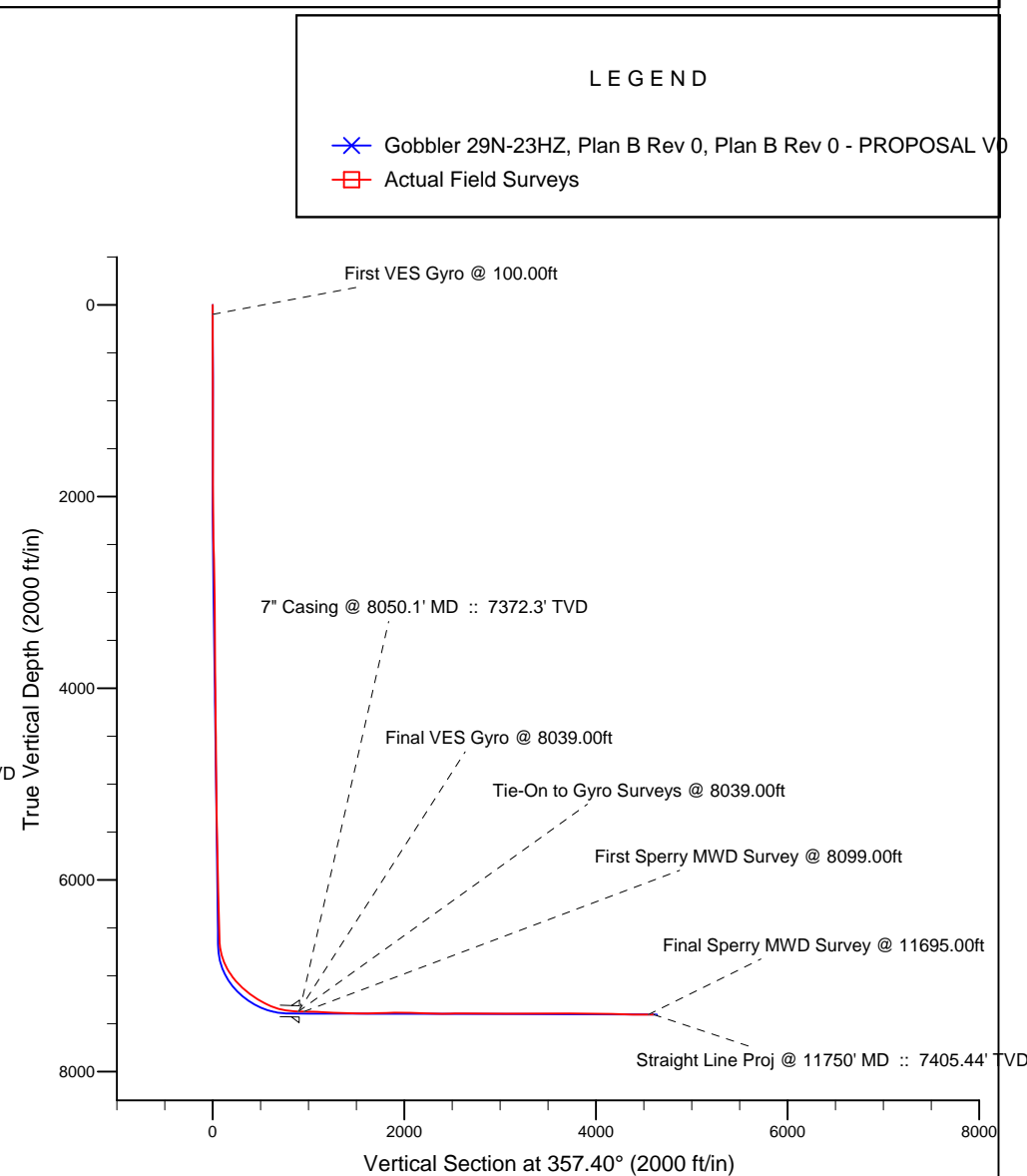
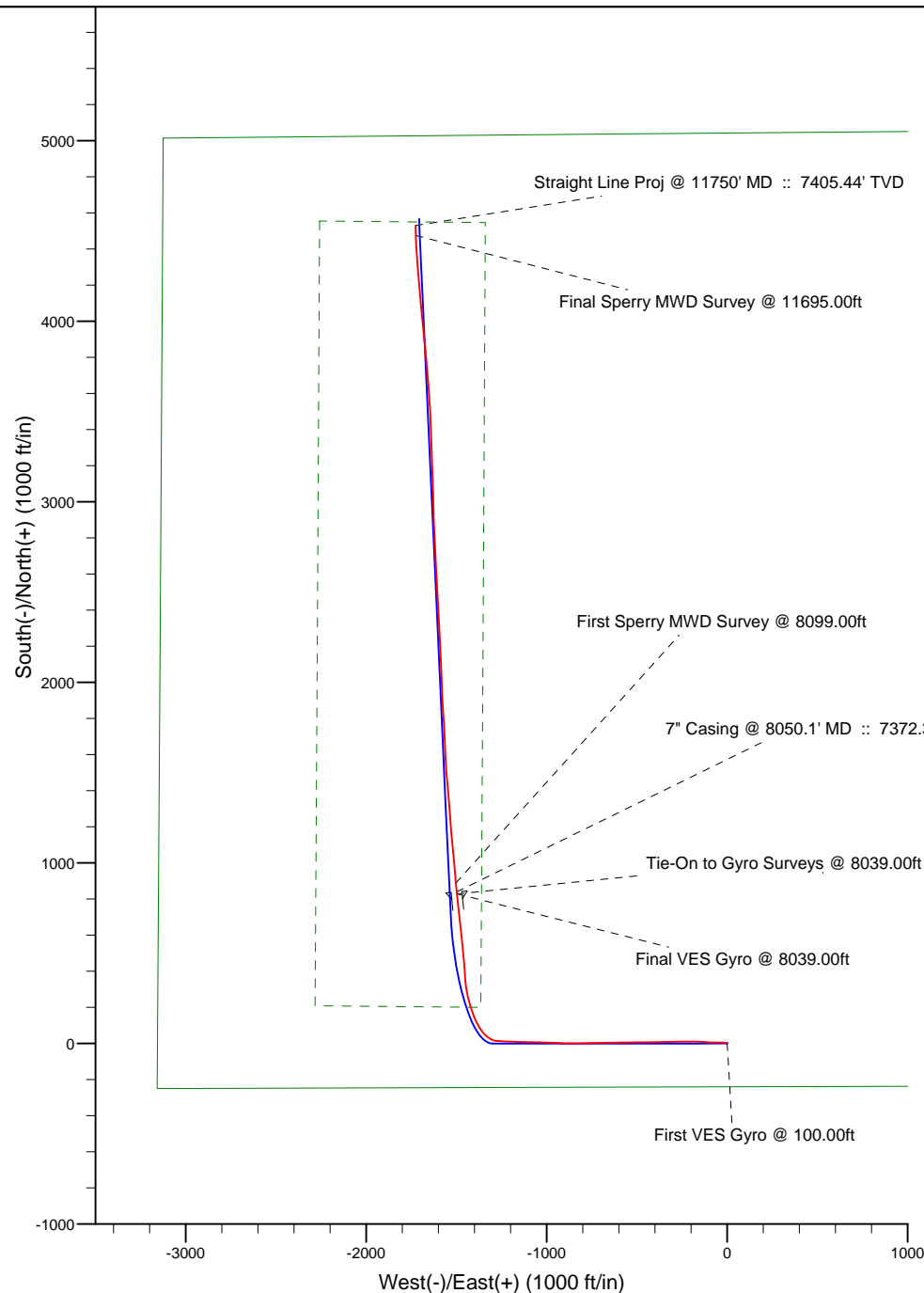


