

30-015-44612

NM OIL CONSERVATION
ARTESIA DISTRICT

Company: Mesquite
Well: Sand Dunes SWD #1
Location: Eddy County, New Mexico
Rig: Bison 15
Job Date: 8/21/18 - 10/8/18

Job Number: 02-1-18-2278
Mag (Grid): 6.79
Dir Driller: N/A
FST: C.Taylor

Calculation Method: Minimum Curvature
Proposed Azimuth: 0.0
Depth Reference: 19'
Tie Into: Assumed Vertical

NOV 28 2018

RECEIVED

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth			
Tie In	0.00	0.00	0.00	0	0.00	0.00	0.00	0	0.00	0			
1	136	0.20	8.40	136	136.00	0.23	0.23 N	0.03 E	0.24	8.40	0.15	0.15	6.18
2	224	0.30	47.90	88	224.00	0.54	0.54 N	0.23 E	0.59	22.85	0.22	0.11	44.89
3	345	0.80	88.30	121	344.99	0.78	0.78 N	1.31 E	1.52	59.22	0.50	0.41	33.39
4	498	1.10	78.70	153	497.97	1.10	1.10 N	3.82 E	3.97	73.94	0.22	0.20	-6.27
5	590	1.00	45.00	92	589.96	1.84	1.84 N	5.25 E	5.56	70.69	0.67	-0.11	-36.63
6	680	1.40	55.60	90	679.94	3.02	3.02 N	6.71 E	7.36	65.81	0.51	0.44	11.78
7	778	1.50	21.10	98	777.91	4.89	4.89 N	8.16 E	9.51	59.08	0.88	0.10	-35.20
8	870	1.40	60.00	92	869.88	6.57	6.57 N	9.57 E	11.61	55.51	1.05	-0.11	42.28
9	963	0.90	61.60	93	962.86	7.49	7.49 N	11.19 E	13.47	56.22	0.54	-0.54	1.72
10	1054	1.30	38.20	91	1053.85	8.64	8.64 N	12.46 E	15.16	55.26	0.65	0.44	-25.71
11	1145	0.80	15.80	91	1144.83	10.06	10.06 N	13.27 E	16.66	52.83	0.70	-0.55	-24.62
12	1241	0.80	37.00	96	1240.82	11.24	11.24 N	13.86 E	17.85	50.95	0.31	0.00	22.08
13	1335	0.70	31.80	94	1334.81	12.26	12.26 N	14.56 E	19.03	49.90	0.13	-0.11	-5.53
14	1431	0.70	39.20	96	1430.81	13.21	13.21 N	15.24 E	20.16	49.08	0.09	0.00	7.71
15	1526	0.30	28.10	95	1525.80	13.88	13.88 N	15.72 E	20.97	48.56	0.43	-0.42	-11.68
16	1621	0.30	58.80	95	1620.80	14.23	14.23 N	16.05 E	21.45	48.45	0.17	0.00	32.32
