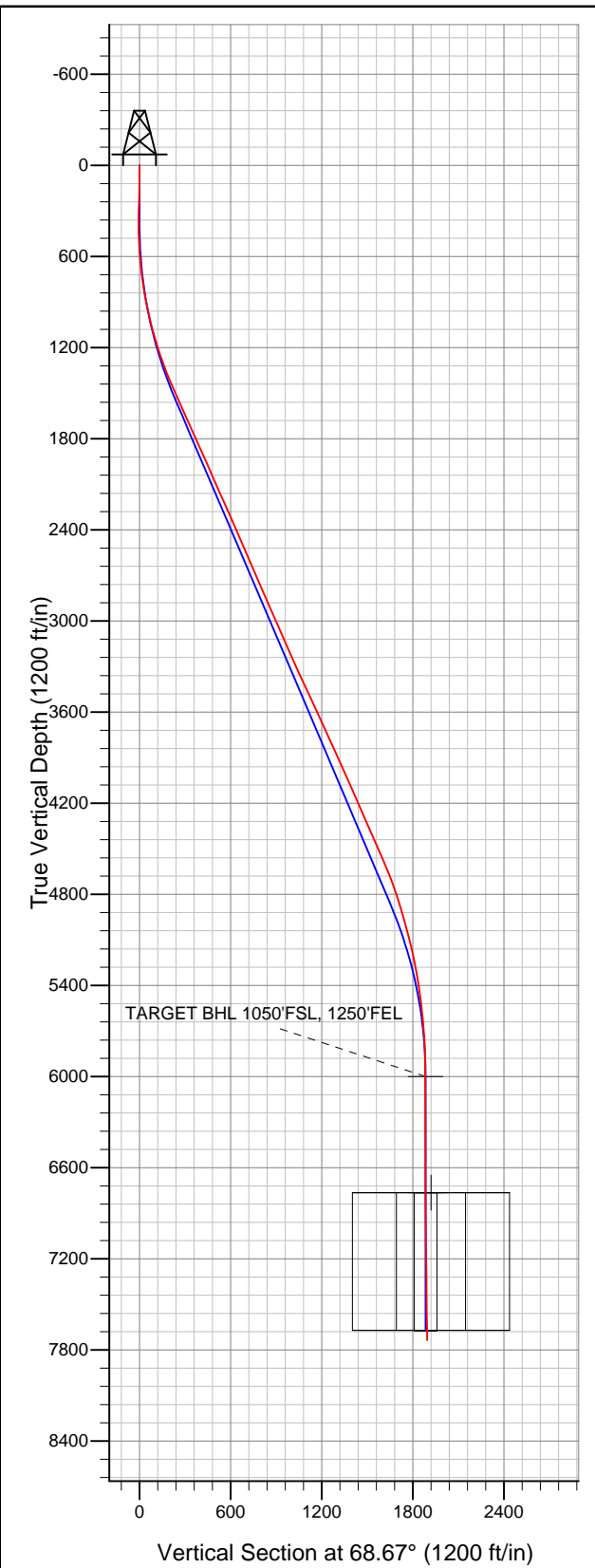


Well Name: Corbin D30-23D

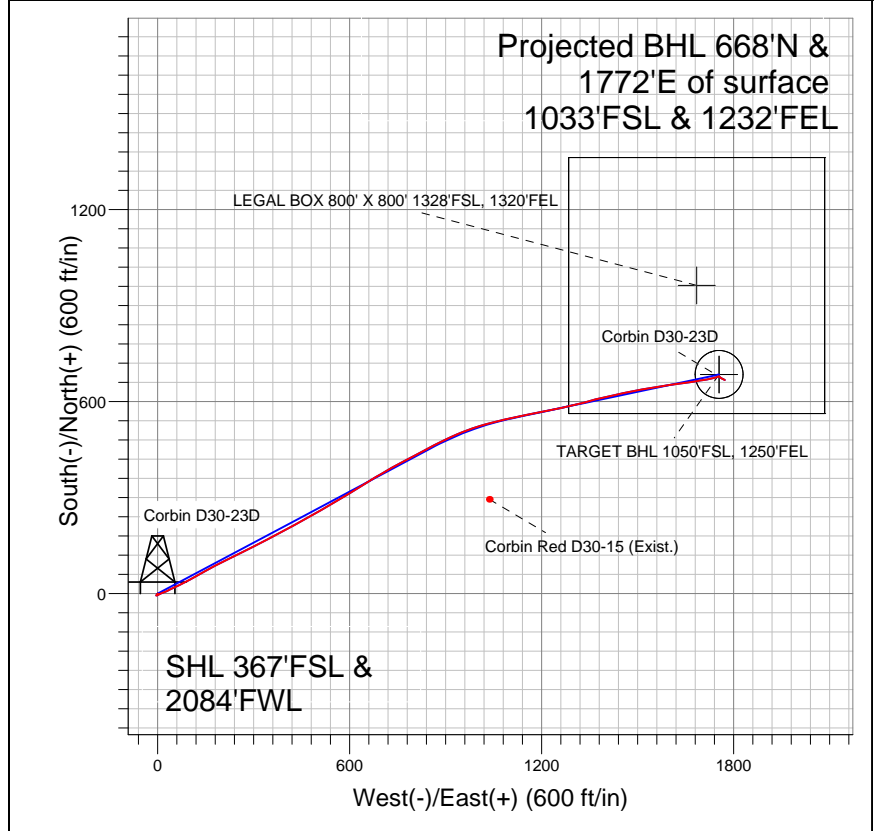
Surface Location: Dechant D30-24D Pad Sec.30-T3N-R64W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4801.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1313308.72	3252730.87	40.189890	-104.595350	