Project: Weld County, CO (NAD 83)
Site: Sec. 23-T2N-R66W
Well: Gobbler 29N-23HZ
Wellbore: Plan B Rev 0
Design: Actual Field Surveys



7" Casing: ~1083.81' FSL, ~1652.01' FWL
Lat/Long: 40.119446 N, -104.748072 E
State Planes - CO Northern: 1,287,249.69' N, 3,210,283.72' E
Location: Sec. 23-T2N-R66W

BHL: ~496.87' FNL, ~1400.74' FWL
Lat/Long: 40.129578 N, -104.748889 E
State Planes - CO Northern: 1,290,938.46' N, 3,210,023.98' E
Location: Sec. 23-T2N-R66W

WELL DETAILS: Gobbler 29N-23HZ	
Ground Level:	5102.00
RKB=13 @ 5115.00ft (Ensign 132)	
Design: Actual Field Surveys (Gobbler 29N-23HZ/Plan B Rev 0)	
Created By: Fred Hartmann	Date: 06/10/2013
Reviewed: _____	Date: _____

Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 23-T2N-R66W

Gobbler 29N-23HZ

Plan B Rev 0

Design: Actual Field Surveys

Sperry Drilling Services Standard Report

10 June, 2013

Well Coordinates: 1,286,423.21 N, 3,211,788.84 E (40° 07' 01.71" N, 104° 44' 33.78" W)

Ground Level: 5,102.00 ft

Local Coordinate Origin:

Centered on Well Gobbler 29N-23HZ

Viewing Datum:

RKB=13 @ 5115.00ft (Ensign 132)

TVDs to System:

N

North Reference:

True

Unit System:

API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 2003.16 Build: 43I

HALLIBURTON

Design Report for Gobbler 29N-23HZ - Actual Field Surveys

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.36	4.97	100.00	0.31	0.03	0.31	0.36
First VES Gyro @ 100.00ft							
200.00	0.30	12.71	200.00	0.87	0.11	0.87	0.07
300.00	0.28	329.51	300.00	1.33	0.05	1.33	0.21
400.00	0.24	358.08	400.00	1.75	-0.08	1.75	0.13
500.00	0.43	327.11	499.99	2.28	-0.29	2.29	0.26
600.00	0.48	302.88	599.99	2.82	-0.85	2.86	0.19
700.00	0.28	292.58	699.99	3.14	-1.42	3.20	0.21
800.00	0.20	246.37	799.99	3.17	-1.80	3.25	0.20
900.00	0.01	174.75	899.99	3.09	-1.96	3.17	0.19
1,000.00	0.04	202.06	999.99	3.04	-1.97	3.13	0.03
1,100.00	0.26	262.57	1,099.99	2.97	-2.21	3.07	0.24
1,200.00	0.35	256.96	1,199.99	2.87	-2.74	3.00	0.10
1,300.00	0.11	240.77	1,299.98	2.76	-3.12	2.90	0.25
1,400.00	0.43	249.47	1,399.98	2.58	-3.56	2.74	0.32
1,500.00	0.18	257.21	1,499.98	2.41	-4.06	2.59	0.25
1,600.00	0.41	257.96	1,599.98	2.30	-4.57	2.51	0.23
1,700.00	0.36	269.67	1,699.98	2.23	-5.24	2.46	0.09
1,800.00	1.51	289.14	1,799.96	2.66	-6.80	2.96	1.18
1,900.00	2.44	285.46	1,899.90	3.66	-10.10	4.11	0.93
2,000.00	3.51	280.35	1,999.77	4.77	-15.16	5.46	1.10
2,100.00	5.27	274.52	2,099.47	5.69	-22.75	6.71	1.81
2,200.00	7.70	269.28	2,198.82	5.96	-34.02	7.50	2.50
2,300.00	9.56	268.74	2,297.69	5.70	-49.02	7.91	1.86
2,400.00	12.56	270.79	2,395.82	5.66	-68.20	8.75	3.03
2,500.00	14.62	271.99	2,493.01	6.25	-91.69	10.41	2.07
2,600.00	16.69	272.77	2,589.30	7.39	-118.65	12.76	2.08
2,700.00	16.21	274.82	2,685.21	9.25	-146.91	15.91	0.75
2,800.00	15.28	271.12	2,781.45	10.68	-174.00	18.56	1.37
2,900.00	15.65	268.79	2,877.83	10.65	-200.65	19.75	0.72
3,000.00	16.20	269.84	2,974.00	10.33	-228.09	20.67	0.63
3,100.00	15.19	270.48	3,070.27	10.40	-255.14	21.96	1.03
3,200.00	16.49	267.77	3,166.47	9.96	-282.42	22.76	1.50
3,300.00	16.57	269.29	3,262.33	9.23	-310.87	23.32	0.44
3,400.00	16.20	269.70	3,358.27	8.98	-339.08	24.35	0.39
3,500.00	15.43	269.39	3,454.49	8.76	-366.33	25.37	0.77
3,600.00	13.99	268.14	3,551.21	8.23	-391.72	25.99	1.48
3,700.00	15.29	267.22	3,647.96	7.20	-416.97	26.10	1.32
3,800.00	16.31	271.49	3,744.18	6.92	-444.18	27.06	1.54
3,900.00	16.38	269.47	3,840.14	7.16	-472.31	28.58	0.57
4,000.00	15.66	267.37	3,936.26	6.41	-499.90	29.08	0.93
4,100.00	15.27	266.39	4,032.64	4.96	-526.52	28.84	0.47
4,200.00	15.65	269.46	4,129.02	4.00	-553.15	29.09	0.90
4,300.00	15.29	269.77	4,225.40	3.82	-579.82	30.12	0.37
4,400.00	17.52	270.48	4,321.32	3.90	-608.06	31.48	2.24
4,500.00	17.59	270.15	4,416.66	4.06	-638.23	33.01	0.12
4,600.00	16.97	270.04	4,512.15	4.11	-667.94	34.41	0.63
4,700.00	16.61	270.55	4,607.88	4.26	-696.83	35.87	0.39
4,800.00	16.48	268.50	4,703.74	4.03	-725.29	36.93	0.60