17	1715	0.40	36.50	94	1714.80	14.62	14.62 N	16.46 E	22.01	48.39	0.18	0.11	-23.72
18	1811	1.20	22.30	96	1810.79	15.82	15.82 N	17.04 E	23.25	47.13	0.85	0.83	-14.79
19	1906	1.20	14.20	95	1905.77	17.70	17.70 N	17.66 E	25.00	44.93	0.18	0.00	-8.53
20	2003	1.30	14.50	97	2002.74	19.75	19.75 N	18.18 E	26.85	42.63	0.10	0.10	0.31
21	2097	1.30	6.00	94	2096.72	21.84	21.84 N	18.56 E	28.66	40.35	0.20	0.00	-9.04
22	2193	1.10	31.70	96	2192.70	23.71	23.71 N	19.16 E	30.48	38.94	0.59	-0.21	26.77
23	2289	1.70	25.10	96	2288.67	25.78	25.78 N	20.25 E	32.78	38.14	0.65	0.63	-6.88
24	2385	1.60	47.80	96	2384.63	27.97	27.97 N	21.84 E	35.49	37.98	0.68	-0.10	23.65
25	2480	2.20	35.30	95	2479.58	30.35	30.35 N	23.88 E	38.62	38.19	0.76	0.63	-13.16
26	2576	2.40	36.10	96	2575.50	33.48	33.48 N	26.13 E	42.47	37.97	0.21	0.21	0.83
27	2670	2.10	29.50	94	2669.43	36.57	36.57 N	28.14 E	46.14	37.57	0.42	-0.32	-7.02
28	2766	1.70	36.00	96	2765.38	39.25	39.25 N	29.84 E	49.31	37.24	0.47	-0.42	6.77
29	2862	1.40	24.00	96	2861.34	41.48	41.48 N	31.15 E	51.87	36.91	0.46	-0.31	-12.50
30	3053	0.40	253.40	191	3052.33	43.42	43.42 N	31.46 E	53.62	35.93	0.88	-0.52	120.10
31	3148	0.50	217.60	95	3147.32	42.99	42.99 N	30.89 E	52.94	35.70	0.31	0.11	-37.68
32	3244	0.30	258.70	96	3243.32	42.61	42.61 N	30.39 E	52.34	35.50	0.35	-0.21	42.81
33	3338	0.70	270.10	94	3337.32	42.57	42.57 N	29.58 E	51.83	34.79	0.44	0.43	12.13
34	3434	1.10	307.10	96	3433.31	43.12	43.12 N	28.25 E	51.55	33.23	0.71	0.42	38.54
35	3626	1.90	122.50	192	3625.28	42.52	42.52 N	29.47 E	51.74	34.72	1.56	0.42	-96.15
36	3815	2.50	146.00	189	3814.14	37.42	37.42 N	34.42 E	50.84	42.60	0.57	0.32	12.43
37	3947	3.20	154.90	132	3945.98	31.70	31.70 N	37.59 E	49.17	49.86	0.63	0.53	6.74



