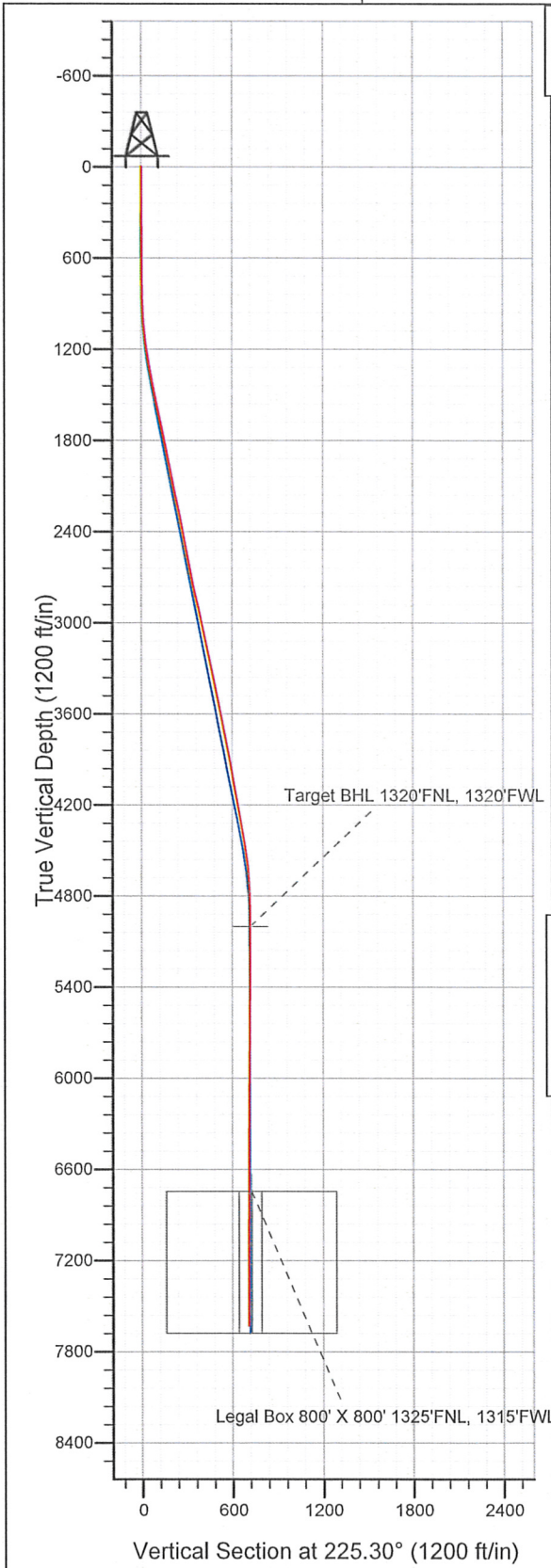
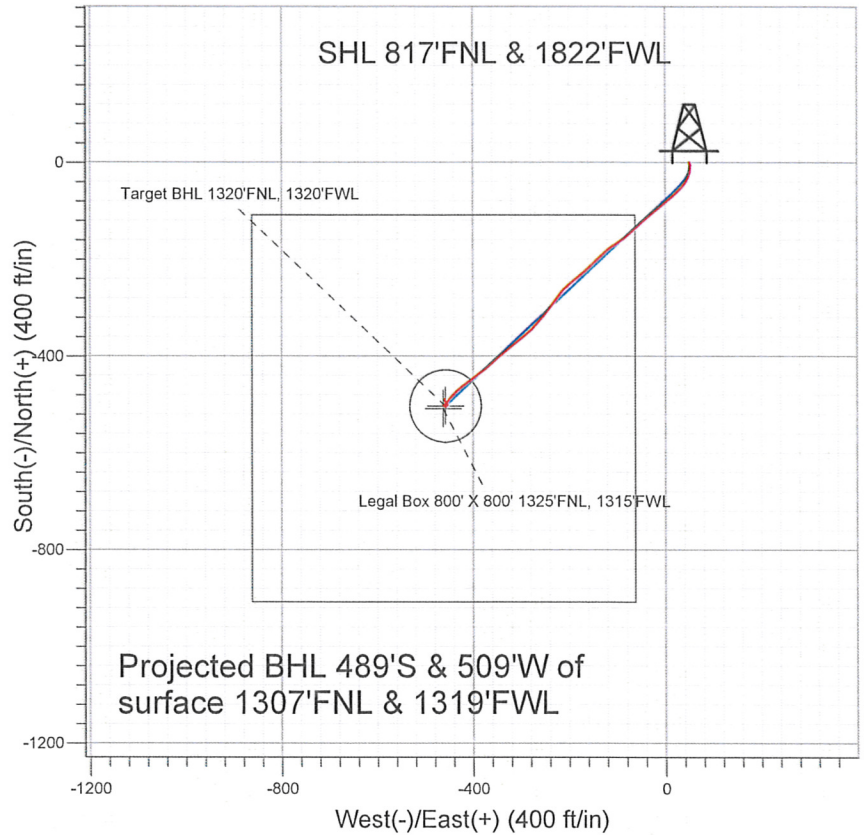


