

RCVD OCT23'06
OIL CONS. DIV.
DIST. 3

30-045-33854



Job Number: ☐
Company: Williams Production Company
Lease/Well: Rosa Unit # 208-Y
Location: San Juan County
Rig Name: ☐
RKB: 6340'
G.L. or M.S.L.: 6326'

State/Country: New Mexico
Declination: ☐
Grid: ☐
File name: C:\DATA\CUST06\SURVEYS\WILLIAMS\06207.SVY
Date/Time: 12-Oct-06 / 08:21
Curve Name: As Drilled

BHL Sec 15 T31N R6W
Surface 605/N 440/E sec 16
BHL 668/N 698/W sec 15
Md 3290
Tvd 3016

Inwell Inc.

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 92.81
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
400.00	.00	.00	400.00	.00	.00	.00	.00	.00	.00
428.00	.30	109.00	428.00	.07	-.02	.07	.07	108.99	1.07
458.00	1.90	105.60	457.99	.63	-.18	.62	.65	106.39	5.34
489.00	3.20	108.30	488.96	1.97	-.59	1.94	2.03	107.01	4.21
519.00	4.40	103.80	518.90	3.90	-1.13	3.85	4.01	106.36	4.12
549.00	5.70	103.80	548.78	6.49	-1.76	6.42	6.65	105.34	4.33
580.00	6.70	103.30	579.60	9.78	-2.54	9.67	10.00	104.74	3.23
610.00	7.80	101.20	609.36	13.52	-3.34	13.37	13.78	104.03	3.77
641.00	8.50	96.70	640.04	17.89	-4.02	17.71	18.16	102.78	3.05
672.00	9.60	93.40	670.66	22.76	-4.44	22.57	23.00	101.13	3.92
702.00	10.00	94.60	700.22	27.86	-4.80	27.66	28.07	99.84	1.50
732.00	11.00	93.30	729.72	33.33	-5.17	33.11	33.51	98.87	3.43
762.00	12.60	93.60	759.08	39.46	-5.54	39.24	39.63	98.04	5.34
793.00	14.00	91.80	789.25	46.59	-5.87	46.36	46.73	97.22	4.71
824.00	14.80	91.40	819.28	54.30	-6.08	54.07	54.41	96.42	2.60
854.00	15.50	91.20	848.23	62.14	-6.26	61.90	62.22	95.78	2.34
884.00	16.90	93.40	877.04	70.51	-6.60	70.27	70.58	95.37	5.09
915.00	18.70	94.20	906.56	79.98	-7.24	79.72	80.05	95.19	5.86
945.00	19.80	95.10	934.88	89.86	-8.04	89.58	89.94	95.13	3.80
976.00	20.90	94.30	963.94	100.64	-8.92	100.32	100.72	95.08	3.66
1006.00	22.10	94.30	991.86	111.63	-9.75	111.29	111.71	95.00	4.00
1037.00	23.70	93.70	1020.41	123.69	-10.58	123.32	123.77	94.91	5.22
1067.00	24.80	92.70	1047.76	136.01	-11.27	135.62	136.09	94.75	3.91
1098.00	25.50	91.70	1075.82	149.18	-11.77	148.79	149.25	94.52	2.64

