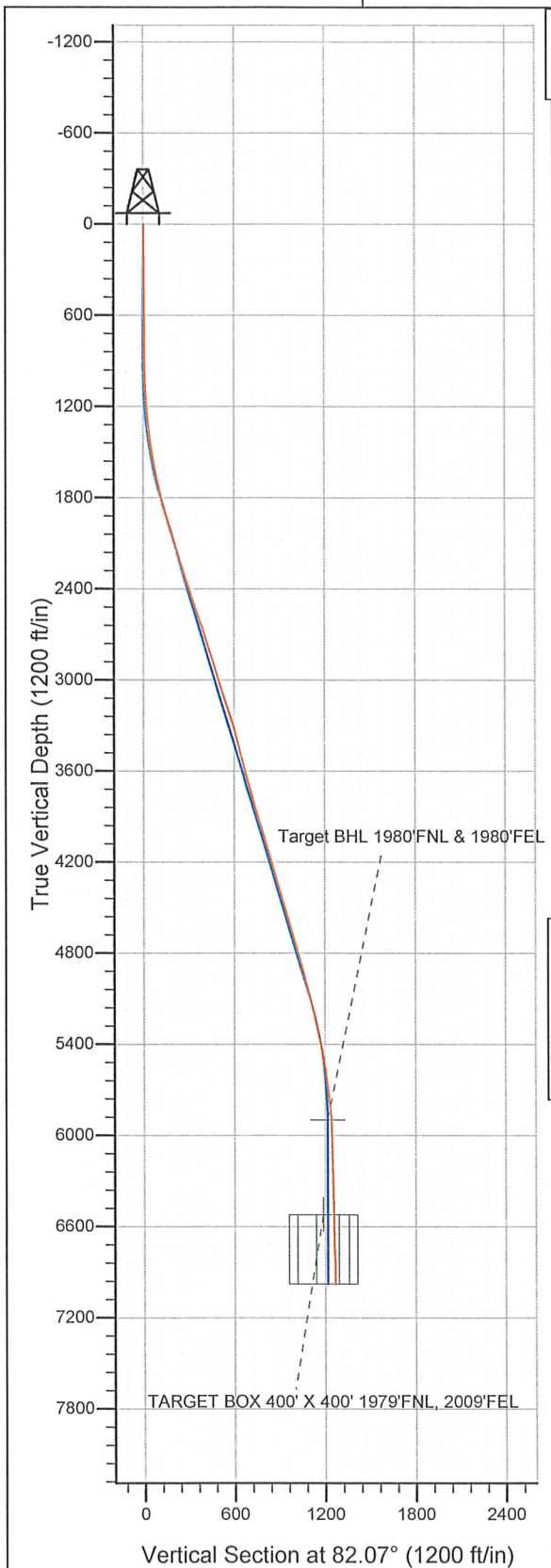
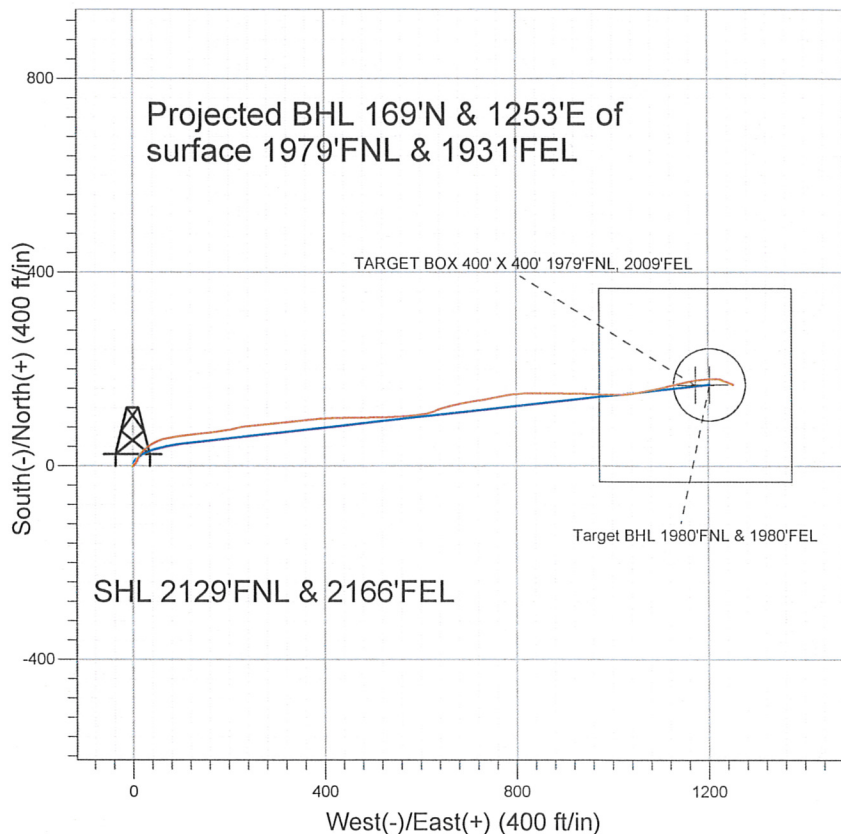


