

25-44268



Lea County, NM (NAD 83 NME)

Cobalt 32 State #701H

Plan #0.3

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

WELL DETAILS: #701H

KB = 25 @ 3440.0usft 3415.0
Northing 425640.00 Easting 803748.00 Latitude 32° 10' 4.331 N Longitude 103° 29' 7.008 W

Azimuths to Grid North
True North: -0.48"
Magnetic North: 6.41"
Magnetic Field
Strength: 47865.2nT
Dip Angle: 60.82"
Date: 12/7/2017
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.88" East
To convert a True Direction to a Grid Direction, Subtract 0.48"

SECTION DETAILS

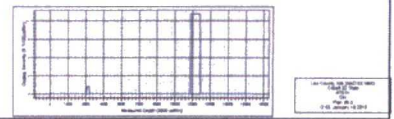
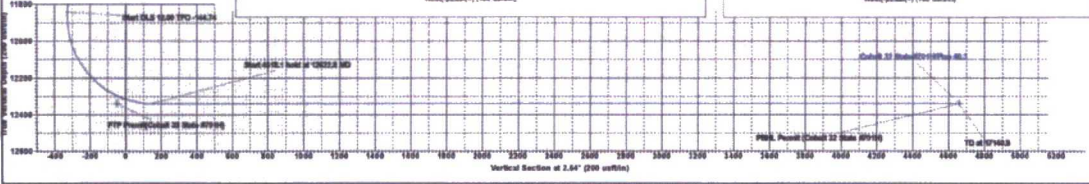
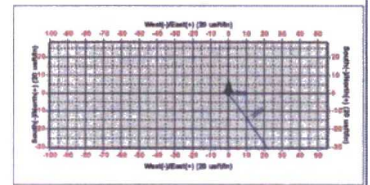
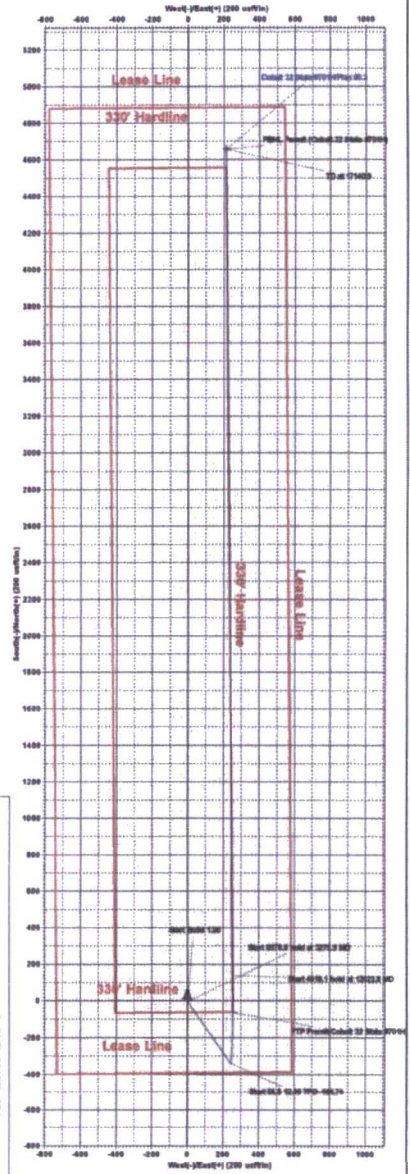
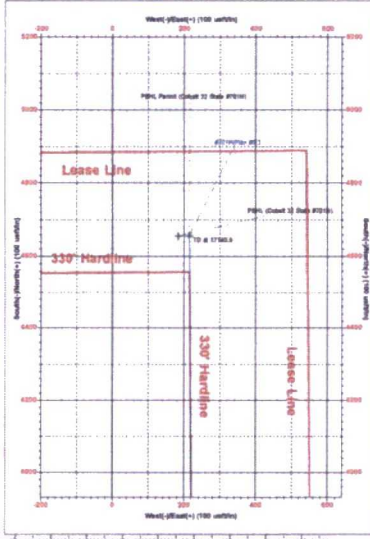
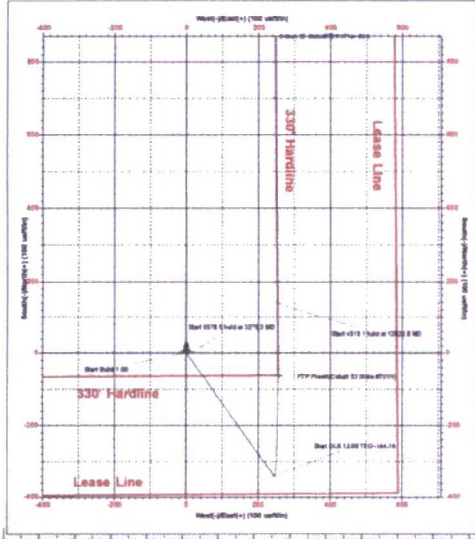
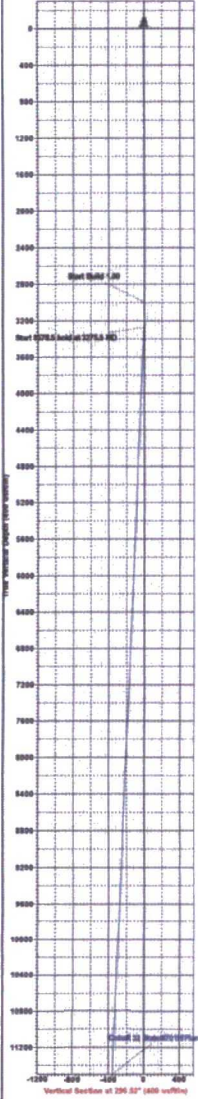
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diep	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3275.5	2.78	144.28	3275.4	-5.4	3.9	1.00	144.28	-5.2	
4	11854.0	2.78	144.28	11844.0	-340.2	244.6	0.00	0.00	-328.5	
5	12622.8	90.00	359.50	12340.0	137.0	254.3	12.00	-144.74	148.6	
6	17140.9	90.00	359.50	12340.0	4655.0	215.0	0.00	0.00	4660.0	PBHL Permit (Cobalt 32 State #701H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL (Cobalt 32 State #701H)	12277.0	4656.0	185.0	425649.00	803833.00
TGT 4 (Cobalt 32 State #701H)	12297.0	3295.0	198.0	429135.00	803944.00
TGT 3 (Cobalt 32 State #701H)	12317.0	2293.0	205.0	429133.00	803953.00
TGT 2 (Cobalt 32 State #701H)	12327.0	1991.1	211.6	427431.10	803959.40
TGT 1 (Cobalt 32 State #701H)	12337.0	890.0	217.7	426730.00	803968.70
FTP Permit (Cobalt 32 State #701H)	12340.0	43.0	386.0	426777.00	804004.00
PBHL Permit (Cobalt 32 State #701H)	12340.0	4656.0	215.0	425649.00	803833.00
FTP (Cobalt 32 State #701H)	12347.0	-63.0	228.0	425777.00	803876.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Cobalt 32 State

