



CONCHO

COG PRODUCTION LLC

**LEA COUNTY, NM
BULLDOG
AZORES FED COM #5H**

OWB

Plan: PWP1

Survey Report - Geographic

28 February, 2017



COG PRODUCTION LLC

Survey Report - Geographic

Company:	COG PRODUCTION LLC	Local Co-ordinate Reference:	Well AZORES FED COM #5H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3508.9+26 @ 3534.9usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3508.9+26 @ 3534.9usft (MCVAY 8)
Well:	AZORES FED COM #5H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	EDM_Users

Project	LEA COUNTY, NM		
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	BULLDOG		
Site Position:		Northing:	398,637.10 usft
From:	Map	Easting:	741,887.40 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 5' 36.820 N
		Longitude:	103° 33' 8.116 W
		Grid Convergence:	0.42 °

Well	AZORES FED COM #5H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	3.0 usft	Wellhead Elevation:	usf
		Latitude:	32° 10' 53.965 N
		Longitude:	103° 41' 19.935 W
		Ground Level:	3,508.9 usf

Wellbore	OWB		
Magnetics	Model Name	Sample Date	Declination (°)
	WMM2015	2/27/2017	7.06
			Dip Angle (°)
			60.00
			Field Strength (nT)
			47,920.35156942

Design	PWP1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			0.05

Survey Tool Program	Date 2/28/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
0.0	8,800.0	PWP1 (OWB)	Standard Keeper 104
8,800.0	13,958.4	PWP1 (OWB)	MWD
			Description
			Standard Wireline Keeper ver 1.0.4
			OWSG MWD - Standard

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.0	0.00	0.00	0.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W	
100.0	0.00	0.00	100.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W	
200.0	0.00	0.00	200.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W	
300.0	0.00	0.00	300.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W	
400.0	0.00	0.00	400.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W	
500.0	0.00	0.00	500.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W	
600.0	0.00	0.00	600.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W	
700.0	0.00	0.00	700.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W	
800.0	0.00	0.00	800.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W	
900.0	0.00	0.00	900.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W	



COG PRODUCTION LLC

Survey Report - Geographic

Company: COG PRODUCTION LLC
Project: LEA COUNTY, NM
Site: BULLDOG
Well: AZORES FED COM #5H
Wellbore: OWB
Design: PWP1

Local Co-ordinate Reference: Well AZORES FED COM #5H
TVD Reference: RKB=3508.9+26 @ 3534.9usft (MCVAY 8)
MD Reference: RKB=3508.9+26 @ 3534.9usft (MCVAY 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM_Users

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,100.0	0.00	0.00	1,100.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
1,900.0	0.00	0.00	1,900.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
2,000.0	0.00	0.00	2,000.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
2,100.0	0.00	0.00	2,100.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
2,200.0	0.00	0.00	2,200.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
2,300.0	0.00	0.00	2,300.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
2,400.0	0.00	0.00	2,400.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
2,500.0	0.00	0.00	2,500.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
2,600.0	0.00	0.00	2,600.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
2,700.0	0.00	0.00	2,700.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
2,800.0	0.00	0.00	2,800.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
2,900.0	0.00	0.00	2,900.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
3,000.0	0.00	0.00	3,000.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
3,100.0	0.00	0.00	3,100.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
3,200.0	0.00	0.00	3,200.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
3,300.0	0.00	0.00	3,300.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
3,400.0	0.00	0.00	3,400.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
3,500.0	0.00	0.00	3,500.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
3,600.0	0.00	0.00	3,600.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
3,700.0	0.00	0.00	3,700.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
3,800.0	0.00	0.00	3,800.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
3,900.0	0.00	0.00	3,900.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
4,000.0	0.00	0.00	4,000.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
4,100.0	0.00	0.00	4,100.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
4,200.0	0.00	0.00	4,200.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
4,300.0	0.00	0.00	4,300.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
4,400.0	0.00	0.00	4,400.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
4,500.0	0.00	0.00	4,500.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
4,600.0	0.00	0.00	4,600.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
4,700.0	0.00	0.00	4,700.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
4,800.0	0.00	0.00	4,800.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
4,900.0	0.00	0.00	4,900.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
5,000.0	0.00	0.00	5,000.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
5,100.0	0.00	0.00	5,100.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
5,200.0	0.00	0.00	5,200.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
5,300.0	0.00	0.00	5,300.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
5,400.0	0.00	0.00	5,400.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
5,500.0	0.00	0.00	5,500.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
5,600.0	0.00	0.00	5,600.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
5,700.0	0.00	0.00	5,700.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
5,800.0	0.00	0.00	5,800.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
5,900.0	0.00	0.00	5,900.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
6,000.0	0.00	0.00	6,000.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
6,100.0	0.00	0.00	6,100.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
6,200.0	0.00	0.00	6,200.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
6,300.0	0.00	0.00	6,300.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
6,400.0	0.00	0.00	6,400.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
6,500.0	0.00	0.00	6,500.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W



