	0.00	0.00	-605.00	2,700.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
2,800.00	0.00	0.00	-505.00	2,800.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
2,900.00	0.00	0.00	-405.00	2,900.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
3,000.00	0.00	0.00	-305.00	3,000.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
3,100.00	0.00	0.00	-205.00	3,100.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
3,200.00	0.00	0.00	-105.00	3,200.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
3,300.00	0.00	0.00	-5.00	3,300.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
3,400.00	0.00	0.00	95.00	3,400.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
3,500.00	0.00	0.00	195.00	3,500.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
3,600.00	0.00	0.00	295.00	3,600.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
3,700.00	0.00	0.00	395.00	3,700.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
3,800.00	0.00	0.00	495.00	3,800.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
3,900.00	0.00	0.00	595.00	3,900.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
4,000.00	0.00	0.00	695.00	4,000.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
4,100.00	0.00	0.00	795.00	4,100.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
4,200.00	0.00	0.00	895.00	4,200.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
4,300.00	0.00	0.00	995.00	4,300.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
4,400.00	0.00	0.00	1,095.00	4,400.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
4,500.00	0.00	0.00	1,195.00	4,500.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
4,600.00	0.00	0.00	1,295.00	4,600.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
4,700.00	0.00	0.00	1,395.00	4,700.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
4,800.00	0.00	0.00	1,495.00	4,800.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
4,900.00	0.00	0.00	1,595.00	4,900.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
5,000.00	0.00	0.00	1,695.00	5,000.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
5,100.00	0.00	0.00	1,795.00	5,100.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
5,200.00	0.00	0.00	1,895.00	5,200.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
5,300.00	0.00	0.00	1,995.00	5,300.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00



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5,400.00	0.00	0.00	2,095.00	5,400.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
5,500.00	0.00	0.00	2,195.00	5,500.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
5,600.00	0.00	0.00	2,295.00	5,600.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
5,700.00	0.00	0.00	2,395.00	5,700.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
5,800.00	0.00	0.00	2,495.00	5,800.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
5,900.00	0.00	0.00	2,595.00	5,900.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
6,000.00	0.00	0.00	2,695.00	6,000.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
6,100.00	0.00	0.00	2,795.00	6,100.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
6,200.00	0.00	0.00	2,895.00	6,200.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
6,300.00	0.00	0.00	2,995.00	6,300.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
6,400.00	0.00	0.00	3,095.00	6,400.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
6,500.00	0.00	0.00	3,195.00	6,500.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
6,600.00	0.00	0.00	3,295.00	6,600.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
6,700.00	0.00	0.00	3,395.00	6,700.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
6,800.00	0.00	0.00	3,495.00	6,800.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
6,900.00	0.00	0.00	3,595.00	6,900.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
7,000.00	0.00	0.00	3,695.00	7,000.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
7,100.00	0.00	0.00	3,795.00	7,100.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
7,200.00	0.00	0.00	3,895.00	7,200.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
7,300.00	0.00	0.00	3,995.00	7,300.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
7,400.00	0.00	0.00	4,095.00	7,400.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
7,500.00	0.00	0.00	4,195.00	7,500.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
7,600.00	0.00	0.00	4,295.00	7,600.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
7,700.00	0.00	0.00	4,395.00	7,700.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
7,800.00	0.00	0.00	4,495.00	7,800.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
7,900.00	0.00	0.00	4,595.00	7,900.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
8,000.00	0.00	0.00	4,695.00	8,000.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00



Phoenix Technology Services
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Site: Ophelia 27
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Wellbore: Wellbore #1 Job #1410308
Design: Plan #1 02-24-14

