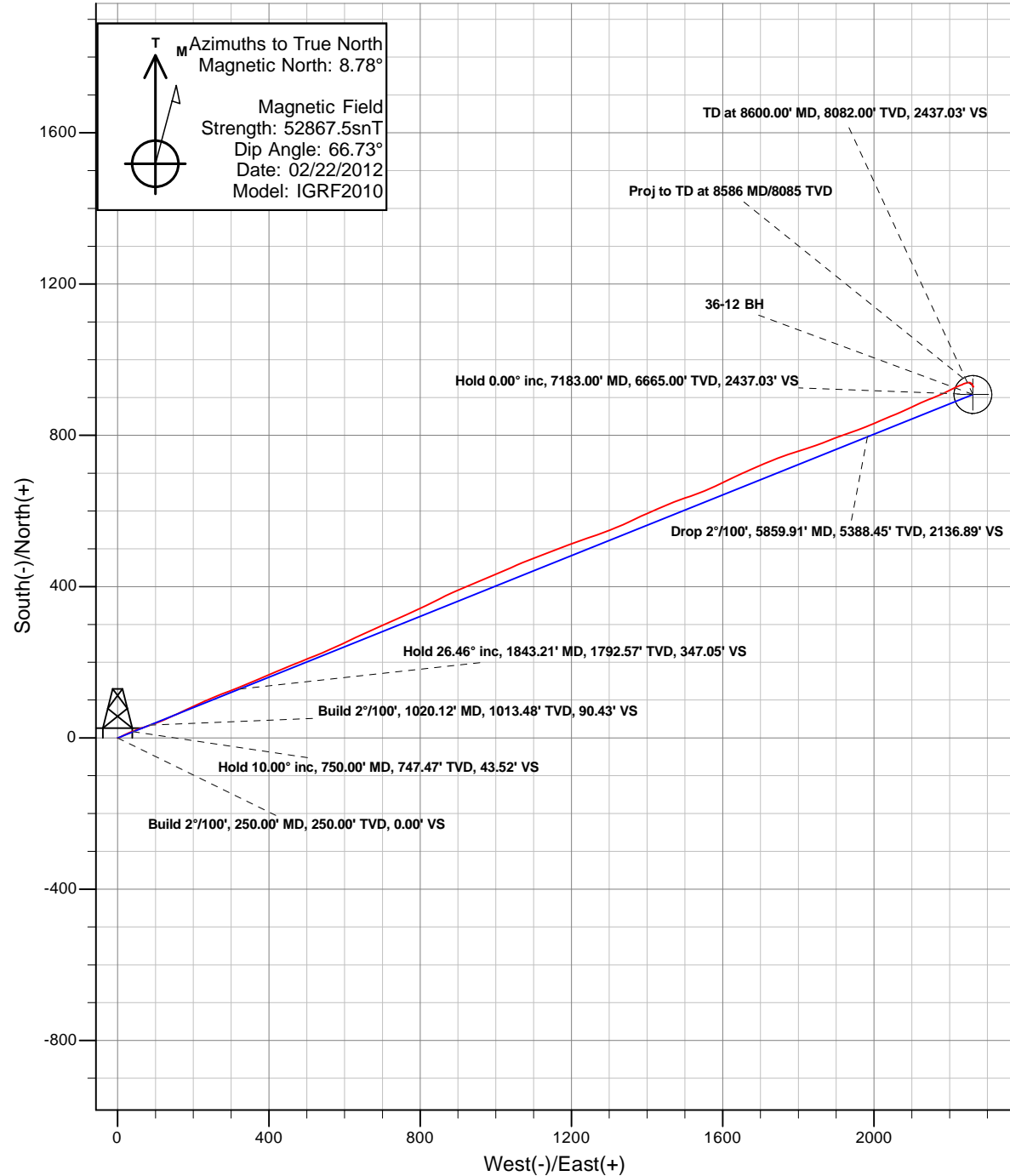
