

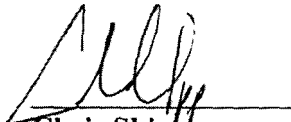


State of New Mexico
Eddy County

30-015-44494

I, **James Dowdell**, certify that; I am employed by Accel Directional; that I did on the day(s) of **01/17/18** through **01/22/18** conduct or supervise the taking of MWD survey(s) from a depth of **150'** feet to a depth of **4150'** feet; that the data is true, correct, complete and within the limitations of the tool set forth by Accel Directional; that I am authorized and qualified to make this report; that this report was conducted at the request of **Limerock Resources** for the **Terry 14G No. 3**, in **Eddy County, New Mexico**; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Accel Directional.


James Dowdell
Supervisor


Chris Shipp
President

NM OIL CONSERVATION
ARTESIA DISTRICT
JAN 31 2018

RECEIVED



Enclosed, please find the original and one copy of the survey performed on the referenced well by Accel Directional, (Operator No. 301287) supervised by James Dowdell. Other information required by your office is as follows:

Name & Title of Supervisor	Drainhole Number	Surveyed Depths	Dates Performed	Type of Survey
James Dowdell		150' – 4150'	01/17/18 – 01/22/18	MWD

If any other information is required, please contact the undersigned.

A handwritten signature in black ink, appearing to read "James Dowdell", written over a horizontal line.

James Dowdell
Supervisor
jdowdell@acceldirectional.com
832-401-3400

A handwritten signature in black ink, appearing to read "Chris Shipp", written over a horizontal line.

Chris Shipp
President
Cshipp@acceldirectional.com
936-900-6204



SURVEY CALCULATION PROGRAM

Minimum Curvature

File:

OPERATOR: Limerock Resources										Target Information				VS Referenced to Offset from Surface			
WELL: Terry 14 G No. 3										TARGET KBTVD:		4300.00 <th colspan="2">NORTH/SOUTH:</th> <td colspan="2">0.00</td>		NORTH/SOUTH:		0.00	
LOCATION: Eddy county, New Mexico										TARGET INCL:		0.00 <th colspan="2">EAST/WEST:</th> <td colspan="2">0.00</td>		EAST/WEST:		0.00	
RIG: United 33										TARGET AZM:		51.58 <th colspan="4">(Enter 0° N and 0° E for Surface)</th>		(Enter 0° N and 0° E for Surface)			
JOB NUMBER: TX-18-008																	
SURVEY COMPANY					DIRECTIONAL COMPANY					PROPOSED DIRECTION:		51.58 <th colspan="4">Dec / Total Corr.(+/-):</th>		Dec / Total Corr.(+/-):			
Accel Directional					Accel Directional					COMMENTS:							
Directional Drillers					COORDINATORS												
cliff tinkham					Chris Shipp												
Limerock Resources					Terry 14 G No. 3									Target Calculations			
SVY	MD	INC	TRUE AZM	TEMP °F	API Gamma	Course Length	TVD	N-S	E-W	Surface Vert Sect	CLOSURE DIST	DIR	DLS/ 100	BUR/ 100'	TVD AT 0' V. SEC.	ABOVE (+) BELOW (-)	RIGHT(+) LEFT(-)
Tie-In	0	0.0	0.0			N/A	0.00	0.00	0.00		0.00	0.00	N/A	N/A			
1	150	1.1	134.6			150	149.99	-1.01	1.03	0.17	1.44	134.60	0.73	0.73	#DIV/0!	#DIV/0!	1.43
2	212	1.7	133.5			62	211.97	-2.06	2.12	0.38	2.95	134.26	0.97	0.97	#DIV/0!	#DIV/0!	2.93
3	242	1.9	133.4			30	241.96	-2.71	2.80	0.51	3.90	134.06	0.67	0.67	#DIV/0!	#DIV/0!	3.86
4	303	2.0	129.5			61	302.92	-4.08	4.36	0.88	5.97	133.14	0.27	0.16	#DIV/0!	#DIV/0!	5.91
5	364	2.0	93.8			61	363.89	-4.83	6.24	1.89	7.89	127.74	2.01	0.00	#DIV/0!	#DIV/0!	7.66
6	394	2.6	78.9			30	393.86	-4.73	7.43	2.88	8.81	122.50	2.81	2.00	#DIV/0!	#DIV/0!	8.33
7	426	3.4	69.8			32	425.82	-4.27	9.03	4.43	9.99	115.28	2.90	2.50	#DIV/0!	#DIV/0!	8.96
8	458	4.2	66.8			32	457.75	-3.48	11.00	6.46	11.54	107.54	2.58	2.50	#DIV/0!	#DIV/0!	9.56
9	490	5.0	62.5			32	489.65	-2.37	13.31	8.96	13.52	100.10	2.72	2.50	#DIV/0!	#DIV/0!	10.13
10	522	5.4	67.3			32	521.51	-1.15	15.94	11.78	15.98	94.11	1.85	1.25	#DIV/0!	#DIV/0!	10.80
11	554	5.5	64.0			32	553.37	0.11	18.71	14.72	18.71	89.67	1.03	0.31	#DIV/0!	#DIV/0!	11.54
12	586	5.9	53.7			32	585.21	1.75	21.41	17.87	21.48	85.32	3.43	1.25	#DIV/0!	#DIV/0!	11.93
13	618	6.4	46.4			32	617.03	3.96	24.03	21.29	24.35	80.65	2.90	1.56	#DIV/0!	#DIV/0!	11.83
14	651	7.1	44.1			33	649.80	6.69	26.78	25.14	27.60	75.97	2.27	2.12	#DIV/0!	#DIV/0!	11.40
15	683	7.8	43.0			32	681.53	9.70	29.64	29.25	31.18	71.88	2.23	2.19	#DIV/0!	#DIV/0!	10.82
16	714	8.8	44.3			31	712.20	12.93	32.73	33.68	35.19	68.44	3.28	3.23	#DIV/0!	#DIV/0!	10.20
17	746	9.8	44.9			32	743.78	16.62	36.36	38.81	39.98	65.44	3.14	3.13	#DIV/0!	#DIV/0!	9.58
18	778	10.9	45.8			32	775.26	20.65	40.45	44.53	45.42	62.95	3.47	3.44	#DIV/0!	#DIV/0!	8.96
19	810	12.0	48.9			32	806.62	24.95	45.13	50.86	51.57	61.06	3.94	3.44	#DIV/0!	#DIV/0!	8.50
20	842	13.1	47.1			32	837.86	29.61	50.29	57.80	58.36	59.52	3.65	3.44	#DIV/0!	#DIV/0!	8.06
21	906	13.0	46.8			64	900.21	39.47	60.85	72.20	72.53	57.03	0.19	-0.16	#DIV/0!	#DIV/0!	6.89
