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30-025-44812

MS Directional Survey Data Certification

MS Directional Job Number: MSMO-62152
Survey Type: MWD
Operating Company: Matador Production Co.
Well Name & Number: Leslie Federal COM #202H
Location: Lea County, NM
API Number: 30-025-44812
Tie In Depth: Surface
Surveyed Depths: 199' – 17,546' MD
Projected TD Survey: 17,606' MD
Dates Performed: 02/10/2019 – 04/23/2019

HOBBS OCD
SEP 11 2019
RECEIVED

I certify that the data is true, correct and complete and within the limitations of the tool set forth by MS Directional; that I am authorized and qualified to make this report and that I have reviewed this report and find it conforms to the principles and procedures as set forth by MS Directional.

Digitally signed by:

Nathaniel LeBlanc

MWD Surveyor Name:

Nate LeBlanc

Date:

05-17-2019

Email:

Nate.LeBlanc@msdir.com

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Company:		Matador Production Co.										
Well Name:		Leslie Federal COM #202H										
Location:		Lea County, NM										
Rig:		Patterson #282					Magnetic Declination:		6.26		REFERENCED TO GRID NORTH	
Job Number:		MSMO-62152										
API #:		30-025-44812										
Vertical Section Azimuth:			359.55			Proposed Direction:		359.55				
Survey Calculation Method:			Minimum Curvature									
PTB:	MD		INC		AZM	TVD	N/S	E/W	VS			
	17,606		88		3.2	12557.75	4890.76	969.63	4882.99			
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'	
TIE IN	0	0.00	0.00	0.00	0.00	0.00			0.00			
1	199	0.60	9.60	199.00	1.03	0.17	1.03	1.04	9.60	0.30	0.30	
2	317	0.60	3.10	316.99	2.25	0.31	2.25	2.27	7.84	0.06	0.00	
3	504	1.00	22.40	503.97	4.74	0.98	4.73	4.84	11.74	0.26	0.21	
4	687	0.90	20.60	686.95	7.56	2.10	7.54	7.85	15.52	0.06	-0.05	
5	886	0.80	39.70	885.92	10.09	3.54	10.07	10.70	19.31	0.15	-0.05	
6	1,060	0.70	63.20	1059.91	11.51	5.26	11.47	12.65	24.57	0.18	-0.06	
7	1,248	0.60	73.00	1247.90	12.31	7.23	12.26	14.28	30.41	0.08	-0.05	
