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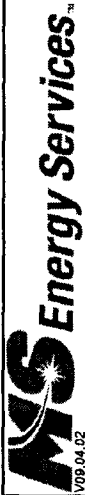
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MS Energy Services Survey Data Certification

MS Energy Job Number: DDMO-171174
Survey Type: MWD
Operating Company: Matador Production Company
Well Name & Number: Michael Collins 11 23S 27E RB 203H
Location: Eddy County, NM
API Number: 30-015-44443
Tie In Depth: Surface
Surveyed Depths: 155' – 13,938' MD
Projected TD Survey: 14,044' MD
Dates Performed: 11/24/2017 – 12/11/2017

I certify that the data is true, correct and complete and within the limitations of the tool set forth by MS Energy Services; 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 Energy Services.

Digitally signed by: Christopher Morasch
MWD Surveyor Name: Chris Morasch
Date: 01-16-2018
Email: cmorasch@msenergyservices.com



SURVEY CALCULATION PROGRAM

1/16/18 15:03

Company:	Matador Production Company
Well Name:	Michael Collins 11 23S 27E RB 203H
Location:	Eddy County, NM
Rig:	Patterson #297
Job Number:	DDMO-171174
API #:	30-015-44443

REFERENCED TO GRID NORTH

Magnetic Declination: 7.16

Proposed Direction: 265.11

Vertical Section Azimuth: 265.11

Survey Calculation Method: Minimum Curvature

#	Depth Feet	Inc		Azim		TVD		N/S		E/W		Surface		Closure		DLS/		BUR/	
		MD	Degrees	Degrees	Degrees	Feet	Feet	Feet	Feet	Feet	Feet	Vert Sec	Vert Sec	Distance	Azm	100	100'	100'	100'
TIE IN	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.68	177.80	0.32	0.32	0.32	0.32
1	155	0.50	177.80	177.80	155.00	155.00	-0.68	0.03	-0.10	0.03	0.16	0.16	0.16	0.71	187.82	1.26	1.26	0.00	0.00
2	233	0.50	336.50	336.50	233.00	233.00	-0.70	-0.10	-0.27	-0.27	0.23	0.23	0.23	0.48	325.71	0.23	0.23	0.08	0.08
3	352	0.60	3.20	3.20	351.99	351.99	0.39	-0.27	-0.17	-0.17	-0.05	-0.05	-0.05	2.58	356.19	0.26	0.26	0.26	0.26
4	508	1.00	2.20	2.20	507.98	507.98	2.57	0.33	0.33	0.33	-0.78	-0.78	-0.78	5.36	3.51	0.19	0.19	-0.11	-0.11
5	690	0.80	20.20	20.20	689.95	689.95	5.66	2.45	2.45	2.45	-2.92	-2.92	-2.92	6.17	23.37	0.84	0.84	0.22	0.22
6	871	1.20	117.50	117.50	870.94	870.94	0.80	8.53	8.53	8.53	-8.56	-8.56	-8.56	8.56	84.61	1.31	1.31	1.28	1.28
7	1,058	3.60	132.30	132.30	1057.76	1057.76	-6.40	17.23	17.23	17.23	-16.62	-16.62	-16.62	18.38	110.38	0.24	0.24	-0.16	-0.16
8	1,246	3.30	126.70	126.70	1245.42	1245.42	-13.58	28.11	28.11	28.11	-26.85	-26.85	-26.85	31.21	115.78	0.78	0.78	0.75	0.75
9	1,433	4.70	121.10	121.10	1431.96	1431.96	-21.68	41.49	41.49	41.49	-39.49	-39.49	-39.49	46.81	117.59	0.11	0.11	0.11	0.11
10	1,620	4.90	121.30	121.30	1618.30	1618.30	-29.20	54.09	54.09	54.09	-51.40	-51.40	-51.40	61.47	118.37	0.43	0.43	-0.43	-0.43
11	1,807	4.10	120.30	120.30	1804.73	1804.73	-36.82	65.94	65.94	65.94	-73.18	-73.18	-73.18	75.52	119.18	0.28	0.28	0.21	0.21