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 Dir Driller: N/A
 FST: C.Taylor

Calculation Method
 Proposed Azimuth: 0.0
 Depth Reference: 19'
 Tie Into: Assumed Vertical

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth			
38	4099	2.40	138.50	152	4097.80	25.47	25.47 N	41.50 E	48.69	58.46	0.74	-0.53	-10.79
39	4188	1.50	150.10	89	4186.75	23.07	23.07 N	43.31 E	49.07	61.96	1.10	-1.01	13.03
40	4283	0.60	152.40	95	4281.73	21.55	21.55 N	44.16 E	49.14	63.99	0.95	-0.95	2.42
41	4378	1.10	145.80	95	4376.72	20.36	20.36 N	44.91 E	49.30	65.62	0.54	0.53	-6.95
42	4474	1.10	140.70	96	4472.70	18.88	18.88 N	46.01 E	49.73	67.69	0.10	0.00	-5.31
43	4569	0.40	160.50	95	4567.69	17.86	17.86 N	46.70 E	50.00	69.07	0.77	-0.74	20.84
44	4664	0.50	188.60	95	4662.69	17.14	17.14 N	46.75 E	49.79	69.86	0.25	0.11	29.58
45	4855	2.40	337.60	191	4853.64	20.01	20.01 N	45.10 E	49.34	66.07	1.49	0.99	78.01
46	5046	0.40	252.80	191	5044.58	23.51	23.51 N	42.94 E	48.95	61.29	1.26	-1.05	-44.40
47	5141	0.50	323.80	95	5139.58	23.75	23.75 N	42.37 E	48.58	60.73	0.56	0.11	74.74
48	5237	0.30	19.00	96	5235.58	24.33	24.33 N	42.21 E	48.72	60.04	0.43	-0.21	-317.50
49	5333	0.30	179.80	96	5331.58	24.31	24.31 N	42.29 E	48.78	60.11	0.62	0.00	167.50
50	5428	0.40	272.30	95	5426.58	24.08	24.08 N	41.96 E	48.38	60.15	0.54	0.11	97.37
51	5522	0.10	113.30	94	5520.58	24.06	24.06 N	41.71 E	48.15	60.02	0.53	-0.32	-169.15
52	5617	0.30	24.50	95	5615.58	24.25	24.25 N	41.89 E	48.40	59.93	0.33	0.21	-93.47
53	5713	0.30	74.40	96	5711.57	24.55	24.55 N	42.23 E	48.85	59.83	0.26	0.00	51.98
54	5808	0.60	39.60	95	5806.57	25.00	25.00 N	42.79 E	49.56	59.71	0.41	0.32	-36.63
55	5903	0.40	25.50	95	5901.57	25.68	25.68 N	43.25 E	50.30	59.30	0.25	-0.21	-14.84
56	5999	0.10	11.50	96	5997.57	26.06	26.06 N	43.41 E	50.63	59.02	0.32	-0.31	-14.58
57	6094	0.40	59.90	95	6092.57	26.31	26.31 N	43.71 E	51.02	58.96	0.36	0.32	50.95
58	6189	0.30	169.10	95	6187.56	26.23	26.23 N	44.05 E	51.27	59.22	0.60	-0.11	114.95
59	6381	0.60	87.50	192	6379.56	25.78	25.78 N	45.15 E	51.99	60.27	0.33	0.16	-42.50
60	6475	0.90	129.80	94	6473.55	25.33	25.33 N	46.21 E	52.70	61.27	0.65	0.32	45.00
61	6571	0.80	161.90	96	6569.54	24.21	24.21 N	46.99 E	52.87	62.74	0.50	-0.10	33.44
62	6667	0.30	148.00	96	6665.54	23.36	23.36 N	47.34 E	52.79	63.73	0.54	-0.52	-14.48
63	6762	0.30	157.30	95	6760.54	22.92	22.92 N	47.56 E	52.80	64.27	0.05	0.00	9.79
64	6857	0.30	176.90	95	6855.54	22.45	22.45 N	47.67 E	52.69	64.79	0.11	0.00	20.63
65	6954	0.90	182.80	97	6952.53	21.43	21.43 N	47.65 E	52.25	65.78	0.62	0.62	6.08
66	7048	0.50	188.60	94	7046.52	20.29	20.29 N	47.55 E	51.70	66.89	0.43	-0.43	6.17
67	7144	1.20	152.20	96	7142.51	18.99	18.99 N	47.96 E	51.58	68.40	0.89	0.73	-37.92
68	7189	0.90	156.10	45	7187.50	18.25	18.25 N	48.32 E	51.65	69.31	0.68	-0.67	8.67
69	7239	0.90	165.00	50	7237.50	17.51	17.51 N	48.58 E	51.64	70.18	0.28	0.00	17.80
70	7335	1.20	189.90	96	7333.48	15.79	15.79 N	48.60 E	51.10	72.00	0.56	0.31	25.94
71	7430	0.90	160.00	95	7428.47	14.11	14.11 N	48.69 E	50.69	73.84	0.65	-0.32	-31.47
72	7525	0.90	196.70	95	7523.46	12.69	12.69 N	48.73 E	50.35	75.40	0.60	0.00	38.63
73	7621	1.20	192.80	96	7619.44	10.99	10.99 N	48.29 E	49.52	77.18	0.32	0.31	-4.06
74	7717	1.20	210.90	96	7715.42	9.15	9.15 N	47.55 E	48.42	79.11	0.39	0.00	18.85
75	7848	0.80	231.10	131	7846.40	7.39	7.39 N	46.13 E	46.72	80.89	0.40	-0.31	15.42
76	7941	0.30	335.90	93	7939.40	7.21	7.21 N	45.53 E	46.10	81.00	0.99	-0.54	112.69