22	970	13.1	47.3			64	962.55	49.32	71.43	86.61	86.80	55.38	0.24	0.16	#DIV/0!	#DIV/0!	5.75
23	1,034	13.5	46.0			64	1024.84	59.42	82.13	101.28	101.38	54.11	0.78	0.63	#DIV/0!	#DIV/0!	4.48
24	1,097	13.3	43.9			63	1086.12	69.75	92.45	115.78	115.81	52.96	0.84	-0.32	#DIV/0!	#DIV/0!	2.80
25	1,129	13.1	44.3			32	1117.28	75.00	97.53	123.02	123.04	52.44	0.69	-0.63	#DIV/0!	#DIV/0!	1.85
26	1,192	13.1	41.9			63	1178.64	85.43	107.29	137.14	137.14	51.47	0.86	0.00	#DIV/0!	#DIV/0!	-0.26
27	1,204	13.0	42.5			12	1190.33	87.43	109.11	139.82	139.82	51.29	1.40	-0.83	#DIV/0!	#DIV/0!	-0.70
28	1,289	13.2	42.0			85	1273.12	101.69	122.06	158.83	158.87	50.20	0.27	0.24	#DIV/0!	#DIV/0!	-3.82
29	1,353	13.1	49.3			64	1335.44	111.85	132.45	173.28	173.36	49.82	2.60	-0.16	#DIV/0!	#DIV/0!	-5.33
30	1,449	12.9	56.0			96	1428.99	124.94	149.58	194.84	194.90	50.13	1.58	-0.21	#DIV/0!	#DIV/0!	-4.94
31	1,513	12.4	50.2			64	1491.44	133.34	160.78	208.83	208.88	50.33	2.13	-0.78	#DIV/0!	#DIV/0!	-4.55
32	1,545	12.4	49.4			32	1522.69	137.77	166.03	215.70	215.75	50.31	0.54	0.00	#DIV/0!	#DIV/0!	-4.76
33	1,609	12.7	54.1			64	1585.16	146.37	176.95	229.59	229.64	50.40	1.66	0.47	#DIV/0!	#DIV/0!	-4.72
34	1,705	12.3	55.4			96	1678.89	158.36	193.91	250.34	250.36	50.76	0.51	-0.42	#DIV/0!	#DIV/0!	-3.57
35	1,801	12.6	54.1			96	1772.63	170.31	210.81	271.00	271.01	51.07	0.43	0.31	#DIV/0!	#DIV/0!	-2.43
36	1,864	11.6	55.2			63	1834.23	177.95	221.58	284.19	284.19	51.23	1.63	-1.59	#DIV/0!	#DIV/0!	-1.73
37	1,896	10.6	56.9			32	1865.63	181.40	226.69	290.33	290.33	51.33	3.29	-3.13	#DIV/0!	#DIV/0!	-1.25
38	1,961	9.8	57.6			65	1929.60	187.63	236.37	301.78	301.78	51.56	1.25	-1.23	#DIV/0!	#DIV/0!	-0.12
39	1,992	9.8	56.6			31	1960.15	190.49	240.80	307.03	307.03	51.65	0.55	0.00	#DIV/0!	#DIV/0!	0.39
40	2,056	9.3	56.3			64	2023.26	196.36	249.65	317.61	317.62	51.81	0.79	-0.78	#DIV/0!	#DIV/0!	1.29
41	2,088	8.3	54.1			32	2054.89	199.15	253.67	322.50	322.50	51.87	3.30	-3.13	#DIV/0!	#DIV/0!	1.61
42	2,120	7.7	53.0			32	2086.57	201.79	257.25	326.95	326.95	51.89	1.93	-1.88	#DIV/0!	#DIV/0!	1.76
43	2,152	6.6	51.5			32	2118.32	204.23	260.40	330.93	330.94	51.89	3.49	-3.44	#DIV/0!	#DIV/0!	1.81
44	2,184	5.4	49.9			32	2150.15	206.34	262.99	334.28	334.28	51.88	3.79	-3.75	#DIV/0!	#DIV/0!	1.77
45	2,216	4.3	49.1			32	2182.03	208.10	265.05	336.98	336.98	51.86	3.44	-3.44	#DIV/0!	#DIV/0!	1.67
46	2,248	2.9	47.5			32	2213.97	209.43	266.56	338.99	338.99	51.84	4.39	-4.38	#DIV/0!	#DIV/0!	1.56
47	2,280	1.9	49.9			32	2245.94	210.32	267.56	340.32	340.33	51.83	3.14	-3.13	#DIV/0!	#DIV/0!	1.49
48	2,312	0.5	54.7			32	2277.93	210.74	268.08	340.99	341.00	51.83	4.38	-4.38	#DIV/0!	#DIV/0!	1.48
49	2,408	0.1	9.3			96	2373.93	211.07	268.43	341.47	341.48	51.82	0.45	-0.42	#DIV/0!	#DIV/0!	1.45
50	2,504	0.5	20.3			96	2469.93	211.54	268.59	341.89	341.90	51.78	0.42	0.42	#DIV/0!	#DIV/0!	1.17
51	2,606	0.8	20.7			102	2571.92	212.63	269.00	342.88	342.89	51.68	0.29	0.29	#DIV/0!	#DIV/0!	0.58
52	2,702	0.6	31.8			96	2667.92	213.68	269.50	343.93	343.93	51.59	0.25	-0.21	#DIV/0!	#DIV/0!	0.06