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8,100.00	0.00	0.00	4,795.00	8,100.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
8,200.00	0.00	0.00	4,895.00	8,200.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
8,300.00	0.00	0.00	4,995.00	8,300.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
8,400.00	0.00	0.00	5,095.00	8,400.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
8,500.00	0.00	0.00	5,195.00	8,500.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
8,600.00	0.00	0.00	5,295.00	8,600.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
8,700.00	0.00	0.00	5,395.00	8,700.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
8,800.00	0.00	0.00	5,495.00	8,800.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
8,900.00	0.00	0.00	5,595.00	8,900.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
9,000.00	0.00	0.00	5,695.00	9,000.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
9,100.00	0.00	0.00	5,795.00	9,100.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
9,200.00	0.00	0.00	5,895.00	9,200.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
9,300.00	0.00	0.00	5,995.00	9,300.00	0.00	0.00	370,018.00	740,431.00	0.00	0.00
9,397.54	0.00	0.00	6,092.54	9,397.54	0.00	0.00	370,018.00	740,431.00	0.00	0.00
KOP: Start Build 12.00°/100'										
9,400.00	0.30	10.70	6,095.00	9,400.00	0.01	0.00	370,018.01	740,431.00	0.01	12.00
9,425.00	3.30	10.70	6,119.98	9,424.98	0.78	0.15	370,018.78	740,431.15	0.78	12.00
9,450.00	6.30	10.70	6,144.89	9,449.89	2.83	0.53	370,020.83	740,431.53	2.84	12.00
9,475.00	9.30	10.70	6,169.66	9,474.66	6.16	1.16	370,024.16	740,432.16	6.18	12.00
9,500.00	12.30	10.70	6,194.22	9,499.22	10.76	2.03	370,028.76	740,433.03	10.80	12.00
9,525.00	15.30	10.70	6,218.49	9,523.49	16.62	3.14	370,034.62	740,434.14	16.68	12.00
9,550.00	18.30	10.70	6,242.42	9,547.42	23.72	4.48	370,041.72	740,435.48	23.80	12.00
9,575.00	21.30	10.70	6,265.94	9,570.94	32.03	6.05	370,050.03	740,437.05	32.14	12.00
9,600.00	24.30	10.70	6,288.99	9,593.99	41.55	7.85	370,059.55	740,438.85	41.69	12.00
9,625.00	27.30	10.70	6,311.49	9,616.49	52.24	9.87	370,070.24	740,440.87	52.42	12.00
9,650.00	30.30	10.70	6,333.40	9,638.40	64.07	12.11	370,082.07	740,443.11	64.29	12.00
9,675.00	33.30	10.70	6,354.65	9,659.65	77.01	14.55	370,095.01	740,445.55	77.28	12.00



Phoenix Technology Services
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9,700.00	36.30	10.70	6,375.17	9,680.17	91.03	17.20	370,109.03	740,448.20	91.34	12.00
9,725.00	39.30	10.70	6,394.93	9,699.93	106.08	20.04	370,124.08	740,451.04	106.45	12.00
9,750.00	42.30	10.70	6,413.85	9,718.85	122.13	23.08	370,140.13	740,454.08	122.55	12.00
9,775.00	45.30	10.70	6,431.89	9,736.89	139.13	26.29	370,157.13	740,457.29	139.61	12.00
9,800.00	48.30	10.70	6,449.01	9,754.01	157.03	29.67	370,175.03	740,460.67	157.57	12.00
9,825.00	51.30	10.70	6,465.14	9,770.14	175.79	33.22	370,193.79	740,464.22	176.40	12.00
9,850.00	54.30	10.70	6,480.26	9,785.26	195.36	36.91	370,213.36	740,467.91	196.03	12.00
9,875.00	57.30	10.70	6,494.31	9,799.31	215.67	40.75	370,233.67	740,471.75	216.41	12.00
9,900.00	60.30	10.70	6,507.26	9,812.26	236.68	44.72	370,254.68	740,475.72	237.49	12.00
9,925.00	63.30	10.70	6,519.08	9,824.08	258.32	48.81	370,276.32	740,479.81	259.22	12.00
9,950.00	66.30	10.70	6,529.72	9,834.72	280.55	53.01	370,298.55	740,484.01	281.52	12.00
9,975.00	69.30	10.70	6,539.17	9,844.17	303.29	57.31	370,321.29	740,488.31	304.34	12.00
10,000.00	72.30	10.70	6,547.39	9,852.39	326.48	61.69	370,344.48	740,492.69	327.61	12.00
10,025.00	75.30	10.70	6,554.37	9,859.37	350.07	66.15	370,368.07	740,497.15	351.28	12.00
10,050.00	78.30	10.70	6,560.08	9,865.08	373.98	70.67	370,391.98	740,501.67	375.28	12.00
10,075.00	81.30	10.70	6,564.51	9,869.51	398.16	75.23	370,416.16	740,506.23	399.53	12.00
10,100.00	84.30	10.70	6,567.64	9,872.64	422.53	79.84	370,440.53	740,510.84	423.99	12.00
10,125.00	87.30	10.70	6,569.47	9,874.47	447.02	84.47	370,465.02	740,515.47	448.57	12.00
10,149.62	90.25	10.70	6,570.00	9,875.00	471.21	89.04	370,489.21	740,520.04	472.84	12.00
LP at 90.25° Inc, Start Turn 3.00°/100'										
10,200.00	90.25	9.19	6,569.78	9,874.78	520.83	97.74	370,538.83	740,528.74	522.61	3.00
10,300.00	90.25	6.19	6,569.34	9,874.34	619.92	111.11	370,637.92	740,542.11	621.94	3.00
10,400.00	90.25	3.19	6,568.90	9,873.90	719.57	119.29	370,737.57	740,550.29	721.73	3.00
10,500.00	90.25	0.19	6,568.47	9,873.47	819.51	122.23	370,837.51	740,553.23	821.71	3.00
10,520.25	90.25	359.58	6,568.38	9,873.38	839.77	122.19	370,857.77	740,553.19	841.96	3.00
EOT: 359.58° Azi										
10,600.00	90.25	359.58	6,568.03	9,873.03	919.51	121.61	370,937.51	740,552.61	921.68	0.00



