

VES SURVEY

NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 02 2017

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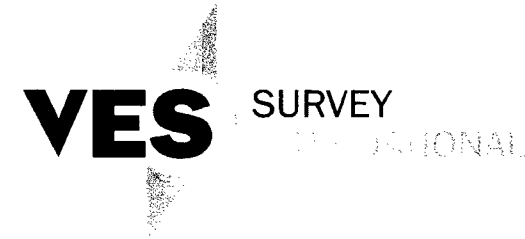
I Michael Cook certify that I am employed by VES Survey International. That I did on the day(s) of 05/09/17 through 05/09/17 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 9,200.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Matador Resources for the Tiger 14 24S 28E RB Well # 202H API # 30-015-44129 in Eddy County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.



Michael Cook
Service Technician
VES Survey International



Company: MATADOR PRODUCTION CO.
Lease/Well: TIGER 14 24S 28E RB No./202H



Rig Name: PATTERSON 274
State/County: NEW MEXICO/EDDY
VS-Azi: 271.02 Degrees
Latitude: 32.22001, Longitude: -104.05056
Grid North = True North -0.15 degs (NAD 83)
Grid Correction Applied = -0.15 degs

Depth Reference : RKB=28.5 FEET

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: e-line gyro-de_01.ut
Minimum Curvature Method
Report Date/Time: 5/15/2017 / 15:13

VES Survey International
Midland Texas
432-563-5444

Surveyor: Michael Cook
Tiger 14-24S-28E RB No. 202H / API 30-015-44129

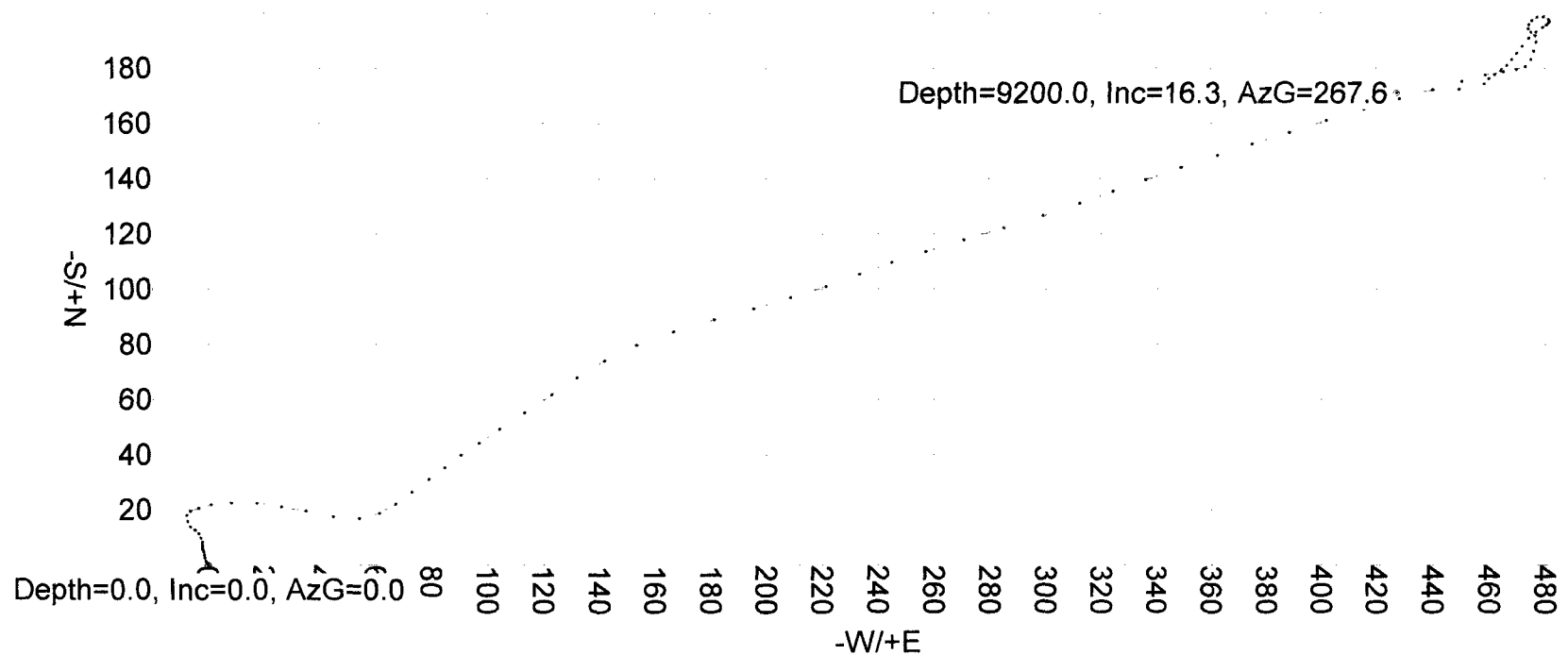
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.55	319.68	100.00	0.36	-0.31	0.31	0.48	319.68	0.55
200.00	0.81	332.86	199.99	1.35	-0.94	0.96	1.65	325.27	0.30
300.00	0.65	355.70	299.98	2.55	-1.30	1.35	2.86	332.93	0.33
400.00	0.59	352.46	399.98	3.62	-1.41	1.48	3.89	338.71	0.08
500.00	0.63	345.38	499.97	4.66	-1.62	1.70	4.93	340.86	0.08
600.00	0.42	326.08	599.97	5.49	-1.96	2.05	5.83	340.37	0.27
700.00	0.43	6.27	699.97	6.16	-2.12	2.23	6.52	341.03	0.29
800.00	0.34	357.12	799.96	6.84	-2.09	2.21	7.15	342.98	0.11
900.00	0.20	12.85	899.96	7.30	-2.07	2.20	7.59	344.19	0.15
1000.00	0.85	353.37	999.96	8.21	-2.11	2.26	8.48	345.56	0.66
1100.00	1.04	334.85	1099.94	9.77	-2.59	2.76	10.10	345.18	0.36
1200.00	1.06	333.91	1199.93	11.43	-3.38	3.58	11.91	343.52	0.03
1300.00	1.14	298.08	1299.91	12.73	-4.67	4.90	13.56	339.85	0.68
1400.00	1.16	309.51	1399.89	13.84	-6.33	6.58	15.22	335.42	0.23
1500.00	1.34	339.81	1499.87	15.58	-7.52	7.79	17.30	334.25	0.67
1600.00	1.32	5.97	1599.84	17.83	-7.80	8.12	19.46	336.37	0.60