Design Report for Gobbler 29N-23HZ - Actual Field Surveys

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
4,900.00	16.28	268.11	4,799.69	3.19	-753.48	37.37	0.22
5,000.00	16.53	267.88	4,895.62	2.21	-781.70	37.66	0.26
5,100.00	16.72	268.44	4,991.44	1.29	-810.29	38.05	0.25
5,200.00	16.59	269.62	5,087.24	0.80	-838.95	38.86	0.36
5,300.00	16.92	268.89	5,183.00	0.43	-867.77	39.79	0.39
5,400.00	16.21	271.98	5,278.85	0.63	-896.27	41.29	1.13
5,500.00	16.16	272.44	5,374.89	1.71	-924.12	43.63	0.14
5,600.00	16.07	273.15	5,470.96	3.06	-951.84	46.24	0.22
5,700.00	15.87	272.99	5,567.10	4.54	-979.32	48.96	0.20
5,800.00	15.49	272.49	5,663.38	5.83	-1,006.31	51.47	0.41
5,900.00	15.14	270.54	5,759.83	6.53	-1,032.70	53.37	0.62
6,000.00	14.93	269.56	5,856.40	6.56	-1,058.64	54.57	0.33
6,100.00	14.52	271.02	5,953.12	6.68	-1,084.06	55.85	0.55
6,200.00	15.93	272.59	6,049.61	7.53	-1,110.31	57.89	1.47
6,300.00	14.68	270.97	6,146.06	8.36	-1,136.70	59.92	1.32
6,400.00	16.06	272.34	6,242.48	9.14	-1,163.19	61.90	1.42
6,500.00	16.02	271.47	6,338.58	10.06	-1,190.80	64.07	0.24
6,600.00	15.58	272.45	6,434.81	10.99	-1,218.02	66.23	0.52
6,700.00	17.03	271.15	6,530.78	11.86	-1,246.08	68.37	1.50
6,800.00	16.39	274.98	6,626.56	13.37	-1,274.77	71.19	1.28
6,900.00	21.20	295.41	6,721.30	22.38	-1,305.21	81.56	8.09
7,000.00	23.77	311.80	6,813.78	43.60	-1,336.61	104.18	6.75
7,100.00	31.27	326.73	6,902.51	78.82	-1,365.94	140.70	10.13
7,200.00	35.67	335.16	6,985.95	127.03	-1,392.46	190.06	6.39
7,300.00	43.69	341.29	7,062.88	186.32	-1,415.83	250.35	8.92
7,400.00	48.55	346.89	7,132.21	255.60	-1,435.43	320.45	6.31
7,500.00	52.83	353.32	7,195.59	331.75	-1,448.58	397.12	6.56
7,600.00	60.17	356.78	7,250.75	414.76	-1,455.66	480.37	7.89
7,700.00	62.79	355.23	7,298.49	502.40	-1,461.80	568.20	2.95
7,800.00	72.14	353.05	7,336.77	594.17	-1,471.28	660.30	9.57
7,900.00	80.95	353.60	7,360.01	690.67	-1,482.57	757.22	8.82
8,000.00	86.98	354.29	7,370.52	789.52	-1,493.06	856.44	6.07
8,039.00	88.58	354.21	7,372.03	828.29	-1,496.96	895.35	4.11
Final VES Gyro @ 8039.00ft - Tie-On to Gyro Surveys @ 8039.00ft							
8,050.10	88.68	354.38	7,372.30	839.33	-1,498.06	906.43	1.80
7" Casing @ 8050.1' MD :: 7372.3' TVD							
8,099.00	89.11	355.15	7,373.24	888.02	-1,502.52	955.27	1.80
First Sperry MWD Survey @ 8099.00ft							
8,195.00	87.94	355.03	7,375.71	983.63	-1,510.74	1,051.15	1.23
8,290.00	86.64	354.33	7,380.20	1,078.12	-1,519.53	1,145.94	1.55
8,386.00	86.98	355.24	7,385.55	1,173.57	-1,528.24	1,241.69	1.01
8,481.00	89.11	356.00	7,388.79	1,268.23	-1,535.49	1,336.58	2.38
8,575.00	88.06	355.19	7,391.11	1,361.92	-1,542.71	1,430.50	1.41
8,671.00	89.26	354.54	7,393.35	1,457.51	-1,551.30	1,526.38	1.42
8,766.00	91.66	356.75	7,392.59	1,552.22	-1,558.52	1,621.32	3.43
8,861.00	91.14	358.20	7,390.27	1,647.10	-1,562.70	1,716.29	1.62
8,957.00	90.89	356.52	7,388.57	1,742.98	-1,567.12	1,812.27	1.77
9,052.00	90.68	356.02	7,387.27	1,837.77	-1,573.30	1,907.24	0.57
9,147.00	90.83	357.92	7,386.01	1,932.62	-1,578.32	2,002.23	2.01
9,243.00	88.18	357.59	7,386.84	2,028.53	-1,582.08	2,098.21	2.78
9,339.00	87.59	357.30	7,390.39	2,124.37	-1,586.36	2,194.15	0.68