12	1,995	4.50	124.90	124.90	1992.20	1992.20	-44.26	77.23	77.23	77.23	-80.70	-80.70	-80.70	89.02	119.82	0.40	0.40	-0.37	-0.37
13	2,182	3.80	121.60	121.60	2178.71	2178.71	-49.16	85.20	85.20	85.20	-84.63	-84.63	-84.63	98.37	119.99	0.67	0.67	-0.67	-0.67
14	2,347	2.70	121.60	121.60	2343.44	2343.44	-51.26	89.32	89.32	89.32	-88.20	-88.20	-88.20	102.99	119.85	0.96	0.96	-0.89	-0.89
15	2,471	1.60	109.20	109.20	2467.35	2467.35	-54.13	93.15	93.15	93.15	-93.20	-93.20	-93.20	107.74	120.16	3.24	3.24	3.01	3.01
16	2,564	4.40	133.20	133.20	2560.22	2560.22	-61.28	98.79	98.79	98.79	-98.68	-98.68	-98.68	116.25	121.81	2.92	2.92	2.55	2.55
17	2,658	6.80	147.30	147.30	2653.76	2653.76	-72.38	105.23	105.23	105.23	-104.35	-104.35	-104.35	127.72	124.52	2.33	2.33	2.23	2.23
18	2,752	8.90	151.80	151.80	2746.88	2746.88	-85.24	112.02	112.02	112.02	-109.92	-109.92	-109.92	140.77	127.27	0.25	0.25	0.22	0.22
19	2,845	9.10	152.50	152.50	2838.73	2838.73	-98.06	118.71	118.71	118.71	-116.77	-116.77	-116.77	153.98	129.56	0.53	0.53	-0.53	-0.53
20	2,939	8.60	152.40	152.40	2931.61	2931.61	-110.20	126.62	126.62	126.62	-124.81	-124.81	-124.81	167.86	131.03	1.96	1.96	0.86	0.86
21	3,032	9.40	141.90	141.90	3023.48	3023.48	-121.40	135.66	135.66	135.66	-132.25	-132.25	-132.25	182.04	131.82	1.11	1.11	-1.08	-1.08
22	3,125	8.40	140.20	140.20	3115.35	3115.35	-131.38	143.98	143.98	143.98	-139.11	-139.11	-139.11	194.91	132.38	0.96	0.96	-0.96	-0.96
23	3,219	7.50	146.70	146.70	3208.45	3208.45	-141.97	151.76	151.76	151.76	-145.36	-145.36	-145.36	207.82	133.09	1.52	1.52	1.17	1.17
24	3,313	8.60	148.80	148.80	3301.52	3301.52	-153.46	159.02	159.02	159.02	-150.98	-150.98	-150.98	220.99	133.98	0.54	0.54	-0.43	-0.43
25	3,406	8.20	148.80	148.80	3393.53	3393.53	-164.30	165.58	165.58	165.58	-155.98	-155.98	-155.98	233.26	134.78	0.96	0.96	-0.96	-0.96
26	3,500	7.30	148.80	148.80	3486.67	3486.67	-174.50	171.48	171.48	171.48	-161.69	-161.69	-161.69	244.65	135.50	0.38	0.38	-0.21	-0.21
27	3,594	7.10	151.20	151.20	3579.93	3579.93	-185.11	178.12	178.12	178.12	-168.31	-168.31	-168.31	256.89	136.10	1.64	1.64	1.40	1.40
28	3,687	8.40	145.20	145.20	3672.08	3672.08	-196.26	185.72	185.72	185.72	-174.61	-174.61	-174.61	270.20	136.58	0.36	0.36	-0.32	-0.32
29	3,781	8.10	146.30	146.30	3765.10	3765.10	-206.80	192.94	192.94	192.94	-180.81	-180.81	-180.81	282.83	136.99	0.48	0.48	-0.43	-0.43
30	3,874	7.70	144.80	144.80	3857.22	3857.22	-217.01	200.04	200.04	200.04	-188.25	-188.25	-188.25	295.14	137.33	0.24	0.24	-0.21	-0.21
31	3,968	7.50	145.60	145.60	3950.39	3950.39	-227.95	208.44	208.44	208.44	-196.57	-196.57	-196.57	308.89	137.56	2.20	2.20	2.02	2.02
32	4,062	9.40	140.00	140.00	4043.37	4043.37	-239.23	217.76	217.76	217.76				323.50	137.69	0.77	0.77	-0.75	-0.75
33	4,155	8.70	140.90	140.90	4135.21	4135.21													



