

30-025-44525

COMPANY: Tap Rock Operating
 PROJECT: Eddy County, New Mexico (NAD 83)
 SITE: Zeus Unit 24S33E0909
 WELL: Zeus Unit 24S33E0909 228H
 MAP SYSTE US State Plane 1983
 MAP ZONE New Mexico Eastern Zone
 NORTH REF Grid
 KB-MSL: 3639
 GLE: 3614

HOBBS

OCT 23 2013

RECEIVED

WELLBORE Wellbore #1
 DESIGN: Surveys
 VS AZI: 359.59

SURVEY TOOL PROGRAM:
 H 247.00 - 18065.00 HT MWD : MWD

MD	INC	AZI	Course Length	TVD	Subsea Depth	Local N/S	Local E/W	Map Northing
0	0	0	0	0	3639	0	0	447262.7
247	0.5	251.8	247	247	3392	-0.34	-1.02	447262.4
338	0.7	255.4	91	337.99	3301.01	-0.6	-1.94	447262.1
429	1.9	211.3	91	428.97	3210.03	-2.03	-3.26	447260.7
520	3	181.2	91	519.89	3119.11	-5.7	-4.09	447257
610	3.7	163.4	90	609.74	3029.26	-10.84	-3.31	447251.9
701	3.9	159.9	91	700.54	2938.46	-16.56	-1.41	447246.1
794	3.1	156.7	93	793.36	2845.64	-21.84	0.67	447240.9
886	3	158.5	92	885.23	2753.77	-26.36	2.54	447236.3
978	2.8	159.4	92	977.11	2661.89	-30.71	4.21	447232
1069	2.6	167.4	91	1068.01	2570.99	-34.8	5.44	447227.9
1160	2.6	158.9	91	1158.92	2480.08	-38.74	6.63	447224
1254	2.6	159.6	94	1252.82	2386.18	-42.73	8.15	447220
1291	2.4	157.5	37	1289.79	2349.21	-44.23	8.73	447218.5
1422	1.9	159.9	131	1420.69	2218.31	-48.8	10.53	447213.9
1516	2.5	169.8	94	1514.63	2124.37	-52.28	11.43	447210.4
1611	3	172.9	95	1609.52	2029.48	-56.79	12.1	447205.9
1706	2.6	171.7	95	1704.4	1934.6	-61.39	12.72	447201.3
1800	2.4	171.4	94	1798.31	1840.69	-65.45	13.32	447197.2
1895	3.8	176	95	1893.17	1745.83	-70.55	13.84	447192.1
1990	4.6	175.1	95	1987.92	1651.08	-77.49	14.39	447185.2
2084	4.2	176.4	94	2081.64	1557.36	-84.68	14.92	447178
2179	3.8	176.1	95	2176.41	1462.59	-91.29	15.36	447171.4
2273	3.5	176.4	94	2270.22	1368.78	-97.26	15.75	447165.4
2368	3.1	176.5	95	2365.06	1273.94	-102.72	16.09	447160
2462	2.8	178.1	94	2458.93	1180.07	-107.55	16.32	447155.1
2557	2.6	179.4	95	2553.83	1085.17	-112.03	16.42	447150.7