Design Report for Gobbler 29N-23HZ - Actual Field Surveys

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
9,434.00	87.75	357.24	7,394.25	2,219.19	-1,590.88	2,289.07	0.18
9,529.00	89.69	357.28	7,396.37	2,314.05	-1,595.42	2,384.04	2.04
9,625.00	91.73	357.03	7,395.18	2,409.92	-1,600.18	2,480.03	2.14
9,720.00	90.52	356.71	7,393.32	2,504.76	-1,605.37	2,575.00	1.32
9,816.00	89.38	356.67	7,393.40	2,600.59	-1,610.91	2,670.99	1.19
9,911.00	89.17	356.79	7,394.60	2,695.43	-1,616.33	2,765.98	0.25
10,007.00	90.40	357.75	7,394.96	2,791.32	-1,620.90	2,861.98	1.63
10,103.00	89.78	357.46	7,394.81	2,887.24	-1,624.91	2,957.97	0.71
10,198.00	90.56	359.48	7,394.53	2,982.20	-1,627.45	3,052.95	2.28
10,294.00	89.57	357.44	7,394.42	3,078.15	-1,630.03	3,148.93	2.36
10,389.00	91.32	358.58	7,393.68	3,173.09	-1,633.33	3,243.92	2.20
10,484.00	89.04	357.85	7,393.38	3,268.04	-1,636.29	3,338.90	2.52
10,578.00	89.85	357.68	7,394.30	3,361.96	-1,639.95	3,432.89	0.88
10,673.00	90.80	358.07	7,393.76	3,456.89	-1,643.48	3,527.89	1.08
10,768.00	89.17	355.99	7,393.78	3,551.75	-1,648.40	3,622.87	2.78
10,864.00	90.28	355.79	7,394.24	3,647.51	-1,655.28	3,718.84	1.17
10,959.00	89.54	354.77	7,394.39	3,742.18	-1,663.09	3,813.77	1.33
11,055.00	89.81	355.17	7,394.94	3,837.81	-1,671.51	3,909.68	0.50
11,151.00	89.23	354.01	7,395.74	3,933.38	-1,680.56	4,005.56	1.35
11,246.00	89.26	354.31	7,396.99	4,027.88	-1,690.23	4,100.40	0.32
11,342.00	89.01	354.91	7,398.44	4,123.44	-1,699.24	4,196.28	0.68
11,437.00	87.72	354.78	7,401.15	4,218.01	-1,707.78	4,291.14	1.36
11,533.00	88.15	355.85	7,404.61	4,313.63	-1,715.61	4,387.01	1.20
11,597.00	89.63	356.65	7,405.85	4,377.48	-1,719.80	4,450.99	2.63
11,695.00	90.40	357.99	7,405.83	4,475.37	-1,724.38	4,548.98	1.58
Final Sperry MWD Survey @ 11695.00ft							
11,750.00	90.40	357.99	7,405.44	4,530.33	-1,726.31	4,603.98	0.00
Straight Line Proj @ 11750' MD :: 7405.44' TVD							

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
100.00	100.00	0.31	0.03	First VES Gyro @ 100.00ft
8,039.00	7,372.03	828.29	-1,496.96	Final VES Gyro @ 8039.00ft
8,039.00	7,372.03	828.29	-1,496.96	Tie-On to Gyro Surveys @ 8039.00ft
8,099.00	7,373.24	888.02	-1,502.52	First Sperry MWD Survey @ 8099.00ft
11,695.00	7,405.83	4,475.37	-1,724.38	Final Sperry MWD Survey @ 11695.00ft
11,750.00	7,405.44	4,530.33	-1,726.31	Straight Line Proj @ 11750' MD :: 7405.44' TVD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/-S (ft)	+E/-W (ft)	
User	No Target (Freehand)	357.40	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
100.00	8,039.00	VES Gyros	NS-GYRO-MS
8,039.00	11,695.00	Sperry MWD Surveys - Lateral	MWD+SC

Design Report for Gobbler 29N-23HZ - Actual Field Surveys**Casing Details**

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
8,050.10		7" Casing @ 8050.1' MD :: 7372.3' TVD	7	8-3/4

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Gobbler 29N-23HZ_ - actual wellpath misses target center by 41.71ft at 11750.00ft MD (7405.44 TVD, 4530.33 N, -1726.31 E) - Point	0.00	0.00	7,404.00	4,567.21	-1,706.87	1,290,975.50	3,210,043.09	40.129679	-104.748820
Gobbler 29N-23HZ_ - actual wellpath hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	1,286,423.22	3,211,788.84	40.117142	-104.742716
Point 1			-3,124.17	5,014.95	1,291,411.10	3,208,622.08			
Point 2			-3,140.23	2,382.78	1,288,779.00	3,208,628.50			
Point 3			-3,157.19	-249.46	1,286,146.82	3,208,634.02			
Point 4			-496.35	-241.55	1,286,177.45	3,211,294.59			
Point 5			2,164.00	-233.62	1,286,208.10	3,213,954.67			
Point 6			2,178.35	2,414.16	1,288,855.79	3,213,946.40			
Point 7			2,192.68	5,061.92	1,291,503.47	3,213,938.12			
Point 8			-465.18	5,038.34	1,291,457.20	3,211,280.67			
Point 9			-3,124.17	5,014.95	1,291,411.10	3,208,622.08			
Gobbler 29N-23HZ_ - actual wellpath hits target center - Point	0.00	0.00	0.00	0.00	0.00	1,286,423.22	3,211,788.84	40.117142	-104.742716
Gobbler 29N-23HZ_ - actual wellpath hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	1,286,423.22	3,211,788.84	40.117142	-104.742716
Point 1			-2,257.03	4,555.44	1,290,959.03	3,209,493.08			
Point 2			-2,269.23	2,375.34	1,288,779.00	3,209,499.50			
Point 3			-2,282.21	208.42	1,286,612.13	3,209,505.02			
Point 4			-1,364.21	200.58	1,286,612.13	3,210,423.02			
Point 5			-1,351.22	2,367.50	1,288,779.00	3,210,417.50			
Point 6			-1,339.03	4,547.60	1,290,959.03	3,210,411.08			
Point 7			-2,257.03	4,555.44	1,290,959.03	3,209,493.08			

North Reference Sheet for Sec. 23-T2N-R66W - Gobbler 29N-23HZ - Plan B Rev 0

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.

