



Marathon Madera 19 Fed Com 26-35-19 TB 1H MWD 0' to 20068' Survey



Geodetic Report

(Def Survey)

Report Date:	January 31, 2019 - 04.04 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Marathon Oil Corporation	Vertical Section Azimuth:	359.490 ° (Grid North)
Field:	NM Lea County (NAD 27)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Marathon Madera 19 Federal Com 26 35 19 (1-2-5-6) / Madera 19 Federal Com 26 35 19 TB 1H	TVD Reference Datum:	KB 26.50 ft
Well:	Madera 19 Federal Com 26 35 19 TB 1H	TVD Reference Elevation:	3211.500 ft above
Borehole:	Original Hole	Seabed / Ground Elevation:	3185.000 ft above
UWI / API#:	Unknown / Unknown	Magnetic Declination:	6.625 °
Survey Name:	Marathon Madera 19 Fed Com 26-35-19 TB 1H MWD 0' to 20068'	Total Gravity Field Strength:	998.4547 mgn (9.80665 Based)
Survey Date:	January 17, 2019	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	258.176 ° / 8540.633 ft / 6.518 / 0.681	Total Magnetic Field Strength:	47690.877 nT
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.671 °
Location Lat / Long:	N 32° 1' 20.65258", W 103° 24' 36.87693"	Declination Date:	January 17, 2019
Location Grid N/E/Y/X:	N 373098.870 RUS, E 786088.770 RUS	Magnetic Declination Model:	HDGM 2019
CRS Grid Convergence Angle:	0.4895 °	North Reference:	Grid North
Grid Scale Factor:	1.00000284	Grid Convergence Used:	0.4895 °
Version / Patch:	2.10.753.0	Total Corr Mag North->Grid North:	6.1354 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (*/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	373098.87	786088.77	N 32 1 20.65 W 103 24 36.88	
Begin Third Party MWD Survey	178.00	0.80	78.60	177.99	0.23	0.25	1.22	0.45	373099.12	786089.99	N 32 1 20.65 W 103 24 36.86	
	239.00	0.90	84.60	238.99	0.36	0.37	2.11	0.22	373099.24	786090.88	N 32 1 20.66 W 103 24 36.85	
	331.00	1.00	82.40	330.97	0.52	0.55	3.63	0.12	373099.42	786092.40	N 32 1 20.66 W 103 24 36.83	
	422.00	0.70	106.00	421.97	0.46	0.50	4.95	0.50	373099.37	786093.72	N 32 1 20.66 W 103 24 36.82	
	513.00	0.40	188.10	512.96	-0.02	0.03	5.44	0.83	373098.90	786094.21	N 32 1 20.65 W 103 24 36.81	
	605.00	0.40	203.20	604.96	-0.63	-0.58	5.27	0.11	373098.29	786094.04	N 32 1 20.65 W 103 24 36.82	
	696.00	0.50	196.00	695.96	-1.30	-1.25	5.03	0.13	373097.62	786093.80	N 32 1 20.64 W 103 24 36.82	
	788.00	0.60	198.20	787.95	-2.14	-2.10	4.77	0.11	373096.77	786093.54	N 32 1 20.63 W 103 24 36.82	
	879.00	0.50	199.30	878.95	-2.97	-2.92	4.49	0.11	373095.95	786093.26	N 32 1 20.62 W 103 24 36.83	