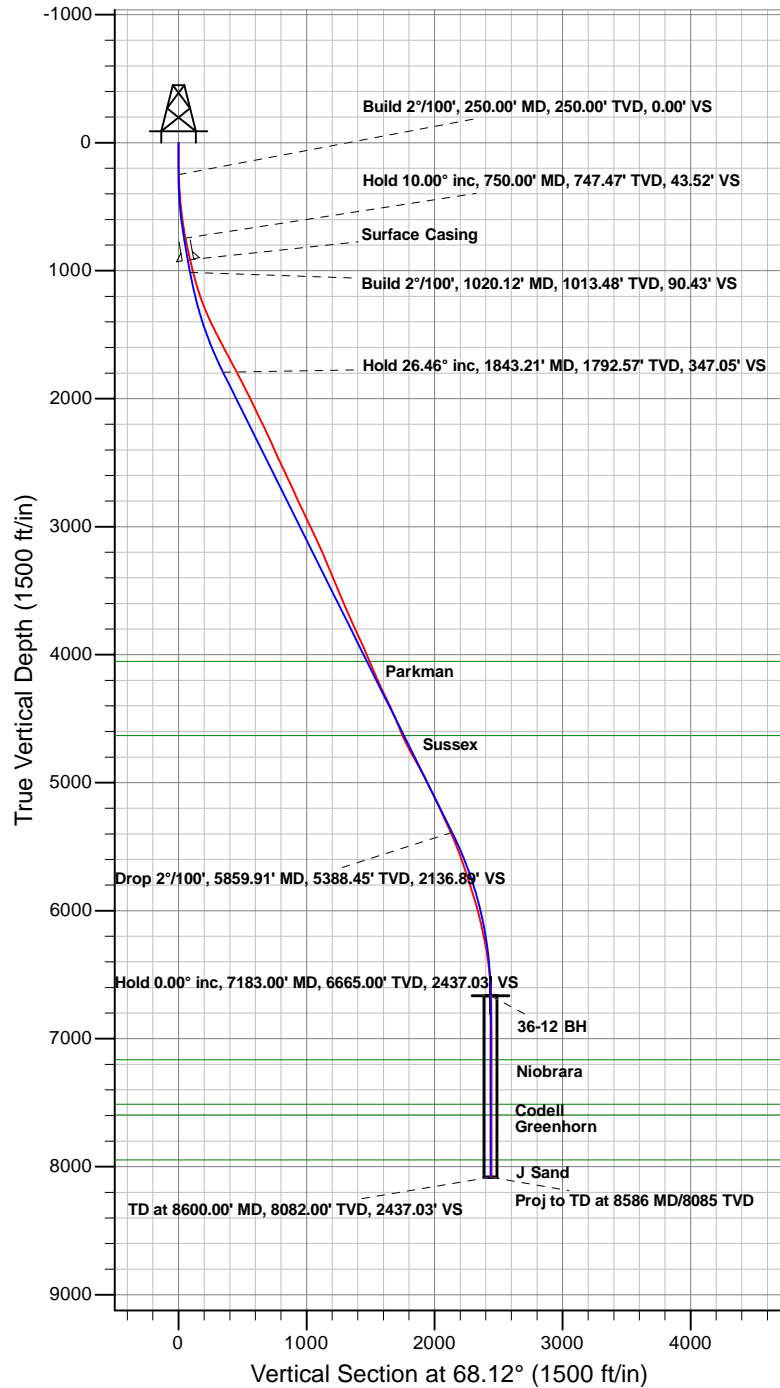