Vertical Depths are relative to RKB=13 @ 5115.00ft (Ensign 132). Northing and Easting are relative to Gobbler 29N-23HZ

Coordinate System is US State Plane 1983, Colorado Northern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is -105.500000°, Longitude Origin:0.000000°, Latitude Origin:40.783333°

False Easting: 3,000,000.00ft, False Northing: 1,000,000.00ft, Scale Reduction: 0.99995955

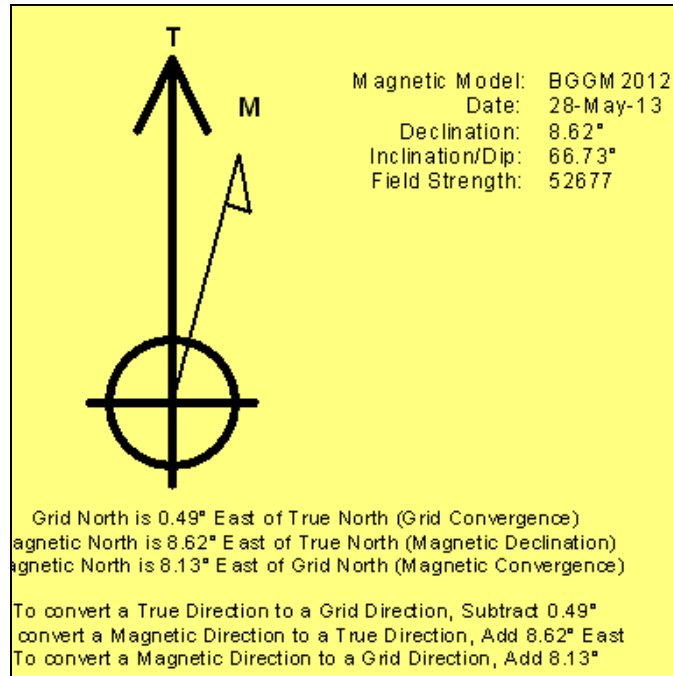
Grid Coordinates of Well: 1,286,423.21 ft N, 3,211,788.84 ft E

Geographical Coordinates of Well: 40° 07' 01.71" N, 104° 44' 33.78" W

Grid Convergence at Surface is: 0.49°

Based upon Minimum Curvature type calculations, at a Measured Depth of 11,750.00ft
the Bottom Hole Displacement is 4,848.10ft in the Direction of 339.14° (True).

Magnetic Convergence at surface is: -8.13° (28 May 2013, , BGGM2012)



Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 23-T2N-R66W

Gobbler 29N-23HZ

Plan B Rev 0

Design: Actual Field Surveys

Sperry Drilling Services Geodetic Report

10 June, 2013

Well Coordinates: 1,286,423.21 N, 3,211,788.84 E (40° 07' 01.71" N, 104° 44' 33.78" W)

Ground Level: 5,102.00 ft

Local Coordinate Origin:	Centered on Well Gobbler 29N-23HZ
Viewing Datum:	RKB=13 @ 5115.00ft (Ensign 132)
TVDs to System:	N
North Reference:	True
Unit System:	API - US Survey Feet - Custom
Geodetic Scale Factor Applied	
Version: 2003.16 Build: 431	