#701H

74695

OH

Plan: Plan #0.3

Standard Planning Report

19 January, 2018



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #701H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3440.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3440.0usft
Site:	Cobalt 32 State	North Reference:	Grid
Well:	#701H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.3		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Cobalt 32 State		
Site Position:		Northing:	425,645.00 usft
From:	Map	Easting:	803,691.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 10' 2.406 N
		Longitude:	103° 29' 7.689 W
		Grid Convergence:	0.45 °

Well	#701H		
Well Position	+N/-S	195.0 usft	Northing: 425,840.00 usft
	+E/-W	57.0 usft	Easting: 803,748.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 32° 10' 4.331 N
			Longitude: 103° 29' 7.008 W
			Ground Level: 3,415.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	12/7/2017	6.86
			Dip Angle
			(°)
			60.02
			Field Strength
			(nT)
			47,865.17420546

Design	Plan #0.3		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			2.64

Plan Survey Tool Program	Date 1/19/2018		
Depth From	Depth To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
1	0.0	17,140.9 Plan #0.3 (OH)	MWD
			MWD - Standard

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,275.5	2.76	144.28	3,275.4	-5.4	3.9	1.00	1.00	0.00	144.28	
11,854.0	2.76	144.28	11,844.0	-340.2	244.6	0.00	0.00	0.00	0.00	
12,622.8	90.00	359.50	12,340.0	137.0	254.3	12.00	11.35	-18.83	-144.74	
17,140.9	90.00	359.50	12,340.0	4,655.0	215.0	0.00	0.00	0.00	0.00	PBHL Permit (Cobalt :



