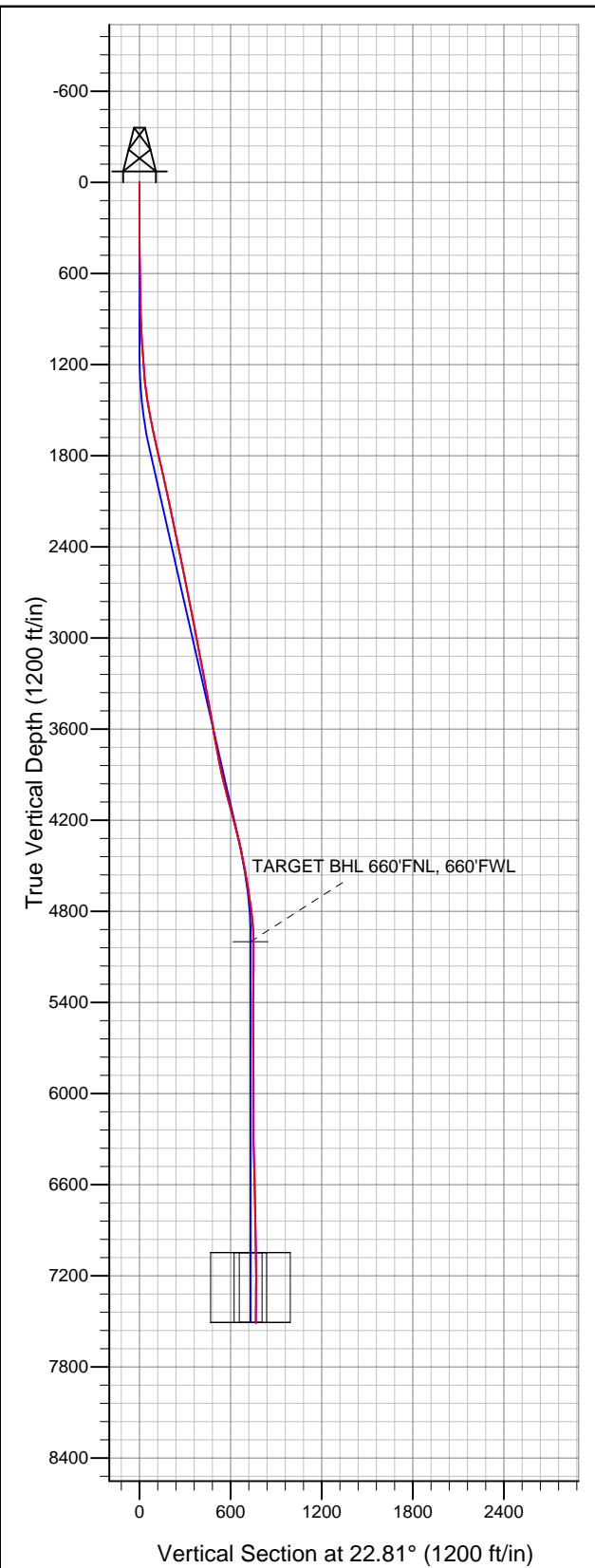
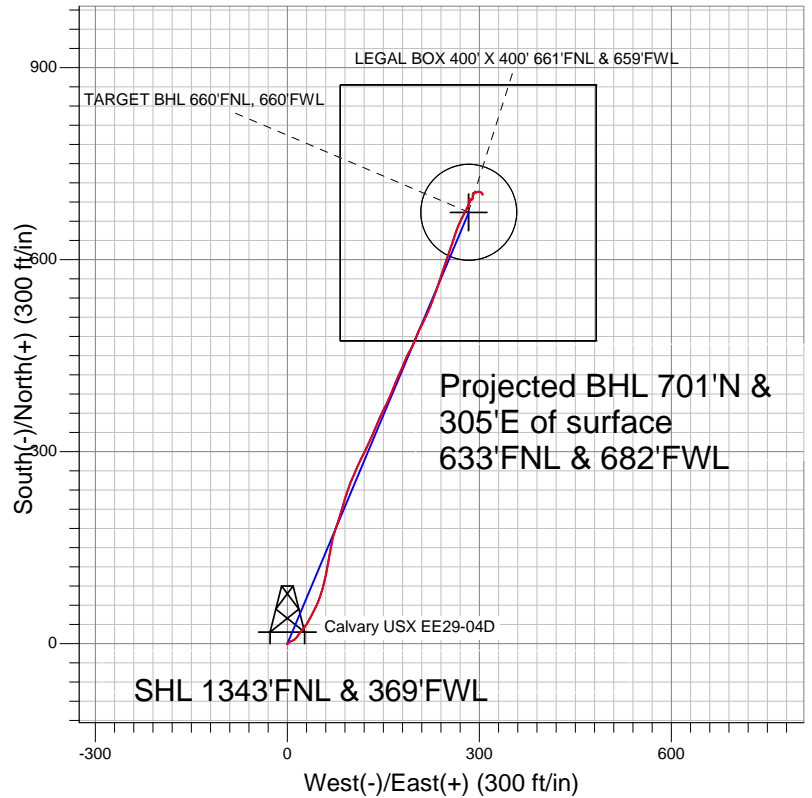