Anadarko Petroleum Corporation

Riverbend 36-12 (111411)
Plan vs Actual



Anadarko Petroleum Corporation

Riverbend

Riverbend 14 Pad

Riverbend 36-12 (111411) - Slot 36-12

36-12

Survey: 36-12

Survey Report - Geographic

04 January, 2012

Survey Report - Geographic

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Riverbend 36-12 (111411) - Slot 36-12
Project:	Riverbend	TVD Reference:	KB @ 4967.00ft (Original Well Elev)
Site:	Riverbend 14 Pad	MD Reference:	KB @ 4967.00ft (Original Well Elev)
Well:	Riverbend 36-12 (111411)	North Reference:	True
Wellbore:	36-12	Survey Calculation Method:	Minimum Curvature
Design:	36-12	Database:	EDM5000

Project	Riverbend		
Map System:	Universal Transverse Mercator	System Datum:	Mean Sea Level
Geo Datum:	NAD83 Colorado - HARN		
Map Zone:	Zone 13N (108 W to 102 W)		

Site	Riverbend 14 Pad				
Site Position:		Northing:	14,547,138.00 usft	Latitude:	40.055934°N
From:	Lat/Long	Easting:	1,683,122.87 usft	Longitude:	104.847381°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	0.10 °

Well	Riverbend 36-12 (111411) - Slot 36-12					
Well Position	+N/-S	0.00 ft	Northing:	14,547,148.00 usft	Latitude:	40.055962°N
	+E/-W	0.00 ft	Easting:	1,683,122.83 usft	Longitude:	104.847381°W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,952.00 ft

Wellbore	36-12				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/22/12	8.79	66.73	52,868

Design	36-12				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	68.12	

Survey Program	Date	12/30/11			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
83.00	8,586.00	36-12 (36-12)	MWD	MWD - Standard	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,547,148.00	1,683,122.83	40.055962°N	104.847381°W
83.00	0.22	150.68	83.00	-0.14	0.08	14,547,147.86	1,683,122.91	40.055961°N	104.847381°W
175.00	0.70	96.49	175.00	-0.36	0.72	14,547,147.65	1,683,123.56	40.055961°N	104.847379°W
268.00	1.89	70.26	267.97	0.10	2.73	14,547,148.10	1,683,125.56	40.055962°N	104.847372°W
359.00	3.52	61.56	358.87	1.93	6.60	14,547,149.95	1,683,129.43	40.055967°N	104.847358°W
451.00	4.70	60.28	450.63	5.15	12.36	14,547,153.17	1,683,135.18	40.055976°N	104.847337°W
543.00	6.81	63.67	542.16	9.44	20.52	14,547,157.47	1,683,143.34	40.055987°N	104.847308°W
635.00	8.48	69.47	633.34	14.24	31.76	14,547,162.29	1,683,154.57	40.056001°N	104.847268°W
726.00	10.50	69.86	723.09	19.44	45.83	14,547,167.52	1,683,168.63	40.056015°N	104.847218°W
817.00	12.08	70.08	812.33	25.54	62.57	14,547,173.65	1,683,185.36	40.056032°N	104.847158°W
915.00	12.92	70.87	908.00	32.63	82.56	14,547,180.77	1,683,205.34	40.056051°N	104.847086°W
964.00	13.18	71.80	955.74	36.17	93.04	14,547,184.33	1,683,215.81	40.056061°N	104.847049°W

Survey Report - Geographic

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Riverbend 36-12 (111411) - Slot 36-12
Project:	Riverbend	TVD Reference:	KB @ 4967.00ft (Original Well Elev)
Site:	Riverbend 14 Pad	MD Reference:	KB @ 4967.00ft (Original Well Elev)
Well:	Riverbend 36-12 (111411)	North Reference:	True
Wellbore:	36-12	Survey Calculation Method:	Minimum Curvature
Design:	36-12	Database:	EDM5000