	970.00	0.50	211.00	969.94	-3.68	-3.64	4.16	0.11	373095.23	786092.93	N 32 1 20.62 W 103 24 36.83	
	1061.00	0.50	217.80	1060.94	-4.33	-4.29	3.71	0.07	373094.58	786092.48	N 32 1 20.61 W 103 24 36.83	
	1121.00	0.50	225.10	1120.94	-4.72	-4.69	3.36	0.11	373094.18	786092.13	N 32 1 20.61 W 103 24 36.84	
	1245.00	0.10	279.10	1244.94	-5.08	-5.05	2.87	0.36	373093.82	786091.64	N 32 1 20.60 W 103 24 36.84	
	1337.00	0.00	158.50	1336.94	-5.06	-5.04	2.79	0.11	373093.83	786091.56	N 32 1 20.60 W 103 24 36.84	
	1431.00	0.10	63.00	1430.94	-5.03	-5.00	2.87	0.11	373093.87	786091.64	N 32 1 20.60 W 103 24 36.84	
	1526.00	0.10	132.10	1525.94	-5.05	-5.02	3.00	0.12	373093.85	786091.77	N 32 1 20.60 W 103 24 36.84	
	1620.00	0.30	151.10	1619.94	-5.32	-5.29	3.18	0.22	373093.58	786091.95	N 32 1 20.60 W 103 24 36.84	
	1715.00	0.10	159.60	1714.94	-5.61	-5.58	3.33	0.21	373093.29	786092.10	N 32 1 20.60 W 103 24 36.84	
	1809.00	1.60	236.00	1808.92	-6.42	-6.39	2.27	1.68	373092.48	786091.04	N 32 1 20.59 W 103 24 36.85	
	1904.00	3.50	233.40	1903.83	-8.85	-8.87	-1.16	2.00	373090.00	786087.61	N 32 1 20.56 W 103 24 36.89	
	1998.00	5.30	236.70	1997.54	-12.90	-12.96	-7.09	1.93	373085.91	786081.68	N 32 1 20.52 W 103 24 36.96	
	2093.00	6.60	243.30	2092.03	-17.68	-17.82	-15.64	1.54	373081.05	786073.13	N 32 1 20.48 W 103 24 37.06	
	2187.00	8.80	249.80	2185.18	-22.49	-22.73	-27.21	2.51	373076.14	786061.56	N 32 1 20.43 W 103 24 37.20	
	2282.00	9.20	250.10	2279.01	-27.45	-27.83	-41.17	0.42	373071.04	786047.60	N 32 1 20.38 W 103 24 37.36	
	2376.00	8.90	249.50	2371.84	-32.43	-32.93	-55.05	0.33	373065.94	786033.72	N 32 1 20.33 W 103 24 37.52	
	2470.00	8.80	249.30	2464.72	-37.40	-38.02	-88.59	0.11	373060.85	786020.18	N 32 1 20.28 W 103 24 37.68	
	2565.00	8.50	249.50	2558.64	-42.30	-43.05	-81.96	0.32	373055.82	786006.81	N 32 1 20.23 W 103 24 37.83	
	2659.00	8.10	248.70	2651.66	-47.02	-47.89	-94.64	0.44	373050.98	785994.13	N 32 1 20.19 W 103 24 37.98	
	2754.00	8.60	249.70	2745.65	-51.80	-52.78	-107.53	0.55	373046.09	785981.24	N 32 1 20.14 W 103 24 38.13	
	2848.00	9.00	249.40	2838.54	-56.71	-57.81	-121.01	0.43	373041.06	785967.76	N 32 1 20.09 W 103 24 38.29	
	2942.00	8.60	249.40	2931.43	-61.64	-62.87	-134.47	0.43	373036.00	785954.30	N 32 1 20.04 W 103 24 38.44	
	3037.00	8.90	250.00	3025.33	-66.53	-67.88	-148.02	0.33	373030.99	785940.75	N 32 1 19.99 W 103 24 38.60	
	3131.00	10.30	250.60	3118.01	-71.68	-73.16	-162.78	1.49	373025.71	785925.99	N 32 1 19.94 W 103 24 38.77	
	3226.00	10.20	249.80	3211.49	-77.26	-78.88	-178.69	0.18	373019.99	785910.08	N 32 1 19.89 W 103 24 38.96	