Well Name: **Calvary USX EE29-04D**
Surface Location: Donaldson USX EE29-12D Pad Sec.29-T7N-R65W
North American Datum 1983 US State Plane 1983Colorado Northern Zone
Ground Elevation: 4924.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1444056.73 3223636.48 40.549550 -104.695240
Original Well EleWELL @ 4937.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Calvary USX EE29-04D, Wellbore #1, Noble Calvary USX EE29-04D Plan #1 (5-04-11) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
7585' MD & 7511' TVD @ 765' VS
1.2 deg Inc 163.2 deg AZ

Project: SEC.29-T7N-R65W
Site: Donaldson USX EE29-12D Pad Sec.29-T7N-R65W
Well: Calvary USX EE29-04D
Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.29-T7N-R65W

Donaldson USX EE29-12D Pad Sec.29-T7N-R65W

Calvary USX EE29-04D

Wellbore #1

Survey: Survey #1

Standard Survey Report

23 September, 2011



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Calvary USX EE29-04D
Project:	SEC.29-T7N-R65W	TVD Reference:	WELL @ 4937.0ft (Original Well Elev)
Site:	Donaldson USX EE29-12D Pad Sec.29-T7N-R65W	MD Reference:	WELL @ 4937.0ft (Original Well Elev)
Well:	Calvary USX EE29-04D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.29-T7N-R65W, 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	Donaldson USX EE29-12D Pad Sec.29-T7N-R65W				
Site Position:		Northing:	1,444,056.55 ft	Latitude:	40.549550
From:	Lat/Long	Easting:	3,223,614.25 ft	Longitude:	-104.695320
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.52 °

Well	Calvary USX EE29-04D					
Well Position	+N-S	0.0 ft	Northing:	1,444,056.73 ft	Latitude:	40.549550
	+E-W	0.0 ft	Easting:	3,223,636.48 ft	Longitude:	-104.695240
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,924.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/9/2011	8.85	67.19	53,227

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 (°)	
	5,000.0	0.0	0.0	22.81	