8	1,437	2.00	96.00	1436.85	12.26	11.45	12.17	16.78	43.06	0.78	0.74	
9	1,625	5.00	104.30	1624.47	9.89	22.66	9.71	24.72	66.42	1.61	1.60	
10	1,814	6.30	114.90	1812.56	3.49	40.05	3.17	40.20	85.02	0.88	0.69	
11	2,001	6.20	114.60	1998.45	-5.03	58.53	-5.49	58.75	94.92	0.06	-0.05	
12	2,190	6.10	113.30	2186.36	-13.25	77.04	-13.86	78.17	99.76	0.09	-0.05	
13	2,380	5.90	112.40	2375.32	-20.97	95.34	-21.72	97.62	102.40	0.12	-0.11	
14	2,568	8.00	113.10	2561.93	-29.78	116.31	-30.70	120.06	104.36	1.12	1.12	
15	2,756	7.60	111.50	2748.19	-39.47	139.91	-40.57	145.37	105.76	0.24	-0.21	
16	2,944	7.40	107.90	2934.58	-47.75	162.99	-49.03	169.85	106.33	0.27	-0.11	
17	3,132	8.40	104.20	3120.79	-54.84	187.83	-56.31	195.67	106.28	0.60	0.53	
18	3,321	8.60	102.10	3307.72	-61.19	215.03	-62.88	223.57	105.88	0.20	0.11	
19	3,509	8.30	99.30	3493.68	-66.33	242.16	-68.23	251.08	105.32	0.27	-0.16	
20	3,698	8.10	96.70	3680.75	-70.09	268.85	-72.20	277.84	104.61	0.22	-0.11	
21	3,888	8.20	105.30	3868.83	-75.22	295.22	-77.54	304.65	104.30	0.64	0.05	
22	4,076	8.10	103.90	4054.94	-81.94	321.00	-84.46	331.30	104.32	0.12	-0.05	
23	4,264	7.60	103.60	4241.17	-88.05	345.94	-90.76	356.97	104.28	0.27	-0.27	
24	4,452	7.90	106.50	4427.46	-94.64	370.42	-97.55	382.32	104.33	0.26	0.16	
25	4,641	8.50	105.60	4614.52	-102.09	396.32	-105.20	409.26	104.44	0.32	0.32	
26	4,830	8.60	106.20	4801.42	-109.79	423.35	-113.11	437.35	104.54	0.07	0.05	
27	5,018	8.40	107.20	4987.36	-117.77	449.96	-121.30	465.12	104.67	0.13	-0.11	
28	5,207	8.00	107.80	5174.43	-125.87	475.67	-129.60	492.04	104.82	0.22	-0.21	
29	5,394	7.00	106.80	5359.82	-133.14	498.97	-137.06	516.43	104.94	0.54	-0.53	
30	5,441	6.70	107.10	5406.49	-134.78	504.33	-138.73	522.03	104.96	0.64	-0.64	
31	5,580	6.20	107.90	5544.61	-139.47	519.23	-143.54	537.63	105.04	0.37	-0.36	
32	5,769	9.10	106.50	5731.91	-146.85	543.27	-151.11	562.77	105.13	1.54	1.53	
33	5,958	8.20	105.70	5918.75	-154.74	570.58	-159.22	591.19	105.17	0.48	-0.48	

