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MS Directional Survey Data Certification

MS Directional Job Number: DDMO-180749
Survey Type: MWD
Operating Company: Matador Production Company
Well Name & Number: Leslie FED COM 217H
Location: Lea County, NM
API Number: ~~30-025-44547~~
Tie In Depth: Surface
Surveyed Depths: 141' – 17,148' MD
Projected TD Survey: 17,205' MD
Dates Performed: 08/01/2018 – 08/26/2018

HOBBS OCD
JAN 14 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: 09-10-2018
Email: nleblanc@msdir.com

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V09.04.02

Company:	Matador Production Company		
Well Name:	Leslie FED COM 217H		
Location:	Lea County, NM		
Rig:	Patterson #282	Magnetic Declination:	6.31 REFERENCED TO GRID NORTH
Job Number:	DDMO-180749		
API #:	30-025-44547		

Vertical Section Azimuth:	359.49	Proposed Direction:	359.49
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Survey Calculation Method:	Minimum Curvature
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PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	17,205	89.5	356.9	12382.39	4748.87	-63.08	4749.25

#	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	141	0.60	10.50	141.00	0.73	0.13	0.72	0.74	10.50	0.43	0.43
2	322	1.20	299.80	321.98	2.60	-1.34	2.61	2.92	332.78	0.64	0.33
3	474	1.20	302.10	473.95	4.24	-4.07	4.27	5.87	316.17	0.03	0.00
4	566	2.00	268.30	565.91	4.70	-6.49	4.76	8.01	305.93	1.31	0.87
5	658	1.90	235.60	657.86	3.79	-9.35	3.87	10.09	292.07	1.20	-0.11
6	748	2.10	221.70	747.81	1.72	-11.68	1.82	11.80	278.37	0.58	0.22
7	839	2.50	198.90	838.73	-1.41	-13.43	-1.29	13.50	264.03	1.09	0.44
8	931	3.30	183.50	930.62	-5.95	-14.24	-5.82	15.43	247.34	1.21	0.87
9	1,031	3.40	180.80	1030.45	-11.78	-14.46	-11.66	18.65	230.82	0.19	0.10
10	1,219	5.30	181.30	1217.90	-26.04	-14.73	-25.91	29.92	209.50	1.01	1.01
11	1,408	4.60	178.50	1406.19	-42.34	-14.73	-42.21	44.83	199.19	0.39	-0.37
12	1,596	4.70	177.30	1593.57	-57.57	-14.17	-57.45	59.29	193.83	0.07	0.05
13	1,784	4.20	178.70	1781.00	-72.15	-13.66	-72.03	73.43	190.72	0.27	-0.27
14	1,973	5.70	175.40	1969.29	-88.43	-12.75	-88.31	89.34	188.20	0.81	0.79
15	2,161	5.60	175.00	2156.38	-106.87	-11.20	-106.77	107.45	185.98	0.06	-0.05
16	2,350	5.20	180.20	2344.54	-124.62	-10.42	-124.52	125.06	184.78	0.33	-0.21
17	2,538	4.90	180.20	2531.81	-141.17	-10.48	-141.07	141.56	184.25	0.16	-0.16
18	2,726	4.50	183.10	2719.18	-156.56	-10.91	-156.46	156.94	183.99	0.25	-0.21
19	2,914	4.10	181.60	2906.65	-170.65	-11.49	-170.54	171.03	183.85	0.22	-0.21
20	3,105	4.70	177.40	3097.09	-185.29	-11.33	-185.18	185.63	183.50	0.36	0.31
21	3,293	4.70	183.20	3284.46	-200.67	-11.41	-200.56	201.00	183.25	0.25	0.00
22	3,482	3.90	183.40	3472.92	-214.82	-12.22	-214.70	215.17	183.26	0.42	-0.42
23	3,671	3.10	188.10	3661.57	-226.30	-13.33	-226.17	226.69	183.37	0.45	-0.42
24	3,860	2.30	212.90	3850.36	-234.54	-16.11	-234.39	235.09	183.93	0.74	-0.42
25	4,050	1.70	190.20	4040.25	-240.52	-18.68	-240.34	241.24	184.44	0.52	-0.32
26	4,238	1.30	178.20	4228.19	-245.39	-19.10	-245.21	246.13	184.45	0.27	-0.21
27	4,425	1.00	154.20	4415.15	-248.98	-18.33	-248.81	249.65	184.21	0.30	-0.16
28	4,614	1.10	125.70	4604.12	-251.52	-16.13	-251.37	252.04	183.67	0.28	0.05
29	4,802	1.30	111.40	4792.08	-253.36	-12.68	-253.23	253.67	182.87	0.19	0.11
30	4,991	1.80	121.30	4981.01	-255.68	-8.15	-255.60	255.81	181.83	0.30	0.26
31	5,181	1.10	112.20	5170.95	-257.92	-3.91	-257.87	257.95	180.87	0.39	-0.37
32	5,370	0.90	112.40	5359.92	-259.17	-0.86	-259.15	259.17	180.19	0.11	-0.11
33	5,478	0.80	114.70	5467.91	-259.81	0.61	-259.80	259.81	179.87	0.10	-0.09