Well Name: **NCLP PC AA08-07D**
 Surface Location: NCLP PC AA08-07D Pad Sec.8-T6N-R63W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4711.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1427592.70 3288510.98 40.502510 -104.462500
 Original Well Elev WELL @ 4724.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- NCLP PC AA08-07D, Wellbore #1, Noble NCLP PC AA08-07D Plan #2 (1-28-11) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 7150'MD & 6980'TVD @ 1264'VS
 1.1 deg Inc 109.2 deg AZ

Project: SEC.8-T6N-R63W
 Site: NCLP PC AA08-07D Pad Sec.8-T6N-R63W
 Well: NCLP PC AA08-07D
 Plan: Wellbore #1

Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.8-T6N-R63W
 Site: NCLP PC AA08-07D Pad Sec.8-T6N-R63W
 Well: NCLP PC AA08-07D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well NCLP PC AA08-07D
 TVD Reference: WELL @ 4724.0ft (Original Well Elev)
 MD Reference: WELL @ 4724.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: Landmark

Project	SEC.8-T6N-R63W, 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 NCLP PC AA08-07D Pad Sec.8-T6N-R63W

Site Position:	Lat/Long	Northing:	1,427,592.72 ft	Latitude:	40.502510
From:		Easting:	3,288,510.98 ft	Longitude:	-104.462500
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.67 °

Well	NCLP PC AA08-07D					
Well Position	+N/-S	0.0 ft	Northing:	1,427,592.70 ft	Latitude:	40.502510
	+E/-W	0.0 ft	Easting:	3,288,510.98 ft	Longitude:	-104.462500
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,711.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/20/2011	8.73	67.19	53,235

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 (°)
	0.0	0.0	0.0	82.07

Survey Program Date 5/5/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
629.0	7,150.0	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
629.0	1.00	47.10	629.0	3.7	4.0	4.5	0.16	0.16	0.00
703.0	1.30	59.90	703.0	4.6	5.2	5.8	0.53	0.41	17.30
785.0	0.40	178.00	784.9	4.8	6.0	6.6	1.87	-1.10	144.02
867.0	0.40	179.70	866.9	4.2	6.0	6.6	0.01	0.00	2.07
949.0	1.80	21.70	948.9	5.1	6.5	7.2	2.65	1.71	-192.68
1,030.0	4.00	21.70	1,029.8	8.9	8.0	9.2	2.72	2.72	0.00
1,112.0	4.90	23.00	1,111.6	14.8	10.5	12.4	1.10	1.10	1.59
1,194.0	6.70	33.10	1,193.2	22.0	14.4	17.3	2.52	2.20	12.32
1,275.0	7.80	45.60	1,273.5	29.8	21.0	24.9	2.37	1.36	15.43
1,357.0	8.00	51.20	1,354.7	37.3	29.4	34.2	0.97	0.24	6.83
1,439.0	8.30	55.40	1,435.9	44.2	38.7	44.4	0.81	0.37	5.12
1,521.0	9.80	65.90	1,516.9	50.5	49.9	56.4	2.71	1.83	12.80

Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.8-T6N-R63W
 Site: NCLP PC AA08-07D Pad Sec.8-T6N-R63W
 Well: NCLP PC AA08-07D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well NCLP PC AA08-07D
 TVD Reference: WELL @ 4724.0ft (Original Well Elev)
 MD Reference: WELL @ 4724.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 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)
1,602.0	11.00	73.60	1,596.6	55.5	63.6	70.7	2.26	1.48	9.51
1,684.0	12.10	80.80	1,676.9	59.0	79.6	87.0	2.21	1.34	8.78
1,766.0	13.90	81.90	1,756.8	61.8	97.9	105.5	2.22	2.20	1.34
1,848.0	15.90	84.10	1,836.0	64.3	118.8	126.5	2.53	2.44	2.68
1,929.0	16.90	84.80	1,913.7	66.5	141.6	149.4	1.26	1.23	0.86
2,011.0	16.90	81.90	1,992.2	69.3	165.2	173.2	1.03	0.00	-3.54
2,093.0	16.00	81.90	2,070.8	72.6	188.2	196.4	1.10	-1.10	0.00
2,175.0	16.70	76.80	2,149.5	76.9	210.9	219.5	1.95	0.85	-6.22
2,256.0	19.10	80.70	2,226.6	81.7	235.3	244.3	3.31	2.96	4.81
2,338.0	18.60	84.60	2,304.2	85.1	261.6	270.8	1.65	-0.61	4.76
2,420.0	17.50	87.00	2,382.2	86.9	286.9	296.1	1.62	-1.34	2.93
2,502.0	19.10	82.20	2,460.0	89.4	312.5	321.8	2.68	1.95	-5.85
2,583.0	19.10	83.90	2,536.6	92.6	338.8	348.3	0.69	0.00	2.10
2,665.0	18.90	83.40	2,614.1	95.6	365.3	375.0	0.31	-0.24	-0.61
2,747.0	17.80	86.30	2,691.9	97.9	391.0	400.8	1.74	-1.34	3.54
2,829.0	17.30	87.50	2,770.1	99.2	415.7	425.4	0.75	-0.61	1.46
2,910.0	17.10	89.90	2,847.5	99.8	439.7	449.2	0.91	-0.25	2.96
2,992.0	18.00	90.40	2,925.7	99.7	464.4	473.7	1.11	1.10	0.61
3,074.0	17.30	89.00	3,003.8	99.8	489.2	498.3	1.00	-0.85	-1.71
3,156.0	17.90	88.60	3,082.0	100.4	514.0	523.0	0.75	0.73	-0.49
3,237.0	17.70	85.60	3,159.1	101.6	538.8	547.6	1.16	-0.25	-3.70
3,319.0	17.50	88.60	3,237.3	102.9	563.5	572.3	1.13	-0.24	3.66
3,401.0	16.00	86.20	3,315.8	103.9	587.1	595.8	2.01	-1.83	-2.93
3,482.0	15.20	78.60	3,393.8	106.8	608.7	617.6	2.71	-0.99	-9.38
3,564.0	14.20	67.80	3,473.1	112.7	628.5	638.1	3.55	-1.22	-13.17
3,646.0	14.50	71.90	3,552.6	119.7	647.6	657.9	1.29	0.37	5.00
3,728.0	15.20	78.40	3,631.9	125.0	667.9	678.7	2.20	0.85	7.93
3,809.0	15.90	78.40	3,709.9	129.4	689.2	700.4	0.86	0.86	0.00
3,891.0	16.50	81.10	3,788.6	133.5	711.7	723.3	1.17	0.73	3.29
3,973.0	16.60	80.40	3,867.2	137.2	734.7	746.6	0.27	0.12	-0.85
4,055.0	16.40	78.90	3,945.9	141.4	757.6	769.9	0.57	-0.24	-1.83
4,136.0	16.50	80.20	4,023.5	145.5	780.2	792.8	0.47	0.12	1.60
4,218.0	16.80	84.30	4,102.1	148.7	803.4	816.3	1.48	0.37	5.00
4,300.0	16.00	90.00	4,180.8	149.9	826.5	839.3	2.19	-0.98	6.95
4,382.0	17.20	89.10	4,259.4	150.1	850.0	862.5	1.50	1.46	-1.10
4,463.0	16.90	91.20	4,336.8	150.0	873.7	886.1	0.85	-0.37	2.59
4,545.0	17.60	90.50	4,415.1	149.7	898.0	910.1	0.89	0.85	-0.85
4,627.0	16.80	91.10	4,493.4	149.3	922.3	934.1	1.00	-0.98	0.73
4,709.0	16.20	92.80	4,572.1	148.5	945.5	957.0	0.94	-0.73	2.07
4,790.0	16.10	92.00	4,649.9	147.6	968.1	979.2	0.30	-0.12	-0.99
4,872.0	17.10	90.00	4,728.5	147.2	991.5	1,002.3	1.40	1.22	-2.44
4,954.0	16.10	90.50	4,807.0	147.1	1,014.9	1,025.5	1.23	-1.22	0.61
5,036.0	15.20	83.70	4,886.0	148.2	1,037.0	1,047.5	2.49	-1.10	-8.29
5,117.0	15.00	78.00	4,964.2	151.5	1,057.8	1,068.6	1.85	-0.25	-7.04
5,199.0	14.20	78.10	5,043.6	155.8	1,078.0	1,089.2	0.98	-0.98	0.12
5,281.0	14.10	78.50	5,123.1	159.9	1,097.6	1,109.2	0.17	-0.12	0.49
5,362.0	13.70	76.40	5,201.7	164.1	1,116.6	1,128.6	0.79	-0.49	-2.59
5,444.0	12.30	75.80	5,281.6	168.5	1,134.5	1,146.9	1.72	-1.71	-0.73
5,526.0	11.30	76.10	5,361.9	172.6	1,150.8	1,163.6	1.22	-1.22	0.37
5,608.0	10.90	80.30	5,442.3	175.8	1,166.2	1,179.3	1.10	-0.49	5.12
5,689.0	9.40	82.70	5,522.1	178.0	1,180.3	1,193.6	1.92	-1.85	2.96
5,771.0	8.30	85.80	5,603.1	179.2	1,192.9	1,206.2	1.46	-1.34	3.78
5,853.0	7.50	88.00	5,684.3	179.9	1,204.1	1,217.4	1.04	-0.98	2.68
5,935.0	6.50	88.90	5,765.7	180.1	1,214.1	1,227.4	1.23	-1.22	1.10

