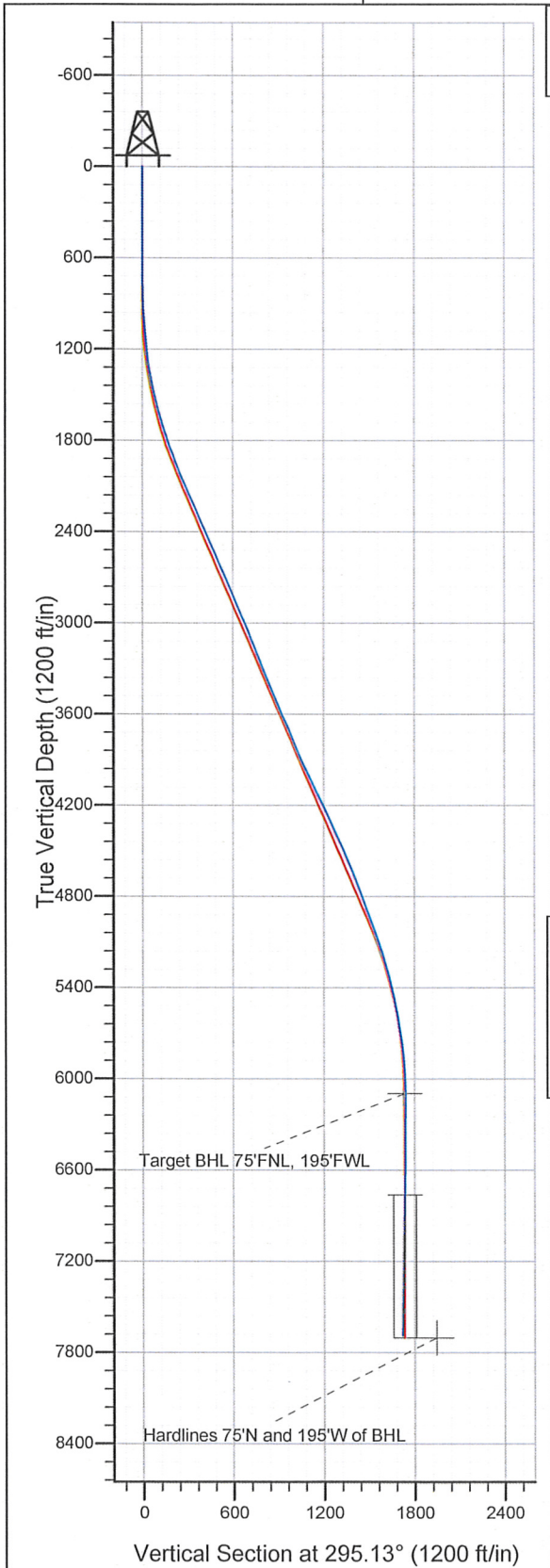
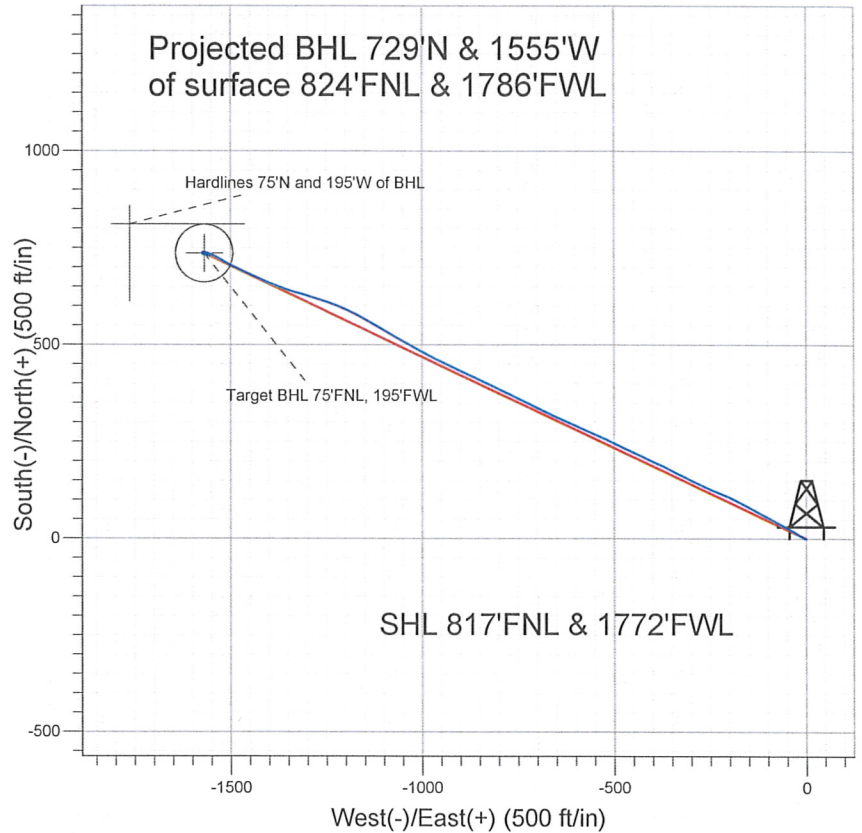