Company:	Matador Production Co.		
Well Name:	Leslie Federal COM #202H		
Location:	Lea County, NM		
Rig:	Patterson #282	Magnetic Declination:	6.26
Job Number:	MSMO-62152		
API #:	30-025-44812		
Vertical Section Azimuth:	359.55	Proposed Direction:	359.55
Survey Calculation Method:	Minimum Curvature		

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS				
	17,606	88	3.2	12557.75	4890.76	969.63	4882.99				
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
34	6,146	8.00	104.70	6104.88	-161.69	596.14	-166.37	617.68	105.18	0.13	-0.11
35	6,335	6.90	103.90	6292.28	-167.76	619.88	-172.62	642.18	105.14	0.58	-0.58
36	6,522	8.50	110.70	6477.59	-175.34	643.72	-180.39	667.17	105.24	0.98	0.86
37	6,710	8.20	110.80	6663.60	-185.01	669.25	-190.26	694.35	105.45	0.16	-0.16
38	6,901	7.90	111.00	6852.72	-194.55	694.24	-200.00	720.98	105.66	0.16	-0.16
39	7,088	7.40	110.80	7038.05	-203.43	717.49	-209.06	745.77	105.83	0.27	-0.27
40	7,277	8.70	102.90	7225.19	-210.95	742.80	-216.78	772.18	105.85	0.90	0.69
41	7,465	7.70	102.70	7411.27	-216.89	768.95	-222.92	798.95	105.75	0.53	-0.53
42	7,653	7.10	107.40	7597.70	-223.14	792.33	-229.35	823.15	105.73	0.45	-0.32
43	7,841	7.60	96.70	7784.16	-228.06	815.76	-234.46	847.04	105.62	0.77	0.27
44	8,030	6.40	95.70	7971.75	-230.57	838.66	-237.14	869.77	105.37	0.64	-0.63
45	8,217	6.70	102.10	8157.53	-233.89	859.69	-240.63	890.94	105.22	0.42	0.16
46	8,406	6.90	100.00	8345.21	-238.17	881.65	-245.09	913.26	105.12	0.17	0.11
47	8,595	5.20	99.90	8533.15	-241.61	901.27	-248.68	933.10	105.01	0.90	-0.90
48	8,783	4.40	98.10	8720.48	-244.09	916.81	-251.29	948.74	104.91	0.43	-0.43
49	8,970	3.90	93.00	8906.99	-245.44	930.26	-252.74	962.09	104.78	0.33	-0.27
50	9,158	3.30	92.60	9094.62	-246.02	942.05	-253.41	973.64	104.64	0.32	-0.32
51	9,347	2.40	65.80	9283.40	-244.64	951.09	-252.10	982.05	104.43	0.84	-0.48
52	9,534	2.40	40.00	9470.24	-240.04	957.18	-247.55	986.82	104.08	0.57	0.00
53	9,722	0.70	162.50	9658.19	-238.12	960.06	-245.65	989.15	103.93	1.51	-0.90
54	9,911	1.30	171.80	9847.16	-241.34	960.71	-248.88	990.56	104.10	0.33	0.32
55	10,098	2.20	181.60	10034.07	-247.03	960.91	-254.57	992.16	104.42	0.51	0.48
56	10,287	0.70	194.80	10223.00	-251.77	960.52	-259.31	992.97	104.69	0.81	-0.79
57	10,476	1.20	254.00	10411.98	-253.43	958.32	-260.95	991.26	104.81	0.55	0.26
58	10,665	1.30	289.70	10600.94	-253.26	954.40	-260.74	987.43	104.86	0.41	0.05
59	10,853	0.60	268.10	10788.91	-252.57	951.41	-260.03	984.36	104.87	0.41	-0.37
60	11,041	0.10	235.00	10976.91	-252.70	950.29	-260.15	983.31	104.89	0.28	-0.27
61	11,230	0.30	138.40	11165.91	-253.16	950.48	-260.62	983.62	104.91	0.17	0.11
62	11,419	0.30	108.90	11354.90	-253.69	951.28	-261.15	984.53	104.93	0.08	0.00
63	11,607	0.40	342.90	11542.90	-253.22	951.55	-260.69	984.67	104.90	0.33	0.05
64	11,794	0.70	318.70	11729.89	-251.74	950.61	-259.20	983.37	104.83	0.20	0.16
65	11,982	0.50	317.00	11917.88	-250.28	949.29	-257.73	981.73	104.77	0.11	-0.11
66	12,090	0.20	334.70	12025.88	-249.76	948.89	-257.21	981.21	104.75	0.29	-0.28
67	12,177	3.50	15.40	12112.82	-247.07	949.53	-254.51	981.14	104.58	3.85	3.79

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Rig:	Patterson #282	Magnetic Declination:	6.26 REFERENCED TO GRID NORTH
Job Number:	MSMO-62152		
API #:	30-025-44812		
Vertical Section Azimuth:	359.55	Proposed Direction:	359.55
Survey Calculation Method:	Minimum Curvature		