SURVEY CALCULATION PROGRAM

1/16/18 15:03

Company:	Matador Production Company
Well Name:	Michael Collins 11 23S 27E RB 203H
Location:	Eddy County, NM
Rig:	Patterson #297
Job Number:	DDMO-171174
API #:	30-015-44443

Magnetic Declination: 7.16

REFERENCED TO GRID NORTH

Vertical Section Azimuth:	266.11
Proposed Direction:	265.11

Survey Calculation Method: Minimum Curvature

#	Depth			Inc		Azim		TVD		N/S		E/W		Surface		Closure		DLS/		VS
	Feet	Degrees	Feet	MD	14,044	Degrees	Feet	INC	91.6	Feet	268.4	Feet	9116.94	Vert Sec	N/S	Distance	Azm	100	100'	
34	4,249	7.60	4228.26			140.50	4228.26			-249.54		226.19	-204.10			336.80	137.81	1.17	-1.17	
35	4,343	7.60	4321.44			147.60	4321.44			-259.59		233.48	-210.50			349.14	138.03	1.00	0.00	
36	4,436	8.60	4413.51			149.60	4413.51			-270.78		240.29	-216.34			362.03	138.41	1.12	1.08	
37	4,530	9.50	4506.34			145.20	4506.34			-283.21		248.28	-223.23			376.63	138.76	1.21	0.96	
38	4,623	8.20	4598.23			146.80	4598.23			-295.06		256.29	-230.20			390.83	139.02	1.42	-1.40	
39	4,717	9.40	4691.13			138.70	4691.13			-306.44		265.03	-237.94			405.15	139.15	1.83	1.28	
40	4,810	8.50	4782.99			140.20	4782.99			-317.43		274.44	-246.38			419.62	139.15	1.00	-0.97	
41	4,904	6.60	4876.17			142.30	4876.17			-327.04		282.19	-253.29			431.96	139.21	2.04	-2.02	
42	4,998	8.00	4969.41			142.30	4969.41			-336.49		289.49	-259.76			443.88	139.29	1.49	1.49	
43	5,091	8.60	5061.44			138.60	5061.44			-346.83		298.05	-267.40			457.30	139.33	0.86	0.65	
44	5,185	7.20	5154.54			139.60	5154.54			-356.59		306.52	-275.00			470.22	139.32	1.50	-1.49	
45	5,278	6.50	5246.88			141.00	5246.88			-365.11		313.61	-281.34			481.31	139.34	0.77	-0.75	
46	5,372	5.50	5340.36			143.00	5340.36			-372.85		319.67	-286.72			491.12	139.39	1.09	-1.06	
47	5,466	5.10	5433.96			145.20	5433.96			-379.88		324.76	-291.20			499.78	139.47	0.48	-0.43	
48	5,559	3.30	5526.71			130.00	5526.71			-384.99		329.17	-295.16			506.53	139.47	2.26	-1.94	
49	5,653	3.20	5620.56			137.40	5620.56			-388.66		333.02	-298.68			511.82	139.41	0.46	-0.11	
50	5,746	1.60	5713.48			93.10	5713.48			-390.64		336.07	-301.55			515.31	139.29	2.51	-1.72	
51	5,840	1.40	5807.46			346.60	5807.46			-389.60		337.12	-302.68			515.20	139.13	2.56	-0.21	
52	5,934	2.10	5901.42			8.90	5901.42			-386.78		337.12	-302.92			513.08	138.92	1.03	0.74	
53	6,027	2.40	5994.35			27.60	5994.35			-383.37		338.28	-304.37			511.28	138.57	0.85	0.32	
54	6,121	0.80	6088.31			36.30	6088.31			-381.10		339.58	-305.86			510.44	138.30	1.72	-1.70	
55	6,215	1.70	6182.28			42.60	6182.28			-379.54		340.92	-307.32			510.17	138.07	0.97	0.96	
56	6,308	1.30	6275.26			355.30	6275.26			-377.47		341.76	-308.34			509.20	137.84	1.35	-0.43	
57	6,402	1.50	6369.23			17.50	6369.23			-375.24		342.05	-308.82			507.74	137.65	0.61	0.21	
58	6,496	1.50	6463.20			34.10	6463.20			-373.05		343.11	-310.06			506.84	137.39	0.46	0.00	
59	6,589	1.00	6556.18			65.90	6556.18			-371.71		344.53	-311.59			506.82	137.17	0.90	-0.54	
60	6,683	1.00	6650.17			171.70	6650.17			-372.18		345.40	-312.41			507.76	137.14	1.70	0.00	
61	6,776	0.80	6743.16			180.20	6743.16			-373.63		345.51	-312.40			508.90	137.24	0.26	-0.22	
62	6,870	0.80	6837.15			172.10	6837.15			-374.94		345.60	-312.38			509.92	137.33	0.12	0.00	
63	6,964	1.00	6931.14			225.90	6931.14			-376.16		345.10	-311.78			510.48	137.47	0.89	0.21	
64	7,057	0.60	7024.13			222.90	7024.13			-377.08		344.19	-310.79			510.55	137.61	0.43	-0.43	
65	7,151	0.90	7118.12			196.00	7118.12			-378.15		343.65	-310.16			510.97	137.74	0.48	0.32	
66	7,244	1.70	7211.09			201.10	7211.09			-380.14		342.95	-309.30			511.98	137.94	0.87	0.86	
67	7,338	0.30	7305.08			103.40	7305.08			-381.50		342.69	-308.92			512.81	138.07	1.88	-1.49	