COG PRODUCTION LLC

Survey Report - Geographic

Company:	COG PRODUCTION LLC	Local Co-ordinate Reference:	Well AZORES FED COM #5H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3508.9+26 @ 3534.9usft (MCVAY 8)
Site:	BULLDOG	MD Reference:	RKB=3508.9+26 @ 3534.9usft (MCVAY 8)
Well:	AZORES FED COM #5H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	EDM_Users

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,600.0	0.00	0.00	6,600.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
6,700.0	0.00	0.00	6,700.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
6,800.0	0.00	0.00	6,800.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
6,900.0	0.00	0.00	6,900.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
7,000.0	0.00	0.00	7,000.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
7,100.0	0.00	0.00	7,100.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
7,200.0	0.00	0.00	7,200.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
7,300.0	0.00	0.00	7,300.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
7,400.0	0.00	0.00	7,400.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
7,500.0	0.00	0.00	7,500.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
7,600.0	0.00	0.00	7,600.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
7,700.0	0.00	0.00	7,700.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
7,800.0	0.00	0.00	7,800.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
7,900.0	0.00	0.00	7,900.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
8,000.0	0.00	0.00	8,000.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
8,100.0	0.00	0.00	8,100.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
8,200.0	0.00	0.00	8,200.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
8,300.0	0.00	0.00	8,300.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
8,400.0	0.00	0.00	8,400.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
8,500.0	0.00	0.00	8,500.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
8,600.0	0.00	0.00	8,600.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
8,700.0	0.00	0.00	8,700.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
8,800.0	0.00	0.00	8,800.0	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
8,812.5	0.00	0.00	8,812.5	0.0	0.0	430,404.40	699,386.90	32° 10' 53.965 N	103° 41' 19.935 W
8,900.0	10.50	0.05	8,899.5	8.0	0.0	430,412.39	699,386.90	32° 10' 54.044 N	103° 41' 19.934 W
9,000.0	22.50	0.05	8,995.2	36.3	0.0	430,440.74	699,386.93	32° 10' 54.324 N	103° 41' 19.932 W
9,100.0	34.50	0.05	9,082.9	84.0	0.1	430,488.37	699,386.97	32° 10' 54.796 N	103° 41' 19.928 W
