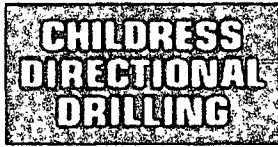


API #: 30-015-41435

Customer: Lime Rock Resources	Rig: UDI#33	SHL X:
Lease, Well No.: Logan 350 Federal #10	Job No.: CD-14022	SHL Y:
County or Parrish: Eddy County	Location or Area: New Mexico	Mag.Decl.: 7.59



Calculated f/ Targets
KBTVD (@ 0' VS)
Dip Angle (+Dn/-Up)

Sensor			
TVD			
N/-S			
E/-W			

Tie-In Survey Co.:						Minimum Curvature Calculations			Rates / 100' M.D.		Dist f/ Target Line		
Surveying Company: Childress Directional						Proposed Azimuth: 165.96°			Build or	R or -L	Course	Above or	Right or
Survey No	M.D.	INCL.	AZM.	TVD	N / -S	E / -W	V. SECT.	DLS / 100'	-Drop	-Turn	Length	-Below	-Left
Tie-In	0.00	0.00	0.00	0.00'	0.00'	0.00'	0.00'	0.00°					
1.	434.00	0.40	220.80	434.00'	-1.15'	-0.99'	0.87'	0.09°					
2.	556.00	3.00	195.50	555.93'	-4.55'	-2.12'	3.90'	2.17°					
3.	663.00	5.50	184.40	662.66'	-11.63'	-3.16'	10.52'	2.70°					
4.	749.00	7.70	185.30	748.02'	-22.62'	-4.10'	20.95'	2.29°					
5.	845.00	10.60	182.10	842.79'	-37.85'	-5.02'	35.50'	3.07°					
6.	941.00	13.30	178.80	936.70'	-57.72'	-5.11'	54.75'	2.90°					
7.	1038.00	15.20	172.10	1,030.72'	-81.47'	-3.13'	78.28'	2.59°					
8.	1134.00	16.90	166.80	1,122.98'	-107.53'	1.78'	104.75'	2.34°					
9.	1230.00	18.90	165.30	1,214.33'	-136.15'	8.92'	134.25'	2.14°					
10.	1326.00	20.00	161.60	1,304.85'	-166.77'	18.05'	166.17'	1.72°					
11.	1422.00	19.80	161.20	1,395.12'	-197.74'	28.47'	198.74'	0.25°					
12.	1519.00	20.20	160.70	1,486.27'	-229.10'	39.30'	231.79'	0.45°					
13.	1615.00	20.80	160.20	1,576.19'	-260.78'	50.55'	265.25'	0.65°					
14.	1711.00	17.90	157.00	1,666.76'	-290.41'	62.09'	296.79'	3.22°					
15.	1807.00	13.20	154.90	1,759.22'	-313.93'	72.51'	322.14'	4.93°					
16.	1903.00	11.50	157.40	1,852.99'	-332.69'	80.84'	342.36'	1.86°					
17.	2000.00	7.20	160.30	1,948.68'	-347.35'	86.61'	357.98'	4.46°					
18.	2096.00	3.80	160.50	2,044.23'	-356.01'	89.70'	367.14'	3.54°					
19.	2199.00	1.10	229.80	2,147.14'	-359.87'	90.08'	370.97'	3.46°					
20.	2295.00	0.00	211.10	2,243.13'	-360.46'	89.38'	371.38'	1.15°					
21.	2391.00	0.50	54.20	2,339.13'	-360.22'	89.72'	371.22'	0.52°					
22.	2487.00	0.40	34.70	2,435.13'	-359.70'	90.25'	370.84'	0.19°					
23.	2583.00	0.40	22.90	2,531.12'	-359.11'	90.57'	370.36'	0.09°					
24.	2680.00	0.90	50.00	2,628.12'	-358.31'	91.28'	369.75'	0.59°					
25.	2776.00	0.50	20.80	2,724.11'	-357.43'	92.01'	369.08'	0.55°					
26.	2872.00	0.50	22.40	2,820.11'	-356.66'	92.32'	368.40'	0.01°					
27.	2968.00	0.40	17.80	2,916.10'	-355.95'	92.58'	367.78'	0.11°					
28.	3065.00	1.20	168.60	3,013.10'	-356.62'	92.88'	368.50'	1.61°					
29.	3161.00	1.40	155.80	3,109.07'	-358.68'	93.56'	370.66'	0.37°					
30.	3257.00	1.10	160.30	3,205.05'	-360.61'	94.36'	372.73'	0.33°					
31.	3353.00	1.20	171.40	3,301.03'	-362.48'	94.82'	374.65'	0.25°					
32.	3449.00	1.70	169.80	3,397.00'	-364.87'	95.22'	377.07'	0.52°					
33.	3545.00	1.60	182.70	3,492.96'	-367.61'	95.41'	379.78'	0.40°					
34.	3555.00	1.40	176.90	3,502.96'	-367.87'	95.41'	380.03'	2.51°					
PTB	3600.00	1.40	176.90	3,547.94'	-368.97'	95.47'	381.11'	0.00°					

The above survey data is true and correct, complete and within the limitations of the tool as set forth by Childress Directional Drilling, LLC; that I am authorized and qualified to make this report; that this survey was conducted at the request of Lime Rock Resources; that I reviewed these MWD Surveys and find they conform to the principles and procedures as set forth by Childress Directional Drilling.

Regards,

A handwritten signature in black ink, appearing to read 'A. Poffenroth', with a stylized flourish at the end.

Art Poffenroth
MWD Manager
Childress Directional Drilling, LLC