SURVEY CALCULATION PROGRAM

1/16/18 15:03

Company:	Matador Production Company		
Well Name:	Michael Collins 11 23S 27E RB 203H		
Location:	Eddy County, NM		
Rig:	Patterson #297		
Job Number:	DDMO-171174		
API #:	30-015-44443		
Vertical Section Azimuth:	265.11		
Survey Calculation Method:			
Minimum Curvature			

Magnetic Declination: 7.16

Proposed Direction: 265.11

REFERENCED TO GRID NORTH

PTB:	MD		INC		AZM		TVD		N/S		E/W		DLS/		BUR/	
	14,044	Depth	Degrees	Feet	Degrees	Feet	Degrees	Feet	Degrees	Feet	Degrees	Feet	Degrees	Feet	Degrees	Feet
#	Feet	Feet	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees
68	7,432	7,432	0.70	201.70	7399.08	7399.08	-382.09	342.71	9116.94	9116.94	342.71	513.27	-308.90	513.27	138.11	0.85
69	7,526	7,526	1.20	141.90	7493.07	7493.07	-383.40	343.11	343.11	343.11	514.51	138.17	-309.18	514.51	138.17	1.11
70	7,620	7,620	0.80	166.90	7587.05	7587.05	-384.81	343.87	343.87	343.87	516.07	138.22	-309.81	516.07	138.22	0.62
71	7,713	7,713	0.40	227.00	7680.05	7680.05	-385.67	343.78	343.78	343.78	516.64	138.29	-309.65	516.64	138.29	0.75
72	7,807	7,807	0.70	223.80	7774.04	7774.04	-386.31	343.14	343.14	343.14	516.70	138.39	-308.96	516.70	138.39	0.32
73	7,901	7,901	1.00	244.80	7868.03	7868.03	-387.07	342.00	342.00	342.00	516.51	138.54	-307.76	516.51	138.54	0.46
74	7,994	7,994	0.60	239.80	7961.02	7961.02	-387.66	340.84	340.84	340.84	516.19	138.68	-306.56	516.19	138.68	0.44
75	8,088	8,088	0.70	244.90	8055.02	8055.02	-388.15	339.90	339.90	339.90	515.94	138.79	-305.57	515.94	138.79	0.12
76	8,182	8,182	0.30	322.70	8149.02	8149.02	-388.20	339.23	339.23	339.23	515.53	138.85	-304.90	515.53	138.85	0.75
77	8,275	8,275	0.90	272.70	8242.01	8242.01	-387.97	338.35	338.35	338.35	514.78	138.91	-304.05	514.78	138.91	0.80
78	8,369	8,369	2.10	236.40	8335.98	8335.98	-388.89	336.18	336.18	336.18	514.05	139.16	-301.81	514.05	139.16	1.57
79	8,462	8,462	3.20	224.00	8428.88	8428.88	-391.70	332.96	332.96	332.96	514.09	139.63	-298.36	514.09	139.63	1.33
80	8,556	8,556	3.10	231.00	8522.74	8522.74	-395.19	329.16	329.16	329.16	514.31	140.21	-294.27	514.31	140.21	0.42
81	8,613	8,613	2.70	234.90	8579.66	8579.66	-396.93	326.86	326.86	326.86	514.19	140.53	-291.84	514.19	140.53	0.78
82	8,673	8,673	3.80	242.10	8639.57	8639.57	-398.67	323.95	323.95	323.95	513.69	140.90	-288.79	513.69	140.90	1.95
83	8,720	8,720	8.70	273.90	8686.28	8686.28	-399.16	319.02	319.02	319.02	510.98	141.37	-283.84	510.98	141.37	12.39