9,200.0	46.50	0.05	9,158.8	148.8	0.1	430,553.19	699,387.03	32° 10' 55.437 N	103° 41' 19.923 W
9,300.0	58.50	0.05	9,219.6	228.0	0.2	430,632.38	699,387.09	32° 10' 56.221 N	103° 41' 19.917 W
9,400.0	70.49	0.05	9,262.6	318.1	0.3	430,722.47	699,387.17	32° 10' 57.112 N	103° 41' 19.910 W
9,500.0	82.49	0.05	9,285.9	415.1	0.4	430,819.52	699,387.26	32° 10' 58.073 N	103° 41' 19.902 W
9,562.6	90.00	0.05	9,290.0	477.5	0.4	430,881.90	699,387.31	32° 10' 58.690 N	103° 41' 19.897 W
9,600.0	90.00	0.05	9,290.0	514.9	0.4	430,919.34	699,387.35	32° 10' 59.060 N	103° 41' 19.894 W
9,640.7	90.00	0.05	9,290.0	555.6	0.5	430,960.02	699,387.38	32° 10' 59.463 N	103° 41' 19.891 W
9,700.0	90.00	0.05	9,290.0	614.9	0.5	431,019.34	699,387.43	32° 11' 0.050 N	103° 41' 19.886 W
9,800.0	90.00	0.05	9,290.0	714.9	0.6	431,119.34	699,387.52	32° 11' 1.040 N	103° 41' 19.878 W
9,900.0	90.00	0.05	9,290.0	814.9	0.7	431,219.34	699,387.60	32° 11' 2.029 N	103° 41' 19.870 W
10,000.0	90.00	0.05	9,290.0	914.9	0.8	431,319.34	699,387.69	32° 11' 3.019 N	103° 41' 19.862 W
10,100.0	90.00	0.05	9,290.0	1,014.9	0.9	431,419.34	699,387.78	32° 11' 4.008 N	103° 41' 19.854 W
10,200.0	90.00	0.05	9,290.0	1,114.9	1.0	431,519.34	699,387.87	32° 11' 4.998 N	103° 41' 19.846 W
10,300.0	90.00	0.05	9,290.0	1,214.9	1.1	431,619.34	699,387.95	32° 11' 5.988 N	103° 41' 19.838 W
10,400.0	90.00	0.05	9,290.0	1,314.9	1.1	431,719.34	699,388.04	32° 11' 6.977 N	103° 41' 19.830 W
10,500.0	90.00	0.05	9,290.0	1,414.9	1.2	431,819.34	699,388.13	32° 11' 7.967 N	103° 41' 19.822 W
10,600.0	90.00	0.05	9,290.0	1,514.9	1.3	431,919.34	699,388.21	32° 11' 8.956 N	103° 41' 19.814 W
10,700.0	90.00	0.05	9,290.0	1,614.9	1.4	432,019.34	699,388.30	32° 11' 9.946 N	103° 41' 19.806 W
10,800.0	90.00	0.05	9,290.0	1,714.9	1.5	432,119.34	699,388.39	32° 11' 10.935 N	103° 41' 19.798 W
10,900.0	90.00	0.05	9,290.0	1,814.9	1.6	432,219.34	699,388.48	32° 11' 11.925 N	103° 41' 19.790 W
11,000.0	90.00	0.05	9,290.0	1,914.9	1.7	432,319.34	699,388.56	32° 11' 12.915 N	103° 41' 19.782 W
11,100.0	90.00	0.05	9,290.0	2,014.9	1.8	432,419.34	699,388.65	32° 11' 13.904 N	103° 41' 19.774 W
11,200.0	90.00	0.05	9,290.0	2,114.9	1.8	432,519.34	699,388.74	32° 11' 14.894 N	103° 41' 19.766 W
11,300.0	90.00	0.05	9,290.0	2,214.9	1.9	432,619.34	699,388.83	32° 11' 15.883 N	103° 41' 19.758 W
11,400.0	90.00	0.05	9,290.0	2,314.9	2.0	432,719.34	699,388.91	32° 11' 16.873 N	103° 41' 19.750 W
11,500.0	90.00	0.05	9,290.0	2,414.9	2.1	432,819.34	699,389.00	32° 11' 17.862 N	103° 41' 19.742 W
11,600.0	90.00	0.05	9,290.0	2,514.9	2.2	432,919.34	699,389.09	32° 11' 18.852 N	103° 41' 19.734 W
11,700.0	90.00	0.05	9,290.0	2,614.9	2.3	433,019.34	699,389.17	32° 11' 19.842 N	103° 41' 19.726 W