Well Name: **Aristocrat PC H11-30D**
 Surface Location: Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4768.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1333229.69 3241880.39 40° 14' 41.532 N 104° 38' 0.564 W
 Original Well Elev WELL @ 4781.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Aristocrat PC H11-30D, Wellbore #1, Noble Aristocrat PC H11-30D Plan #2 (9-22-10) V0
- Wellbore #1

Final Survey Plot

Projected Final Survey -
 8012'MD & 7689'TVD @ 1717' VS
 1.1 deg Inc 108.4 deg AZ

Project: SEC.11-T3N-R65W
 Site: Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W
 Well: Aristocrat PC H11-30D
 Plan: Wellbore #1

Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.11-T3N-R65W
 Site: Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W
 Well: Aristocrat PC H11-30D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Site Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W
 TVD Reference: WELL @ 4781.0ft (Original Well Elev)
 MD Reference: WELL @ 4781.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: Landmark

Project SEC.11-T3N-R65W, Weld County Colorado

Map System: US State Plane 1983
 Geo Datum: North American Datum 1983
 Map Zone: Colorado Northern Zone
 System Datum: Mean Sea Level
 Using Well Reference Point
 Using geodetic scale factor

Site Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W

Site Position: Northing: 1,333,229.71 ft Latitude: 40° 14' 41.532 N
 From: Lat/Long Easting: 3,241,880.39 ft Longitude: 104° 38' 0.564 W
 Position Uncertainty: 0.0 ft Slot Radius: " Grid Convergence: 0.56 °

Well Aristocrat PC H11-30D

Well Position: +N/-S 0.0 ft Northing: 1,333,229.69 ft Latitude: 40° 14' 41.532 N
 +E/-W 0.0 ft Easting: 3,241,880.39 ft Longitude: 104° 38' 0.564 W
 Position Uncertainty: 0.0 ft Wellhead Elevation: ft Ground Level: 4,768.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/2/2011	8.82	66.96	53,095

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	295.13

Survey Program Date 3/18/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
781.0	8,012.0	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
781.0	0.20	264.10	781.0	-0.2	-1.4	1.2	0.03	0.03	0.00
875.0	1.00	298.70	875.0	0.2	-2.2	2.1	0.90	0.85	36.81
968.0	5.30	301.80	967.8	2.9	-6.6	7.2	4.63	4.62	3.33
1,061.0	3.40	295.40	1,060.6	6.3	-12.7	14.2	2.11	-2.04	-6.88
1,156.0	5.00	299.60	1,155.3	9.6	-18.9	21.2	1.71	1.68	4.42
1,250.0	7.10	302.70	1,248.8	14.7	-27.3	31.0	2.26	2.23	3.30
1,344.0	9.50	297.80	1,341.8	21.5	-39.1	44.5	2.66	2.55	-5.21
1,437.0	12.10	299.40	1,433.1	29.8	-54.4	61.9	2.81	2.80	1.72
1,530.0	14.50	297.80	1,523.6	40.1	-73.2	83.3	2.61	2.58	-1.72
1,625.0	15.30	298.00	1,615.4	51.5	-94.8	107.7	0.84	0.84	0.21
1,718.0	16.90	297.80	1,704.8	63.6	-117.6	133.4	1.72	1.72	-0.22