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #701H
Wellbore: OH
Design: Plan #0.3

Local Co-ordinate Reference:
TVD Reference: KB = 25 @ 3440.0usft
MD Reference: KB = 25 @ 3440.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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	1.00	144.28	3,100.0	-0.7	0.5	-0.7	1.00	1.00	0.00
3,200.0	2.00	144.28	3,200.0	-2.8	2.0	-2.7	1.00	1.00	0.00
3,275.5	2.76	144.28	3,275.4	-5.4	3.9	-5.2	1.00	1.00	0.00
3,300.0	2.76	144.28	3,299.9	-6.3	4.6	-6.1	0.00	0.00	0.00
3,400.0	2.76	144.28	3,399.7	-10.2	7.4	-9.9	0.00	0.00	0.00
3,500.0	2.76	144.28	3,499.6	-14.1	10.2	-13.7	0.00	0.00	0.00
3,600.0	2.76	144.28	3,599.5	-18.0	13.0	-17.4	0.00	0.00	0.00
3,700.0	2.76	144.28	3,699.4	-21.9	15.8	-21.2	0.00	0.00	0.00
3,800.0	2.76	144.28	3,799.3	-25.8	18.6	-25.0	0.00	0.00	0.00
3,900.0	2.76	144.28	3,899.2	-29.7	21.4	-28.7	0.00	0.00	0.00
4,000.0	2.76	144.28	3,999.1	-33.7	24.2	-32.5	0.00	0.00	0.00
4,100.0	2.76	144.28	4,098.9	-37.6	27.0	-36.3	0.00	0.00	0.00
4,200.0	2.76	144.28	4,198.8	-41.5	29.8	-40.0	0.00	0.00	0.00
4,300.0	2.76	144.28	4,298.7	-45.4	32.6	-43.8	0.00	0.00	0.00
4,400.0	2.76	144.28	4,398.6	-49.3	35.4	-47.6	0.00	0.00	0.00
4,500.0	2.76	144.28	4,498.5	-53.2	38.2	-51.3	0.00	0.00	0.00
4,600.0	2.76	144.28	4,598.4	-57.1	41.0	-55.1	0.00	0.00	0.00
4,700.0	2.76	144.28	4,698.2	-61.0	43.8	-58.9	0.00	0.00	0.00
4,800.0	2.76	144.28	4,798.1	-64.9	46.7	-62.7	0.00	0.00	0.00
4,900.0	2.76	144.28	4,898.0	-68.8	49.5	-66.4	0.00	0.00	0.00
5,000.0	2.76	144.28	4,997.9	-72.7	52.3	-70.2	0.00	0.00	0.00
5,100.0	2.76	144.28	5,097.8	-76.6	55.1	-74.0	0.00	0.00	0.00
5,200.0	2.76	144.28	5,197.7	-80.5	57.9	-77.7	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #701H
Wellbore: OH
Design: Plan #0.3

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Well #701H
KB = 25 @ 3440.0usft
KB = 25 @ 3440.0usft
Grid
Minimum Curvature