Well Name: **Aristocrat PC H11-19D**  
 Surface Location: Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W  
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone  
 Ground Elevation: 4769.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 50.2 1333230.19 3241930.63 40° 14' 41.532 N 104° 37' 59.916 W  
 Original Well Elev WELL @ 4782.0ft (Original Well Elev)



## NOBLE ENERGY INC WELD COUNTY CO



### LEGEND

- + Aristocrat PC H11-19D, Wellbore #1, Noble Aristocrat PC H11-19D Plan#1 (6-18-10) V0
- + Wellbore #1
- Survey #1

## Final Survey Plot

Projected Final Survey -  
 7698'MD & 7629'TVD @ 706' VS  
 0.5 deg Inc 347.4 deg AZ

Project: SEC.11-T3N-R65W  
 Site: Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W  
 Well: Aristocrat PC H11-19D  
 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 H11-19D  
 Wellbore: Wellbore #1  
 Design: Wellbore #1

Local Co-ordinate Reference: Site Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W  
 TVD Reference: WELL @ 4782.0ft (Original Well Elev)  
 MD Reference: WELL @ 4782.0ft (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	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 Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W

Site Position:	Lat/Long	Northing:	1,333,229.71 ft	Latitude:	40° 14' 41.532 N
From:		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 H11-19D					
Well Position	+N/-S	0.0 ft	Northing:	1,333,230.19 ft	Latitude:	40° 14' 41.532 N
	+E/-W	50.2 ft	Easting:	3,241,930.63 ft	Longitude:	104° 37' 59.916 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,769.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	8.94	67.01	53,237

Design Wellbore #1

Audit Notes:

Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
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Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	5,000.0	0.0	50.2	225.30

Survey Program Date 3/7/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
781.0	7,698.0	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	50.2	0.0	0.00	0.00	0.00
781.0	0.90	161.40	781.0	-5.8	52.2	2.7	0.12	0.12	0.00
874.0	2.70	178.40	873.9	-8.7	52.5	4.5	2.00	1.94	18.28
969.0	4.00	184.00	968.8	-14.3	52.3	8.5	1.41	1.37	5.89
1,061.0	6.20	192.20	1,060.4	-22.3	51.1	15.1	2.51	2.39	8.91
1,155.0	8.20	205.50	1,153.6	-33.3	47.1	25.7	2.76	2.13	14.15
1,249.0	8.80	215.60	1,246.6	-45.2	40.0	39.1	1.71	0.64	10.74
1,344.0	10.30	224.80	1,340.3	-57.2	29.8	54.7	2.25	1.58	9.68
1,438.0	11.90	228.70	1,432.5	-69.5	16.6	72.8	1.88	1.70	4.15
1,530.0	12.20	229.40	1,522.5	-82.1	2.1	92.0	0.36	0.33	0.76
1,624.0	12.30	229.80	1,614.4	-95.0	-13.1	111.9	0.14	0.11	0.43
1,717.0	12.10	230.20	1,705.3	-107.7	-28.1	131.4	0.23	-0.22	0.43



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 Well: Aristocrat PC H11-19D  
 Wellbore: Wellbore #1  
 Design: Wellbore #1