Company:		Matador Production Company												
Well Name:		Leslie FED COM 217H												
Location:		Lea County, NM												
Rig:		Patterson #282					Magnetic Declination:		6.31		REFERENCED TO GRID NORTH ▼			
Job Number:		DDMO-180749												
API #:		30-025-44547												
Vertical Section Azimuth:					359.49			Proposed Direction:		359.49				
Survey Calculation Method:					Minimum Curvature									
PTB:	MD		INC		AZM		TVD		N/S		E/W		VS	
	17,205		89.5		356.9		12382.39		4748.87		-63.08		4749.25	
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure		DLS/ 100	BUR/ 100'			
34	5,656	0.70	110.50	5645.89	-260.71	2.76	-260.72	260.72	179.39	0.06	-0.06			
35	5,843	1.40	333.80	5832.87	-259.06	2.82	-259.07	259.07	179.38	1.05	0.37			
36	6,031	1.40	339.50	6020.82	-254.85	1.00	-254.85	254.85	179.78	0.07	0.00			
37	6,220	1.40	335.10	6209.76	-250.59	-0.78	-250.57	250.59	180.18	0.06	0.00			
38	6,410	1.50	334.00	6399.70	-246.25	-2.85	-246.21	246.27	180.66	0.05	0.05			
39	6,600	1.50	345.80	6589.64	-241.60	-4.55	-241.55	241.65	181.08	0.16	0.00			
40	6,789	1.40	289.10	6778.59	-238.45	-7.34	-238.38	238.56	181.76	0.73	-0.05			
41	6,978	1.40	241.70	6967.53	-238.79	-11.55	-238.68	239.07	182.77	0.60	0.00			
42	7,167	1.10	236.60	7156.49	-240.88	-15.10	-240.74	241.36	183.59	0.17	-0.16			
43	7,356	1.20	208.60	7345.45	-243.62	-17.56	-243.45	244.25	184.12	0.30	0.05			
44	7,544	1.00	197.50	7533.42	-246.91	-19.00	-246.73	247.64	184.40	0.15	-0.11			
45	7,733	1.20	202.20	7722.38	-250.32	-20.24	-250.13	251.13	184.62	0.12	0.11			
46	7,921	0.60	189.10	7910.36	-253.11	-21.14	-252.91	253.99	184.77	0.34	-0.32			
47	8,110	0.90	185.00	8099.34	-255.57	-21.43	-255.37	256.46	184.79	0.16	0.16			
48	8,298	0.80	174.00	8287.32	-258.34	-21.42	-258.14	259.23	184.74	0.10	-0.05			
49	8,486	0.70	139.10	8475.31	-260.52	-20.53	-260.32	261.32	184.51	0.24	-0.05			
50	8,675	0.90	75.80	8664.29	-261.03	-18.33	-260.85	261.67	184.02	0.45	0.11			
51	8,864	0.90	79.10	8853.27	-260.38	-15.44	-260.23	260.84	183.39	0.03	0.00			
52	9,052	0.90	44.60	9041.25	-259.05	-12.95	-258.92	259.37	182.86	0.28	0.00			
53	9,242	1.50	3.50	9231.21	-255.51	-11.75	-255.39	255.78	182.63	0.53	0.32			
54	9,430	2.20	350.20	9419.11	-249.49	-12.22	-249.37	249.79	182.80	0.43	0.37			
55	9,618	1.10	335.50	9607.03	-244.30	-13.58	-244.16	244.67	183.18	0.62	-0.59			
56	9,807	1.40	314.50	9795.99	-241.03	-15.98	-240.87	241.56	183.79	0.29	0.16			
57	9,995	1.40	191.90	9983.96	-241.66	-18.09	-241.49	242.34	184.28	1.31	0.00			
58	10,184	1.70	229.10	10172.89	-245.76	-20.68	-245.56	246.63	184.81	0.54	0.16			
59	10,373	0.80	131.90	10361.86	-248.48	-21.82	-248.27	249.43	185.02	1.04	-0.48			
60	10,562	0.80	88.80	10550.84	-249.33	-19.52	-249.15	250.09	184.48	0.31	0.00			
61	10,752	0.80	20.70	10740.83	-248.06	-17.73	-247.89	248.69	184.09	0.47	0.00			
62	10,940	0.60	357.40	10928.82	-245.85	-17.31	-245.69	246.46	184.03	0.18	-0.11			
63	11,128	1.10	310.90	11116.80	-243.68	-18.71	-243.51	244.40	184.39	0.43	0.27			
64	11,316	1.50	274.60	11304.75	-242.31	-22.53	-242.10	243.35	185.31	0.48	0.21			
65	11,504	2.00	204.30	11492.68	-245.10	-26.33	-244.85	246.51	186.13	1.09	0.27			
66	11,599	1.50	174.80	11587.64	-247.85	-26.90	-247.60	249.30	186.20	1.07	-0.53			
67	11,694	1.70	173.70	11682.60	-250.49	-26.64	-250.24	251.90	186.07	0.21	0.21			