HALLIBURTON

Design Report for Gobbler 29N-23HZ - Actual Field Surveys

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	Local Coordinates		Geographic Coordinates		UTM Coordinates	
				+N/-S (ft)	+E/-W (ft)	Latitude (ft)	Longitude (ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	0.00	0.00	0.00	40.117142	-104.742716	1,286,423.21	3,211,788.84
100.00	0.36	4.97	100.00	0.31	0.03	40.117143	-104.742716	1,286,423.52	3,211,788.86
200.00	0.30	12.71	200.00	0.87	0.11	40.117144	-104.742716	1,286,424.09	3,211,788.94
300.00	0.28	329.51	300.00	1.33	0.05	40.117146	-104.742716	1,286,424.55	3,211,788.87
400.00	0.24	358.08	400.00	1.75	-0.08	40.117147	-104.742716	1,286,424.97	3,211,788.74
500.00	0.43	327.11	499.99	2.28	-0.29	40.117148	-104.742717	1,286,425.49	3,211,788.52
600.00	0.48	302.88	599.99	2.82	-0.85	40.117150	-104.742719	1,286,426.03	3,211,787.97
700.00	0.28	292.58	699.99	3.14	-1.42	40.117151	-104.742721	1,286,426.34	3,211,787.39
800.00	0.20	246.37	799.99	3.17	-1.80	40.117151	-104.742722	1,286,426.37	3,211,787.01
900.00	0.01	174.75	899.99	3.09	-1.96	40.117150	-104.742723	1,286,426.28	3,211,786.85
1,000.00	0.04	202.06	999.99	3.04	-1.97	40.117150	-104.742723	1,286,426.24	3,211,786.84
1,100.00	0.26	262.57	1,099.99	2.97	-2.21	40.117150	-104.742724	1,286,426.17	3,211,786.60
1,200.00	0.35	256.96	1,199.99	2.87	-2.74	40.117150	-104.742726	1,286,426.07	3,211,786.08
1,300.00	0.11	240.77	1,299.98	2.76	-3.12	40.117150	-104.742727	1,286,425.95	3,211,785.69
1,400.00	0.43	249.47	1,399.98	2.58	-3.56	40.117149	-104.742729	1,286,425.76	3,211,785.26
1,500.00	0.18	257.21	1,499.98	2.41	-4.06	40.117149	-104.742731	1,286,425.59	3,211,784.75
1,600.00	0.41	257.96	1,599.98	2.30	-4.57	40.117148	-104.742732	1,286,425.48	3,211,784.25
1,700.00	0.36	269.67	1,699.98	2.23	-5.24	40.117148	-104.742735	1,286,425.40	3,211,783.58
1,800.00	1.51	289.14	1,799.96	2.66	-6.80	40.117149	-104.742740	1,286,425.81	3,211,782.01
1,900.00	2.44	285.46	1,899.90	3.66	-10.10	40.117152	-104.742752	1,286,426.79	3,211,778.71
2,000.00	3.51	280.35	1,999.77	4.77	-15.16	40.117155	-104.742770	1,286,427.86	3,211,773.64
2,100.00	5.27	274.52	2,099.47	5.69	-22.75	40.117158	-104.742797	1,286,428.71	3,211,766.04
2,200.00	7.70	269.28	2,198.82	5.96	-34.02	40.117158	-104.742838	1,286,428.89	3,211,754.77
2,300.00	9.56	268.74	2,297.69	5.70	-49.02	40.117158	-104.742891	1,286,428.49	3,211,739.77
2,400.00	12.56	270.79	2,395.82	5.66	-68.20	40.117158	-104.742960	1,286,428.29	3,211,720.59
2,500.00	14.62	271.99	2,493.01	6.25	-91.69	40.117159	-104.743044	1,286,428.68	3,211,697.10
2,600.00	16.69	272.77	2,589.30	7.39	-118.65	40.117162	-104.743140	1,286,429.59	3,211,670.14
2,700.00	16.21	274.82	2,685.21	9.25	-146.91	40.117167	-104.743241	1,286,431.21	3,211,641.86
2,800.00	15.28	271.12	2,781.45	10.68	-174.00	40.117171	-104.743338	1,286,432.41	3,211,614.77
2,900.00	15.65	268.79	2,877.83	10.65	-200.65	40.117171	-104.743433	1,286,432.15	3,211,588.11
3,000.00	16.20	269.84	2,974.00	10.33	-228.09	40.117170	-104.743532	1,286,431.59	3,211,560.68
3,100.00	15.19	270.48	3,070.27	10.40	-255.14	40.117171	-104.743628	1,286,431.43	3,211,533.63
3,200.00	16.49	267.77	3,166.47	9.96	-282.42	40.117169	-104.743726	1,286,430.76	3,211,506.35
3,300.00	16.57	269.29	3,262.33	9.23	-310.87	40.117167	-104.743828	1,286,429.79	3,211,477.91
3,400.00	16.20	269.70	3,358.27	8.98	-339.08	40.117167	-104.743928	1,286,429.29	3,211,449.71
3,500.00	15.43	269.39	3,454.49	8.76	-366.33	40.117166	-104.744026	1,286,428.85	3,211,422.46
3,600.00	13.99	268.14	3,551.21	8.23	-391.72	40.117165	-104.744117	1,286,428.10	3,211,397.08
3,700.00	15.29	267.22	3,647.96	7.20	-416.97	40.117162	-104.744207	1,286,426.85	3,211,371.84
3,800.00	16.31	271.49	3,744.18	6.92	-444.18	40.117161	-104.744304	1,286,426.34	3,211,344.64
3,900.00	16.38	269.47	3,840.14	7.16	-472.31	40.117162	-104.744405	1,286,426.34	3,211,316.50
4,000.00	15.66	267.37	3,936.26	6.41	-499.90	40.117160	-104.744503	1,286,425.35	3,211,288.93
4,100.00	15.27	266.39	4,032.64	4.96	-526.52	40.117156	-104.744599	1,286,423.67	3,211,262.31

