

30-015- 37938

Job Number: 1110169

Company: Chesapeake

Lease/Well: PLU Ross Ranch32 State 1H

Location: Eddy County

Rig Name: Latshaw#6

RKB: ☐G.L. or M.S.L.: ☐

State/Country: New Mexico

Declination: ☐Grid: ☐

File name: C:\WINSERVE\PLAN6T-1.SVY

Date/Time: 28-May-11 / 17:00

Curve Name: PLU Ross Ranch 32 State 1H Surveys

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OCT 11 2011

NMOCD ARTESIA

Phoenix Technology Services

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane .14
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
8520.00	22.72	317.30	8509.17	-18.59	44.30	-18.48	48.04	112.76	.00
8531.00	22.90	314.80	8519.31	-15.52	41.34	-15.42	44.16	110.58	8.96
8562.00	28.70	309.60	8547.21	-6.52	31.32	-6.44	31.99	101.76	20.07
8594.00	35.80	306.10	8574.26	3.91	17.81	3.95	18.24	77.62	22.93
8625.00	42.00	306.40	8598.37	15.42	2.13	15.42	15.56	7.85	20.01
8656.00	46.20	308.60	8620.63	28.56	-14.97	28.52	32.25	332.33	14.42
8687.00	49.80	312.60	8641.38	43.56	-32.44	43.48	54.31	323.32	15.06
8719.00	52.00	315.50	8661.56	60.83	-50.28	60.71	78.92	320.42	9.83
8750.00	52.70	317.30	8680.50	78.60	-67.20	78.44	103.41	319.47	5.12
8781.00	53.00	319.60	8699.22	97.09	-83.59	96.89	128.12	319.27	5.99
8812.00	54.40	323.20	8717.57	116.62	-99.17	116.37	153.08	319.62	10.39
8844.00	56.00	325.60	8735.84	137.98	-114.45	137.70	179.27	320.32	7.93
8875.00	58.50	327.60	8752.61	159.75	-128.80	159.43	205.20	321.12	9.72

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
							Distance FT	Direction Deg	
8906.00	62.20	330.00	8767.94	182.79	-142.74	182.44	231.92	322.01	13.70
8938.00	65.80	332.50	8781.97	208.01	-156.56	207.62	260.34	323.03	13.26
8969.00	66.90	337.40	8794.41	233.72	-168.58	233.31	288.17	324.20	14.91
9000.00	70.20	342.00	8805.75	260.77	-178.57	260.34	316.05	325.60	17.43
9032.00	73.00	343.60	8815.85	289.78	-187.55	289.32	345.17	327.09	9.95
9063.00	75.40	346.70	8824.29	318.60	-195.18	318.13	373.64	328.51	12.35
9094.00	77.30	347.30	8831.61	347.96	-201.96	347.46	402.32	329.87	6.41
9125.00	81.10	347.70	8837.42	377.68	-208.55	377.17	431.43	331.09	12.32
9156.00	86.50	348.10	8840.76	407.80	-215.01	407.28	461.01	332.20	17.47
9187.00	91.40	349.20	8841.33	438.18	-221.10	437.64	490.80	333.22	16.20
9218.00	92.70	349.90	8840.22	468.65	-226.72	468.09	520.61	334.18	4.76
9249.00	92.90	351.50	8838.71	499.20	-231.73	498.63	550.36	335.10	5.20
9281.00	92.40	354.90	8837.23	530.94	-235.51	530.36	580.83	336.08	10.73
9312.00	91.30	357.10	8836.23	561.84	-237.67	561.26	610.05	337.07	7.93
9406.00	88.70	359.60	8836.23	655.79	-240.38	655.20	698.46	339.87	3.84
9500.00	87.90	2.70	8839.02	749.72	-238.49	749.13	786.74	342.35	3.40
9594.00	89.40	3.70	8841.23	843.54	-233.25	842.97	875.19	344.54	1.92
9688.00	91.10	6.20	8840.82	937.18	-225.14	936.63	963.84	346.49	3.22
9782.00	90.80	6.40	8839.26	1030.60	-214.82	1030.07	1052.75	348.23	.38
9876.00	90.00	5.70	8838.61	1124.07	-204.92	1123.57	1142.60	349.67	1.13
9970.00	88.40	4.30	8839.92	1217.70	-196.72	1217.21	1233.49	350.82	2.26
10064.00	89.40	4.60	8841.72	1311.40	-189.43	1310.93	1325.01	351.78	1.11
10157.00	90.70	5.10	8841.64	1404.06	-181.57	1403.61	1415.75	352.63	1.50
10252.00	90.60	5.20	8840.57	1498.67	-173.04	1498.24	1508.63	353.41	.15
10345.00	89.80	4.80	8840.24	1591.32	-164.94	1590.91	1599.84	354.08	.96
10439.00	90.70	6.70	8839.83	1684.84	-155.52	1684.45	1692.00	354.73	2.24
10533.00	89.60	6.30	8839.58	1778.23	-144.88	1777.87	1784.12	355.34	1.25
10626.00	88.90	6.10	8840.80	1870.68	-134.84	1870.34	1875.53	355.88	.78
10720.00	90.30	5.80	8841.46	1964.17	-125.09	1963.86	1968.15	356.36	1.52
10814.00	90.80	5.70	8840.56	2057.69	-115.68	2057.40	2060.94	356.78	.54
10907.00	92.20	5.60	8838.12	2150.20	-106.52	2149.94	2152.84	357.16	1.51
11001.00	93.20	5.80	8833.69	2243.63	-97.20	2243.39	2245.74	357.52	1.08
11095.00	92.40	4.90	8829.10	2337.11	-88.44	2336.89	2338.78	357.83	1.28