V09.04.02

Company:	Matador Production Company
Well Name:	Leslie FED COM 217H
Location:	Lea County, NM
Rig:	Patterson #282
Job Number:	DDMO-180749
API #:	30-025-44547

Magnetic Declination: 6.31 REFERENCED TO GRID NORTH ▼

Vertical Section Azimuth: 359.49 Proposed Direction: 359.49

Survey Calculation Method: Minimum Curvature

PTB:	MD		INC		AZM		TVD		N/S		E/W		VS	
	17,205		89.5		356.9		12382.39		4748.87		-63.08		4749.25	
#	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	11,782	1.80	175.60	11770.56	-253.16	-26.39	-252.92	254.53	185.95	0.13	0.11			
69	11,823	1.90	177.60	11811.54	-254.48	-26.31	-254.24	255.84	185.90	0.29	0.24			
70	11,917	3.90	0.20	11905.48	-252.84	-26.23	-252.60	254.20	185.92	6.17	2.13			
71	11,964	11.00	2.40	11952.06	-246.76	-26.04	-246.51	248.13	186.02	15.12	15.11			
72	12,011	16.00	7.30	11997.75	-235.84	-25.03	-235.61	237.17	186.06	10.90	10.64			
73	12,058	20.30	7.50	12042.40	-221.33	-23.14	-221.11	222.53	185.97	9.15	9.15			
74	12,105	25.70	4.20	12085.65	-203.07	-21.33	-202.87	204.18	186.00	11.81	11.49			
75	12,152	30.00	359.80	12127.20	-181.14	-20.62	-180.95	182.31	186.49	10.13	9.15			
76	12,199	33.70	1.40	12167.12	-156.35	-20.34	-156.16	157.67	187.41	8.07	7.87			
77	12,246	37.60	3.90	12205.30	-129.00	-19.05	-128.82	130.39	188.40	8.86	8.30			
78	12,293	43.40	3.30	12241.03	-98.54	-17.14	-98.39	100.02	189.87	12.37	12.34			
79	12,340	48.20	1.80	12273.78	-64.89	-15.66	-64.75	66.76	193.57	10.47	10.21			
80	12,387	52.60	1.40	12303.74	-28.70	-14.66	-28.57	32.23	207.05	9.38	9.36			
81	12,434	56.60	1.20	12330.96	9.59	-13.79	9.71	16.80	304.82	8.52	8.51			
82	12,481	61.30	0.40	12355.19	49.84	-13.23	49.96	51.57	345.13	10.11	10.00			
83	12,528	64.40	0.20	12376.64	91.66	-13.02	91.77	92.58	351.92	6.61	6.60			
84	12,575	67.90	0.90	12395.64	134.63	-12.60	134.74	135.22	354.65	7.57	7.45			
85	12,622	71.40	1.40	12411.98	178.68	-11.71	178.78	179.07	356.25	7.51	7.45			
86	12,655	75.00	1.80	12421.52	210.26	-10.83	210.35	210.54	357.05	10.97	10.91			
87	12,716	80.90	1.20	12434.25	269.87	-9.27	269.94	270.03	358.03	9.72	9.67			
88	12,763	86.20	2.40	12439.52	316.53	-7.80	316.59	316.63	358.59	11.56	11.28			
89	12,857	89.40	359.60	12443.13	410.42	-6.17	410.46	410.47	359.14	4.52	3.40			
90	12,952	89.20	359.60	12444.29	505.41	-6.83	505.46	505.46	359.23	0.21	-0.21			
91	13,046	93.10	359.40	12442.41	599.37	-7.65	599.42	599.42	359.27	4.15	4.15			
92	13,140	91.30	359.00	12438.80	693.29	-8.96	693.34	693.35	359.26	1.96	-1.91			
93	13,235	90.40	358.20	12437.39	788.25	-11.28	788.32	788.33	359.18	1.27	-0.95			
94	13,329	91.60	355.90	12435.75	882.10	-16.12	882.21	882.25	358.95	2.76	1.28			
95	13,423	89.80	354.60	12434.60	975.77	-23.90	975.94	976.06	358.60	2.36	-1.91			
96	13,517	93.90	356.80	12431.57	1069.43	-30.95	1069.66	1069.88	358.34	4.95	4.36			
97	13,612	88.60	355.80	12429.49	1164.17	-37.07	1164.46	1164.76	358.18	5.68	-5.58			
98	13,706	89.60	355.50	12430.97	1257.89	-44.20	1258.23	1258.67	357.99	1.11	1.06			
99	13,800	86.70	355.10	12434.00	1351.51	-51.90	1351.92	1352.51	357.80	3.11	-3.09			
100	13,894	89.30	357.40	12437.29	1445.24	-58.04	1445.70	1446.41	357.70	3.69	2.77			



SURVEY CALCULATION PROGRAM

9/9/18 17:24

V09.04.02

Company:	Matador Production Company								
Well Name:	Leslie FED COM 217H								
Location:	Lea County, NM								
Rig:	Patterson #282					Magnetic Declination:	6.31	REFERENCED TO GRID NORTH ▼	
Job Number:	DDMO-180749								
API #:	30-025-44547								
Vertical Section Azimuth:	359.49					Proposed Direction:	359.49		