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Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1128.00	26.00	90.90	1102.85	162.21	-12.07	161.82	162.26	94.27	2.03
1159.00	26.30	91.00	1130.67	175.87	-12.30	175.48	175.91	94.01	.98
1189.00	27.40	91.80	1157.44	189.41	-12.63	189.02	189.44	93.82	3.86
1220.00	28.40	92.50	1184.83	203.92	-13.17	203.52	203.94	93.70	3.39
1249.00	29.30	91.90	1210.23	217.91	-13.71	217.50	217.93	93.61	3.26
1280.00	28.70	92.30	1237.35	232.94	-14.26	232.52	232.95	93.51	2.03
1344.00	29.80	92.00	1293.19	264.21	-15.43	263.77	264.22	93.35	1.73
1376.00	29.80	91.60	1320.96	280.11	-15.93	279.66	280.12	93.26	.62
1406.00	29.70	91.50	1347.00	294.99	-16.33	294.54	295.00	93.17	.37
1438.00	29.60	91.50	1374.81	310.82	-16.75	310.37	310.82	93.09	.31
1469.00	29.70	91.20	1401.75	326.15	-17.11	325.70	326.15	93.01	.58
1501.00	30.70	91.40	1429.41	342.24	-17.48	341.79	342.24	92.93	3.14
1533.00	30.60	91.60	1456.94	358.55	-17.90	358.10	358.55	92.86	.45
1564.00	31.00	91.60	1483.57	374.42	-18.35	373.97	374.42	92.81	1.29
1595.00	30.80	91.50	1510.17	390.33	-18.78	389.88	390.33	92.76	.67
1627.00	31.20	92.40	1537.60	406.81	-19.34	406.35	406.81	92.72	1.91
1659.00	31.00	92.00	1565.00	423.34	-19.97	422.87	423.34	92.70	.90
1690.00	31.20	91.30	1591.54	439.35	-20.43	438.87	439.35	92.67	1.33
1721.00	31.10	91.00	1618.07	455.38	-20.76	454.91	455.38	92.61	.60
1752.00	31.40	90.80	1644.57	471.45	-21.01	470.99	471.45	92.55	1.02
1783.00	31.30	91.00	1671.05	487.57	-21.26	487.11	487.58	92.50	.47
1815.00	30.70	92.60	1698.48	504.05	-21.78	503.58	504.05	92.48	3.19
1846.00	30.40	93.60	1725.17	519.80	-22.63	519.32	519.81	92.49	1.90
1878.00	30.60	94.40	1752.75	536.04	-23.76	535.52	536.05	92.54	1.41
1909.00	30.40	92.70	1779.46	551.77	-24.74	551.22	551.78	92.57	2.86
1941.00	30.10	92.90	1807.10	567.89	-25.52	567.32	567.90	92.58	.99
1973.00	29.90	92.60	1834.81	583.89	-26.29	583.30	583.90	92.58	.78
2004.00	30.00	92.60	1861.67	599.37	-26.99	598.76	599.37	92.58	.32
2036.00	30.40	92.50	1889.33	615.46	-27.71	614.85	615.47	92.58	1.26
2067.00	30.20	92.40	1916.09	631.10	-28.38	630.47	631.11	92.58	.67
2098.00	30.40	92.00	1942.86	646.74	-28.98	646.10	646.75	92.57	.92
2130.00	31.20	91.90	1970.35	663.13	-29.54	662.48	663.13	92.55	2.51
2162.00	31.10	92.00	1997.73	679.68	-30.10	679.02	679.69	92.54	.35
2193.00	31.20	90.90	2024.26	695.71	-30.50	695.05	695.72	92.51	1.86
2224.00	31.80	91.00	2050.70	711.90	-30.77	711.24	711.91	92.48	1.94
2256.00	31.90	91.30	2077.88	728.78	-31.11	728.13	728.79	92.45	.59
2287.00	32.20	92.50	2104.15	745.22	-31.66	744.57	745.24	92.43	2.27
2319.00	32.50	93.60	2131.19	762.35	-32.57	761.67	762.36	92.45	2.06
2351.00	32.10	93.80	2158.23	779.44	-33.67	778.73	779.46	92.48	1.29
2382.00	31.60	93.60	2184.57	795.80	-34.73	795.05	795.81	92.50	1.65
2414.00	30.30	94.00	2212.01	812.25	-35.82	811.47	812.26	92.53	4.11
2445.00	28.70	95.10	2238.99	827.51	-37.03	826.69	827.52	92.56	5.45
2476.00	28.40	95.10	2266.22	842.32	-38.34	841.45	842.32	92.61	.97
2508.00	28.00	94.40	2294.42	857.43	-39.60	856.52	857.43	92.65	1.62
2540.00	28.10	93.80	2322.66	872.47	-40.67	871.53	872.47	92.67	.94

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
2571.00	28.30	93.30	2349.98	887.12	-41.58	886.15	887.12	92.69	1.00
2603.00	28.90	93.60	2378.08	902.44	-42.50	901.44	902.44	92.70	1.93
2634.00	28.90	93.40	2405.22	917.42	-43.42	916.39	917.42	92.71	.31
2666.00	29.50	93.50	2433.15	933.03	-44.35	931.97	933.03	92.72	1.88
2697.00	29.60	93.50	2460.12	948.32	-45.29	947.23	948.32	92.74	.32
2729.00	28.40	94.30	2488.11	963.83	-46.34	962.71	963.83	92.76	3.94
2761.00	27.10	92.20	2516.43	978.72	-47.19	977.58	978.72	92.76	5.08
2792.00	25.90	95.90	2544.17	992.55	-48.16	991.38	992.55	92.78	6.58
2892.00	25.90	95.90	2634.13	1036.16	-52.65	1034.83	1036.16	92.91	.00
2992.00	20.00	95.90	2726.17	1075.08	-56.66	1073.59	1075.09	93.02	5.90
3092.00	15.00	95.90	2821.51	1105.10	-59.75	1103.50	1105.11	93.10	5.00
3192.00	10.00	95.90	2919.11	1126.70	-61.97	1125.02	1126.72	93.15	5.00
Projected to TD									
3290.00	5.00	95.90	3016.24	1139.47	-63.28	1137.74	1139.50	93.18	5.10

True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	Clos.
249.98	887.12	-41.58	886.15	887.12
2378.08	902.44	-42.50	901.44	902.44
2405.22	917.42	-43.42	916.39	917.42
2433.15	933.03	-44.35	931.97	933.03
2460.12	948.32	-45.29	947.23	948.32
2488.11	963.83	-46.34	962.71	963.83
2516.43	978.72	-47.19	977.58	978.72
2544.17	992.55	-48.16	991.38	992.55
2634.13	1036.16	-52.65	1034.83	1036.16
2726.17	1075.08	-56.66	1073.59	1075.09
2821.51	1105.10	-59.75	1103.50	1105.11
2919.11	1126.70	-61.97	1125.02	1126.72
3016.24	1139.47	-63.28	1137.74	1139.50

Company: Williams Production Company
 Lease/Well: Rosa Unit # 208-Y
 Location: San Juan County
 State/Country: New Mexico