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,054.00	14.99	66.57	1,043.03	44.00	113.47	14,547,192.20	1,683,236.23	40.056082°N	104.846976°W
1,143.00	16.61	66.88	1,128.67	53.57	135.74	14,547,201.81	1,683,258.48	40.056109°N	104.846896°W
1,233.00	19.82	64.77	1,214.15	65.13	161.38	14,547,213.41	1,683,284.10	40.056140°N	104.846805°W
1,322.00	22.02	65.29	1,297.28	78.54	190.18	14,547,226.87	1,683,312.88	40.056177°N	104.846702°W
1,409.00	24.39	65.29	1,377.23	92.87	221.32	14,547,241.25	1,683,344.00	40.056217°N	104.846590°W
1,496.00	26.81	67.18	1,455.69	107.99	255.73	14,547,256.43	1,683,378.38	40.056258°N	104.846467°W
1,586.00	27.69	69.16	1,535.70	123.30	293.98	14,547,271.81	1,683,416.60	40.056300°N	104.846331°W
1,676.00	27.82	67.80	1,615.34	138.68	332.97	14,547,287.25	1,683,455.57	40.056342°N	104.846191°W
1,765.00	27.69	66.39	1,694.11	154.80	371.15	14,547,303.44	1,683,493.71	40.056387°N	104.846055°W
1,855.00	27.82	67.97	1,773.75	171.06	409.78	14,547,319.76	1,683,532.31	40.056431°N	104.845917°W
1,945.00	27.51	66.57	1,853.46	187.20	448.32	14,547,335.97	1,683,570.83	40.056476°N	104.845779°W
2,035.00	27.11	69.07	1,933.43	202.79	486.54	14,547,351.63	1,683,609.03	40.056518°N	104.845643°W
2,125.00	26.10	67.49	2,013.90	217.70	523.99	14,547,366.60	1,683,646.45	40.056559°N	104.845509°W
2,213.00	24.92	66.00	2,093.33	232.65	558.81	14,547,381.61	1,683,681.24	40.056600°N	104.845384°W
2,302.00	26.50	65.78	2,173.51	248.42	594.05	14,547,397.44	1,683,716.45	40.056644°N	104.845258°W
2,390.00	25.40	64.28	2,252.64	264.67	628.96	14,547,413.75	1,683,751.33	40.056688°N	104.845134°W
2,480.00	24.52	65.60	2,334.23	280.76	663.36	14,547,429.90	1,683,785.70	40.056733°N	104.845011°W
2,570.00	23.51	64.68	2,416.44	296.15	696.59	14,547,445.35	1,683,818.91	40.056775°N	104.844892°W
2,659.00	26.10	67.27	2,497.23	311.31	730.70	14,547,460.56	1,683,853.00	40.056816°N	104.844770°W
2,748.00	24.39	65.07	2,577.72	326.62	765.42	14,547,475.93	1,683,887.69	40.056858°N	104.844646°W
2,837.00	26.10	65.77	2,658.22	342.40	799.94	14,547,491.78	1,683,922.19	40.056902°N	104.844523°W
2,928.00	23.69	62.17	2,740.77	359.16	834.37	14,547,508.59	1,683,956.58	40.056948°N	104.844400°W
3,016.00	25.49	63.98	2,820.78	375.72	867.02	14,547,525.20	1,683,989.21	40.056993°N	104.844283°W
3,104.00	25.40	66.57	2,900.25	391.53	901.36	14,547,541.08	1,684,023.52	40.057037°N	104.844160°W
3,192.00	26.02	68.36	2,979.54	406.15	936.62	14,547,555.76	1,684,058.75	40.057077°N	104.844034°W
3,281.00	24.52	66.48	3,060.02	420.72	971.70	14,547,570.39	1,684,093.81	40.057117°N	104.843909°W
3,369.00	25.18	67.27	3,139.87	435.24	1,005.71	14,547,584.97	1,684,127.79	40.057157°N	104.843787°W
3,458.00	23.20	66.00	3,221.05	449.69	1,039.19	14,547,599.47	1,684,161.25	40.057196°N	104.843668°W