	3320.00	9.70	251.00	3304.08	-82.57	-84.33	-193.99	0.58	373014.54	785894.79	N 32 1 19.83 W 103 24 39.14	
	3414.00	8.70	251.90	3396.87	-87.23	-89.12	-208.23	1.07	373009.75	785880.54	N 32 1 19.79 W 103 24 39.30	
	3509.00	8.40	248.90	3490.81	-91.84	-93.85	-221.54	0.57	373005.02	785867.23	N 32 1 19.74 W 103 24 39.46	
	3603.00	9.80	250.30	3583.63	-96.88	-99.02	-235.47	1.51	372999.85	785853.30	N 32 1 19.69 W 103 24 39.62	
	3698.00	9.20	253.10	3677.33	-101.68	-103.95	-250.35	0.80	372994.92	785838.42	N 32 1 19.65 W 103 24 39.79	
	3792.00	9.70	252.30	3770.05	-106.14	-108.55	-265.09	0.55	372990.32	785823.68	N 32 1 19.60 W 103 24 39.97	
	3887.00	10.60	252.30	3863.56	-111.08	-113.64	-281.04	0.95	372985.23	785807.73	N 32 1 19.55 W 103 24 40.15	
	3981.00	11.40	253.10	3955.83	-116.25	-118.97	-298.16	0.87	372979.90	785790.61	N 32 1 19.50 W 103 24 40.35	
	4076.00	11.20	253.30	4048.99	-121.47	-124.35	-315.98	0.21	372974.52	785772.79	N 32 1 19.45 W 103 24 40.56	
	4170.00	9.70	256.80	4141.43	-125.76	-128.78	-332.44	1.73	372970.09	785756.33	N 32 1 19.41 W 103 24 40.75	
	4264.00	10.10	257.30	4234.03	-129.23	-132.40	-348.19	0.44	372966.47	785740.58	N 32 1 19.37 W 103 24 40.93	
	4359.00	11.50	254.20	4327.35	-133.49	-136.81	-365.43	1.59	372962.06	785723.34	N 32 1 19.33 W 103 24 41.13	
	4453.00	11.40	251.90	4419.48	-138.76	-142.25	-383.27	0.50	372956.62	785705.50	N 32 1 19.28 W 103 24 41.34	
	4547.00	10.60	254.10	4511.75	-143.86	-147.50	-400.42	0.95	372951.37	785688.35	N 32 1 19.23 W 103 24 41.54	
	4642.00	10.30	250.90	4605.18	-148.88	-152.67	-416.85	0.69	372946.20	785671.92	N 32 1 19.18 W 103 24 41.73	
	4736.00	10.40	247.00	4697.65	-154.81	-158.74	-432.60	0.75	372940.13	785655.17	N 32 1 19.12 W 103 24 41.92	
	4831.00	9.50	247.50	4791.22	-161.02	-165.09	-447.73	0.95	372933.78	785641.04	N 32 1 19.05 W 103 24 42.09	
	4925.00	8.70	244.50	4884.03	-166.92	-171.12	-461.32	0.99	372927.75	785627.45	N 32 1 19.00 W 103 24 42.25	
	5020.00	8.50	242.90	4977.97	-173.10	-177.41	-474.05	0.33	372921.46	785614.72	N 32 1 18.94 W 103 24 42.40	
	5114.00	9.60	245.30	5070.79	-179.50	-184.01	-487.28	1.18	372914.86	785601.49	N 32 1 18.87 W 103 24 42.55	
	5209.00	10.10	246.50	5164.30	-186.40	-190.96	-501.97	0.58	372907.91	785586.80	N 32 1 18.81 W 103 24 42.73	
	5303.00	9.30	246.50	5257.05	-192.74	-197.44	-516.42	0.88	372901.43	785572.35	N 32 1 18.74 W 103 24 42.89	
	5397.00	8.80	246.40	5349.44	-195.76	-200.52	-523.49	1.02	372898.35	785556.28	N 32 1 18.71 W 103 24 42.98	
	5491.00	8.30	246.80	5443.98	-203.33	-208.25	-541.36	0.38	372890.62	785547.41	N 32 1 18.64 W 103 24 43.19	