Company: NOBLE ENERGY INC WELD COUNTY CO
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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)
6,016.0	5.40	96.70	5,846.3	179.8	1,222.5	1,235.6	1.68	-1.36	9.63
6,068.5	3.82	104.86	5,898.6	179.0	1,226.6	1,239.6	3.24	-3.00	15.54
Target BHL 1980'FNL & 1980'FEL									
6,098.0	3.00	113.10	5,928.0	178.5	1,228.3	1,241.2	3.24	-2.79	27.94
6,180.0	1.70	107.90	6,010.0	177.3	1,231.4	1,244.1	1.60	-1.59	-6.34
6,262.0	1.40	115.20	6,091.9	176.5	1,233.5	1,246.0	0.44	-0.37	8.90
6,343.0	1.50	109.10	6,172.9	175.7	1,235.4	1,247.8	0.23	0.12	-7.53
6,425.0	1.30	110.90	6,254.9	175.0	1,237.3	1,249.6	0.25	-0.24	2.20
6,507.0	1.50	112.10	6,336.9	174.3	1,239.1	1,251.3	0.25	0.24	1.46
6,589.0	1.50	112.50	6,418.8	173.5	1,241.1	1,253.2	0.01	0.00	0.49
6,670.0	1.50	113.80	6,499.8	172.6	1,243.1	1,255.0	0.04	0.00	1.60
6,692.7	1.47	113.06	6,522.5	172.4	1,243.6	1,255.5	0.15	-0.12	-3.25
TARGET BOX 400' X 400' 1979'FNL, 2009'FEL									
6,693.3	1.47	113.06	6,523.1	172.4	1,243.6	1,255.5	0.00	0.00	0.00
Target Circle 1980'FNL & 1980'FEL									
6,752.0	1.40	111.00	6,581.8	171.8	1,245.0	1,256.8	0.15	-0.12	-3.52
6,834.0	1.40	112.70	6,663.7	171.1	1,246.8	1,258.5	0.05	0.00	2.07
6,916.0	1.30	109.60	6,745.7	170.4	1,248.6	1,260.2	0.15	-0.12	-3.78
6,997.0	1.10	110.60	6,826.7	169.8	1,250.2	1,261.7	0.25	-0.25	1.23
7,079.0	1.10	111.90	6,908.7	169.2	1,251.7	1,263.1	0.03	0.00	1.59
7,105.0	1.10	108.80	6,934.7	169.1	1,252.2	1,263.5	0.23	0.00	-11.92
7,150.0	1.10	109.20	6,979.7	168.8	1,253.0	1,264.3	0.02	0.00	0.89

Checked By: _____ Approved By: _____ Date: _____