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	2.76	144.28	5,297.6	-84.4	60.7	-81.5	0.00	0.00	0.00
5,400.0	2.76	144.28	5,397.4	-88.3	63.5	-85.3	0.00	0.00	0.00
5,500.0	2.76	144.28	5,497.3	-92.2	66.3	-89.0	0.00	0.00	0.00
5,600.0	2.76	144.28	5,597.2	-96.1	69.1	-92.8	0.00	0.00	0.00
5,700.0	2.76	144.28	5,697.1	-100.0	71.9	-96.6	0.00	0.00	0.00
5,800.0	2.76	144.28	5,797.0	-103.9	74.7	-100.3	0.00	0.00	0.00
5,900.0	2.76	144.28	5,896.9	-107.8	77.5	-104.1	0.00	0.00	0.00
6,000.0	2.76	144.28	5,996.7	-111.7	80.3	-107.9	0.00	0.00	0.00
6,100.0	2.76	144.28	6,096.6	-115.6	83.1	-111.7	0.00	0.00	0.00
6,200.0	2.76	144.28	6,196.5	-119.5	85.9	-115.4	0.00	0.00	0.00
6,300.0	2.76	144.28	6,296.4	-123.4	88.8	-119.2	0.00	0.00	0.00
6,400.0	2.76	144.28	6,396.3	-127.3	91.6	-123.0	0.00	0.00	0.00
6,500.0	2.76	144.28	6,496.2	-131.2	94.4	-126.7	0.00	0.00	0.00
6,600.0	2.76	144.28	6,596.1	-135.1	97.2	-130.5	0.00	0.00	0.00
6,700.0	2.76	144.28	6,695.9	-139.0	100.0	-134.3	0.00	0.00	0.00
6,800.0	2.76	144.28	6,795.8	-142.9	102.8	-138.0	0.00	0.00	0.00
6,900.0	2.76	144.28	6,895.7	-146.8	105.6	-141.8	0.00	0.00	0.00
7,000.0	2.76	144.28	6,995.6	-150.7	108.4	-145.6	0.00	0.00	0.00
7,100.0	2.76	144.28	7,095.5	-154.6	111.2	-149.3	0.00	0.00	0.00
7,200.0	2.76	144.28	7,195.4	-158.5	114.0	-153.1	0.00	0.00	0.00
7,300.0	2.76	144.28	7,295.2	-162.4	116.8	-156.9	0.00	0.00	0.00
7,400.0	2.76	144.28	7,395.1	-166.3	119.6	-160.6	0.00	0.00	0.00
7,500.0	2.76	144.28	7,495.0	-170.2	122.4	-164.4	0.00	0.00	0.00
7,600.0	2.76	144.28	7,594.9	-174.2	125.2	-168.2	0.00	0.00	0.00
7,700.0	2.76	144.28	7,694.8	-178.1	128.0	-172.0	0.00	0.00	0.00
7,800.0	2.76	144.28	7,794.7	-182.0	130.9	-175.7	0.00	0.00	0.00
7,900.0	2.76	144.28	7,894.5	-185.9	133.7	-179.5	0.00	0.00	0.00
8,000.0	2.76	144.28	7,994.4	-189.8	136.5	-183.3	0.00	0.00	0.00
8,100.0	2.76	144.28	8,094.3	-193.7	139.3	-187.0	0.00	0.00	0.00
8,200.0	2.76	144.28	8,194.2	-197.6	142.1	-190.8	0.00	0.00	0.00
8,300.0	2.76	144.28	8,294.1	-201.5	144.9	-194.6	0.00	0.00	0.00
8,400.0	2.76	144.28	8,394.0	-205.4	147.7	-198.3	0.00	0.00	0.00
8,500.0	2.76	144.28	8,493.9	-209.3	150.5	-202.1	0.00	0.00	0.00
8,600.0	2.76	144.28	8,593.7	-213.2	153.3	-205.9	0.00	0.00	0.00
8,700.0	2.76	144.28	8,693.6	-217.1	156.1	-209.6	0.00	0.00	0.00
8,800.0	2.76	144.28	8,793.5	-221.0	158.9	-213.4	0.00	0.00	0.00
8,900.0	2.76	144.28	8,893.4	-224.9	161.7	-217.2	0.00	0.00	0.00
9,000.0	2.76	144.28	8,993.3	-228.8	164.5	-221.0	0.00	0.00	0.00
9,100.0	2.76	144.28	9,093.2	-232.7	167.3	-224.7	0.00	0.00	0.00
9,200.0	2.76	144.28	9,193.0	-236.6	170.1	-228.5	0.00	0.00	0.00
9,300.0	2.76	144.28	9,292.9	-240.5	173.0	-232.3	0.00	0.00	0.00
9,400.0	2.76	144.28	9,392.8	-244.4	175.8	-236.0	0.00	0.00	0.00
9,500.0	2.76	144.28	9,492.7	-248.3	178.6	-239.8	0.00	0.00	0.00
9,600.0	2.76	144.28	9,592.6	-252.2	181.4	-243.6	0.00	0.00	0.00
9,700.0	2.76	144.28	9,692.5	-256.1	184.2	-247.3	0.00	0.00	0.00
9,800.0	2.76	144.28	9,792.4	-260.0	187.0	-251.1	0.00	0.00	0.00
9,900.0	2.76	144.28	9,892.2	-263.9	189.8	-254.9	0.00	0.00	0.00
10,000.0	2.76	144.28	9,992.1	-267.8	192.6	-258.6	0.00	0.00	0.00
10,100.0	2.76	144.28	10,092.0	-271.7	195.4	-262.4	0.00	0.00	0.00
10,200.0	2.76	144.28	10,191.9	-275.6	198.2	-266.2	0.00	0.00	0.00
10,300.0	2.76	144.28	10,291.8	-279.5	201.0	-270.0	0.00	0.00	0.00
10,400.0	2.76	144.28	10,391.7	-283.4	203.8	-273.7	0.00	0.00	0.00
10,500.0	2.76	144.28	10,491.5	-287.3	206.6	-277.5	0.00	0.00	0.00
10,600.0	2.76	144.28	10,591.4	-291.2	209.4	-281.3	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #701H
Wellbore: OH
Design: Plan #0.3