2651	3.1	156.1	94	2647.71	991.29	-116.48	17.47	447146.2
2746	3.3	151.3	95	2742.57	896.43	-121.23	19.82	447141.5
2840	3.1	145.9	94	2836.42	802.58	-125.71	22.55	447137
2935	2.7	148.5	95	2931.3	707.7	-129.74	25.16	447133
3029	2.2	177.2	94	3025.22	613.78	-133.43	26.4	447129.3
3124	2.2	187.2	95	3120.15	518.85	-137.06	26.26	447125.6
3219	2.6	174.9	95	3215.06	423.94	-141.02	26.23	447121.7
3313	2.9	170.4	94	3308.95	330.05	-145.49	26.81	447117.2
3407	2.6	167.6	94	3402.85	236.15	-149.91	27.67	447112.8
3501	2.1	166.4	94	3496.77	142.23	-153.67	28.53	447109
3596	1.9	161.6	95	3591.71	47.29	-156.86	29.44	447105.8
3690	2.7	167.4	94	3685.63	-46.63	-160.5	30.41	447102.2
3785	3	168.4	95	3780.52	-141.52	-165.11	31.4	447097.6
3879	2.6	168.4	94	3874.4	-235.4	-169.61	32.32	447093.1
3974	2.3	171.5	95	3969.32	-330.32	-173.61	33.04	447089.1
4068	2.3	174.4	94	4063.24	-424.24	-177.35	33.5	447085.3
4163	3.3	166.8	95	4158.13	-519.13	-181.91	34.31	447080.8
4257	3.8	161.7	94	4251.95	-612.95	-187.5	35.91	447075.2
4352	3.2	158.1	95	4346.77	-707.77	-192.95	37.88	447069.7
4447	3.1	150.2	95	4441.62	-802.62	-197.64	40.15	447065.1
4542	3.2	145.6	95	4536.48	-897.48	-202.06	42.92	447060.6
4636	2.9	143.3	94	4630.35	-991.35	-206.13	45.83	447056.6
4731	2.6	161.9	95	4725.24	-1086.24	-210.1	47.93	447052.6
4825	2.8	164.7	94	4819.14	-1180.14	-214.34	49.2	447048.4
4920	4.1	163.8	95	4913.96	-1274.96	-219.84	50.76	447042.9
5014	6.1	176.3	94	5007.59	-1368.59	-228.06	52.02	447034.6
5040	6.2	178.5	26	5033.44	-1394.44	-230.84	52.15	447031.9
5117	6	186.8	77	5110	-1471	-238.99	51.78	447023.7
5211	7.5	192.6	94	5203.35	-1564.35	-249.86	49.86	447012.8
5305	7	193	94	5296.6	-1657.6	-261.43	47.23	447001.3
5400	8.9	187.1	95	5390.68	-1751.68	-274.36	45.02	446988.3
5494	10.8	187.1	94	5483.29	-1844.29	-290.32	43.03	446972.4
5589	11.1	187.2	95	5576.56	-1937.56	-308.22	40.79	446954.5
5683	12.5	187.2	94	5668.57	-2029.57	-327.29	38.38	446935.4
5778	12.6	188.2	95	5761.3	-2122.3	-347.75	35.61	446914.9
5872	12.5	189.1	94	5853.06	-2214.06	-367.94	32.54	446894.8
5967	13.1	189.8	95	5945.7	-2306.7	-388.7	29.08	446874
6061	13.4	190.4	94	6037.2	-2398.2	-409.91	25.3	446852.8
6156	12.4	190.4	95	6129.8	-2490.8	-430.77	21.47	446831.9
6251	11.7	190.7	95	6222.7	-2583.7	-450.27	17.84	446812.4
6345	11.7	190.1	94	6314.75	-2675.75	-469.02	14.4	446793.7
6440	11.5	190.4	95	6407.81	-2768.81	-487.81	11	446774.9
6534	11.4	190.9	94	6499.94	-2860.94	-506.15	7.56	446756.5
6628	11.7	192.1	94	6592.04	-2953.04	-524.59	3.8	446738.1
6723	12	192.8	95	6685.01	-3046.01	-543.64	-0.4	446719.1
6817	11.9	193.1	94	6776.97	-3137.97	-562.61	-4.77	446700.1
6912	11.5	193.3	95	6870	-3231	-581.37	-9.17	446681.3