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Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth			
77	8100	0.90	321.30	159	8098.39	8.56	8.56 N	44.58 E	45.39	79.13	0.39	0.38	-9.18
78	8196	0.50	301.30	96	8194.38	9.37	9.37 N	43.75 E	44.74	77.91	0.48	-0.42	-20.83
79	8290	0.80	314.90	94	8288.37	10.05	10.05 N	42.93 E	44.09	76.83	0.36	0.32	14.47
80	8386	1.10	285.10	96	8384.36	10.76	10.76 N	41.57 E	42.94	75.49	0.59	0.31	-31.04
81	8482	0.80	288.00	96	8480.35	11.21	11.21 N	40.04 E	41.58	74.36	0.32	-0.31	3.02
82	8578	0.50	224.10	96	8576.34	11.11	11.11 N	39.11 E	40.66	74.14	0.76	-0.31	-66.56
83	8673	0.60	193.80	95	8671.34	10.33	10.33 N	38.71 E	40.06	75.05	0.32	0.11	-31.89
84	8768	0.80	208.00	95	8766.33	9.26	9.26 N	38.28 E	39.38	76.40	0.28	0.21	14.95
85	8864	1.10	232.50	96	8862.32	8.11	8.11 N	37.23 E	38.10	77.71	0.52	0.31	25.52
86	8959	1.30	239.30	95	8957.30	7.01	7.01 N	35.58 E	36.26	78.86	0.26	0.21	7.16
87	9058	1.10	231.60	99	9056.28	5.84	5.84 N	33.87 E	34.37	80.21	0.26	-0.20	-7.78
88	9152	1.60	267.60	94	9150.25	5.23	5.23 N	31.85 E	32.28	80.68	1.02	0.53	38.30
89	9247	1.50	277.80	95	9245.22	5.34	5.34 N	29.30 E	29.78	79.67	0.31	-0.11	10.74
90	9387	1.00	256.10	140	9385.18	5.29	5.29 N	26.29 E	26.82	78.61	0.49	-0.36	-15.50
91	9437	1.20	235.40	50	9435.17	4.89	4.89 N	25.44 E	25.91	79.11	0.88	0.40	-41.40
92	9533	1.80	245.80	96	9531.14	3.70	3.70 N	23.24 E	23.53	80.94	0.68	0.63	10.83
93	9627	2.40	271.20	94	9625.08	3.14	3.14 N	19.92 E	20.17	81.04	1.16	0.64	27.02
94	9722	1.80	260.30	95	9720.02	2.93	2.93 N	16.46 E	16.72	79.91	0.76	-0.63	-11.47
95	9818	2.90	265.70	96	9815.93	2.49	2.49 N	12.56 E	12.80	78.76	1.17	1.15	5.62
96	10009	2.90	253.10	191	10006.69	0.73	0.73 N	3.11 E	3.20	76.86	0.33	0.00	-6.60
97	10200	1.90	230.00	191	10197.52	-2.71	2.71 S	3.93 W	4.78	235.42	0.72	-0.52	-12.09
98	10296	1.40	230.70	96	10293.48	-4.48	4.48 S	6.06 W	7.54	233.54	0.52	-0.52	0.73
99	10391	1.50	225.40	95	10388.45	-6.09	6.09 S	7.84 W	9.93	232.19	0.18	0.11	-5.58
100	10486	2.10	243.10	95	10483.41	-7.75	7.75 S	10.28 W	12.87	233.00	0.85	0.63	18.63
101	10582	2.00	239.20	96	10579.35	-9.40	9.40 S	13.29 W	16.28	234.73	0.18	-0.10	-4.06
102	10740	3.50	213.90	158	10737.17	-14.82	14.82 S	18.35 W	23.58	231.08	1.20	0.95	-16.01
103	10868	3.00	217.40	128	10864.96	-20.72	20.72 S	22.56 W	30.63	227.44	0.42	-0.39	2.73
104	10963	2.90	214.10	95	10959.83	-24.68	24.68 S	25.42 W	35.43	225.84	0.21	-0.11	-3.47
105	11059	3.20	218.80	96	11055.70	-28.78	28.78 S	28.46 W	40.48	224.68	0.41	0.31	4.90
106	11154	2.80	220.70	95	11150.57	-32.61	32.61 S	31.63 W	45.43	224.13	0.43	-0.42	2.00
107	11250	2.50	215.50	96	11246.46	-36.09	36.09 S	34.38 W	49.85	223.61	0.40	-0.31	-5.42
108	11344	2.60	219.50	94	11340.37	-39.41	39.41 S	36.93 W	54.00	223.14	0.22	0.11	4.26
109	11439	2.70	219.60	95	11435.27	-42.79	42.79 S	39.72 W	58.39	222.87	0.11	0.11	0.11
110	11534	2.90	214.00	95	11530.16	-46.51	46.51 S	42.49 W	63.00	222.42	0.36	0.21	-5.89
111	11628	2.60	210.90	94	11624.05	-50.31	50.31 S	44.92 W	67.44	221.76	0.36	-0.32	-3.30
112	11817	2.80	218.20	189	11812.84	-57.62	57.62 S	49.97 W	76.27	220.94	0.21	0.11	3.86
113	11912	2.30	213.00	95	11907.74	-61.04	61.04 S	52.45 W	80.48	220.67	0.58	-0.53	-5.47
114	12007	2.20	216.80	95	12002.67	-64.10	64.10 S	54.58 W	84.19	220.41	0.19	-0.11	4.00
115	12101	2.20	215.40	94	12096.60	-67.01	67.01 S	56.70 W	87.78	220.24	0.06	0.00	-1.49