Survey Calculation Method:		Minimum Curvature									
PTB:	MD	INC	AZM	TVD	N/S	E/W	VS				
	17,205	89.5	356.9	12382.39	4748.87	-63.08	4749.25				
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure		DLS/ 100	BUR/ 100'
								Distance	Azm		
101	13,989	91.30	358.70	12436.79	1540.18	-61.27	1540.66	1541.40	357.72	2.51	2.11
102	14,084	89.10	356.70	12436.46	1635.09	-65.09	1635.61	1636.39	357.72	3.13	-2.32
103	14,178	90.60	357.10	12436.70	1728.95	-70.17	1729.51	1730.37	357.68	1.65	1.60
104	14,273	90.80	358.80	12435.54	1823.88	-73.57	1824.46	1825.36	357.69	1.80	0.21
105	14,367	87.90	357.60	12436.61	1917.81	-76.52	1918.42	1919.34	357.72	3.34	-3.09
106	14,461	88.90	357.50	12439.23	2011.69	-80.54	2012.33	2013.30	357.71	1.07	1.06
107	14,555	84.30	358.80	12444.81	2105.45	-83.57	2106.11	2107.11	357.73	5.08	-4.89
108	14,649	93.00	359.80	12447.02	2199.33	-84.71	2199.99	2200.96	357.79	9.32	9.26
109	14,743	92.70	357.50	12442.34	2293.18	-86.92	2293.86	2294.82	357.83	2.46	-0.32
110	14,838	98.50	2.70	12433.07	2387.65	-86.78	2388.33	2389.23	357.92	8.18	6.11
111	14,932	97.00	1.90	12420.40	2480.71	-83.04	2481.35	2482.10	358.08	1.80	-1.60
112	15,027	96.60	2.70	12409.15	2574.97	-79.26	2575.57	2576.19	358.24	0.94	-0.42
113	15,121	95.40	4.90	12399.32	2668.24	-73.06	2668.78	2669.24	358.43	2.65	-1.28
114	15,215	91.00	6.00	12394.07	2761.64	-64.15	2762.11	2762.39	358.67	4.82	-4.68
115	15,310	89.10	1.70	12393.99	2856.40	-57.77	2856.80	2856.99	358.84	4.95	-2.00
116	15,404	91.60	3.10	12393.42	2950.31	-53.84	2950.67	2950.80	358.95	3.05	2.66
117	15,499	88.50	2.50	12393.33	3045.18	-49.19	3045.50	3045.58	359.07	3.32	-3.26
118	15,593	89.70	4.30	12394.81	3139.00	-43.62	3139.26	3139.30	359.20	2.30	1.28
119	15,687	90.10	4.30	12394.97	3232.74	-36.57	3232.93	3232.94	359.35	0.43	0.43
120	15,804	89.80	2.60	12395.08	3349.52	-29.53	3349.65	3349.65	359.49	1.48	-0.26
