



**Job Number:** RL10605  
**Company:** Anadarko Petroleum  
**Lease/Well:** Brown 3-2  
**Location:** CR 31 & CR 14  
**Rig Name:** Xtreme #11  
**RKB:** 15'  
**G.L. or M.S.L.:** MSL

**State/Country:** Colorado  
**Declination:** 8.91  
**Grid:** True  
**File name:** C:\WINSERVE\COMPLE~1\3BROWN~1\RL10605.SVY  
**Date/Time:** 03-Dec-10 / 19:47  
**Curve Name:** As Drilled Plan #2 Brown 3-2

### As Drilled Plan #2 Brown 3-2

WINSERVE SURVEY CALCULATIONS  
*Minimum Curvature Method*  
*Vertical Section Plane 48.42*  
*Vertical Section Referenced to Wellhead*  
*Rectangular Coordinates Referenced to Wellhead*

<i>Measured Depth FT</i>	<i>Incl Angle Deg</i>	<i>Drift Direction Deg</i>	<i>True Vertical Depth</i>	<i>N-S FT</i>	<i>E-W FT</i>	<i>Vertical Section FT</i>	<i>C L O S U R E Distance FT</i>	<i>Direction Deg</i>	<i>Dogleg Severity Deg/100</i>
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
49.00	.70	125.30	49.00	-.17	.24	.07	.30	125.30	1.43
110.00	.90	155.50	109.99	-.82	.75	.01	1.11	137.81	.75
171.00	.70	141.50	170.99	-1.55	1.18	-.15	1.95	142.80	.46
231.00	.70	156.60	230.98	-2.17	1.55	-.28	2.67	144.50	.31
291.00	.70	161.80	290.98	-2.86	1.81	-.54	3.38	147.65	.11
352.00	.50	280.30	351.98	-3.17	1.67	-.85	3.58	152.25	1.70
430.00	.70	309.10	429.97	-2.80	.96	-1.14	2.96	161.08	.46
521.00	.50	32.50	520.97	-2.12	.74	-.85	2.25	160.67	.89
612.00	1.20	36.30	611.96	-1.02	1.52	.46	1.83	123.75	.77
703.00	1.10	27.90	702.94	.52	2.49	2.21	2.55	78.14	.22
793.00	2.10	29.70	792.90	2.72	3.71	4.58	4.60	53.79	1.11
884.00	3.20	41.30	883.81	6.08	6.22	8.68	8.69	45.66	1.34
975.00	3.30	54.60	974.66	9.50	10.03	13.81	13.81	46.55	.83
1066.00	3.70	54.30	1065.49	12.73	14.55	19.33	19.33	48.81	.44
1100.00	3.90	54.60	1099.42	14.04	16.38	21.57	21.58	49.40	.59
1149.00	3.90	48.30	1148.30	16.12	18.98	24.90	24.90	49.67	.87
1240.00	6.70	51.80	1238.90	21.46	25.47	33.29	33.30	49.88	3.10
1331.00	8.10	45.10	1329.15	29.27	34.18	44.99	45.00	49.43	1.80
1422.00	8.60	47.60	1419.18	38.38	43.75	58.20	58.20	48.74	.68
1513.00	10.40	45.80	1508.93	48.70	54.66	73.21	73.21	48.30	2.00
1603.00	11.80	45.10	1597.24	60.86	67.00	90.51	90.51	47.75	1.56
1694.00	12.80	45.10	1686.15	74.54	80.73	109.86	109.88	47.29	1.10
1785.00	14.10	49.70	1774.66	88.82	96.33	131.01	131.03	47.32	1.85
1876.00	14.40	47.90	1862.86	103.58	113.18	153.40	153.42	47.54	.59