Design Report for Gobbler 29N-23HZ - Actual Field Surveys

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	Local Coordinates		Geographic Coordinates		UTM Coordinates	
				+N/-S (ft)	+E/-W (ft)	Latitude (ft)	Longitude (ft)	Northing (ft)	Easting (ft)
4,200.00	15.65	269.46	4,129.02	4.00	-553.15	40.117153	-104.744694	1,286,422.49	3,211,235.69
4,300.00	15.29	269.77	4,225.40	3.82	-579.82	40.117152	-104.744789	1,286,422.08	3,211,209.03
4,400.00	17.52	270.48	4,321.32	3.90	-608.06	40.117153	-104.744890	1,286,421.92	3,211,180.79
4,500.00	17.59	270.15	4,416.66	4.06	-638.23	40.117153	-104.744998	1,286,421.83	3,211,150.62
4,600.00	16.97	270.04	4,512.15	4.11	-667.94	40.117153	-104.745104	1,286,421.62	3,211,120.91
4,700.00	16.61	270.55	4,607.88	4.26	-696.83	40.117154	-104.745207	1,286,421.52	3,211,092.03
4,800.00	16.48	268.50	4,703.74	4.03	-725.29	40.117153	-104.745309	1,286,421.05	3,211,063.57
4,900.00	16.28	268.11	4,799.69	3.19	-753.48	40.117151	-104.745410	1,286,419.97	3,211,035.39
5,000.00	16.53	267.88	4,895.62	2.21	-781.70	40.117148	-104.745511	1,286,418.75	3,211,007.18
5,100.00	16.72	268.44	4,991.44	1.29	-810.29	40.117145	-104.745613	1,286,417.58	3,210,978.60
5,200.00	16.59	269.62	5,087.24	0.80	-838.95	40.117144	-104.745716	1,286,416.85	3,210,949.95
5,300.00	16.92	268.89	5,183.00	0.43	-867.77	40.117143	-104.745819	1,286,416.23	3,210,921.13
5,400.00	16.21	271.98	5,278.85	0.63	-896.27	40.117144	-104.745921	1,286,416.19	3,210,892.63
5,500.00	16.16	272.44	5,374.89	1.71	-924.12	40.117147	-104.746020	1,286,417.03	3,210,864.77
5,600.00	16.07	273.15	5,470.96	3.06	-951.84	40.117150	-104.746119	1,286,418.15	3,210,837.04
5,700.00	15.87	272.99	5,567.10	4.54	-979.32	40.117154	-104.746218	1,286,419.39	3,210,809.56
5,800.00	15.49	272.49	5,663.38	5.83	-1,006.31	40.117158	-104.746314	1,286,420.45	3,210,782.55
5,900.00	15.14	270.54	5,759.83	6.53	-1,032.70	40.117160	-104.746408	1,286,420.93	3,210,756.16
6,000.00	14.93	269.56	5,856.40	6.56	-1,058.64	40.117160	-104.746501	1,286,420.73	3,210,730.22
6,100.00	14.52	271.02	5,953.12	6.68	-1,084.06	40.117160	-104.746592	1,286,420.64	3,210,704.80
6,200.00	15.93	272.59	6,049.61	7.53	-1,110.31	40.117163	-104.746686	1,286,421.26	3,210,678.55
6,300.00	14.68	270.97	6,146.06	8.36	-1,136.70	40.117165	-104.746780	1,286,421.87	3,210,652.16
6,400.00	16.06	272.34	6,242.48	9.14	-1,163.19	40.117167	-104.746875	1,286,422.42	3,210,625.66
6,500.00	16.02	271.47	6,338.58	10.06	-1,190.80	40.117170	-104.746974	1,286,423.10	3,210,598.04
6,600.00	15.58	272.45	6,434.81	10.99	-1,218.02	40.117172	-104.747071	1,286,423.80	3,210,570.82
6,700.00	17.03	271.15	6,530.78	11.86	-1,246.08	40.117174	-104.747171	1,286,424.43	3,210,542.76
6,800.00	16.39	274.98	6,626.56	13.37	-1,274.77	40.117179	-104.747274	1,286,425.70	3,210,514.05
6,900.00	21.20	295.41	6,721.30	22.38	-1,305.21	40.117203	-104.747383	1,286,434.44	3,210,483.54
7,000.00	23.77	311.80	6,813.78	43.60	-1,336.61	40.117262	-104.747495	1,286,455.39	3,210,451.96
7,100.00	31.27	326.73	6,902.51	78.82	-1,365.94	40.117358	-104.747600	1,286,490.36	3,210,422.33
7,200.00	35.67	335.16	6,985.95	127.03	-1,392.46	40.117491	-104.747695	1,286,538.34	3,210,395.40
7,300.00	43.69	341.29	7,062.88	186.32	-1,415.83	40.117653	-104.747778	1,286,597.42	3,210,371.52
7,400.00	48.55	346.89	7,132.21	255.60	-1,435.43	40.117843	-104.747848	1,286,666.53	3,210,351.34
7,500.00	52.83	353.32	7,195.59	331.75	-1,448.58	40.118053	-104.747895	1,286,742.57	3,210,337.54
7,600.00	60.17	356.78	7,250.75	414.76	-1,455.66	40.118280	-104.747921	1,286,825.51	3,210,329.75
7,700.00	62.79	355.23	7,298.49	502.40	-1,461.80	40.118521	-104.747943	1,286,913.09	3,210,322.86
7,800.00	72.14	353.05	7,336.77	594.17	-1,471.28	40.118773	-104.747977	1,287,004.78	3,210,312.59
7,900.00	80.95	353.60	7,360.01	690.67	-1,482.57	40.119038	-104.748017	1,287,101.17	3,210,300.48
8,000.00	86.98	354.29	7,370.52	789.52	-1,493.06	40.119309	-104.748055	1,287,199.92	3,210,289.16
8,039.00	88.58	354.21	7,372.03	828.29	-1,496.96	40.119416	-104.748069	1,287,238.66	3,210,284.92
8,050.10	88.68	354.38	7,372.30	839.33	-1,498.06	40.119446	-104.748072	1,287,249.69	3,210,283.72
8,099.00	89.11	355.15	7,373.24	888.02	-1,502.52	40.119580	-104.748088	1,287,298.34	3,210,278.85