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
11189.00	90.60	3.70	8826.64	2430.81	-81.40	2430.60	2432.17	358.08	2.30
11283.00	88.60	3.20	8827.30	2524.63	-75.74	2524.44	2525.77	358.28	2.19
11377.00	88.60	2.90	8829.59	2618.47	-70.74	2618.29	2619.42	358.45	.32
11471.00	86.20	2.90	8833.86	2712.25	-65.99	2712.08	2713.05	358.61	2.55
11565.00	85.60	2.30	8840.58	2805.91	-61.74	2805.75	2806.59	358.74	.90
11658.00	86.10	2.40	8847.31	2898.59	-57.94	2898.44	2899.16	358.85	.55
11754.00	86.10	2.20	8853.84	2994.29	-54.09	2994.14	2994.77	358.97	.21
11848.00	86.10	1.80	8860.23	3088.01	-50.82	3087.88	3088.43	359.06	.42
11942.00	88.40	2.60	8864.74	3181.83	-47.21	3181.70	3182.18	359.15	2.59
12037.00	88.50	2.90	8867.31	3276.68	-42.66	3276.57	3276.96	359.25	.33
12132.00	88.50	2.80	8869.80	3371.53	-37.94	3371.43	3371.75	359.36	.11
12225.00	88.30	2.50	8872.39	3464.40	-33.64	3464.30	3464.56	359.44	.39
12320.00	88.00	2.80	8875.46	3559.25	-29.25	3559.16	3559.37	359.53	.45
12415.00	89.80	2.60	8877.29	3654.12	-24.77	3654.05	3654.20	359.61	1.91
12511.00	89.70	2.80	8877.70	3750.01	-20.25	3749.95	3750.07	359.69	.23
12606.00	89.50	2.60	8878.37	3844.90	-15.78	3844.85	3844.94	359.76	.30
12702.00	89.10	2.20	8879.54	3940.81	-11.76	3940.77	3940.83	359.83	.59
12796.00	88.80	2.60	8881.26	4034.71	-7.82	4034.68	4034.72	359.89	.53
12891.00	88.40	1.90	8883.58	4129.61	-4.09	4129.59	4129.61	359.94	.85
12986.00	87.90	1.40	8886.65	4224.52	-1.36	4224.50	4224.52	359.98	.74
13081.00	87.50	1.50	8890.46	4319.41	1.04	4319.40	4319.41	.01	.43
13176.00	86.90	1.20	8895.10	4414.27	3.28	4414.27	4414.27	.04	.71
13272.00	86.50	1.00	8900.63	4510.10	5.12	4510.10	4510.10	.07	.47
13367.00	86.40	.60	8906.51	4604.90	6.44	4604.91	4604.91	.08	.43
13463.00	86.50	.00	8912.46	4700.72	6.94	4700.72	4700.72	.08	.63
13514.00	86.10	.05	8915.75	4751.61	6.97	4751.61	4751.62	.08	.79
Projection to TD									
13560.00	86.10	.05	8918.88	4797.51	7.01	4797.51	4797.51	.08	.00