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116	12197	2.30	217.90	96	12192.53	-70.03	70.03 S	58.95 W	91.54	220.09	0.15	0.10	2.60
117	12294	2.20	218.60	97	12289.45	-73.03	73.03 S	61.31 W	95.35	220.02	0.11	-0.10	0.72
118	12390	1.90	218.60	96	12385.39	-75.71	75.71 S	63.45 W	98.78	219.97	0.31	-0.31	0.00
119	12482	1.70	221.40	92	12477.35	-77.92	77.92 S	65.31 W	101.67	219.97	0.24	-0.22	3.04
120	12580	1.90	228.20	98	12575.30	-80.10	80.10 S	67.48 W	104.73	220.11	0.30	0.20	6.94
121	12675	1.40	216.10	95	12670.26	-82.09	82.09 S	69.34 W	107.45	220.19	0.64	-0.53	-12.74
122	12770	1.50	223.70	95	12765.23	-83.92	83.92 S	70.88 W	109.85	220.18	0.23	0.11	8.00
123	12865	1.70	229.90	95	12860.19	-85.73	85.73 S	72.82 W	112.48	220.34	0.28	0.21	6.53
124	12960	1.50	252.20	95	12955.15	-87.02	87.02 S	75.08 W	114.93	220.79	0.68	-0.21	23.47
125	13056	1.30	241.00	96	13051.13	-87.93	87.93 S	77.23 W	117.03	221.29	0.35	-0.21	-11.67
126	13152	1.30	265.30	96	13147.10	-88.55	88.55 S	79.27 W	118.84	221.83	0.57	0.00	25.31
127	13246	1.10	255.10	94	13241.08	-88.86	88.86 S	81.20 W	120.38	222.42	0.31	-0.21	-10.85
128	13342	1.00	258.70	96	13337.07	-89.27	89.27 S	82.91 W	121.83	222.89	0.12	-0.10	3.75
129	13437	1.10	263.80	95	13432.05	-89.53	89.53 S	84.63 W	123.20	223.39	0.14	0.11	5.37
130	13532	1.10	273.50	95	13527.03	-89.57	89.57 S	86.45 W	124.48	223.98	0.20	0.00	10.21