 Original Well Elev WELL @ 4814.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Corbin D30-23D, Wellbore #1, Noble Corbin D30-23D Plan #1 (11-25-11) R V0
- Corbin Red D30-15 (Exist.), Wellbore #1, Design #1 V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 8105'MD & 7735'TVD @ 1894'VS
 0.9 deg Inc 106.3 deg AZ

Project: SEC.30-T3N-R64W
 Site: Dechant D30-24D Pad Sec.30-T3N-R64W
 Well: Corbin D30-23D
 Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.30-T3N-R64W

Dechant D30-24D Pad Sec.30-T3N-R64W

Corbin D30-23D

Wellbore #1

Survey: Survey #1

Standard Survey Report

02 December, 2011



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Corbin D30-23D
Project:	SEC.30-T3N-R64W	TVD Reference:	WELL @ 4814.0ft (Original Well Elev)
Site:	Dechant D30-24D Pad Sec.30-T3N-R64W	MD Reference:	WELL @ 4814.0ft (Original Well Elev)
Well:	Corbin D30-23D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.30-T3N-R64W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Dechant D30-24D Pad Sec.30-T3N-R64W				
Site Position:		Northing:	1,313,330.59ft	Latitude:	40.189950
From:	Lat/Long	Easting:	3,252,730.65ft	Longitude:	-104.595350
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.58 °

Well	Corbin D30-23D					
Well Position	+N/-S	0.0 ft	Northing:	1,313,308.72 ft	Latitude:	40.189890
	+E/-W	0.0 ft	Easting:	3,252,730.87 ft	Longitude:	-104.595350
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,801.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/24/2011	8.71	66.90	53,002