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well #701H

KB = 25 @ 3440.0usft

KB = 25 @ 3440.0usft

Grid

Minimum Curvature

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	2.76	144.28	10,691.3	-295.1	212.2	-285.0	0.00	0.00	0.00
10,800.0	2.76	144.28	10,791.2	-299.0	215.1	-288.8	0.00	0.00	0.00
10,900.0	2.76	144.28	10,891.1	-302.9	217.9	-292.6	0.00	0.00	0.00
11,000.0	2.76	144.28	10,991.0	-306.8	220.7	-296.3	0.00	0.00	0.00
11,100.0	2.76	144.28	11,090.8	-310.7	223.5	-300.1	0.00	0.00	0.00
11,200.0	2.76	144.28	11,190.7	-314.7	226.3	-303.9	0.00	0.00	0.00
11,300.0	2.76	144.28	11,290.6	-318.6	229.1	-307.6	0.00	0.00	0.00
11,400.0	2.76	144.28	11,390.5	-322.5	231.9	-311.4	0.00	0.00	0.00
11,500.0	2.76	144.28	11,490.4	-326.4	234.7	-315.2	0.00	0.00	0.00
11,600.0	2.76	144.28	11,590.3	-330.3	237.5	-319.0	0.00	0.00	0.00
11,700.0	2.76	144.28	11,690.2	-334.2	240.3	-322.7	0.00	0.00	0.00
11,800.0	2.76	144.28	11,790.0	-338.1	243.1	-326.5	0.00	0.00	0.00
11,854.0	2.76	144.28	11,844.0	-340.2	244.6	-328.5	0.00	0.00	0.00
11,875.0	1.61	79.88	11,865.0	-340.5	245.2	-328.9	12.00	-5.44	-306.64
11,900.0	3.64	25.41	11,889.9	-339.8	245.9	-328.0	12.00	8.09	-217.90
11,925.0	6.47	13.68	11,914.8	-337.7	246.6	-325.9	12.00	11.33	-46.93
11,950.0	9.40	9.15	11,939.6	-334.3	247.2	-322.5	12.00	11.75	-18.10
11,975.0	12.37	6.77	11,964.1	-329.6	247.9	-317.8	12.00	11.87	-9.51
12,000.0	15.35	5.31	11,988.4	-323.7	248.5	-311.8	12.00	11.92	-5.87
12,025.0	18.34	4.31	12,012.3	-316.4	249.1	-304.6	12.00	11.94	-4.00
12,050.0	21.33	3.58	12,035.9	-308.0	249.7	-296.1	12.00	11.96	-2.91
12,075.0	24.32	3.02	12,058.9	-298.3	250.2	-286.4	12.00	11.97	-2.22
12,100.0	27.31	2.58	12,081.4	-287.4	250.8	-275.5	12.00	11.98	-1.76
12,125.0	30.31	2.22	12,103.3	-275.4	251.3	-263.5	12.00	11.98	-1.44
12,150.0	33.30	1.92	12,124.5	-262.2	251.8	-250.3	12.00	11.98	-1.20
12,175.0	36.30	1.67	12,145.1	-248.0	252.2	-236.1	12.00	11.99	-1.02
12,200.0	39.30	1.45	12,164.8	-232.6	252.6	-220.7	12.00	11.99	-0.89
12,225.0	42.29	1.25	12,183.7	-216.3	253.0	-204.4	12.00	11.99	-0.78
12,250.0	45.29	1.08	12,201.8	-199.0	253.3	-187.1	12.00	11.99	-0.70
12,275.0	48.29	0.92	12,218.9	-180.8	253.7	-168.9	12.00	11.99	-0.63
12,300.0	51.29	0.78	12,235.0	-161.7	253.9	-149.8	12.00	11.99	-0.57
12,325.0	54.29	0.65	12,250.2	-141.8	254.2	-129.9	12.00	11.99	-0.53
12,350.0	57.28	0.52	12,264.2	-121.1	254.4	-109.3	12.00	11.99	-0.49
12,375.0	60.28	0.41	12,277.2	-99.8	254.6	-87.9	12.00	11.99	-0.46
12,400.0	63.28	0.30	12,289.0	-77.7	254.7	-65.9	12.00	11.99	-0.43
12,425.0	66.28	0.20	12,299.6	-55.1	254.8	-43.3	12.00	11.99	-0.41
12,433.0	67.24	0.17	12,302.8	-47.8	254.8	-36.0	12.00	11.99	-0.39
FTP Permit(Cobalt 32 State #701H)									
12,435.2	67.50	0.16	12,303.6	-45.8	254.8	-34.0	12.00	11.99	-0.39
FTP (Cobalt 32 State #701H)									
12,450.0	69.28	0.10	12,309.1	-32.0	254.9	-20.2	12.00	11.99	-0.39
12,475.0	72.28	0.01	12,317.3	-8.4	254.9	3.4	12.00	11.99	-0.37
12,500.0	75.28	359.92	12,324.3	15.6	254.9	27.4	12.00	11.99	-0.36
12,525.0	78.27	359.83	12,330.0	40.0	254.8	51.7	12.00	12.00	-0.35
12,550.0	81.27	359.75	12,334.5	64.6	254.7	76.2	12.00	12.00	-0.34
12,575.0	84.27	359.66	12,337.6	89.3	254.6	101.0	12.00	12.00	-0.34
12,600.0	87.27	359.58	12,339.5	114.3	254.4	125.9	12.00	12.00	-0.33
12,622.8	90.00	359.50	12,340.0	137.0	254.3	148.6	12.00	12.00	-0.33
12,700.0	90.00	359.50	12,340.0	214.3	253.6	225.7	0.00	0.00	0.00
12,800.0	90.00	359.50	12,340.0	314.3	252.7	325.6	0.00	0.00	0.00
12,900.0	90.00	359.50	12,340.0	414.3	251.9	425.4	0.00	0.00	0.00
13,000.0	90.00	359.50	12,340.0	514.3	251.0	525.3	0.00	0.00	0.00
13,100.0	90.00	359.50	12,340.0	614.3	250.1	625.1	0.00	0.00	0.00
13,200.0	90.00	359.50	12,340.0	714.2	249.2	725.0	0.00	0.00	0.00