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10,700.00	90.25	359.58	6,567.60	9,872.60	1,019.51	120.88	371,037.51	740,551.88	1,021.64	0.00
10,800.00	90.25	359.58	6,567.16	9,872.16	1,119.50	120.15	371,137.50	740,551.15	1,121.61	0.00
10,900.00	90.25	359.58	6,566.73	9,871.73	1,219.50	119.41	371,237.50	740,550.41	1,221.57	0.00
11,000.00	90.25	359.58	6,566.29	9,871.29	1,319.50	118.68	371,337.50	740,549.68	1,321.54	0.00
11,100.00	90.25	359.58	6,565.86	9,870.86	1,419.49	117.95	371,437.49	740,548.95	1,421.50	0.00
11,200.00	90.25	359.58	6,565.42	9,870.42	1,519.49	117.22	371,537.49	740,548.22	1,521.46	0.00
11,300.00	90.25	359.58	6,564.98	9,869.98	1,619.49	116.49	371,637.49	740,547.49	1,621.43	0.00
11,400.00	90.25	359.58	6,564.55	9,869.55	1,719.48	115.76	371,737.48	740,546.76	1,721.39	0.00
11,500.00	90.25	359.58	6,564.11	9,869.11	1,819.48	115.03	371,837.48	740,546.03	1,821.36	0.00
11,600.00	90.25	359.58	6,563.68	9,868.68	1,919.47	114.29	371,937.47	740,545.29	1,921.32	0.00
11,700.00	90.25	359.58	6,563.24	9,868.24	2,019.47	113.56	372,037.47	740,544.56	2,021.28	0.00
11,800.00	90.25	359.58	6,562.81	9,867.81	2,119.47	112.83	372,137.47	740,543.83	2,121.25	0.00
11,900.00	90.25	359.58	6,562.37	9,867.37	2,219.46	112.10	372,237.46	740,543.10	2,221.21	0.00
12,000.00	90.25	359.58	6,561.94	9,866.94	2,319.46	111.37	372,337.46	740,542.37	2,321.17	0.00
12,100.00	90.25	359.58	6,561.50	9,866.50	2,419.46	110.64	372,437.46	740,541.64	2,421.14	0.00
12,200.00	90.25	359.58	6,561.07	9,866.07	2,519.45	109.91	372,537.45	740,540.91	2,521.10	0.00
12,300.00	90.25	359.58	6,560.63	9,865.63	2,619.45	109.18	372,637.45	740,540.18	2,621.07	0.00
12,400.00	90.25	359.58	6,560.19	9,865.19	2,719.45	108.44	372,737.45	740,539.44	2,721.03	0.00
12,500.00	90.25	359.58	6,559.76	9,864.76	2,819.44	107.71	372,837.44	740,538.71	2,820.99	0.00
12,600.00	90.25	359.58	6,559.32	9,864.32	2,919.44	106.98	372,937.44	740,537.98	2,920.96	0.00
12,700.00	90.25	359.58	6,558.89	9,863.89	3,019.43	106.25	373,037.43	740,537.25	3,020.92	0.00
12,800.00	90.25	359.58	6,558.45	9,863.45	3,119.43	105.52	373,137.43	740,536.52	3,120.88	0.00
12,900.00	90.25	359.58	6,558.02	9,863.02	3,219.43	104.79	373,237.43	740,535.79	3,220.85	0.00
13,000.00	90.25	359.58	6,557.58	9,862.58	3,319.42	104.06	373,337.42	740,535.06	3,320.81	0.00
13,100.00	90.25	359.58	6,557.15	9,862.15	3,419.42	103.32	373,437.42	740,534.32	3,420.78	0.00
13,200.00	90.25	359.58	6,556.71	9,861.71	3,519.42	102.59	373,537.42	740,533.59	3,520.74	0.00
13,300.00	90.25	359.58	6,556.28	9,861.28	3,619.41	101.86	373,637.41	740,532.86	3,620.70	0.00