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS				
	17,606	88	3.2	12557.75	4890.76	969.63	4882.99				
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
68	12,203	7.50	14.20	12138.70	-244.65	950.15	-252.11	981.15	104.44	15.39	15.38
69	12,271	13.40	7.10	12205.54	-232.52	952.22	-239.99	980.20	103.72	8.86	8.68
70	12,318	16.60	12.10	12250.94	-220.55	954.30	-228.04	979.45	103.01	7.34	6.81
71	12,365	22.90	9.20	12295.15	-204.94	957.17	-212.45	978.87	102.09	13.56	13.40
72	12,412	29.40	9.90	12337.32	-184.53	960.62	-192.07	978.18	100.87	13.85	13.83
73	12,460	33.00	7.80	12378.37	-159.96	964.42	-167.53	977.60	99.42	7.83	7.50
74	12,505	36.20	7.00	12415.41	-134.63	967.71	-142.22	977.02	97.92	7.18	7.11
75	12,553	42.30	3.30	12452.57	-104.40	970.37	-112.02	975.97	96.14	13.61	12.71
76	12,585	47.10	0.80	12475.31	-81.91	971.15	-89.54	974.60	94.82	15.97	15.00
77	12,647	55.20	359.90	12514.17	-33.67	971.42	-41.30	972.01	91.99	13.11	13.06
78	12,695	60.30	358.90	12539.77	6.91	970.99	-0.72	971.01	89.59	10.77	10.63
79	12,741	64.10	357.60	12561.22	47.57	969.74	39.95	970.90	87.19	8.63	8.26
80	12,788	66.50	357.60	12580.86	90.23	967.95	82.62	972.15	84.67	5.11	5.11
81	12,835	69.70	358.30	12598.39	133.80	966.39	126.21	975.61	82.12	6.95	6.81
82	12,883	71.10	359.10	12614.49	179.01	965.37	171.42	981.82	79.49	3.31	2.92
83	12,930	73.10	359.30	12628.94	223.73	964.74	216.14	990.35	76.94	4.27	4.26
84	12,994	77.90	1.50	12644.96	285.67	965.19	278.08	1006.58	73.51	8.20	7.50
85	13,025	82.50	1.30	12650.23	316.20	965.94	308.60	1016.37	71.87	14.85	14.84
86	13,057	84.60	0.60	12653.83	347.99	966.46	340.39	1027.20	70.20	6.91	6.56
87	13,088	89.20	0.10	12655.50	378.93	966.65	371.33	1038.27	68.59	14.93	14.84
88	13,182	90.80	1.70	12655.50	472.92	968.13	465.30	1077.46	63.97	2.41	1.70
89	13,276	94.00	2.70	12651.57	566.75	971.73	559.10	1124.93	59.75	3.57	3.40
90	13,371	94.90	1.30	12644.20	661.40	975.04	653.72	1178.20	55.85	1.75	0.95
91	13,465	90.00	355.80	12640.18	755.22	972.65	747.56	1231.43	52.17	7.83	-5.21
92	13,559	89.80	355.50	12640.34	848.95	965.52	841.34	1285.67	48.68	0.38	-0.21
93	13,654	92.30	356.50	12638.60	943.69	958.90	936.13	1345.38	45.46	2.83	2.63
94	13,748	92.80	356.20	12634.42	1037.41	952.92	1029.89	1408.64	42.57	0.62	0.53
95	13,842	93.50	356.10	12629.25	1131.06	946.62	1123.59	1474.92	39.93	0.75	0.74
96	13,936	93.80	357.00	12623.27	1224.69	940.97	1217.27	1544.44	37.54	1.01	0.32
97	14,030	92.50	358.20	12618.10	1318.47	937.04	1311.07	1617.53	35.40	1.88	-1.38
98	14,124	91.10	359.80	12615.15	1412.40	935.40	1405.01	1694.06	33.52	2.26	-1.49
99	14,218	92.60	0.10	12612.11	1506.35	935.32	1498.96	1773.11	31.84	1.63	1.60
100	14,313	93.10	359.40	12607.39	1601.23	934.91	1593.84	1854.18	30.28	0.90	0.53
101	14,407	88.90	2.40	12605.75	1695.17	936.39	1687.76	1936.60	28.92	5.49	-4.47