	5585.00	9.70	250.60	5538.81	-208.57	-213.61	-555.22	1.60	372885.26	785533.55	N 32 1 18.59 W 103 24 43.35	
	5679.00	10.50	251.20	5632.34	-213.87	-219.06	-570.96	0.85	372879.81	785517.81	N 32 1 18.53 W 103 24 43.53	
	5773.00	10.40	249.20	5714.78	-219.50	-224.83	-587.00	0.40	372874.04	785501.77	N 32 1 18.48 W 103 24 43.72	
	5867.00	10.10	249.40	5808.26	-225.33	-230.81	-602.81	0.32	372868.05	785485.96	N 32 1 18.43 W 103 24 43.90	
	5961.00	9.80	249.90	5900.85	-230.84	-236.46	-618.04	0.33	372862.41	785470.73	N 32 1 18.36 W 103 24 44.08	
	6050.00	9.60	250.80	5993.51	-236.03	-241.79	-632.95	0.27	372857.08	785455.82	N 32 1 18.31 W 103 24 44.25	
	6145.00	9.70	249.40	6087.16	-241.32	-247.21	-647.93	0.27	372851.66	785440.84	N 32 1 18.26 W 103 24 44.43	
	6239.00	7.60	254.20	6180.09	-245.67	-251.69	-661.32	2.36	372847.18	785427.45	N 32 1 18.22 W 103 24 44.58	
	6333.00	6.80	246.50	6273.37	-249.42	-255.53	-672.26	1.47	372843.34	785416.51	N 32 1 18.18 W 103 24 44.71	
	6428.00	4.70	247.30	6367.90	-253.02	-259.21	-680.86	2.00	372839.66	785407.91	N 32 1 18.15 W 103 24 44.81	
	6522.00	2.60	243.50	6461.71	-255.24	-261.48	-686.39	2.24	372837.39	785402.38	N 32 1 18.12 W 103 24 44.87	
	6617.00	0.60	217.60	6556.67	-255.99	-262.26	-688.90	2.17	372836.61	785399.87	N 32 1 18.12 W 103 24 44.90	
	6711.00	0.80	297.40	6650.66	-255.74	-262.02	-689.82	0.28	372836.61	785399.84	N 32 1 18.12 W 103 24 44.91	
	6805.00	0.50	267.10	6744.66	-255.53	-261.81	-690.67	0.32	372837.06	785398.10	N 32 1 18.12 W 103 24 44.92	
	6900.00	0.40	268.80	6839.65	-255.55	-261.84	-691.42	0.11	372837.03	785397.35	N 32 1 18.12 W 103 24 44.93	
	6994.00	0.50	273.70	6933.65	-255.53	-261.82	-692.15	0.11	372837.05	785396.62	N 32 1 18.12 W 103 24 44.94	
	7088.00	0.50	267.90	7027.65	-255.51	-261.81	-692.97	0.05	372837.06	785395.80	N 32 1 18.12 W 103 24 44.95	

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7183.00	0.90	8.00	7122.64	-254.78	-261.08	-693.28	1.16	372837.79	785395.49	N 32	1 18.13 W 103 24 44.95
	7277.00	1.30	9.00	7216.63	-253.00	-259.30	-693.01	0.43	372839.57	785395.76	N 32	1 18.15 W 103 24 44.95
	7372.00	1.10	22.00	7311.60	-251.09	-257.39	-692.50	0.35	372841.48	785396.27	N 32	1 18.16 W 103 24 44.95
	7466.00	1.20	18.00	7405.59	-249.33	-255.62	-691.86	0.14	372843.25	785396.91	N 32	1 18.18 W 103 24 44.94
	7561.00	1.10	10.60	7500.57	-247.49	-253.77	-691.39	0.19	372845.10	785397.38	N 32	1 18.20 W 103 24 44.93
	7655.00	0.80	15.70	7594.55	-245.97	-252.26	-691.04	0.33	372846.61	785397.73	N 32	1 18.21 W 103 24 44.93