84	8,766	8,766	11.80	264.90	8731.55	8731.55	-399.34	310.86	310.86	310.86	506.07	142.10	-275.69	506.07	142.10	10.43
85	8,813	8,813	15.90	264.40	8777.17	8777.17	-400.40	299.67	299.67	299.67	500.12	143.19	-264.44	500.12	143.19	8.73
86	8,860	8,860	19.30	271.50	8821.97	8821.97	-400.82	285.49	285.49	285.49	492.10	144.54	-250.28	492.10	144.54	8.72
87	8,907	8,907	24.40	277.90	8865.59	8865.59	-399.28	268.09	268.09	268.09	480.94	146.12	-233.08	480.94	146.12	8.54
88	8,953	8,953	27.20	281.00	8907.00	8907.00	-395.97	248.36	248.36	248.36	467.41	147.90	-213.70	467.41	147.90	7.23
89	9,000	9,000	32.30	280.80	8947.79	8947.79	-391.56	225.46	225.46	225.46	451.84	150.07	-191.26	451.84	150.07	11.96
90	9,047	9,047	38.00	279.90	8986.20	8986.20	-386.72	198.85	198.85	198.85	434.85	152.79	-165.17	434.85	152.79	6.75
91	9,094	9,094	43.40	277.90	9021.82	9021.82	-382.01	168.58	168.58	168.58	417.55	156.19	-135.41	417.55	156.19	10.85
92	9,141	9,141	49.00	275.30	9054.34	9054.34	-378.15	134.90	134.90	134.90	401.49	160.37	-102.18	401.49	160.37	8.73
93	9,187	9,187	54.90	272.30	9082.69	9082.69	-375.79	98.78	98.78	98.78	388.55	165.27	-66.39	388.55	165.27	11.96
94	9,234	9,234	60.10	270.50	9107.93	9107.93	-374.84	59.17	59.17	59.17	379.48	171.03	-27.00	379.48	171.03	6.09
95	9,281	9,281	62.70	269.40	9130.43	9130.43	-374.88	17.91	17.91	17.91	375.30	177.27	14.12	375.30	177.27	10.85
96	9,328	9,328	66.00	270.20	9150.77	9150.77	-375.02	-24.46	-24.46	-24.46	375.82	183.73	56.34	375.82	183.73	12.13
97	9,375	9,375	70.30	270.20	9168.26	9168.26	-374.87	-68.07	-68.07	-68.07	381.00	190.29	99.78	381.00	190.29	11.49
98	9,422	9,422	76.20	270.80	9181.80	9181.80	-374.47	-113.05	-113.05	-113.05	391.17	196.80	144.56	391.17	196.80	11.91
99	9,508	9,508	78.80	270.50	9200.41	9200.41	-373.52	-197.00	-197.00	-197.00	422.29	207.81	228.13	422.29	207.81	12.83
100	9,555	9,555	84.80	267.40	9207.12	9207.12	-374.38	-243.49	-243.49	-243.49	446.60	213.04	274.51	446.60	213.04	11.06
101	9,603	9,603	88.40	266.50	9209.96	9209.96	-376.93	-291.33	-291.33	-291.33	476.39	217.70	322.40	476.39	217.70	11.52
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4745.6																



SURVEY CALCULATION PROGRAM

1/16/18 15:03

Company: Matador Production Company
Well Name: Michael Collins 11 23S 27E RB 203H
Location: Eddy County, NM
Rig: Patterson #297
Job Number: DDMO-171174
API #: 30-015-44443