Design Report for Gobbler 29N-23HZ - Actual Field Surveys

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	Local Coordinates		Geographic Coordinates		UTM Coordinates	
				+N/-S (ft)	+E/-W (ft)	Latitude (ft)	Longitude (ft)	Northing (ft)	Easting (ft)
8,195.00	87.94	355.03	7,375.71	983.63	-1,510.74	40.119842	-104.748118	1,287,393.87	3,210,269.82
8,290.00	86.64	354.33	7,380.20	1,078.12	-1,519.53	40.120101	-104.748149	1,287,488.27	3,210,260.22
8,386.00	86.98	355.24	7,385.55	1,173.57	-1,528.24	40.120363	-104.748180	1,287,583.64	3,210,250.69
8,481.00	89.11	356.00	7,388.79	1,268.23	-1,535.49	40.120623	-104.748206	1,287,678.24	3,210,242.63
8,575.00	88.06	355.19	7,391.11	1,361.92	-1,542.71	40.120880	-104.748232	1,287,771.86	3,210,234.61
8,671.00	89.26	354.54	7,393.35	1,457.51	-1,551.30	40.121143	-104.748263	1,287,867.36	3,210,225.21
8,766.00	91.66	356.75	7,392.59	1,552.22	-1,558.52	40.121403	-104.748289	1,287,962.01	3,210,217.19
8,861.00	91.14	358.20	7,390.27	1,647.10	-1,562.70	40.121663	-104.748304	1,288,056.84	3,210,212.19
8,957.00	90.89	356.52	7,388.57	1,742.98	-1,567.12	40.121926	-104.748320	1,288,152.67	3,210,206.95
9,052.00	90.68	356.02	7,387.27	1,837.77	-1,573.30	40.122187	-104.748342	1,288,247.40	3,210,199.97
9,147.00	90.83	357.92	7,386.01	1,932.62	-1,578.32	40.122447	-104.748360	1,288,342.21	3,210,194.14
9,243.00	88.18	357.59	7,386.84	2,028.53	-1,582.08	40.122710	-104.748373	1,288,438.08	3,210,189.56
9,339.00	87.59	357.30	7,390.39	2,124.37	-1,586.36	40.122973	-104.748388	1,288,533.88	3,210,184.46
9,434.00	87.75	357.24	7,394.25	2,219.19	-1,590.88	40.123234	-104.748405	1,288,628.64	3,210,179.13
9,529.00	89.69	357.28	7,396.37	2,314.05	-1,595.42	40.123494	-104.748421	1,288,723.46	3,210,173.78
9,625.00	91.73	357.03	7,395.18	2,409.92	-1,600.18	40.123757	-104.748438	1,288,819.28	3,210,168.20
9,720.00	90.52	356.71	7,393.32	2,504.76	-1,605.37	40.124017	-104.748457	1,288,914.07	3,210,162.20
9,816.00	89.38	356.67	7,393.40	2,600.59	-1,610.91	40.124281	-104.748476	1,289,009.85	3,210,155.84
9,911.00	89.17	356.79	7,394.60	2,695.43	-1,616.33	40.124541	-104.748496	1,289,104.64	3,210,149.62
10,007.00	90.40	357.75	7,394.96	2,791.32	-1,620.90	40.124804	-104.748512	1,289,200.48	3,210,144.22
10,103.00	89.78	357.46	7,394.81	2,887.24	-1,624.91	40.125067	-104.748527	1,289,296.35	3,210,139.39
10,198.00	90.56	359.48	7,394.53	2,982.20	-1,627.45	40.125328	-104.748536	1,289,391.28	3,210,136.05
10,294.00	89.57	357.44	7,394.42	3,078.15	-1,630.03	40.125591	-104.748545	1,289,487.21	3,210,132.65
10,389.00	91.32	358.58	7,393.68	3,173.09	-1,633.33	40.125852	-104.748557	1,289,582.11	3,210,128.54
10,484.00	89.04	357.85	7,393.38	3,268.04	-1,636.29	40.126113	-104.748567	1,289,677.03	3,210,124.77
10,578.00	89.85	357.68	7,394.30	3,361.96	-1,639.95	40.126371	-104.748580	1,289,770.91	3,210,120.30
10,673.00	90.80	358.07	7,393.76	3,456.89	-1,643.48	40.126631	-104.748593	1,289,865.80	3,210,115.97
10,768.00	89.17	355.99	7,393.78	3,551.75	-1,648.40	40.126892	-104.748611	1,289,960.62	3,210,110.24
10,864.00	90.28	355.79	7,394.24	3,647.51	-1,655.28	40.127154	-104.748635	1,290,056.30	3,210,102.54
10,959.00	89.54	354.77	7,394.39	3,742.18	-1,663.09	40.127414	-104.748663	1,290,150.91	3,210,093.91
11,055.00	89.81	355.17	7,394.94	3,837.81	-1,671.51	40.127677	-104.748693	1,290,246.45	3,210,084.68
11,151.00	89.23	354.01	7,395.74	3,933.38	-1,680.56	40.127939	-104.748726	1,290,341.94	3,210,074.82
11,246.00	89.26	354.31	7,396.99	4,027.88	-1,690.23	40.128198	-104.748760	1,290,436.35	3,210,064.34
11,342.00	89.01	354.91	7,398.44	4,123.44	-1,699.24	40.128461	-104.748793	1,290,531.83	3,210,054.51
11,437.00	87.72	354.78	7,401.15	4,218.01	-1,707.78	40.128720	-104.748823	1,290,626.32	3,210,045.17
11,533.00	88.15	355.85	7,404.61	4,313.63	-1,715.61	40.128983	-104.748851	1,290,721.86	3,210,036.52
11,597.00	89.63	356.65	7,405.85	4,377.48	-1,719.80	40.129158	-104.748866	1,290,785.67	3,210,031.79
11,695.00	90.40	357.99	7,405.83	4,475.37	-1,724.38	40.129427	-104.748883	1,290,883.51	3,210,026.37
11,750.00	90.40	357.99	7,405.44	4,530.33	-1,726.31	40.129578	-104.748889	1,290,938.46	3,210,023.98

Design Report for Gobbler 29N-23HZ - Actual Field Surveys

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
100.00	100.00	0.31	0.03	First VES Gyro @ 100.00ft
8,039.00	7,372.03	828.29	-1,496.96	Final VES Gyro @ 8039.00ft
8,039.00	7,372.03	828.29	-1,496.96	Tie-On to Gyro Surveys @ 8039.00ft
8,099.00	7,373.24	888.02	-1,502.52	First Sperry MWD Survey @ 8099.00ft
11,695.00	7,405.83	4,475.37	-1,724.38	Final Sperry MWD Survey @ 11695.00ft
11,750.00	7,405.44	4,530.33	-1,726.31	Straight Line Proj @ 11750' MD :: 7405.44' TVD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/_S (ft)	+E/-W (ft)	
User	No Target (Freehand)	357.40	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
100.00	8,039.00	VES Gyros	NS-GYRO-MS
8,039.00	11,695.00	Sperry MWD Surveys - Lateral	MWD+SC

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
8,050.10	7,372.30	7" Casing @ 8050.1' MD :: 7372.3' TVD	7	8-3/4

Design Report for Gobbler 29N-23HZ - Actual Field Surveys

Targets for Plan B Rev 0

Shape	Target Name	TVD (ft)	Northing (ft)	Easting (ft)	+N/-S ft	+E/-W ft	Created	Updated
Point	Gobbler 29N-23HZ_BHL	7,404.00	1,290,975.50	3,210,043.09	4,567.21	-1,706.87	05-01-2013	05-16-2013
Polygon	Gobbler 29N-23HZ_Sec	0.00	1,286,423.22	3,211,788.84	0.00	0.00	05-01-2013	05-01-2013
Point	Gobbler 29N-23HZ_SHL	0.00	1,286,423.22	3,211,788.84	0.00	0.00	05-01-2013	05-01-2013
Polygon	Gobbler 29N-23HZ_LD	0.00	1,286,423.22	3,211,788.84	0.00	0.00	05-01-2013	05-01-2013

North Reference Sheet for Sec. 23-T2N-R66W - Gobbler 29N-23HZ - Plan B Rev 0

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.

Vertical Depths are relative to RKB=13 @ 5115.00ft (Ensign 132). Northing and Easting are relative to Gobbler 29N-23HZ

Coordinate System is US State Plane 1983, Colorado Northern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is -105.500000°, Longitude Origin:0.000000°, Latitude Origin:40.783333°

False Easting: 3,000,000.00ft, False Northing: 1,000,000.00ft, Scale Reduction: 0.99995955

Grid Coordinates of Well: 1,286,423.21 ft N, 3,211,788.84 ft E

Geographical Coordinates of Well: 40° 07' 01.71" N, 104° 44' 33.78" W

Grid Convergence at Surface is: 0.49°

Based upon Minimum Curvature type calculations, at a Measured Depth of 11,750.00ft

the Bottom Hole Displacement is 4,848.10ft in the Direction of 339.14° (True).

Magnetic Convergence at surface is: -8.13° (28 May 2013, , BGGM2012)