005.04.02

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PTB:	MD		INC		AZM	TVD	N/S	E/W		VS	
	17,606		88		3.2	12557.75	4890.76	969.63		4882.99	
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance Azm		DLS/ 100	BUR/ 100'
102	14,501	88.30	3.00	12608.05	1789.04	940.81	1781.59	2021.33	27.74	0.90	-0.64
103	14,595	87.00	1.30	12611.90	1882.89	944.34	1875.41	2106.43	26.64	2.28	-1.38
104	14,689	87.40	0.90	12616.49	1976.76	946.14	1969.27	2191.52	25.58	0.60	0.43
105	14,784	88.20	0.80	12620.14	2071.68	947.55	2064.17	2278.09	24.58	0.85	0.84
106	14,878	91.80	0.20	12620.14	2165.66	948.37	2158.14	2364.21	23.65	3.88	3.83
107	14,972	91.70	358.60	12617.27	2259.60	947.38	2252.09	2450.17	22.75	1.70	-0.11
108	15,066	92.90	357.70	12613.50	2353.48	944.35	2345.99	2535.87	21.86	1.60	1.28
109	15,161	91.00	359.10	12610.26	2448.38	941.70	2440.91	2623.23	21.04	2.48	-2.00
110	15,255	92.70	359.70	12607.23	2542.32	940.72	2534.85	2710.78	20.31	1.92	1.81
111	15,349	92.70	0.90	12602.80	2636.21	941.21	2628.74	2799.20	19.65	1.28	0.00
112	15,444	92.30	1.80	12598.66	2731.10	943.45	2723.60	2889.46	19.06	1.04	-0.42
113	15,538	91.30	0.80	12595.71	2825.02	945.58	2817.51	2979.07	18.51	1.50	-1.06
114	15,632	91.90	0.60	12593.08	2918.98	946.72	2911.45	3068.67	17.97	0.67	0.64
115	15,726	92.30	0.90	12589.64	3012.91	947.95	3005.37	3158.52	17.47	0.53	0.43
116	15,820	92.90	0.10	12585.37	3106.81	948.77	3099.26	3248.45	16.98	1.06	0.64
117	15,914	89.20	359.30	12583.65	3200.77	948.28	3193.22	3338.29	16.50	4.03	-3.94
118	16,009	88.50	359.40	12585.56	3295.75	947.20	3288.20	3429.16	16.03	0.74	-0.74
119	16,103	89.00	357.50	12587.61	3389.68	944.66	3382.16	3518.86	15.57	2.09	0.53
120	16,197	91.80	0.20	12586.95	3483.64	942.77	3476.13	3608.96	15.14	4.14	2.98
121	16,291	92.40	0.30	12583.51	3577.58	943.18	3570.06	3699.82	14.77	0.65	0.64
122	16,385	93.20	359.40	12578.91	3671.47	942.94	3663.95	3790.62	14.40	1.28	0.85
123	16,480	93.10	358.70	12573.69	3766.31	941.37	3758.80	3882.17	14.03	0.74	-0.11
124	16,574	93.30	358.10	12568.45	3860.12	938.75	3852.63	3972.63	13.67	0.67	0.21
125	16,668	93.00	0.10	12563.28	3953.97	937.27	3946.48	4063.54	13.34	2.15	-0.32
126	16,762	91.20	1.50	12559.84	4047.89	938.58	4040.39	4155.28	13.05	2.43	-1.91
127	16,856	91.90	1.80	12557.29	4141.81	941.29	4134.29	4247.43	12.80	0.81	0.74
128	16,951	92.10	2.40	12553.98	4236.69	944.77	4229.14	4340.75	12.57	0.67	0.21
129	17,045	94.60	2.70	12548.49	4330.43	948.94	4322.84	4433.18	12.36	2.68	2.66
130	17,139	88.60	1.60	12545.86	4424.28	952.47	4416.67	4525.65	12.15	6.49	-6.38
131	17,233	89.30	2.30	12547.58	4518.21	955.66	4510.57	4618.17	11.94	1.05	0.74
132	17,328	89.60	2.10	12548.50	4613.14	959.31	4605.46	4711.83	11.75	0.38	0.32
133	17,422	88.00	1.90	12550.47	4707.06	962.59	4699.35	4804.47	11.56	1.72	-1.70
134	17,516	87.20	1.20	12554.40	4800.94	965.13	4793.21	4896.99	11.37	1.13	-0.85
135	17,546	88.00	3.20	12555.66	4830.89	966.28	4823.15	4926.58	11.31	7.17	2.67

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V09.04.02

Company:	Matador Production Co.
Well Name:	Leslie Federal COM #202H
Location:	Lea County, NM
Rig:	Patterson #282
Job Number:	MSMO-62152
API #:	30-025-44812

Magnetic Declination: 6.26 REFERENCED TO GRID NORTH ▼

Vertical Section Azimuth: 359.55 Proposed Direction: 359.55

Survey Calculation Method: Minimum Curvature

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS				
	17,606	88	3.2	12557.75	4890.76	969.63	4882.99				
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
PTB:	17.606	88.00	3.20	12557.75	4890.76	969.63	4882.99	4985.95	11.21	0.00	0.00