	7749.00	0.80	16.30	7688.54	-244.72	-250.99	-690.68	0.01	372847.88	785398.09	N 32	1 18.23 W 103 24 44.92
	7844.00	0.70	0.40	7783.54	-243.50	-249.78	-690.49	0.24	372849.09	785398.28	N 32	1 18.24 W 103 24 44.92
	7938.00	0.80	343.60	7877.53	-242.29	-248.57	-690.67	0.26	372850.30	785398.10	N 32	1 18.25 W 103 24 44.92
	8032.00	0.60	342.30	7971.52	-241.19	-247.48	-691.01	0.21	372851.39	785397.76	N 32	1 18.26 W 103 24 44.93
	8127.00	0.40	354.90	8066.52	-240.39	-246.67	-691.19	0.24	372852.20	785397.58	N 32	1 18.27 W 103 24 44.93
	8221.00	0.40	6.30	8160.52	-239.73	-246.02	-691.18	0.08	372852.85	785397.59	N 32	1 18.28 W 103 24 44.93
	8316.00	0.60	1.60	8255.51	-238.91	-245.19	-691.13	0.21	372853.68	785397.64	N 32	1 18.28 W 103 24 44.93
	8410.00	0.50	13.20	8349.51	-238.02	-244.30	-691.02	0.16	372854.57	785397.75	N 32	1 18.29 W 103 24 44.92
	8505.00	0.80	16.30	8444.50	-236.98	-243.26	-690.74	0.32	372856.61	785398.03	N 32	1 18.30 W 103 24 44.92
	8600.00	0.70	17.00	8539.49	-235.79	-242.07	-690.39	0.11	372858.80	785398.38	N 32	1 18.32 W 103 24 44.92
	8694.00	0.80	17.70	8633.48	-234.62	-240.89	-690.02	0.11	372857.98	785398.75	N 32	1 18.33 W 103 24 44.91
	8789.00	0.60	15.40	8728.48	-233.51	-239.78	-689.69	0.21	372859.09	785399.08	N 32	1 18.34 W 103 24 44.91
	8883.00	0.60	15.60	8822.47	-232.57	-238.83	-689.42	0.00	372860.04	785399.35	N 32	1 18.35 W 103 24 44.91
	8978.00	0.30	273.50	8917.47	-232.07	-238.34	-689.54	0.76	372860.53	785399.23	N 32	1 18.35 W 103 24 44.91
	9072.00	0.60	239.90	9011.47	-232.30	-238.57	-690.21	0.41	372860.30	785398.56	N 32	1 18.35 W 103 24 44.92
	9166.00	0.60	240.30	9105.46	-232.78	-239.06	-691.06	0.00	372859.81	785397.71	N 32	1 18.35 W 103 24 44.93
	9261.00	0.50	239.50	9200.46	-233.23	-239.52	-691.85	0.11	372859.35	785396.92	N 32	1 18.34 W 103 24 44.94
	9355.00	0.30	230.20	9294.46	-233.59	-239.88	-692.39	0.22	372858.99	785396.38	N 32	1 18.34 W 103 24 44.94
	9449.00	0.20	144.90	9388.46	-233.88	-240.18	-692.49	0.37	372858.69	785396.28	N 32	1 18.33 W 103 24 44.94
	9544.00	0.10	215.90	9483.45	-234.09	-240.38	-692.44	0.20	372858.49	785396.33	N 32	1 18.33 W 103 24 44.94
	9638.00	0.60	241.10	9577.45	-234.39	-240.68	-692.92	0.54	372858.19	785395.85	N 32	1 18.33 W 103 24 44.95
	9732.00	0.90	214.20	9671.45	-235.23	-241.53	-693.77	0.48	372857.34	785395.00	N 32	1 18.32 W 103 24 44.96
	9826.00	1.30	187.60	9765.43	-236.89	-243.20	-694.32	0.68	372855.67	785394.45	N 32	1 18.30 W 103 24 44.97
	9921.00	0.90	186.20	9860.41	-238.70	-245.01	-694.55	0.42	372853.86	785394.22	N 32	1 18.29 W 103 24 44.97