Magnetic Declination: 7.16

REFERENCED TO GRID NORTH

Vertical Section Azimuth: 265.11

Proposed Direction: 265.11

Survey Calculation Method: Minimum Curvature

#	Depth		Inc	Azim		TVD	Feet		N/S	AZM		TVD	Feet		Surface	Distance		Closure		DLS/100'	BUR/100'
	Feet	Feet		Degrees	Degrees		Feet	Feet		Feet	Feet		Feet	Feet		Vert Sec	Distance	Azm	Azm		
102	9,650	89.10		265.90	9210.99	-380.05	-338.21	9116.94	268.4	268.4	9116.94	-338.21	9116.94	268.4	-389.44	369.38	508.75	221.67	221.67	1.96	1.49
103	9,697	89.90		266.80	9211.40	-383.04	-385.11					-385.11			416.36	543.17	225.15	225.15		2.56	1.70
104	9,744	91.20		268.40	9210.95	-385.01	-432.07					-432.07			463.31	578.72	228.30	228.30		4.39	2.77
105	9,792	91.90		268.60	9209.65	-386.26	-480.03					-480.03			511.21	616.14	231.18	231.18		1.52	1.46
106	9,887	90.50		268.30	9207.66	-388.83	-574.97					-574.97			606.03	694.11	235.93	235.93		1.51	-1.47
107	9,981	90.80		268.10	9206.59	-391.78	-668.92					-668.92			699.88	775.21	239.64	239.64		0.38	0.32
108	10,076	91.00		269.00	9205.10	-394.19	-763.88					-763.88			794.70	859.59	242.70	242.70		0.97	0.21
109	10,171	91.60		269.00	9202.94	-395.85	-858.84					-858.84			889.46	945.67	245.25	245.25		0.63	0.63
110	10,265	90.50		270.00	9201.22	-396.67	-952.82					-952.82			983.16	1032.09	247.40	247.40		1.58	-1.17
111	10,360	90.70		269.60	9200.23	-397.00	-1047.81					-1047.81			1077.84	1120.50	249.25	249.25		0.47	0.21
112	10,455	92.90		270.70	9197.24	-396.75	-1142.76					-1142.76			1172.42	1209.67	250.85	250.85		2.59	2.32
113	10,549	91.00		270.60	9194.05	-395.68	-1236.69					-1236.69			1265.92	1298.45	252.26	252.26		2.02	-2.02
114	10,644	89.60		270.60	9193.55	-394.69	-1331.68					-1331.68			1360.48	1388.94	253.49	253.49		1.47	-1.47
115	10,739	89.60		270.10	9194.21	-394.11	-1426.68					-1426.68			1455.08	1480.11	254.56	254.56		0.53	0.00
116	10,834	89.70		269.40	9194.79	-394.52	-1521.68					-1521.68			1549.77	1571.99	255.47	255.47		0.74	0.11
117	10,928	91.70		268.80	9193.64	-396.00	-1615.65					-1615.65			1643.53	1663.47	256.23	256.23		2.22	2.13
118	11,023	93.10		268.80	9189.66	-397.99	-1710.55					-1710.55			1738.24	1756.23	256.90	256.90		1.47	1.47
119	11,117	96.20		271.10	9182.04	-398.07	-1804.22					-1804.22			1831.58	1847.61	257.56	257.56		4.10	3.30
120	11,210	93.60		271.00	9174.10	-396.37	-1896.85					-1896.85			1923.74	1937.83	258.20	258.20		2.80	-2.80
121	11,305	90.90		270.40	9170.37	-395.22	-1991.77					-1991.77			2018.20	2030.60	258.78	258.78		2.91	-2.84
122	11,399	91.10		269.80	9168.73	-395.05	-2085.75					-2085.75			2111.83	2122.83	259.27	259.27		0.67	0.21
123	11,493	92.90		269.60	9165.45	-395.54	-2179.69					-2179.69			2205.47	2215.29	259.71	259.71		1.93	1.91
124	11,587	91.00		269.80	9162.25	-396.04	-2273.63					-2273.63			2299.11	2307.86	260.12	260.12		2.03	-2.02
125	11,681	91.90		270.10	9159.87	-396.12	-2367.60					-2367.60			2392.75	2400.50	260.50	260.50		1.01	0.96
126	11,775	90.90		269.80	9157.58	-396.20	-2461.57					-2461.57			2486.38	2493.25	260.86	260.86		1.11	-1.06
127	11,869	91.70		270.10	9155.44	-396.28	-2555.54					-2555.54			2580.02	2586.08	261.19	261.19		0.91	0.85
128	11,964	92.50		270.00	9151.96	-396.20	-2650.48					-2650.48			2674.60	2679.93	261.50	261.50		0.85	0.84
129	12,058	90.90		270.30	9149.17	-395.95	-2744.43					-2744.43			2768.20	2772.85	261.79	261.79		1.73	-1.70
130	12,152	90.80		269.90	9147.78	-395.79	-2838.42					-2838.42			2861.83	2865.88	262.06	262.06		0.44	-0.11
131	12,246	91.40		270.00	9145.98	-395.87	-2932.40					-2932.40			2955.48	2959.00	262.31	262.31		0.65	0.64
132	12,340	92.00		270.00	9143.19	-395.87	-3026.36					-3026.36			3049.09	3052.14	262.55	262.55		0.64	0.64
133	12,434	93.70		270.50	9138.51	-395.46	-3120.24					-3120.24			3142.59	3145.20	262.78	262.78		1.88	1.81
134	12,528	91.20		270.20	9134.50	-394.89	-3214.15					-3214.15			3236.11	3238.31	263.00	263.00		2.68	-2.66
135	12,622	91.40		270.30	9132.36	-394.48	-3308.12					-3308.12			3329.71	3331.56	263.20	263.20		0.24	0.21