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	6,000.0	0.0	0.0	68.67	

Survey Program	Date	12/2/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
151.0	8,105.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
151.0	1.60	217.70	151.0	-1.7	-1.3	-1.8	1.06	1.06	0.00	
243.0	1.60	226.30	242.9	-3.6	-3.0	-4.1	0.26	0.00	9.35	
336.0	1.00	209.50	335.9	-5.2	-4.3	-5.9	0.76	-0.65	-18.06	
428.0	0.70	101.70	427.9	-6.0	-4.2	-6.1	1.51	-0.33	-117.17	
520.0	2.90	65.80	519.9	-5.1	-1.5	-3.3	2.57	2.39	-39.02	
612.0	5.00	63.20	611.6	-2.4	4.2	3.0	2.29	2.28	-2.83	
704.0	7.00	67.40	703.1	1.6	12.9	12.6	2.22	2.17	4.57	
785.0	8.30	66.40	783.4	5.8	22.9	23.4	1.61	1.60	-1.23	
833.0	9.10	63.40	830.9	8.9	29.4	30.6	1.92	1.67	-6.25	
926.0	11.60	65.30	922.3	16.1	44.5	47.3	2.71	2.69	2.04	
1,020.0	13.80	64.30	1,014.0	24.9	63.2	67.9	2.35	2.34	-1.06	
1,114.0	15.60	62.30	1,105.0	35.7	84.5	91.7	1.99	1.91	-2.13	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Corbin D30-23D
Project:	SEC.30-T3N-R64W	TVD Reference:	WELL @ 4814.0ft (Original Well Elev)
Site:	Dechant D30-24D Pad Sec.30-T3N-R64W	MD Reference:	WELL @ 4814.0ft (Original Well Elev)
Well:	Corbin D30-23D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,208.0	17.40	63.00	1,195.1	47.9	108.2	118.2	1.93	1.91	0.74
1,302.0	20.00	59.20	1,284.1	62.5	134.5	148.1	3.05	2.77	-4.04
1,396.0	21.80	61.40	1,371.9	79.1	163.7	181.2	2.09	1.91	2.34
1,490.0	23.30	63.60	1,458.7	95.7	195.7	217.1	1.83	1.60	2.34
1,584.0	24.30	64.40	1,544.7	112.4	229.7	254.9	1.12	1.06	0.85
1,678.0	24.90	63.60	1,630.2	129.5	264.9	293.9	0.73	0.64	-0.85
1,772.0	24.60	63.00	1,715.6	147.2	300.1	333.1	0.42	-0.32	-0.64
1,866.0	24.10	62.00	1,801.2	165.1	334.5	371.6	0.69	-0.53	-1.06
1,960.0	24.00	62.10	1,887.1	183.0	368.3	409.6	0.11	-0.11	0.11
2,053.0	23.40	61.30	1,972.2	200.8	401.2	446.7	0.73	-0.65	-0.86
2,147.0	24.40	61.80	2,058.1	218.9	434.7	484.5	1.09	1.06	0.53
2,241.0	24.60	61.30	2,143.7	237.5	469.0	523.2	0.31	0.21	-0.53
2,335.0	24.10	60.40	2,229.3	256.3	502.8	561.6	0.66	-0.53	-0.96
2,429.0	24.00	58.80	2,315.2	275.7	535.8	599.4	0.70	-0.11	-1.70
2,523.0	23.70	59.30	2,401.1	295.3	568.4	636.9	0.38	-0.32	0.53
2,617.0	24.10	59.50	2,487.1	314.7	601.2	674.5	0.43	0.43	0.21
2,711.0	23.50	57.90	2,573.1	334.4	633.6	711.8	0.94	-0.64	-1.70
2,805.0	23.70	57.60	2,659.2	354.4	665.5	748.8	0.25	0.21	-0.32
2,899.0	24.30	60.00	2,745.1	374.2	698.2	786.5	1.22	0.64	2.55
2,993.0	23.90	60.70	2,830.9	393.2	731.5	824.4	0.52	-0.43	0.74
3,087.0	23.50	62.10	2,917.0	411.3	764.7	861.9	0.73	-0.43	1.49
3,181.0	23.10	61.80	3,003.3	428.8	797.5	898.8	0.44	-0.43	-0.32
3,274.0	23.80	61.80	3,088.6	446.3	830.1	935.6	0.75	0.75	0.00
3,368.0	24.20	63.70	3,174.5	463.8	864.1	973.6	0.93	0.43	2.02
3,462.0	24.40	63.70	3,260.2	480.9	898.8	1,012.1	0.21	0.21	0.00
3,556.0	25.20	66.90	3,345.5	497.4	934.6	1,051.5	1.66	0.85	3.40
3,650.0	24.30	69.40	3,430.9	512.0	971.1	1,090.8	1.47	-0.96	2.66
3,744.0	25.20	73.90	3,516.2	524.4	1,008.5	1,130.1	2.22	0.96	4.79
3,838.0	24.80	76.40	3,601.4	534.6	1,046.8	1,169.6	1.20	-0.43	2.66
3,932.0	25.10	75.20	3,686.7	544.3	1,085.3	1,208.9	0.63	0.32	-1.28
4,026.0	24.90	79.90	3,771.9	552.9	1,124.0	1,248.1	2.12	-0.21	5.00
4,120.0	24.60	77.80	3,857.2	560.5	1,162.6	1,286.9	0.99	-0.32	-2.23
4,214.0	25.00	79.40	3,942.6	568.3	1,201.3	1,325.7	0.83	0.43	1.70
4,308.0	24.40	78.80	4,028.0	575.7	1,239.9	1,364.3	0.69	-0.64	-0.64
4,402.0	23.90	76.40	4,113.7	583.9	1,277.4	1,402.3	1.17	-0.53	-2.55
4,496.0	23.30	75.90	4,199.9	592.9	1,314.0	1,439.6	0.67	-0.64	-0.53
4,590.0	24.40	75.20	4,285.9	602.4	1,350.8	1,477.4	1.21	1.17	-0.74
4,683.0	24.00	77.60	4,370.7	611.4	1,387.8	1,515.1	1.14	-0.43	2.58
4,777.0	24.20	77.10	4,456.5	619.8	1,425.3	1,553.1	0.30	0.21	-0.53
4,871.0	23.90	77.80	4,542.3	628.1	1,462.7	1,590.9	0.44	-0.32	0.74
4,965.0	22.70	79.40	4,628.7	635.5	1,499.1	1,627.6	1.44	-1.28	1.70
5,059.0	20.70	79.90	4,716.0	641.7	1,533.3	1,661.7	2.14	-2.13	0.53
5,153.0	18.90	81.30	4,804.4	647.0	1,564.7	1,692.8	1.98	-1.91	1.49
5,247.0	17.10	82.00	4,893.8	651.2	1,593.4	1,721.1	1.93	-1.91	0.74
5,341.0	15.60	82.70	4,984.0	654.7	1,619.6	1,746.8	1.61	-1.60	0.74
5,435.0	15.40	82.40	5,074.6	658.0	1,644.6	1,771.2	0.23	-0.21	-0.32
5,529.0	13.00	80.80	5,165.7	661.3	1,667.4	1,793.7	2.59	-2.55	-1.70
5,623.0	11.40	80.30	5,257.6	664.6	1,687.0	1,813.1	1.71	-1.70	-0.53
5,717.0	9.80	81.30	5,350.0	667.3	1,704.0	1,830.0	1.71	-1.70	1.06
5,811.0	8.10	80.30	5,442.9	669.7	1,718.5	1,844.3	1.82	-1.81	-1.06
5,905.0	6.70	78.00	5,536.1	671.9	1,730.4	1,856.2	1.52	-1.49	-2.45
5,999.0	5.40	72.30	5,629.5	674.4	1,739.9	1,866.1	1.52	-1.38	-6.06
6,092.0	3.90	70.80	5,722.2	676.8	1,747.1	1,873.6	1.62	-1.61	-1.61
6,186.0	2.20	76.00	5,816.1	678.3	1,751.9	1,878.6	1.83	-1.81	5.53