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13,400.00	90.25	359.58	6,555.84	9,860.84	3,719.41	101.13	373,737.41	740,532.13	3,720.67	0.00
13,500.00	90.25	359.58	6,555.40	9,860.40	3,819.41	100.40	373,837.41	740,531.40	3,820.63	0.00
13,600.00	90.25	359.58	6,554.97	9,859.97	3,919.40	99.67	373,937.40	740,530.67	3,920.59	0.00
13,700.00	90.25	359.58	6,554.53	9,859.53	4,019.40	98.94	374,037.40	740,529.94	4,020.56	0.00
13,800.00	90.25	359.58	6,554.10	9,859.10	4,119.39	98.20	374,137.39	740,529.20	4,120.52	0.00
13,900.00	90.25	359.58	6,553.66	9,858.66	4,219.39	97.47	374,237.39	740,528.47	4,220.49	0.00
14,000.00	90.25	359.58	6,553.23	9,858.23	4,319.39	96.74	374,337.39	740,527.74	4,320.45	0.00
14,100.00	90.25	359.58	6,552.79	9,857.79	4,419.38	96.01	374,437.38	740,527.01	4,420.41	0.00
14,200.00	90.25	359.58	6,552.36	9,857.36	4,519.38	95.28	374,537.38	740,526.28	4,520.38	0.00
14,300.00	90.25	359.58	6,551.92	9,856.92	4,619.38	94.55	374,637.38	740,525.55	4,620.34	0.00
14,400.00	90.25	359.58	6,551.49	9,856.49	4,719.37	93.82	374,737.37	740,524.82	4,720.30	0.00
14,500.00	90.25	359.58	6,551.05	9,856.05	4,819.37	93.09	374,837.37	740,524.09	4,820.27	0.00
14,511.63	90.25	359.58	6,551.00	9,856.00	4,831.00	93.00	374,849.00	740,524.00	4,831.90	0.00

TD at 14511.63

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,397.54	9,397.54	0.00	0.00	KOP: Start Build 12.00°/100'
10,149.62	9,875.00	471.21	89.04	LP at 90.25° Inc, Start Turn 3.00°/100'
10,520.25	9,873.38	839.77	122.19	EOT: 359.58° Azi
14,511.63	9,856.00	4,831.00	93.00	TD at 14511.63

EOG RESOURCES, INC.
OPHELIA 27 #6H

Hydrogen Sulfide Plan Summary

- A. All personnel shall receive proper H₂S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:
 - Well control equipment
 - a. Flare line 150' from wellhead to be ignited by flare gun.
 - b. Choke manifold with a remotely operated choke.
 - c. Mud/gas separator
 - Protective equipment for essential personnel.
 - Breathing apparatus:
 - a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
 - b. Work/Escapes packs — 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
 - c. Emergency Escape Packs — 4 packs shall be stored in the doghouse for emergency evacuation.
 - Auxiliary Rescue Equipment:
 - a. Stretcher
 - b. Two OSHA full body harness
 - c. 100 ft 5/8 inch OSHA approved rope
 - d. 1-20# class ABC fire extinguisher
 - H₂S detection and monitoring equipment:
 - The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
 - (Gas sample tubes will be stored in the safety trailer)
 - Visual warning systems.
 - a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
 - c. Two wind socks will be placed in strategic locations, visible from all angles.

EOG RESOURCES, INC.
OPHELIA 27 #6H

- **Mud program:**
The mud program has been designed to minimize the volume of H₂S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H₂S bearing zones.
- **Metallurgy:**
All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- **Communication:**
Communication will be via cell phones and land lines where available.

EOG RESOURCES, INC.
OPHELIA 27 #6H

Emergency Assistance Telephone List

PUBLIC SAFETY: **911 or**

Lea County Sheriff's Department (575) 396-3611

Rod Coffman

Fire Department:

Carlsbad (575) 885-3125

Artesia (575) 746-5050

Hospitals:

Carlsbad (575) 887-4121

Artesia (575) 748-3333

Hobbs (575) 392-1979

Dept. of Public Safety/Carlsbad (575) 748-9718

Highway Department (575) 885-3281

New Mexico Oil Conservation (575) 476-3440

U.S. Dept. of Labor (575) 887-1174

EOG Resources, Inc.

EOG / Midland Office (432) 686-3600

Company Drilling Consultants:

Lonnie Byrd Cell (432) 894-2389

Rickie Poindexter

Drilling Engineer

Robert Brosig Office (432) 686-3737

Cell (432) 770-0705

Drilling Manager

Steve Munsell Office (432) 686-3609

Cell (432) 894-1256

Drilling Superintendent

Ron Welch Office (432) 686-3695

Cell (432) 386-0592

Cactus Drilling

Patterson Drilling Office (432) 682-9401

Patterson 452 Drilling Rig Rig (432) 894-2389

Tool Pusher:

Robert Merchant Cell (903) 477-3751

Patrick Ford Cell (903) 539-7889

Safety

Reggie Phillips (HSE Manager) Office (432) 686-3747

Cell (432) 250-7507