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1700.00	1.48	66.59	1699.82	19.49	-6.49	6.84	20.54	341.58	1.42
1800.00	2.23	69.95	1799.76	20.67	-3.48	3.84	20.96	350.46	0.76
1900.00	3.12	79.28	1899.65	21.84	1.03	-0.64	21.87	2.70	0.99
2000.00	5.25	87.61	1999.38	22.54	8.28	-7.87	24.01	20.16	2.20
2100.00	5.20	95.36	2098.97	22.31	17.35	-16.95	28.26	37.88	0.71
2200.00	5.08	100.93	2198.57	21.05	26.21	-25.83	33.62	51.24	0.51
2300.00	5.20	101.08	2298.16	19.34	35.01	-34.66	40.00	61.09	0.12
2400.00	6.09	100.95	2397.68	17.46	44.66	-44.35	47.96	68.65	0.88
2500.00	4.79	84.27	2497.23	16.87	54.03	-53.72	56.60	72.66	2.03
2600.00	3.79	65.10	2596.95	18.68	61.19	-60.84	63.97	73.02	1.74
2700.00	4.05	54.12	2696.72	22.14	67.05	-66.64	70.61	71.73	0.79
2800.00	4.30	53.20	2796.46	26.45	72.91	-72.43	77.56	70.06	0.26
2900.00	4.22	52.36	2896.18	30.95	78.83	-78.26	84.68	68.56	0.10
3000.00	4.14	52.99	2995.91	35.37	84.63	-83.98	91.72	67.32	0.09
3100.00	4.28	53.61	3095.64	39.76	90.51	-89.79	98.86	66.29	0.14
3200.00	4.60	55.46	3195.34	44.24	96.82	-96.02	106.45	65.44	0.35
3300.00	5.67	56.36	3294.94	49.26	104.24	-103.35	115.29	64.71	1.07
3400.00	6.72	56.25	3394.36	55.25	113.22	-112.22	125.98	63.99	1.05
3500.00	6.51	56.12	3493.69	61.66	122.79	-121.68	137.40	63.34	0.21
3600.00	6.16	55.09	3593.08	67.89	131.90	-130.67	148.34	62.77	0.37
3700.00	7.12	60.41	3692.41	74.01	141.68	-140.34	159.85	62.42	1.14
3800.00	7.73	67.66	3791.57	79.63	153.29	-151.85	172.74	62.55	1.12
3900.00	8.65	71.79	3890.55	84.54	166.66	-165.13	186.88	63.10	1.09
4000.00	8.73	74.76	3989.40	88.89	181.13	-179.52	201.76	63.86	0.46
4100.00	8.30	73.92	4088.30	92.88	195.38	-193.70	216.34	64.57	0.45
4200.00	7.67	71.74	4187.33	96.97	208.65	-206.89	230.08	65.07	0.70
4300.00	7.53	72.08	4286.45	101.08	221.22	-219.39	243.22	65.44	0.14
4400.00	7.13	69.10	4385.64	105.31	233.26	-231.35	255.93	65.70	0.55
4500.00	7.25	70.57	4484.85	109.62	245.01	-243.02	268.41	65.90	0.22
4600.00	7.48	73.63	4584.02	113.56	257.20	-255.14	281.16	66.18	0.45
4700.00	8.74	72.05	4683.02	117.73	270.67	-268.54	295.17	66.49	1.28
4800.00	8.57	73.79	4781.88	122.15	285.06	-282.84	310.13	66.80	0.31
4900.00	8.47	71.85	4880.78	126.53	299.21	-296.91	324.86	67.08	0.30
5000.00	7.53	70.52	4979.81	131.01	312.39	-310.00	338.74	67.25	0.96
5100.00	7.13	70.27	5078.99	135.29	324.41	-321.95	351.49	67.36	0.40
5200.00	7.38	70.58	5178.19	139.52	336.31	-333.78	364.11	67.47	0.25
5300.00	8.33	71.74	5277.25	143.93	349.25	-346.63	377.75	67.60	0.96
5400.00	7.63	71.04	5376.28	148.36	362.41	-359.71	391.60	67.74	0.70
5500.00	7.80	72.58	5475.37	152.55	375.17	-372.39	405.00	67.87	0.27