COG PRODUCTION LLC

Survey Report - Geographic

Company: COG PRODUCTION LLC
Project: LEA COUNTY, NM
Site: BULLDOG
Well: AZORES FED COM #5H
Wellbore: OWB
Design: PWP1

Local Co-ordinate Reference: Well AZORES FED COM #5H
TVD Reference: RKB=3508.9+26 @ 3534.9usft (MCVAY 8)
MD Reference: RKB=3508.9+26 @ 3534.9usft (MCVAY 8)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM_Users

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,800.0	90.00	0.05	9,290.0	2,714.9	2.4	433,119.34	699,389.26	32° 11' 20.831 N	103° 41' 19.718 W
11,900.0	90.00	0.05	9,290.0	2,814.9	2.5	433,219.34	699,389.35	32° 11' 21.821 N	103° 41' 19.710 W
12,000.0	90.00	0.05	9,290.0	2,914.9	2.5	433,319.34	699,389.44	32° 11' 22.810 N	103° 41' 19.702 W
12,100.0	90.00	0.05	9,290.0	3,014.9	2.6	433,419.34	699,389.52	32° 11' 23.800 N	103° 41' 19.694 W
12,200.0	90.00	0.05	9,290.0	3,114.9	2.7	433,519.34	699,389.61	32° 11' 24.789 N	103° 41' 19.686 W
12,300.0	90.00	0.05	9,290.0	3,214.9	2.8	433,619.34	699,389.70	32° 11' 25.779 N	103° 41' 19.678 W
12,400.0	90.00	0.05	9,290.0	3,314.9	2.9	433,719.34	699,389.79	32° 11' 26.769 N	103° 41' 19.670 W
12,500.0	90.00	0.05	9,290.0	3,414.9	3.0	433,819.34	699,389.87	32° 11' 27.758 N	103° 41' 19.662 W
12,600.0	90.00	0.05	9,290.0	3,514.9	3.1	433,919.34	699,389.96	32° 11' 28.748 N	103° 41' 19.654 W
12,700.0	90.00	0.05	9,290.0	3,614.9	3.2	434,019.34	699,390.05	32° 11' 29.737 N	103° 41' 19.646 W
12,800.0	90.00	0.05	9,290.0	3,714.9	3.2	434,119.34	699,390.13	32° 11' 30.727 N	103° 41' 19.638 W
12,900.0	90.00	0.05	9,290.0	3,814.9	3.3	434,219.34	699,390.22	32° 11' 31.716 N	103° 41' 19.630 W
13,000.0	90.00	0.05	9,290.0	3,914.9	3.4	434,319.34	699,390.31	32° 11' 32.706 N	103° 41' 19.622 W
13,100.0	90.00	0.05	9,290.0	4,014.9	3.5	434,419.34	699,390.40	32° 11' 33.696 N	103° 41' 19.614 W
13,200.0	90.00	0.05	9,290.0	4,114.9	3.6	434,519.34	699,390.48	32° 11' 34.685 N	103° 41' 19.606 W
13,300.0	90.00	0.05	9,290.0	4,214.9	3.7	434,619.34	699,390.57	32° 11' 35.675 N	103° 41' 19.598 W
13,400.0	90.00	0.05	9,290.0	4,314.9	3.8	434,719.34	699,390.66	32° 11' 36.664 N	103° 41' 19.590 W
13,500.0	90.00	0.05	9,290.0	4,414.9	3.8	434,819.34	699,390.75	32° 11' 37.654 N	103° 41' 19.582 W
13,600.0	90.00	0.05	9,290.0	4,514.9	3.9	434,919.34	699,390.83	32° 11' 38.644 N	103° 41' 19.574 W
13,700.0	90.00	0.05	9,290.0	4,614.9	4.0	435,019.34	699,390.92	32° 11' 39.633 N	103° 41' 19.566 W
13,800.0	90.00	0.05	9,290.0	4,714.9	4.1	435,119.34	699,391.01	32° 11' 40.623 N	103° 41' 19.559 W
13,900.0	90.00	0.05	9,290.0	4,814.9	4.2	435,219.34	699,391.09	32° 11' 41.612 N	103° 41' 19.551 W
13,958.4	90.00	0.05	9,290.0	4,873.3	3.9	435,277.70	699,390.80	32° 11' 42.190 N	103° 41' 19.550 W

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL-Azores Fed	0.00	0.00	9,290.0	4,873.3	3.9	435,277.70	699,390.80	32° 11' 42.190 N	103° 41' 19.550 W
- plan hits target center									
- Point									

Checked By: _____ Approved By: _____ Date: _____



Project: LEA COUNTY, NM
 Site: BULLDOG
 Well: AZORES FED COM #5H
 Wellbore: OWB
 Design: PWP1

WELL DETAILS: AZORES FED COM #5H

3508.9
 Northing 430404.40 Easting 699386.90 Latitude 32° 10' 53.965 N Longitude 103° 41' 19.935 W

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	8812.5	0.00	0.00	8812.5	0.0	0.0	0.00	0.00	0.0	
3	9562.6	90.00	0.05	9290.0	477.5	0.4	12.00	0.05	477.5	
4	9640.7	90.00	0.05	9290.0	555.6	0.5	0.00	0.00	555.6	
5	13958.4	90.00	0.05	9290.0	4873.3	3.9	0.00	0.00	4873.3	

LEGEND

- △ AZORES FED COM #10H, OWB, PWP1 V0
- AZORES FED COM #1H, OWB, PWP1 V0
- ± PWP1