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.11-T3N-R65W
Site: Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W
Well: Aristocrat PC H11-30D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Site Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W
TVD Reference: WELL @ 4781.0ft (Original Well Elev)
MD Reference: WELL @ 4781.0ft (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)
1,814.0	18.70	297.80	1,796.2	77.2	-143.5	162.7	1.88	1.88	0.00
1,907.0	20.40	297.50	1,883.8	91.7	-171.1	193.8	1.83	1.83	-0.32
2,001.0	22.00	294.30	1,971.5	106.5	-201.7	227.8	2.10	1.70	-3.40
2,094.0	22.90	291.70	2,057.4	120.4	-234.3	263.3	1.44	0.97	-2.80
2,187.0	24.50	295.30	2,142.6	135.3	-268.6	300.6	2.32	1.72	3.87
2,281.0	23.80	295.30	2,228.3	151.7	-303.4	339.1	0.74	-0.74	0.00
2,375.0	23.90	297.30	2,314.3	168.6	-337.4	377.1	0.87	0.11	2.13
2,469.0	23.60	295.50	2,400.4	185.4	-371.3	414.9	0.83	-0.32	-1.91
2,562.0	23.40	294.50	2,485.6	201.1	-404.9	452.0	0.48	-0.22	-1.08
2,656.0	23.60	294.60	2,571.8	216.6	-439.0	489.5	0.22	0.21	0.11
2,749.0	23.30	295.30	2,657.2	232.3	-472.6	526.5	0.44	-0.32	0.75
2,843.0	24.00	295.70	2,743.3	248.5	-506.6	564.2	0.76	0.74	0.43
2,937.0	23.00	293.30	2,829.5	264.0	-540.7	601.7	1.47	-1.06	-2.55
3,031.0	23.90	294.10	2,915.7	279.1	-575.0	639.1	1.02	0.96	0.85
3,124.0	22.90	294.00	3,001.1	294.1	-608.7	676.0	1.08	-1.08	-0.11
3,218.0	21.90	293.90	3,088.0	308.7	-641.4	711.8	1.06	-1.06	-0.11
3,311.0	21.90	295.00	3,174.3	323.0	-673.0	746.5	0.44	0.00	1.18
3,405.0	21.50	296.50	3,261.6	338.1	-704.3	781.3	0.73	-0.43	1.60
3,499.0	21.40	294.60	3,349.1	353.0	-735.3	815.6	0.75	-0.11	-2.02
3,592.0	22.80	297.50	3,435.3	368.3	-766.7	850.6	1.91	1.51	3.12
3,685.0	23.50	296.60	3,520.8	385.0	-799.3	887.1	0.84	0.75	-0.97
3,778.0	23.60	295.40	3,606.0	401.3	-832.7	924.3	0.53	0.11	-1.29
3,872.0	23.20	294.40	3,692.3	417.0	-866.6	961.6	0.60	-0.43	-1.06
3,966.0	22.70	294.60	3,778.8	432.2	-899.9	998.3	0.54	-0.53	0.21
4,059.0	23.40	295.90	3,864.4	447.7	-932.8	1,034.7	0.93	0.75	1.40
4,152.0	25.10	296.50	3,949.2	464.6	-967.1	1,072.9	1.85	1.83	0.65
4,245.0	25.80	298.40	4,033.2	483.0	-1,002.6	1,112.8	1.16	0.75	2.04
4,338.0	25.60	298.80	4,117.0	502.3	-1,038.0	1,153.1	0.28	-0.22	0.43
4,431.0	25.40	299.60	4,200.9	521.8	-1,072.9	1,193.0	0.43	-0.22	0.86
4,526.0	23.80	299.70	4,287.3	541.4	-1,107.3	1,232.4	1.68	-1.68	0.11
4,619.0	24.50	301.10	4,372.2	560.7	-1,140.1	1,270.3	0.97	0.75	1.51
4,713.0	25.20	296.90	4,457.5	579.8	-1,174.6	1,309.7	2.02	0.74	-4.47
4,807.0	23.60	292.10	4,543.1	595.9	-1,209.9	1,348.5	2.71	-1.70	-5.11
4,901.0	21.40	289.40	4,629.9	608.7	-1,243.5	1,384.3	2.59	-2.34	-2.87
4,995.0	21.90	287.30	4,717.3	619.6	-1,276.5	1,418.8	0.98	0.53	-2.23
5,089.0	20.90	285.00	4,804.8	629.2	-1,309.4	1,452.7	1.39	-1.06	-2.45
5,183.0	19.30	287.20	4,893.1	638.1	-1,340.4	1,484.5	1.88	-1.70	2.34
5,276.0	20.00	290.90	4,980.7	648.3	-1,370.0	1,515.6	1.53	0.75	3.98
5,369.0	20.00	293.50	5,068.1	660.3	-1,399.4	1,547.4	0.96	0.00	2.80
5,462.0	18.70	292.90	5,155.8	672.5	-1,427.7	1,578.2	1.41	-1.40	-0.65
5,555.0	16.30	293.10	5,244.5	683.4	-1,453.5	1,606.1	2.58	-2.58	0.22
5,650.0	14.50	294.40	5,336.1	693.5	-1,476.6	1,631.3	1.93	-1.89	1.37
5,743.0	13.00	298.90	5,426.4	703.4	-1,496.3	1,653.4	1.98	-1.61	4.84
5,838.0	11.40	299.00	5,519.3	713.1	-1,513.9	1,673.5	1.68	-1.68	0.11
5,931.0	9.90	299.70	5,610.7	721.5	-1,528.9	1,690.6	1.62	-1.61	0.75
6,025.0	8.40	299.40	5,703.5	728.9	-1,541.9	1,705.5	1.60	-1.60	-0.32
6,118.0	7.20	293.30	5,795.6	734.6	-1,553.2	1,718.1	1.57	-1.29	-6.56
6,212.0	4.90	285.20	5,889.1	737.9	-1,562.4	1,727.9	2.60	-2.45	-8.62
6,306.0	2.80	277.20	5,982.9	739.3	-1,568.6	1,734.1	2.30	-2.23	-8.51
6,398.0	0.90	208.20	6,074.8	738.9	-1,571.2	1,736.3	2.84	-2.07	-75.00
6,423.2	0.79	215.95	6,100.0	738.6	-1,571.4	1,736.3	0.64	-0.45	30.77
Target BHL 75'FNL, 195'FWL									
6,492.0	0.60	249.50	6,168.8	738.1	-1,572.0	1,736.6	0.64	-0.27	48.76

Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.11-T3N-R65W
 Site: Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W
 Well: Aristocrat PC H11-30D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Site Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W
 TVD Reference: WELL @ 4781.0ft (Original Well Elev)
 MD Reference: WELL @ 4781.0ft (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)
6,587.0	0.70	258.50	6,263.8	737.8	-1,573.0	1,737.5	0.15	0.11	9.47
6,680.0	0.40	212.00	6,356.8	737.4	-1,573.7	1,738.0	0.55	-0.32	-50.00
6,773.0	0.70	172.20	6,449.8	736.6	-1,573.8	1,737.7	0.50	0.32	-42.80
6,866.0	0.90	130.90	6,542.8	735.5	-1,573.2	1,736.7	0.64	0.22	-44.41
6,960.0	1.10	130.50	6,636.8	734.5	-1,572.0	1,735.1	0.21	0.21	-0.43
7,053.0	1.10	118.00	6,729.8	733.5	-1,570.5	1,733.3	0.26	0.00	-13.44
7,088.2	1.10	117.78	6,765.0	733.2	-1,569.9	1,732.7	0.01	0.00	-0.63
Target Circle 75°FNL, 195°FNL									
7,148.0	1.10	117.40	6,824.7	732.6	-1,568.9	1,731.5	0.01	0.00	-0.63
7,242.0	1.00	105.20	6,918.7	732.0	-1,567.3	1,729.8	0.26	-0.11	-12.98
7,335.0	1.00	97.90	7,011.7	731.7	-1,565.7	1,728.2	0.14	0.00	-7.85
7,428.0	0.80	97.20	7,104.7	731.5	-1,564.2	1,726.8	0.22	-0.22	-0.75
7,521.0	0.90	102.30	7,197.7	731.2	-1,562.9	1,725.5	0.13	0.11	5.48
7,615.0	0.90	101.50	7,291.7	730.9	-1,561.4	1,724.1	0.01	0.00	-0.85
7,708.0	1.00	103.20	7,384.7	730.6	-1,559.9	1,722.6	0.11	0.11	1.83
7,801.0	1.00	98.20	7,477.6	730.3	-1,558.3	1,721.0	0.09	0.00	-5.38
7,894.0	1.10	106.90	7,570.6	729.9	-1,556.7	1,719.3	0.20	0.11	9.35
7,965.0	1.10	108.40	7,641.6	729.5	-1,555.4	1,718.0	0.04	0.00	2.11
8,012.0	1.10	108.40	7,688.6	729.2	-1,554.5	1,717.1	0.00	0.00	0.00
Hardlines 75°N and 195°W of BHL									

Checked By: _____ Approved By: _____ Date: _____