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5600.00	8.22	72.54	5574.40	156.73	388.47	-385.62	418.89	68.03	0.42
5700.00	8.09	73.45	5673.38	160.88	402.03	-399.11	433.03	68.19	0.19
5800.00	8.27	73.33	5772.37	164.94	415.67	-412.66	447.20	68.36	0.18
5900.00	7.26	73.16	5871.45	168.84	428.60	-425.53	460.66	68.50	1.01
6000.00	6.65	74.20	5970.71	172.24	440.22	-437.09	472.72	68.63	0.62
6100.00	5.78	72.87	6070.12	175.30	450.60	-447.41	483.50	68.74	0.88
6200.00	4.12	78.63	6169.75	177.49	458.93	-455.70	492.06	68.86	1.73
6300.00	3.35	80.57	6269.54	178.68	465.33	-462.07	498.45	68.99	0.78
6400.00	2.07	80.58	6369.42	179.45	469.99	-466.72	503.08	69.10	1.27
6500.00	1.87	57.24	6469.37	180.63	473.15	-469.86	506.46	69.10	0.82
6600.00	1.83	22.21	6569.32	182.99	475.13	-471.79	509.15	68.94	1.11
6700.00	1.99	10.59	6669.26	186.17	476.05	-472.66	511.16	68.64	0.42
6800.00	2.03	17.72	6769.20	189.57	476.91	-473.46	513.20	68.32	0.25
6900.00	1.17	307.68	6869.17	191.88	476.64	-473.15	513.81	68.07	1.97
7000.00	1.00	298.86	6969.15	192.93	475.07	-471.56	512.75	67.90	0.24
7100.00	0.97	346.30	7069.14	194.17	474.11	-470.57	512.33	67.73	0.79
7200.00	0.91	33.63	7169.12	195.65	474.34	-470.78	513.11	67.59	0.76
7300.00	1.22	42.68	7269.11	197.09	475.50	-471.92	514.73	67.49	0.35
7400.00	1.51	55.69	7369.08	198.62	477.31	-473.70	516.99	67.41	0.43
7500.00	1.53	119.79	7469.05	198.70	479.56	-475.95	519.10	67.49	1.62
7600.00	0.86	124.45	7569.03	197.61	481.34	-477.74	520.32	67.68	0.68
7700.00	0.44	219.01	7669.02	196.90	481.71	-478.13	520.40	67.77	0.99
7800.00	0.48	217.46	7769.02	196.26	481.22	-477.65	519.70	67.81	0.05
7900.00	0.44	226.08	7869.02	195.66	480.68	-477.12	518.98	67.85	0.08
8000.00	1.42	242.69	7969.00	194.83	479.30	-475.76	517.39	67.88	1.00
8100.00	1.95	231.43	8068.96	193.20	476.87	-473.36	514.52	67.95	0.63
8200.00	2.17	221.95	8168.90	190.73	474.28	-470.81	511.19	68.09	0.40
8300.00	2.02	218.93	8268.83	187.95	471.91	-468.49	507.96	68.28	0.19
8400.00	1.66	214.14	8368.78	185.38	469.99	-466.61	505.23	68.47	0.39
8500.00	1.55	216.72	8468.74	183.10	468.37	-465.03	502.89	68.65	0.13
8600.00	1.54	221.66	8568.70	181.02	466.67	-463.37	500.55	68.80	0.13
8700.00	1.67	238.52	8668.66	179.25	464.53	-461.27	497.92	68.90	0.49
8800.00	1.53	235.50	8768.62	177.73	462.19	-458.95	495.18	68.97	0.17
8900.00	1.45	228.58	8868.59	176.14	460.14	-456.93	492.70	69.05	0.20
9000.00	1.49	215.16	8968.56	174.25	458.45	-455.27	490.45	69.19	0.35
9100.00	9.34	264.60	9068.06	172.42	449.61	-446.47	481.54	69.02	8.44
9200.00	16.34	267.62	9165.50	171.07	427.45	-424.34	460.41	68.19	7.03



VES Survey International
Midland Texas
432-563-5444
Surveyor: Michael Cook
Tiger 14-24S-28E RB No. 202H / API 30-015-44129





I Michael Cook certify that I am employed by VES Survey International. That I did on the day(s) of 05/09/17 through 05/09/17 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 9,200.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Matador Resources for the Tiger 14 24S 28E RB Well # 202H API # 30-015-44129 in Eddy County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.

A handwritten signature in dark ink, appearing to read "M Cook", written over a horizontal line.

Michael Cook
Service Technician
VES Survey International