	10015.00	0.90	185.50	9954.40	-240.16	-246.48	-694.70	0.01	372852.39	785394.07	N 32	1 18.27 W 103 24 44.97
	10110.00	0.80	180.90	10049.39	-241.57	-247.88	-694.78	0.13	372850.99	785393.99	N 32	1 18.26 W 103 24 44.97
	10204.00	1.00	173.10	10143.38	-243.04	-249.35	-694.69	0.25	372849.52	785394.08	N 32	1 18.24 W 103 24 44.97
	10299.00	0.80	165.10	10238.37	-244.51	-250.82	-694.42	0.25	372848.05	785394.35	N 32	1 18.23 W 103 24 44.97
	10393.00	0.80	134.00	10332.36	-245.60	-251.91	-693.78	0.46	372846.96	785394.99	N 32	1 18.22 W 103 24 44.96
	10488.00	1.30	118.60	10427.34	-246.59	-252.89	-692.36	0.60	372845.98	785396.41	N 32	1 18.21 W 103 24 44.94
	10582.00	1.70	116.30	10521.31	-247.74	-254.01	-690.17	0.43	372844.86	785398.60	N 32	1 18.20 W 103 24 44.92
	10677.00	2.50	96.30	10616.24	-248.62	-254.86	-686.85	1.13	372844.00	785401.92	N 32	1 18.19 W 103 24 44.88
	10771.00	1.50	54.30	10710.19	-248.16	-254.37	-683.81	1.82	372844.50	785404.96	N 32	1 18.19 W 103 24 44.84
	10866.00	1.90	34.70	10805.15	-246.15	-252.35	-681.90	0.74	372846.52	785406.87	N 32	1 18.21 W 103 24 44.82
	10960.00	2.20	27.00	10899.09	-243.28	-249.46	-680.20	0.43	372849.41	785408.57	N 32	1 18.24 W 103 24 44.80
	11054.00	2.40	35.30	10993.01	-240.08	-246.25	-678.24	0.41	372852.62	785410.53	N 32	1 18.27 W 103 24 44.78
	11149.00	1.70	38.50	11087.95	-237.38	-243.52	-676.21	0.75	372855.35	785412.56	N 32	1 18.30 W 103 24 44.75
	11243.00	1.60	50.20	11181.91	-235.46	-241.59	-674.34	0.37	372857.28	785414.43	N 32	1 18.32 W 103 24 44.73
	11337.00	1.30	53.10	11275.88	-234.00	-240.11	-672.48	0.33	372858.76	785416.29	N 32	1 18.33 W 103 24 44.71
	11432.00	1.00	25.10	11370.87	-232.61	-238.71	-671.26	0.66	372860.16	785417.51	N 32	1 18.35 W 103 24 44.70
	11526.00	1.20	6.90	11464.85	-230.90	-236.99	-670.80	0.43	372861.88	785417.97	N 32	1 18.36 W 103 24 44.69
	11620.00	1.50	57.30	11558.82	-228.69	-234.79	-670.74	0.40	372864.08	785418.03	N 32	1 18.39 W 103 24 44.69
	11715.00	1.30	54.60	11653.79	-226.37	-232.47	-670.90	0.22	372866.40	785417.87	N 32	1 18.41 W 103 24 44.69
	11809.00	1.00	43.30	11747.77	-224.52	-230.63	-671.23	0.40	372868.24	785417.54	N 32	1 18.43 W 103 24 44.70
	11873.00	1.10	48.20	11811.76	-223.39	-229.49	-671.52	0.21	372869.38	785417.25	N 32	1 18.44 W 103 24 44.70
	11949.00	1.30	43.80	11887.75	-221.84	-227.95	-671.91	0.29	372870.92	785416.86	N 32	1 18.45 W 103 24 44.70
	12012.00	1.00	38.30	11950.73	-220.64	-226.75	-672.31	0.51	372872.12	785416.46	N 32	1 18.47 W 103 24 44.71
	12107.00	0.80	22.90	12045.72	-219.33	-225.45	-673.02	0.33	372873.42	785415.75	N 32	1 18.48 W 103 24 44.72