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
				FT	FT	FT	Distance FT	Direction Deg	
1967.00	15.50	52.90	1950.78	118.50	131.27	176.84	176.85	47.93	1.86
2057.00	15.80	51.80	2037.45	133.33	150.50	201.06	201.06	48.46	.47
2148.00	15.10	52.20	2125.16	148.26	169.60	225.26	225.26	48.84	.78
2239.00	14.80	49.70	2213.08	163.04	187.83	248.71	248.72	49.04	.78
2330.00	14.10	50.00	2301.20	177.68	205.18	271.41	271.43	49.11	.77
2421.00	15.80	49.00	2389.11	192.94	223.03	294.88	294.90	49.14	1.89
2512.00	16.50	45.80	2476.52	210.08	241.64	320.17	320.19	49.00	1.24
2603.00	16.50	47.60	2563.78	227.80	260.45	346.01	346.01	48.83	.56
2693.00	15.80	47.90	2650.23	244.63	278.98	371.04	371.04	48.75	.78
2784.00	15.10	44.80	2737.94	261.35	296.52	395.26	395.26	48.61	1.19
2875.00	15.30	47.90	2825.76	277.81	313.78	419.09	419.09	48.48	.92
2966.00	15.80	52.20	2913.43	293.45	332.48	443.46	443.46	48.57	1.38
3057.00	15.80	51.10	3000.99	308.82	351.91	468.20	468.20	48.73	.33
3148.00	14.30	50.40	3088.87	323.77	370.21	491.80	491.82	48.83	1.66
3238.00	15.50	45.90	3175.84	339.22	387.41	514.93	514.94	48.79	1.85
3329.00	18.00	48.30	3262.97	357.04	406.65	541.14	541.15	48.72	2.85
3420.00	19.40	49.00	3349.17	376.31	428.55	570.32	570.32	48.71	1.56
3511.00	17.80	47.60	3435.41	395.61	450.23	599.34	599.34	48.70	1.83
3601.00	16.70	50.80	3521.37	413.06	470.41	626.01	626.02	48.71	1.61
3692.00	18.00	50.40	3608.22	430.28	491.38	653.13	653.14	48.79	1.43
3783.00	16.40	46.20	3695.15	448.14	511.49	680.02	680.04	48.78	2.22
3874.00	15.00	44.80	3782.76	465.39	529.06	704.61	704.62	48.66	1.59
3964.00	15.50	53.20	3869.60	480.86	546.90	728.22	728.23	48.68	2.51
4055.00	15.10	50.80	3957.37	495.63	565.82	752.18	752.20	48.78	.82
4145.00	14.00	50.80	4044.49	509.92	583.34	774.77	774.80	48.84	1.22
4236.00	12.00	55.70	4133.15	522.21	599.69	795.16	795.19	48.95	2.51
4327.00	12.50	57.80	4222.08	532.79	615.84	814.26	814.32	49.14	.74
4418.00	12.10	58.50	4310.99	543.02	632.30	833.37	833.47	49.34	.47
4509.00	12.70	48.60	4399.88	554.62	647.94	852.76	852.90	49.44	2.42
4600.00	12.10	47.60	4488.75	567.67	662.49	872.30	872.43	49.41	.70
4690.00	10.90	49.00	4576.95	579.61	675.87	890.24	890.37	49.38	1.37
4781.00	10.90	46.60	4666.31	591.17	688.62	907.45	907.57	49.35	.50
4872.00	11.40	48.60	4755.59	603.03	701.62	925.04	925.15	49.32	.69
4963.00	10.70	47.00	4844.90	614.74	714.54	942.48	942.59	49.29	.84
5053.00	9.70	42.70	4933.48	626.01	725.79	958.37	958.47	49.22	1.40
5145.00	9.00	45.50	5024.26	636.75	736.18	973.27	973.35	49.14	.91
5236.00	6.90	47.20	5114.38	645.45	745.27	985.85	985.92	49.11	2.32
5326.00	6.00	45.80	5203.81	652.40	752.61	995.95	996.02	49.08	1.02
5417.00	4.80	46.50	5294.40	658.34	758.78	1004.51	1004.57	49.05	1.32
5553.00	3.90	39.10	5430.01	665.85	765.83	1014.76	1014.81	48.99	.78
5689.00	3.30	348.50	5565.77	673.27	767.96	1021.29	1021.31	48.76	2.30
5825.00	1.80	24.40	5701.64	679.06	768.06	1025.20	1025.20	48.52	1.56
5962.00	.90	12.40	5838.60	682.07	769.18	1028.04	1028.04	48.44	.69
6143.00	1.40	19.10	6019.56	685.54	770.21	1031.11	1031.12	48.33	.29
6325.00	.70	88.00	6201.54	687.68	772.05	1033.91	1033.91	48.31	.73

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E Distance FT	Direction Deg	Dogleg Severity Deg/100
6507.00	1.00	192.80	6383.53	686.17	772.81	1033.48	1033.48	48.40	.75
6688.00	.50	177.30	6564.51	683.85	772.50	1031.70	1031.70	48.48	.30
6871.00	.70	165.70	6747.50	681.96	772.81	1030.68	1030.69	48.57	.13
7052.00	1.40	171.00	6928.47	678.71	773.43	1028.99	1029.00	48.73	.39
7234.00	1.60	184.00	7110.41	673.98	773.60	1025.97	1026.01	48.94	.22
7415.00	.90	172.00	7291.36	670.05	773.62	1023.38	1023.45	49.10	.41
7597.00	.70	166.10	7473.35	667.56	774.09	1022.08	1022.18	49.23	.12
7779.00	.20	297.90	7655.34	666.62	774.08	1021.45	1021.56	49.27	.47
7960.00	1.80	252.50	7836.31	665.92	771.09	1018.74	1018.83	49.19	.92
8142.00	1.60	241.30	8018.23	663.84	766.13	1013.65	1013.72	49.09	.21
8280.00	1.40	250.80	8156.18	662.36	762.85	1010.22	1010.28	49.03	.23
<b>Projection To Bit.</b>									
8325.00	1.40	250.80	8201.17	662.00	761.81	1009.20	1009.25	49.01	.00