Local Co-ordinate Reference: Site Aristocrat PC H11-30D Pad Sec. 11-T3N-R65W  
 TVD Reference: WELL @ 4782.0ft (Original Well Elev)  
 MD Reference: WELL @ 4782.0ft (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)
1,813.0	12.30	228.80	1,799.1	-120.8	-43.6	151.7	0.37	0.21	-1.46
1,906.0	11.50	226.30	1,890.1	-133.8	-57.7	170.8	1.02	-0.86	-2.69
2,000.0	10.90	229.90	1,982.3	-146.0	-71.3	189.1	0.98	-0.64	3.83
2,093.0	11.10	230.70	2,073.6	-157.3	-85.0	206.7	0.27	0.22	0.86
2,188.0	12.90	236.50	2,166.5	-168.9	-100.9	226.2	2.28	1.89	6.11
2,281.0	12.10	232.10	2,257.3	-180.7	-117.2	246.1	1.34	-0.86	-4.73
2,375.0	11.30	226.10	2,349.4	-193.1	-131.6	265.1	1.55	-0.85	-6.38
2,467.0	10.80	225.30	2,439.7	-205.4	-144.3	282.7	0.57	-0.54	-0.87
2,561.0	10.30	228.90	2,532.1	-217.1	-156.8	299.9	0.88	-0.53	3.83
2,656.0	11.10	227.70	2,625.4	-228.9	-170.0	317.5	0.87	0.84	-1.26
2,750.0	11.30	232.50	2,717.6	-240.6	-184.0	335.7	1.01	0.21	5.11
2,844.0	13.20	229.80	2,809.5	-253.1	-199.5	355.6	2.11	2.02	-2.87
2,937.0	12.90	219.80	2,900.1	-267.9	-214.3	376.5	2.45	-0.32	-10.75
3,031.0	12.50	216.70	2,991.8	-284.2	-227.1	397.0	0.84	-0.43	-3.30
3,124.0	12.10	215.30	3,082.7	-300.2	-238.7	416.5	0.54	-0.43	-1.51
3,218.0	13.00	219.80	3,174.4	-316.3	-251.2	436.8	1.41	0.96	4.79
3,310.0	11.50	220.30	3,264.3	-331.3	-263.7	456.2	1.63	-1.63	0.54
3,405.0	12.10	226.30	3,357.3	-345.4	-277.1	475.6	1.44	0.63	6.32
3,499.0	11.70	229.90	3,449.3	-358.3	-291.5	494.9	0.90	-0.43	3.83
3,592.0	11.30	232.20	3,540.4	-370.0	-305.9	513.4	0.65	-0.43	2.47
3,685.0	11.50	230.80	3,631.6	-381.4	-320.3	531.7	0.37	0.22	-1.51
3,780.0	10.80	231.60	3,724.8	-393.0	-334.6	549.9	0.75	-0.74	0.84
3,874.0	10.50	225.30	3,817.2	-404.4	-347.6	567.2	1.28	-0.32	-6.70
3,965.0	11.10	229.60	3,906.6	-416.0	-360.1	584.3	1.10	0.66	4.73
4,058.0	9.70	231.50	3,998.1	-426.6	-373.1	601.0	1.55	-1.51	2.04
4,152.0	9.80	232.40	4,090.7	-436.4	-385.6	616.8	0.19	0.11	0.96
4,246.0	10.50	236.30	4,183.2	-446.1	-399.1	633.2	1.04	0.74	4.15
4,338.0	10.60	232.70	4,273.7	-455.9	-412.8	649.8	0.72	0.11	-3.91
4,431.0	10.40	230.10	4,365.1	-466.4	-426.0	666.6	0.55	-0.22	-2.80
4,525.0	9.40	225.60	4,457.7	-477.2	-438.0	682.8	1.34	-1.06	-4.79
4,619.0	7.60	217.30	4,550.7	-487.6	-447.3	696.6	2.31	-1.91	-8.83
4,713.0	5.40	220.10	4,644.1	-495.9	-453.9	707.1	2.36	-2.34	2.98
4,807.0	2.40	234.20	4,737.9	-500.4	-458.3	713.5	3.33	-3.19	15.00
4,900.0	1.40	258.50	4,830.8	-501.8	-461.0	716.4	1.36	-1.08	26.13
4,993.0	0.50	199.20	4,923.8	-502.4	-462.3	717.7	1.31	-0.97	-63.76
5,069.2	0.26	195.36	5,000.0	-502.9	-462.4	718.1	0.32	-0.32	-5.03
Target BHL 1320'FNL, 1320'FWL									
5,088.0	0.20	193.00	5,018.8	-503.0	-462.5	718.2	0.32	-0.31	-12.58
5,182.0	0.30	86.90	5,112.8	-503.1	-462.2	718.2	0.43	0.11	-112.87
5,275.0	0.60	97.60	5,205.8	-503.2	-461.5	717.7	0.33	0.32	11.51
5,369.0	0.50	109.60	5,299.8	-503.4	-460.6	717.2	0.16	-0.11	12.77
5,462.0	0.70	106.70	5,392.8	-503.7	-459.7	716.7	0.22	0.22	-3.12
5,556.0	0.60	109.40	5,486.8	-504.0	-458.7	716.3	0.11	-0.11	2.87
5,648.0	0.70	140.20	5,578.8	-504.6	-457.9	716.1	0.39	0.11	33.48
5,743.0	0.60	154.40	5,673.8	-505.5	-457.3	716.3	0.20	-0.11	14.95
5,839.0	0.40	36.50	5,769.8	-505.7	-456.9	716.1	0.90	-0.21	-122.81
5,931.0	0.80	45.10	5,861.8	-504.9	-456.2	715.2	0.44	0.43	9.35
6,024.0	1.00	42.00	5,954.7	-503.9	-455.2	713.7	0.22	0.22	-3.33
6,118.0	1.20	60.80	6,048.7	-502.8	-453.8	712.0	0.44	0.21	20.00
6,212.0	0.90	37.00	6,142.7	-501.7	-452.5	710.3	0.56	-0.32	-25.32
6,306.0	1.30	299.40	6,236.7	-500.6	-453.0	709.8	1.78	0.43	-103.83
6,399.0	0.60	345.10	6,329.7	-499.6	-454.1	709.9	1.05	-0.75	49.14
6,492.0	0.70	327.00	6,422.7	-498.7	-454.5	709.5	0.24	0.11	-19.46