	12201.00	10.60	9.30	12139.16	-210.26	-216.37	-672.01	10.71	372882.50	785416.76	N 32	1 18.57 W 103 24 44.70
	12295.00	23.90	4.50	12228.73	-182.65	-188.73	-669.11	14.22	372910.14	785419.66	N 32	1 18.84 W 103 24 44.67
	12390.00	38.30	2.20	12309.87	-133.82	-139.87	-666.46	15.21	372959.00	785422.31	N 32	1 19.32 W 103 24 44.63
	12484.00	52.00	59.70	12376.01	-67.36	-73.40	-665.53	14.69	373025.47	785423.24	N 32	1 19.98 W 103 24 44.61
	12579.00	56.60	55.50	12431.44	9.69	3.62	-668.84	6.03	373102.49	785419.93	N 32	1 20.74 W 103 24 44.64
	12674.00	67.30	55.50	12476.05	93.21	87.09	-675.41	11.26	373185.96	785413.36	N 32	1 21.57 W 103 24 44.71
	12768.00	75.20	55.10	12506.24	181.91	175.73	-682.70	8.41	373274.60	785406.07	N 32	1 22.45 W 103 24 44.79
	12863.00	78.60	56.20	12527.77	274.22	267.97	-689.71	3.75	373366.84	785399.06	N 32	1 23.36 W 103 24 44.86
	12958.00	95.30	58.90	12532.81	368.69	362.41	-693.73	17.80	373461.28	785395.04	N 32	1 24.30 W 103 24 44.90
	13052.00	89.20	58.00	12529.12	462.56	456.26	-696.28	6.56	373555.13	785392.49	N 32	1 25.23 W 103 24 44.92
Last Third Party Survey Begin SLB MWD Survey	13173.00	91.38	57.52	12528.51	583.49	577.15	-701.00	1.84	373676.02	785387.77	N 32	1 26.42 W 103 24 44.96
	13268.00	90.96	57.76	12526.57	678.42	672.05	-704.92	0.51	373770.92	785383.85	N 32	1 27.36 W 103 24 45.00
	13362.00	89.28	56.19	12526.37	772.33	765.92	-709.88	2.45	373864.79	785378.89	N 32	1 28.29 W 103 24 45.05
	13457.00	89.35	56.02	12527.51	867.16	860.69	-716.33	0.19	373959.56	785372.44	N 32	1 29.23 W 103 24 45.11
	13552.00	89.35	57.03	12528.59	962.02	955.51	-722.09	3.06	374054.38	785366.68	N 32	1 30.17 W 103 24 45.17
	13646.00	89.21	59.85	12529.77	1055.99	1049.46	-724.64	3.00	374148.33	785364.12	N 32	1 31.10 W 103 24 45.19
	13741.00	89.62	3.60	12530.74	1150.89	1144.39	-721.79	3.97	374243.26	785366.98	N 32	1 32.04 W 103 24 45.15
	13836.00	90.38	3.52	12530.74	1245.65	1239.21	-715.89	0.80	374338.08	785372.88	N 32	1 32.98 W 103 24 45.07
	13930.00	89.11	3.18	12531.16	1339.44	1333.04	-710.39	1.40	374431.91	785378.38	N 32	1 33.90 W 103 24 45.00
	14025.00	90.24	4.15	12531.70	1434.18	1427.64	-704.32	1.57	374526.72	785384.45	N 32	1 34.84 W 103 24 44.92
	14119.00	89.83	3.51	12531.64	1527.91	1521.63	-698.04	0.81	374620.51	785390.73	N 32	1 35.77 W 103 24 44.83
	14214.00	89.66	2.32	12532.06	1622.73	1616.51	-693.21	1.27	374715.38	785395.56	N 32	1 36.71 W 103 24 44.77
	14309.00	91.20	5.92	12531.35	1717.40	1711.24	-686.39	4.12	374810.11	785402.38	N 32	1 37.64 W 103 24 44.68
	14403.00	90.86	5.05	1252								