VS 04.02

SURVEY CALCULATION PROGRAM

1/16/18 15:03

Company:	Matador Production Company
Well Name:	Michael Collins 11 23S 27E RB 203H
Location:	Eddy County, NM
Rig:	Patterson #297
Job Number:	DDMO-171174
API #:	30-015-44443

REFERENCED TO GRID NORTH

Magnetic Declination: 7.16

Proposed Direction: 265.11

Vertical Section Azimuth: 265.11

Survey Calculation Method: Minimum Curvature

PTB:	MD	INC	AZM	N/S	Feet	TVD	Azm	Inc	Depth
	14,044	91.6	268.4						

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Distance	Closure	Azm	DLS/ 100'	BUR/ 100'
136	12,716	90.20	270.70	9131.05	-393.66	-3402.11	3423.28	3424.81	263.40	263.40	1.35	-1.28
137	12,811	90.20	270.70	9130.72	-392.50	-3497.10	3517.83	3519.06	263.60	263.60	0.00	0.00
138	12,904	90.10	270.30	9130.48	-391.69	-3590.09	3610.42	3611.40	263.77	263.77	0.44	-0.11
139	12,998	92.20	270.90	9128.59	-390.70	-3684.06	3703.96	3704.72	263.95	263.95	2.32	2.23
140	13,092	90.50	271.70	9126.37	-388.57	-3778.01	3797.38	3797.94	264.13	264.13	2.00	-1.81
141	13,186	90.00	271.60	9125.96	-385.86	-3871.97	3890.77	3891.15	264.31	264.31	0.54	-0.53
142	13,280	88.00	270.80	9127.60	-383.89	-3965.93	3984.22	3984.47	264.47	264.47	2.29	-2.13
143	13,374	89.20	270.30	9129.90	-382.99	-4059.90	4077.77	4077.92	264.61	264.61	1.38	1.28
144	13,468	91.50	271.00	9129.33	-381.93	-4153.88	4171.32	4171.40	264.75	264.75	2.56	2.45
145	13,563	90.90	270.40	9127.34	-380.77	-4248.85	4265.84	4265.88	264.88	264.88	0.89	-0.63
146	13,657	90.40	269.90	9126.27	-380.52	-4342.84	4359.47	4359.48	264.99	264.99	0.75	-0.53
147	13,751	91.40	268.70	9124.79	-381.67	-4436.82	4453.21	4453.21	265.08	265.08	1.66	1.06
148	13,844	91.50	268.50	9122.44	-383.94	-4529.77	4546.01	4546.01	265.16	265.16	0.24	0.11
149	13,938	91.60	268.40	9119.90	-386.48	-4623.70	4639.81	4639.82	265.22	265.22	0.15	0.11
PTB:	14,044	91.60	268.40	9116.94	-389.44	-4729.61	4745.60	4745.62	265.29	265.29	0.00	0.00