121	15,898	89.80	3.80	12395.40	3443.37	-24.29	3443.45	3443.46	359.60	1.28	0.00
122	15,992	90.10	0.20	12395.49	3537.30	-21.01	3537.34	3537.36	359.66	3.84	0.32
123	16,087	88.80	358.90	12396.40	3632.29	-21.75	3632.34	3632.35	359.66	1.94	-1.37
124	16,181	86.90	358.30	12399.93	3726.19	-24.05	3726.25	3726.26	359.63	2.12	-2.02
125	16,275	90.80	357.50	12401.81	3820.09	-27.49	3820.18	3820.18	359.59	4.24	4.15
126	16,370	92.70	358.10	12398.91	3914.97	-31.13	3915.09	3915.09	359.54	2.10	2.00
127	16,464	93.40	357.80	12393.91	4008.77	-34.49	4008.92	4008.92	359.51	0.81	0.74
128	16,559	92.20	357.40	12389.27	4103.57	-38.47	4103.75	4103.75	359.46	1.33	-1.26
129	16,653	91.30	356.30	12386.40	4197.39	-43.63	4197.61	4197.61	359.40	1.51	-0.96
130	16,748	90.70	356.50	12384.74	4292.18	-49.59	4292.46	4292.47	359.34	0.67	-0.63
131	16,842	92.00	359.50	12382.52	4386.09	-52.87	4386.38	4386.41	359.31	3.48	1.38
132	16,936	89.60	358.30	12381.21	4480.05	-54.68	4480.36	4480.39	359.30	2.85	-2.55
133	17,031	90.10	359.80	12381.46	4575.04	-56.25	4575.36	4575.38	359.30	1.66	0.53

Company:		Matador Production Company												
Well Name:		Leslie FED COM 217H												
Location:		Lea County, NM												
Rig:		Patterson #282					Magnetic Declination:		6.31		REFERENCED TO GRID NORTH ▼			
Job Number:		DDMO-180749												
API #:		30-025-44547												
Vertical Section Azimuth:				359.49		Proposed Direction:		359.49						
Survey Calculation Method:				Minimum Curvature										
PTB:	MD		INC		AZM		TVD		N/S		E/W		VS	
	17,205		89.5		356.9		12382.39		4748.87		-63.08		4749.25	
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance Azm		DLS/ 100	BUR/ 100'			
134	17,125	89.60	357.10	12381.71	4668.99	-58.79	4669.33	4669.36	359.28	2.92	-0.53			
135	17,148	89.50	356.90	12381.89	4691.96	-60.00	4692.31	4692.34	359.27	0.97	-0.43			
PTB:	17,205	89.50	356.90	12382.39	4748.87	-63.08	4749.25	4749.29	359.24	0.00	0.00			