Survey Program	Date	9/23/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
104.0	7,585.0	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	
104.0	0.40	210.60	104.0	-0.3	-0.2	-0.4	0.38	0.38	0.00	
199.0	0.20	277.80	199.0	-0.6	-0.5	-0.7	0.39	-0.21	70.74	
292.0	0.40	77.40	292.0	-0.5	-0.4	-0.6	0.64	0.22	171.61	
404.0	0.40	71.60	404.0	-0.3	0.4	-0.1	0.04	0.00	-5.18	
486.0	0.90	40.30	486.0	0.3	1.1	0.7	0.73	0.61	-38.17	
568.0	1.10	46.10	568.0	1.3	2.1	2.0	0.27	0.24	7.07	
649.0	1.00	46.80	649.0	2.4	3.1	3.4	0.12	-0.12	0.86	
750.0	1.20	72.40	749.9	3.3	4.8	4.9	0.52	0.20	25.35	
831.0	1.80	76.10	830.9	3.9	6.8	6.2	0.75	0.74	4.57	
913.0	3.20	56.40	912.8	5.4	10.0	8.9	1.98	1.71	-24.02	
995.0	3.50	41.30	994.7	8.6	13.5	13.2	1.13	0.37	-18.41	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Calvary USX EE29-04D
Project:	SEC.29-T7N-R65W	TVD Reference:	WELL @ 4937.0ft (Original Well Elev)
Site:	Donaldson USX EE29-12D Pad Sec.29-T7N-R65W	MD Reference:	WELL @ 4937.0ft (Original Well Elev)
Well:	Calvary USX EE29-04D	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)
1,077.0	4.00	36.10	1,076.5	12.8	16.9	18.3	0.74	0.61	-6.34
1,158.0	4.00	32.90	1,157.3	17.4	20.1	23.8	0.28	0.00	-3.95
1,240.0	4.00	42.20	1,239.1	21.9	23.6	29.4	0.79	0.00	11.34
1,322.0	6.10	37.60	1,320.8	27.5	28.1	36.3	2.61	2.56	-5.61
1,404.0	8.50	28.70	1,402.1	36.3	33.7	46.5	3.23	2.93	-10.85
1,485.0	9.20	26.70	1,482.2	47.3	39.5	58.9	0.94	0.86	-2.47
1,567.0	11.60	24.30	1,562.8	60.7	45.8	73.7	2.97	2.93	-2.93
1,649.0	12.00	18.50	1,643.1	76.3	51.9	90.5	1.53	0.49	-7.07
1,730.0	12.80	14.30	1,722.2	93.0	56.8	107.7	1.49	0.99	-5.19
1,812.0	13.70	11.10	1,802.0	111.3	60.9	126.2	1.42	1.10	-3.90
1,894.0	13.10	10.60	1,881.8	130.0	64.5	144.8	0.75	-0.73	-0.61
1,976.0	12.00	9.30	1,961.8	147.5	67.6	162.2	1.38	-1.34	-1.59
2,057.0	12.40	12.90	2,041.0	164.3	70.9	178.9	1.06	0.49	4.44
2,139.0	12.70	20.20	2,121.0	181.3	76.0	196.6	1.97	0.37	8.90
2,221.0	11.40	16.00	2,201.2	197.6	81.3	213.7	1.91	-1.59	-5.12
2,303.0	12.00	18.70	2,281.5	213.5	86.3	230.2	0.99	0.73	3.29
2,384.0	12.30	14.80	2,360.7	229.8	91.2	247.2	1.08	0.37	-4.81
2,466.0	12.20	21.60	2,440.9	246.3	96.6	264.5	1.76	-0.12	8.29
2,548.0	11.10	23.90	2,521.2	261.5	103.0	281.0	1.46	-1.34	2.80
2,630.0	11.20	22.30	2,601.6	276.1	109.2	296.9	0.40	0.12	-1.95
2,711.0	10.90	28.50	2,681.1	290.1	115.9	312.4	1.51	-0.37	7.65
2,793.0	11.70	25.30	2,761.5	304.5	123.1	328.4	1.24	0.98	-3.90
2,875.0	10.60	24.30	2,842.0	318.9	129.8	344.2	1.36	-1.34	-1.22
2,957.0	11.20	21.80	2,922.5	333.1	135.8	359.7	0.93	0.73	-3.05
3,038.0	10.30	24.30	3,002.1	347.0	141.7	374.8	1.25	-1.11	3.09
3,120.0	12.00	26.40	3,082.5	361.4	148.5	390.7	2.13	2.07	2.56
3,202.0	10.40	25.20	3,163.0	375.7	155.5	406.6	1.97	-1.95	-1.46
3,284.0	10.20	21.30	3,243.6	389.1	161.3	421.2	0.88	-0.24	-4.76
3,365.0	10.20	23.80	3,323.4	402.4	166.8	435.6	0.55	0.00	3.09
3,447.0	11.10	24.30	3,404.0	416.2	172.9	450.7	1.10	1.10	0.61
3,529.0	10.30	22.90	3,484.5	430.2	179.1	465.9	1.03	-0.98	-1.71
3,610.0	9.50	21.10	3,564.3	443.1	184.3	479.9	1.06	-0.99	-2.22
3,692.0	9.80	31.10	3,645.2	455.4	190.3	493.5	2.07	0.37	12.20
3,774.0	10.20	23.20	3,725.9	468.0	196.8	507.7	1.74	0.49	-9.63
3,856.0	10.60	21.10	3,806.6	481.7	202.4	522.5	0.67	0.49	-2.56
3,937.0	13.00	27.60	3,885.9	496.8	209.3	539.0	3.38	2.96	8.02
4,019.0	13.80	25.70	3,965.6	513.7	217.8	558.0	1.11	0.98	-2.32
4,101.0	14.70	20.10	4,045.1	532.3	225.6	578.2	2.01	1.10	-6.83
4,183.0	14.90	19.20	4,124.4	552.1	232.6	599.1	0.37	0.24	-1.10
4,264.0	15.20	18.80	4,202.6	571.9	239.5	620.1	0.39	0.37	-0.49
4,346.0	14.50	18.80	4,281.9	591.8	246.3	641.0	0.85	-0.85	0.00
4,428.0	12.60	18.50	4,361.6	610.0	252.4	660.2	2.32	-2.32	-0.37
4,510.0	11.10	17.40	4,441.8	626.1	257.6	677.0	1.85	-1.83	-1.34
4,591.0	10.70	19.50	4,521.4	640.6	262.4	692.2	0.70	-0.49	2.59
4,673.0	9.90	23.20	4,602.1	654.2	267.8	706.9	1.27	-0.98	4.51
4,755.0	8.70	27.60	4,683.0	666.2	273.4	720.1	1.70	-1.46	5.37
4,837.0	7.80	26.60	4,764.1	676.7	278.8	731.8	1.11	-1.10	-1.22
4,918.0	5.80	24.30	4,844.6	685.3	282.9	741.4	2.49	-2.47	-2.84
5,000.0	2.90	23.60	4,926.3	691.0	285.5	747.6	3.54	-3.54	-0.85
5,073.0	1.82	12.52	4,999.2	693.8	286.4	750.6	1.59	-1.47	-15.18
TARGET BHL 660°FNL, 660°FNL									
5,082.0	1.70	10.20	5,008.2	694.1	286.5	750.9	1.59	-1.38	-25.73
5,164.0	0.80	228.40	5,090.2	694.9	286.3	751.6	2.90	-1.10	-172.93