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Corbin D30-23D
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Site:	Dechant D30-24D Pad Sec.30-T3N-R64W	MD Reference:	WELL @ 4814.0ft (Original Well Elev)
Well:	Corbin D30-23D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
6,280.0	0.40	61.40	5,910.1	678.9	1,753.9	1,880.7	1.93	-1.91	-15.53	
6,369.9	0.23	90.70	6,000.0	679.0	1,754.4	1,881.2	0.25	-0.19	32.57	
TARGET BHL 1050'FSL, 1250'FEL										
6,406.0	0.20	113.80	6,036.1	679.0	1,754.5	1,881.3	0.25	-0.09	64.07	
6,531.0	0.40	124.00	6,161.1	678.7	1,755.0	1,881.7	0.16	0.16	8.16	
6,656.0	0.20	167.80	6,286.1	678.2	1,755.5	1,881.9	0.23	-0.16	35.04	
6,782.0	0.50	137.20	6,412.1	677.6	1,755.9	1,882.1	0.27	0.24	-24.29	
6,907.0	0.60	143.90	6,537.1	676.7	1,756.6	1,882.4	0.09	0.08	5.36	
7,032.0	0.70	139.80	6,662.0	675.5	1,757.5	1,882.8	0.09	0.08	-3.28	
7,132.3	0.56	89.05	6,762.3	675.1	1,758.4	1,883.5	0.55	-0.14	-50.59	
LEGAL BOX 800' X 800' 1328'FSL, 1320'FEL										
7,133.9	0.56	88.15	6,764.0	675.1	1,758.4	1,883.5	0.55	0.12	-55.41	
TARGET CIRCLE 1050'FSL, 1250'FEL										
7,157.0	0.60	76.20	6,787.0	675.1	1,758.6	1,883.7	0.55	0.18	-51.80	
7,283.0	0.50	134.00	6,913.0	674.9	1,759.7	1,884.6	0.43	-0.08	45.87	
7,408.0	0.90	127.00	7,038.0	673.9	1,760.9	1,885.4	0.33	0.32	-5.60	
7,533.0	1.00	115.80	7,163.0	672.9	1,762.6	1,886.6	0.17	0.08	-8.96	
7,658.0	1.10	118.80	7,288.0	671.8	1,764.7	1,888.1	0.09	0.08	2.40	
7,785.0	1.30	118.40	7,415.0	670.5	1,767.0	1,889.8	0.16	0.16	-0.31	
7,911.0	1.10	123.70	7,540.9	669.2	1,769.3	1,891.5	0.18	-0.16	4.21	
8,059.0	0.90	106.30	7,688.9	668.1	1,771.5	1,893.2	0.24	-0.14	-11.76	
8,105.0	0.90	106.30	7,734.9	667.9	1,772.2	1,893.8	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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