3,545.00	22.41	67.89	3,301.25	462.90	1,070.21	14,547,612.74	1,684,192.25	40.057233°N	104.843557°W
3,634.00	22.98	69.16	3,383.36	475.47	1,102.17	14,547,625.36	1,684,224.18	40.057267°N	104.843442°W
3,724.00	22.19	68.19	3,466.46	488.03	1,134.36	14,547,637.98	1,684,256.36	40.057302°N	104.843327°W
3,813.00	23.20	68.59	3,548.57	500.68	1,166.29	14,547,650.68	1,684,288.26	40.057336°N	104.843213°W
3,902.00	23.60	70.39	3,630.25	513.06	1,199.39	14,547,663.11	1,684,321.34	40.057370°N	104.843095°W
3,992.00	24.08	71.89	3,712.57	524.81	1,233.82	14,547,674.93	1,684,355.74	40.057403°N	104.842972°W
4,080.00	24.21	70.39	3,792.87	536.45	1,267.88	14,547,686.62	1,684,389.78	40.057435°N	104.842850°W
4,169.00	25.18	67.89	3,873.73	549.70	1,302.61	14,547,699.93	1,684,424.49	40.057471°N	104.842726°W
4,258.00	23.51	66.48	3,954.82	563.91	1,336.43	14,547,714.20	1,684,458.29	40.057510°N	104.842605°W
4,348.00	22.81	63.67	4,037.57	578.81	1,368.53	14,547,729.16	1,684,490.36	40.057551°N	104.842491°W
4,435.00	23.99	66.57	4,117.41	593.33	1,399.87	14,547,743.72	1,684,521.68	40.057591°N	104.842379°W
4,523.00	23.20	66.88	4,198.05	607.24	1,432.23	14,547,757.70	1,684,554.01	40.057629°N	104.842263°W
4,612.00	25.71	67.67	4,279.06	621.47	1,466.21	14,547,771.98	1,684,587.97	40.057668°N	104.842141°W
4,700.00	26.10	71.36	4,358.23	634.91	1,502.21	14,547,785.48	1,684,623.95	40.057705°N	104.842013°W
4,790.00	23.69	69.38	4,439.86	647.60	1,537.90	14,547,798.24	1,684,659.62	40.057740°N	104.841885°W
4,880.00	22.81	65.38	4,522.56	661.24	1,570.68	14,547,811.93	1,684,692.38	40.057777°N	104.841768°W
4,967.00	22.51	64.20	4,602.84	675.51	1,601.01	14,547,826.26	1,684,722.68	40.057816°N	104.841660°W
5,056.00	26.02	64.59	4,683.96	691.31	1,633.99	14,547,842.11	1,684,755.63	40.057860°N	104.841542°W
5,147.00	29.00	66.00	4,764.67	708.85	1,672.18	14,547,859.72	1,684,793.79	40.057908°N	104.841405°W
5,234.00	29.31	67.27	4,840.64	725.66	1,711.09	14,547,876.59	1,684,832.67	40.057954°N	104.841266°W
5,322.00	28.21	69.21	4,917.79	741.36	1,750.40	14,547,892.36	1,684,871.96	40.057997°N	104.841126°W
5,411.00	26.41	73.07	4,996.87	754.59	1,789.01	14,547,905.66	1,684,910.54	40.058034°N	104.840988°W
5,501.00	26.41	71.80	5,077.48	766.67	1,827.17	14,547,917.81	1,684,948.68	40.058067°N	104.840851°W
5,591.00	25.09	68.59	5,158.55	779.89	1,863.95	14,547,931.09	1,684,985.44	40.058103°N	104.840720°W
5,680.00	25.18	68.90	5,239.12	793.60	1,899.19	14,547,944.85	1,685,020.65	40.058141°N	104.840594°W
5,768.00	24.52	71.18	5,318.97	806.23	1,933.94	14,547,957.54	1,685,055.38	40.058175°N	104.840470°W
5,857.00	24.21	68.77	5,400.05	818.79	1,968.43	14,547,970.17	1,685,089.85	40.058210°N	104.840347°W