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Local Co-ordinate Reference: Well #701H
TVD Reference: KB = 25 @ 3440.0usft
MD Reference: KB = 25 @ 3440.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
13,300.0	90.00	359.50	12,340.0	814.2	248.4	824.8	0.00	0.00	0.00
13,376.0	90.00	359.50	12,340.0	890.3	247.7	900.7	0.00	0.00	0.00
TGT 1 (Cobalt 32 State #701H)									
13,400.0	90.00	359.50	12,340.0	914.2	247.5	924.7	0.00	0.00	0.00
13,500.0	90.00	359.50	12,340.0	1,014.2	246.6	1,024.5	0.00	0.00	0.00
13,600.0	90.00	359.50	12,340.0	1,114.2	245.8	1,124.4	0.00	0.00	0.00
13,700.0	90.00	359.50	12,340.0	1,214.2	244.9	1,224.2	0.00	0.00	0.00
13,800.0	90.00	359.50	12,340.0	1,314.2	244.0	1,324.1	0.00	0.00	0.00
13,900.0	90.00	359.50	12,340.0	1,414.2	243.2	1,423.9	0.00	0.00	0.00
14,000.0	90.00	359.50	12,340.0	1,514.2	242.3	1,523.8	0.00	0.00	0.00
14,077.1	90.00	359.50	12,340.0	1,591.4	241.6	1,600.8	0.00	0.00	0.00
TGT 2 (Cobalt 32 State #701H)									
14,100.0	90.00	359.50	12,340.0	1,614.2	241.4	1,623.6	0.00	0.00	0.00
14,200.0	90.00	359.50	12,340.0	1,714.2	240.6	1,723.5	0.00	0.00	0.00
14,300.0	90.00	359.50	12,340.0	1,814.2	239.7	1,823.3	0.00	0.00	0.00
14,400.0	90.00	359.50	12,340.0	1,914.2	238.8	1,923.2	0.00	0.00	0.00
14,500.0	90.00	359.50	12,340.0	2,014.2	237.9	2,023.0	0.00	0.00	0.00
14,600.0	90.00	359.50	12,340.0	2,114.2	237.1	2,122.9	0.00	0.00	0.00
14,700.0	90.00	359.50	12,340.0	2,214.2	236.2	2,222.7	0.00	0.00	0.00
14,779.1	90.00	359.50	12,340.0	2,293.3	235.5	2,301.7	0.00	0.00	0.00
TGT 3 (Cobalt 32 State #701H)									
14,800.0	90.00	359.50	12,340.0	2,314.2	235.3	2,322.6	0.00	0.00	0.00
14,900.0	90.00	359.50	12,340.0	2,414.2	234.5	2,422.4	0.00	0.00	0.00
15,000.0	90.00	359.50	12,340.0	2,514.2	233.6	2,522.3	0.00	0.00	0.00
15,100.0	90.00	359.50	12,340.0	2,614.2	232.7	2,622.1	0.00	0.00	0.00
15,200.0	90.00	359.50	12,340.0	2,714.2	231.9	2,722.0	0.00	0.00	0.00
15,300.0	90.00	359.50	12,340.0	2,814.2	231.0	2,821.8	0.00	0.00	0.00
15,400.0	90.00	359.50	12,340.0	2,914.2	230.1	2,921.7	0.00	0.00	0.00
15,500.0	90.00	359.50	12,340.0	3,014.2	229.3	3,021.5	0.00	0.00	0.00
15,600.0	90.00	359.50	12,340.0	3,114.2	228.4	3,121.4	0.00	0.00	0.00
15,700.0	90.00	359.50	12,340.0	3,214.2	227.5	3,221.2	0.00	0.00	0.00
15,781.1	90.00	359.50	12,340.0	3,295.3	226.8	3,302.2	0.00	0.00	0.00
TGT 4 (Cobalt 32 State #701H)									
15,800.0	90.00	359.50	12,340.0	3,314.1	226.7	3,321.1	0.00	0.00	0.00
15,900.0	90.00	359.50	12,340.0	3,414.1	225.8	3,420.9	0.00	0.00	0.00
16,000.0	90.00	359.50	12,340.0	3,514.1	224.9	3,520.8	0.00	0.00	0.00
16,100.0	90.00	359.50	12,340.0	3,614.1	224.0	3,620.6	0.00	0.00	0.00
16,200.0	90.00	359.50	12,340.0	3,714.1	223.2	3,720.5	0.00	0.00	0.00
16,300.0	90.00	359.50	12,340.0	3,814.1	222.3	3,820.3	0.00	0.00	0.00
16,400.0	90.00	359.50	12,340.0	3,914.1	221.4	3,920.2	0.00	0.00	0.00
16,500.0	90.00	359.50	12,340.0	4,014.1	220.6	4,020.0	0.00	0.00	0.00
16,600.0	90.00	359.50	12,340.0	4,114.1	219.7	4,119.9	0.00	0.00	0.00
16,700.0	90.00	359.50	12,340.0	4,214.1	218.8	4,219.7	0.00	0.00	0.00
16,800.0	90.00	359.50	12,340.0	4,314.1	218.0	4,319.6	0.00	0.00	0.00
16,900.0	90.00	359.50	12,340.0	4,414.1	217.1	4,419.4	0.00	0.00	0.00
17,000.0	90.00	359.50	12,340.0	4,514.1	216.2	4,519.3	0.00	0.00	0.00
17,100.0	90.00	359.50	12,340.0	4,614.1	215.4	4,619.1	0.00	0.00	0.00
17,140.9	90.00	359.50	12,340.0	4,655.0	215.0	4,660.0	0.00	0.00	0.00
PBHL Permit (Cobalt 32 State #701H) - PBHL (Cobalt 32 State #701H)									



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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
FTP Permit(Cobalt 32 SI - plan misses target center by 40.2usft at 12433.3usft MD (12302.9 TVD, -47.5 N, 254.8 E) - Point	0.00	0.00	12,340.0	-63.0	256.0	425,777.00	804,004.00	32° 10' 3.688 N	103° 29' 4.036 W
PBHL Permit (Cobalt 32 - plan hits target center - Point	0.00	0.00	12,340.0	4,655.0	215.0	430,495.00	803,963.00	32° 10' 50.376 N	103° 29' 4.080 W