


VES SURVEY

NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 19 2018

RECEIVED

I Mike Cook certify that I am employed by VES Survey International. That I did on the day(s) of 11/15/17 through 11/15/17 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 2,287.00 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 for the Miss Sue 12-23S-27E RB Well # 202H API # 30-015-44433 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.



Mike Cook
Service Technician
VES Survey International

Company: MATADOR PRODUCTION

Lease/Well: MISS SUE 12-23S-27E RB No./202H

Rig Name: PATTERSON 282

State/County: NEW MEXICO/EDDY

VS-Azi: 89.78 Degrees

Latitude: 32.32295, Longitude: -104.15257

Grid North = True North -0.10 degs (NAD 27)

Grid Correction Applied = -0.10 degs

Depth Reference : RKB=29.5 FEET

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: msgyro_run01-01-de_01.ut

Minimum Curvature Method

Report Date/Time: 11/27/2017 / 13:47

VES Survey International
Gardendale, Texas

432-563-5444

Surveyor: Mike Cook

Miss Sue 12-23S-27E RB No. 202H / API 30-015-44433

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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	****
59.04	0.09	120.91	59.04	-0.02	0.04	0.04	0.05	120.91	0.15
153.16	0.13	267.62	153.16	-0.07	-0.01	-0.01	0.07	184.43	0.22
247.28	0.19	278.11	247.28	-0.05	-0.27	-0.27	0.27	259.98	0.07
341.40	0.35	256.06	341.40	-0.10	-0.71	-0.71	0.71	262.34	0.20
435.52	1.16	245.06	435.51	-0.57	-1.86	-1.86	1.94	252.98	0.87
529.64	1.11	236.10	529.61	-1.48	-3.48	-3.48	3.78	246.98	0.20
623.76	2.21	198.44	623.69	-3.70	-4.80	-4.82	6.06	232.36	1.59
717.88	2.49	167.45	717.74	-7.42	-4.93	-4.96	8.91	213.62	1.36
812.00	2.91	154.48	811.75	-11.57	-3.46	-3.50	12.08	196.63	0.79
906.12	3.32	143.19	905.73	-15.91	-0.79	-0.85	15.93	182.85	0.78
1000.24	3.65	140.70	999.68	-20.41	2.74	2.66	20.59	172.37	0.38
1094.36	3.62	136.82	1093.61	-24.89	6.66	6.57	25.77	165.01	0.26
1188.48	3.24	139.80	1187.56	-29.08	10.41	10.30	30.89	160.31	0.44
1282.60	3.00	144.29	1281.54	-33.12	13.56	13.43	35.78	157.73	0.36
1376.72	3.67	141.93	1375.50	-37.48	16.85	16.71	41.10	155.79	0.72
1470.84	4.27	138.38	1469.40	-42.47	21.04	20.87	47.40	153.65	0.69

Depth FT	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
1564.96	4.06	134.05	1563.27	-47.41	25.76	25.58	53.95	151.48	0.40
1659.08	3.86	129.12	1657.17	-51.72	30.61	30.41	60.10	149.38	0.42
1753.20	4.22	131.85	1751.05	-56.03	35.65	35.44	66.41	147.53	0.44
1847.32	4.65	135.86	1844.89	-61.09	40.89	40.66	73.51	146.20	0.56
1941.44	4.48	136.37	1938.71	-66.49	46.09	45.83	80.90	145.27	0.19
2035.56	4.12	141.84	2032.57	-71.81	50.72	50.44	87.91	144.77	0.58
2129.68	3.83	152.94	2126.46	-77.27	54.24	53.94	94.41	144.93	0.87
2223.80	3.90	140.12	2220.37	-82.53	57.72	57.40	100.71	145.03	0.92
2287.00	3.78	138.24	2283.43	-85.73	60.49	60.16	104.92	144.80	0.27



VES Survey International
 Gardendale, Texas
 432-563-5444
 Surveyor: Mike Cook
 Miss Sue 12-23S-27E RB No. 202H / API 30-015-44433



* Depth=0.0, Inc=0.0, AzG=0.0

-20

-40

-S/+N

-60

-80

* Depth=2287.0, Inc=3.8, AzG=138.2

60

40

20

0

-W/+E

V.E.S. Survey Date: 11/15/2017