Survey Report - Geographic

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Riverbend 36-12 (111411) - Slot 36-12
Project:	Riverbend	TVD Reference:	KB @ 4967.00ft (Original Well Elev)
Site:	Riverbend 14 Pad	MD Reference:	KB @ 4967.00ft (Original Well Elev)
Well:	Riverbend 36-12 (111411)	North Reference:	True
Wellbore:	36-12	Survey Calculation Method:	Minimum Curvature
Design:	36-12	Database:	EDM5000

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,947.00	21.31	67.38	5,483.03	831.77	2,000.73	14,547,983.20	1,685,122.13	40.058246°N	104.840231°W
6,035.00	20.30	66.26	5,565.29	844.06	2,029.47	14,547,995.54	1,685,150.84	40.058279°N	104.840128°W
6,125.00	19.12	68.19	5,650.02	855.83	2,057.44	14,548,007.35	1,685,178.80	40.058312°N	104.840028°W
6,215.00	18.19	65.16	5,735.29	867.20	2,083.88	14,548,018.78	1,685,205.22	40.058343°N	104.839934°W
6,304.00	16.79	63.58	5,820.17	878.76	2,108.00	14,548,030.37	1,685,229.32	40.058375°N	104.839848°W
6,394.00	17.58	68.28	5,906.16	889.58	2,132.27	14,548,041.23	1,685,253.57	40.058404°N	104.839761°W
6,483.00	15.21	67.67	5,991.54	898.99	2,155.56	14,548,050.68	1,685,276.84	40.058430°N	104.839678°W
6,571.00	13.01	65.78	6,076.88	907.44	2,175.27	14,548,059.16	1,685,296.54	40.058453°N	104.839607°W
6,661.00	12.39	65.07	6,164.67	915.66	2,193.26	14,548,067.42	1,685,314.52	40.058476°N	104.839543°W
6,749.00	11.12	61.69	6,250.83	923.67	2,209.30	14,548,075.45	1,685,330.54	40.058498°N	104.839486°W
6,840.00	9.10	68.99	6,340.41	930.41	2,223.74	14,548,082.22	1,685,344.97	40.058516°N	104.839434°W
6,930.00	6.59	64.46	6,429.56	935.19	2,235.05	14,548,087.02	1,685,356.27	40.058529°N	104.839394°W
7,019.00	6.11	78.08	6,518.02	938.37	2,244.29	14,548,090.21	1,685,365.51	40.058538°N	104.839361°W
7,108.00	2.91	82.96	6,606.74	939.62	2,251.17	14,548,091.48	1,685,372.38	40.058542°N	104.839336°W
7,166.84	2.19	105.78	6,665.52	939.50	2,253.73	14,548,091.36	1,685,374.95	40.058541°N	104.839327°W
36-12 Legal Window									
7,167.04	2.19	105.78	6,665.72	939.50	2,253.74	14,548,091.36	1,685,374.96	40.058541°N	104.839327°W
36-12 BH									
7,198.00	2.02	122.99	6,696.66	939.04	2,254.77	14,548,090.90	1,685,375.98	40.058540°N	104.839323°W
7,287.00	1.58	131.17	6,785.61	937.38	2,257.01	14,548,089.25	1,685,378.22	40.058535°N	104.839315°W
7,377.00	1.01	137.50	6,875.59	935.98	2,258.48	14,548,087.85	1,685,379.70	40.058532°N	104.839310°W
7,468.00	0.70	142.90	6,966.58	934.94	2,259.35	14,548,086.81	1,685,380.58	40.058529°N	104.839307°W
7,555.00	0.88	153.98	7,053.57	933.92	2,259.97	14,548,085.79	1,685,381.19	40.058526°N	104.839305°W
7,646.00	0.70	160.70	7,144.56	932.77	2,260.46	14,548,084.64	1,685,381.68	40.058523°N	104.839303°W
7,736.00	0.70	164.17	7,234.56	931.72	2,260.79	14,548,083.59	1,685,382.02	40.058520°N	104.839302°W
7,825.00	0.62	158.06	7,323.55	930.75	2,261.12	14,548,082.62	1,685,382.35	40.058517°N	104.839301°W
7,915.00	0.62	133.19	7,413.55	929.96	2,261.65	14,548,081.84	1,685,382.89	40.058515°N	104.839299°W
8,005.00	0.40	140.88	7,503.54	929.39	2,262.21	14,548,081.26	1,685,383.44	40.058514°N	104.839297°W
8,095.00	0.31	157.97	7,593.54	928.92	2,262.50	14,548,080.79	1,685,383.73	40.058512°N	104.839296°W
8,184.00	0.40	152.57	7,682.54	928.42	2,262.73	14,548,080.30	1,685,383.96	40.058511°N	104.839295°W
8,274.00	0.22	249.47	7,772.54	928.08	2,262.71	14,548,079.96	1,685,383.95	40.058510°N	104.839295°W
8,365.00	0.22	300.66	7,863.54	928.11	2,262.40	14,548,079.98	1,685,383.63	40.058510°N	104.839296°W
8,455.00	0.62	339.69	7,953.54	928.65	2,262.08	14,548,080.53	1,685,383.31	40.058512°N	104.839297°W
8,546.00	0.48	0.17	8,044.53	929.49	2,261.91	14,548,081.37	1,685,383.14	40.058514°N	104.839298°W
8,586.00	0.48	0.17	8,084.53	929.83	2,261.91	14,548,081.71	1,685,383.14	40.058515°N	104.839298°W
Proj to TD at 8586 MD/8085 TVD									

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
8,586.00	8,084.53	929.83	2,261.91	Proj to TD at 8586 MD/8085 TVD

Checked By: _____ Approved By: _____ Date: _____