



Job Number: CD-13028
 Company: Lime Rock Energy
 Lease/Well: AID "24" STATE 22
 Location: Eddy County
 Rig Name:
 RKB:
 G.L. or M.S.L.: 3690.10

State/Country: NM / USA
 Declination: 7.67°
 Grid: Referenced to True North
 File name: C:\WINSERVE\AID24.SVY
 Date/Time: 03-Apr-13 / 21:17
 Curve Name: As Drilled

30 015 41079

Childress Directional Drilling

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 10.74
 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	BUILD RATE Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
500.00	.00	.00	500.00	.00	.00	.00	.00	.00	.00	.00
516.00	1.60	177.10	516.00	-.22	.01	-.22	.22	177.10	10.00	10.00
593.00	1.70	16.30	592.99	-.20	.39	-.12	.44	117.42	4.23	.13
688.00	4.10	13.50	687.86	4.46	1.57	4.67	4.73	19.47	2.53	2.53
783.00	6.00	2.70	782.49	12.72	2.60	12.98	12.98	11.56	2.23	2.00
877.00	7.70	4.70	875.81	23.90	3.35	24.11	24.14	7.98	1.83	1.81
973.00	7.20	4.20	971.00	36.31	4.32	36.48	36.57	6.78	.53	-.52
1068.00	8.40	8.50	1065.12	49.11	5.78	49.33	49.45	6.71	1.40	1.26
1163.00	9.20	9.10	1159.00	63.47	8.01	63.85	63.98	7.19	.85	.84
1258.00	9.90	8.50	1252.69	79.05	10.41	79.61	79.73	7.50	.74	.74
1353.00	9.60	3.60	1346.32	95.03	12.12	95.63	95.80	7.27	.93	-.32
1448.00	7.30	15.90	1440.29	108.75	14.27	109.50	109.68	7.48	3.07	-2.42
1543.00	5.50	21.00	1534.69	118.80	17.55	119.99	120.09	8.41	1.99	-1.89
1639.00	3.50	18.00	1630.39	125.89	20.11	127.43	127.48	9.08	2.10	-2.08
1734.00	1.90	43.50	1725.28	129.79	22.09	131.63	131.65	9.66	2.07	-1.68
1829.00	1.70	42.70	1820.24	131.96	24.13	134.15	134.15	10.36	.21	-.21
1924.00	1.00	81.50	1915.21	133.12	25.90	135.62	135.62	11.01	1.17	-.74
2019.00	.70	80.80	2010.20	133.34	27.30	136.09	136.10	11.57	.32	-.32
2114.00	.70	99.30	2105.19	133.34	28.44	136.30	136.34	12.04	.24	.00
2209.00	.70	101.40	2200.19	133.13	29.58	136.31	136.38	12.53	.03	.00
2305.00	.80	107.50	2296.18	132.81	30.80	136.22	136.33	13.06	.13	.10
2400.00	.60	102.60	2391.17	132.50	31.92	136.13	136.29	13.54	.22	-.21
2590.00	1.10	217.70	2581.16	130.84	31.77	134.47	134.64	13.65	.77	.26
2781.00	1.00	232.30	2772.13	128.37	29.33	131.59	131.68	12.87	.15	-.05

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	BUILD RATE Deg/100
Distance FT	Direction Deg									
2971.00	.90	243.20	2962.10	126.69	26.69	129.44	129.47	11.90	.11	-.05
3161.00	1.00	260.60	3152.08	125.74	23.72	127.96	127.96	10.68	.16	.05
3352.00	1.10	258.50	3343.04	125.10	20.28	126.69	126.74	9.21	.06	.05
3542.00	.60	260.30	3533.02	124.57	17.51	125.65	125.80	8.00	.26	-.26
3732.00	.60	253.90	3723.01	124.13	15.58	124.86	125.10	7.15	.04	.00
3922.00	1.10	288.20	3912.99	124.42	12.89	124.65	125.09	5.91	.36	.26
4112.00	1.10	291.90	4102.96	125.67	9.46	125.24	126.03	4.31	.04	.00
4302.00	1.30	298.40	4292.92	127.38	5.87	126.24	127.51	2.64	.13	.11
4492.00	1.50	9.40	4482.87	130.86	4.38	129.38	130.93	1.92	.86	.11
4682.00	1.60	43.00	4672.81	135.25	6.60	134.11	135.41	2.79	.47	.05
4872.00	1.80	48.50	4862.72	139.17	10.64	138.71	139.57	4.37	.14	.11
5062.00	1.80	55.50	5052.63	142.84	15.34	143.19	143.66	6.13	.12	.00
5253.00	.60	94.50	5243.59	144.46	18.81	145.43	145.68	7.42	.73	-.63
5367.00	.90	206.00	5357.58	143.60	19.01	144.63	144.86	7.54	1.10	.26
Projection to bit										
5415.00	.90	206.00	5405.57	142.93	18.68	143.90	144.14	7.45	.00	.00