SURVEY CALCULATION PROGRAM

Minimum Curvature

File:

OPERATOR: Limerock Resources										Target Information					VS Referenced to Offset from Surface								
WELL: Terry 14 G No. 3										TARGET KBTVD:		4300.00			NORTH/SOUTH:		0.00						
LOCATION: Eddy county, New Mexico										TARGET INCL:		0.00			EAST/WEST:		0.00						
RIG: United 33										TARGET AZM:		51.58			(Enter 0' N and 0' E for Surface)								
JOB NUMBER: TX-18-008																							
SURVEY COMPANY						DIRECTIONAL COMPANY				PROPOSED DIRECTION:		51.58		Dec / Total Corr.(+/-):									
Accel Directional						Accel Directional				COMMENTS:													
Directional Drillers						COORDINATORS																	
cliff tinkham						Chris Shipp																	
Limerock Resources						Terry 14 G No. 3									Target Calculations								
TRUE		TEMP		API		Course				Surface		CLOSURE		DLS/		BUR/		TVD AT 0'		ABOVE (+)		RIGHT(+)	
SVY	MD	INC	AZM	°F	Gamma	Length	TVD	N-S	E-W	Vert Sect	DIST	DIR	100	100'	V. SEC.	BELOW (-)	LEFT(-)						
53	2,799	0.6	29.2			97	2764.91	214.55	270.02	344.88	344.88	51.53	0.03	0.00	#DIV/0!	#DIV/0!	-0.30						
54	2,895	0.7	16.4			96	2860.90	215.56	270.43	345.82	345.83	51.44	0.18	0.10	#DIV/0!	#DIV/0!	-0.83						
55	2,991	0.7	17.3			96	2956.90	216.68	270.77	346.79	346.79	51.33	0.01	0.00	#DIV/0!	#DIV/0!	-1.50						
56	3,087	0.5	36.6			96	3052.89	217.57	271.19	347.68	347.68	51.26	0.29	-0.21	#DIV/0!	#DIV/0!	-1.94						
57	3,183	0.7	32.6			96	3148.89	218.40	271.76	348.64	348.64	51.21	0.21	0.21	#DIV/0!	#DIV/0!	-2.24						
58	3,247	0.8	31.1			64	3212.88	219.12	272.20	349.42	349.43	51.17	0.16	0.16	#DIV/0!	#DIV/0!	-2.52						
59	3,344	0.5	227.0			97	3309.88	219.41	272.24	349.64	349.65	51.13	1.33	-0.31	#DIV/0!	#DIV/0!	-2.73						
60	3,439	0.4	223.5			95	3404.88	218.88	271.71	348.90	348.91	51.15	0.11	-0.11	#DIV/0!	#DIV/0!	-2.65						
61	3,536	0.7	249.7			97	3501.87	218.43	270.92	348.00	348.01	51.12	0.40	0.31	#DIV/0!	#DIV/0!	-2.78						
62	3,631	0.7	253.4			95	3596.86	218.07	269.82	346.91	346.92	51.06	0.05	0.00	#DIV/0!	#DIV/0!	-3.18						
63	3,728	0.7	263.4			97	3693.86	217.83	268.66	345.85	345.87	50.97	0.13	0.00	#DIV/0!	#DIV/0!	-3.71						
64	3,824	0.9	278.6			96	3789.85	217.87	267.33	344.84	344.87	50.82	0.30	0.21	#DIV/0!	#DIV/0!	-4.57						
65	3,920	0.7	271.4			96	3885.84	218.00	266.00	343.88	343.92	50.66	0.23	-0.21	#DIV/0!	#DIV/0!	-5.50						
66	4,016	0.7	87.8			96	3981.84	218.04	266.00	343.90	343.94	50.66	1.46	0.00	#DIV/0!	#DIV/0!	-5.53						
67	4,111	0.7	112.7			95	4076.83	217.84	267.12	344.65	344.68	50.80	0.32	0.00	#DIV/0!	#DIV/0!	-4.68						
68	4,150	0.4	115.3			39	4115.83	217.69	267.46	344.82	344.85	50.86	0.77	-0.77	#DIV/0!	#DIV/0!	-4.35						
PTB	4,200	0.4	115.3			50	4165.83	217.54	267.78	344.98	345.00	50.91	0.00	0.00	#DIV/0!	#DIV/0!	-4.03						