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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)
6,586.0	0.90	312.60	6,516.7	-497.7	-455.4	709.4	0.30	0.21	-15.32
6,680.0	0.80	327.10	6,610.7	-496.6	-456.3	709.3	0.25	-0.11	15.43
6,773.0	0.70	327.20	6,703.7	-495.6	-456.9	709.1	0.11	-0.11	0.11
6,811.3	0.62	326.00	6,741.9	-495.2	-457.2	709.0	0.22	-0.22	-3.13
<b>Legal Box 800' X 800' 1325'FNL, 1315'FWL - Target Circle 1320'FNL, 1320'FWL</b>									
6,866.0	0.50	323.60	6,796.6	-494.8	-457.5	708.9	0.22	-0.21	-4.39
6,959.0	0.50	325.30	6,889.6	-494.2	-457.9	708.8	0.02	0.00	1.83
7,052.0	0.40	325.20	6,982.6	-493.6	-458.3	708.7	0.11	-0.11	-0.11
7,147.0	0.40	315.50	7,077.6	-493.0	-458.8	708.6	0.07	0.00	-10.21
7,241.0	0.40	334.00	7,171.6	-492.5	-459.1	708.5	0.14	0.00	19.68
7,334.0	0.20	345.80	7,264.6	-492.1	-459.3	708.3	0.22	-0.22	12.69
7,428.0	0.40	28.50	7,358.6	-491.6	-459.2	707.9	0.31	0.21	45.43
7,521.0	0.50	12.50	7,451.6	-490.9	-459.0	707.3	0.17	0.11	-17.20
7,651.0	0.50	347.40	7,581.6	-489.8	-459.0	706.5	0.17	0.00	-19.31
7,698.0	0.50	347.40	7,628.6	-489.4	-459.1	706.3	0.00	0.00	0.00

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_