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Calvary USX EE29-04D
Project:	SEC.29-T7N-R65W	TVD Reference:	WELL @ 4937.0ft (Original Well Elev)
Site:	Donaldson USX EE29-12D Pad Sec.29-T7N-R65W	MD Reference:	WELL @ 4937.0ft (Original Well Elev)
Well:	Calvary USX EE29-04D	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)
5,245.0	0.60	202.30	5,171.2	694.2	285.7	750.6	0.46	-0.25	-32.22
5,327.0	0.70	202.50	5,253.2	693.3	285.4	749.7	0.12	0.12	0.24
5,409.0	0.50	205.00	5,335.2	692.5	285.0	748.8	0.25	-0.24	3.05
5,491.0	0.40	211.80	5,417.2	691.9	284.7	748.2	0.14	-0.12	8.29
5,572.0	0.40	262.60	5,498.2	691.7	284.3	747.8	0.42	0.00	62.72
5,654.0	0.60	348.60	5,580.2	692.0	283.9	748.0	0.85	0.24	104.88
5,736.0	0.50	335.80	5,662.2	692.8	283.7	748.6	0.19	-0.12	-15.61
5,817.0	0.50	1.40	5,743.2	693.5	283.5	749.2	0.27	0.00	31.61
5,899.0	0.40	82.30	5,825.2	693.9	283.8	749.6	0.72	-0.12	98.66
5,981.0	0.80	77.90	5,907.2	694.0	284.7	750.1	0.49	0.49	-5.37
6,063.0	0.50	101.30	5,989.2	694.1	285.6	750.5	0.48	-0.37	28.54
6,144.0	0.70	118.30	6,070.2	693.8	286.4	750.5	0.33	0.25	20.99
6,226.0	0.40	85.80	6,152.2	693.6	287.1	750.6	0.51	-0.37	-39.63
6,308.0	0.50	83.70	6,234.2	693.6	287.7	750.9	0.12	0.12	-2.56
6,390.0	0.70	58.40	6,316.2	693.9	288.5	751.5	0.40	0.24	-30.85
6,471.0	1.00	16.00	6,397.2	694.9	289.1	752.6	0.83	0.37	-52.35
6,553.0	1.30	16.20	6,479.1	696.4	289.6	754.2	0.37	0.37	0.24
6,635.0	1.90	358.30	6,561.1	698.7	289.8	756.4	0.94	0.73	-21.83
6,717.0	1.90	355.30	6,643.1	701.4	289.7	758.8	0.12	0.00	-3.66
6,798.0	1.30	44.00	6,724.0	703.4	290.2	760.9	1.76	-0.74	60.12
6,880.0	1.10	72.30	6,806.0	704.3	291.6	762.3	0.75	-0.24	34.51
6,962.0	1.50	84.00	6,888.0	704.7	293.4	763.3	0.58	0.49	14.27
7,044.0	1.60	74.20	6,970.0	705.1	295.6	764.5	0.34	0.12	-11.95
7,120.4	1.79	75.15	7,046.3	705.7	297.7	765.9	0.25	0.25	1.24
LEGAL BOX 400' X 400' 661'FNL & 659'FWL - TARGET CIRCLE 660'FNL & 660'FWL									
7,125.0	1.80	75.20	7,050.9	705.7	297.9	766.0	0.25	0.25	1.11
7,207.0	1.40	95.80	7,132.9	705.9	300.1	767.1	0.85	-0.49	25.12
7,289.0	1.10	125.40	7,214.9	705.4	301.8	767.2	0.86	-0.37	36.10
7,371.0	0.90	130.60	7,296.9	704.5	302.9	766.8	0.27	-0.24	6.34
7,452.0	1.00	131.20	7,377.9	703.6	303.9	766.4	0.12	0.12	0.74
7,534.0	1.10	157.20	7,459.9	702.4	304.8	765.7	0.59	0.12	31.71
7,585.0	1.20	163.20	7,510.8	701.5	305.1	764.9	0.31	0.20	11.76

Checked By: _____	Approved By: _____	Date: _____
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