7006	10.6	193.6	94	6962.26	-3323.26	-598.89	-13.35	446663.8
7101	11.1	190.9	95	7055.56	-3416.56	-616.36	-17.14	446646.3
7196	12.7	186.2	95	7148.52	-3509.52	-635.73	-19.99	446627
7290	13.2	186.2	94	7240.12	-3601.12	-656.67	-22.27	446606
7385	13.4	186.9	95	7332.58	-3693.58	-678.38	-24.76	446584.3
7479	13.2	187.1	94	7424.05	-3785.05	-699.84	-27.4	446562.9
7574	13.4	187.2	95	7516.51	-3877.51	-721.53	-30.12	446541.2
7668	11.9	184.5	94	7608.22	-3969.22	-742	-32.25	446520.7
7763	12.3	179.8	95	7701.11	-4062.11	-761.88	-32.98	446500.8
7857	9.4	182	94	7793.42	-4154.42	-779.57	-33.21	446483.1
7951	8.8	180.4	94	7886.24	-4247.24	-794.43	-33.53	446468.3
8046	8.4	180.4	95	7980.17	-4341.17	-808.64	-33.63	446454.1
8140	8.1	185.9	94	8073.2	-4434.2	-822.09	-34.36	446440.6
8235	6.3	189.7	95	8167.45	-4528.45	-833.89	-35.92	446428.8
8329	5.5	192	94	8260.95	-4621.95	-843.38	-37.73	446419.3
8424	4.4	190.9	95	8355.6	-4716.6	-851.41	-39.36	446411.3
8518	3.6	195.1	94	8449.37	-4810.37	-857.8	-40.82	446404.9
8613	3.8	191.7	95	8544.17	-4905.17	-863.76	-42.23	446398.9
8708	3.2	215.5	95	8638.99	-4999.99	-869	-44.41	446393.7
8803	2.5	221	95	8733.88	-5094.88	-872.72	-47.31	446390
8834	2.3	235.9	31	8764.85	-5125.85	-873.58	-48.27	446389.1
8866	2.1	257.9	32	8796.83	-5157.83	-874.07	-49.37	446388.6
8897	2.6	283.7	31	8827.8	-5188.8	-874.02	-50.61	446388.7
8928	3.7	294.7	31	8858.75	-5219.75	-873.43	-52.2	446389.3
8991	4	295.6	63	8921.61	-5282.61	-871.64	-56.03	446391.1
9086	3.3	293.9	95	9016.42	-5377.42	-869.1	-61.52	446393.6
9180	3.4	298.2	94	9110.26	-5471.26	-866.68	-66.45	446396
9275	2.8	310.8	95	9205.12	-5566.12	-863.84	-70.69	446398.9
9369	2.5	296.8	94	9299.02	-5660.02	-861.41	-74.26	446401.3
9464	2.4	282.1	95	9393.93	-5754.93	-860.06	-78.05	446402.6
9558	1.1	301.9	94	9487.89	-5848.89	-859.17	-80.74	446403.5
9652	1.2	349.4	94	9581.87	-5942.87	-857.73	-81.69	446405
9747	1.3	356.8	95	9676.85	-6037.85	-855.67	-81.93	446407
9842	1.8	341.5	95	9771.82	-6132.82	-853.18	-82.46	446409.5
9939	1.1	341.5	97	9868.78	-6229.78	-850.85	-83.24	446411.8
10033	1.5	355.3	94	9962.76	-6323.76	-848.77	-83.63	446413.9
10127	2	343.3	94	10056.72	-6417.72	-845.97	-84.2	446416.7
10222	1.3	9.9	95	10151.68	-6512.68	-843.33	-84.49	446419.4
10316	1.7	14.4	94	10245.64	-6606.64	-840.92	-83.96	446421.8
10411	1.1	359.6	95	10340.62	-6701.62	-838.65	-83.62	446424
10505	1.4	354.5	94	10434.59	-6795.59	-836.6	-83.74	446426.1
10600	1.3	2.8	95	10529.57	-6890.57	-834.37	-83.79	446428.3
10695	1.8	332	95	10624.53	-6985.53	-831.98	-84.44	446430.7
10789	0.6	303	94	10718.51	-7079.51	-830.41	-85.55	446432.3
10884	0.8	188.9	95	10813.51	-7174.51	-830.79	-86.07	446431.9
10979	1.6	166.2	95	10908.49	-7269.49	-832.73	-85.85	446430
11073	2.1	160.7	94	11002.44	-7363.44	-835.63	-84.97	446427.1

11168	1.8	117.1	95	11097.39	-7458.39	-837.96	-83.07	446424.7
11262	1.8	124.8	94	11191.34	-7552.34	-839.47	-80.54	446423.2
11356	1.8	102.5	94	11285.3	-7646.3	-840.63	-77.89	446422.1
11450	1.3	124.6	94	11379.26	-7740.26	-841.56	-75.57	446421.1
11545	1.2	131.4	95	11474.24	-7835.24	-842.83	-73.94	446419.9
11639	0.8	147	94	11568.23	-7929.23	-844.03	-72.84	446418.7
11733	0.4	194.6	94	11662.22	-8023.22	-844.9	-72.57	446417.8
11828	0.4	278.4	95	11757.22	-8118.22	-845.17	-72.98	446417.5
11922	0.5	317.6	94	11851.22	-8212.22	-844.82	-73.58	446417.9
12016	0.5	301.9	94	11945.21	-8306.21	-844.3	-74.2	446418.4
12111	0.4	293.3	95	12040.21	-8401.21	-843.95	-74.86	446418.7
12205	0.2	144.1	94	12134.21	-8495.21	-843.95	-75.07	446418.7
12300	1	147.3	95	12229.2	-8590.2	-844.78	-74.52	446417.9
12394	0.8	139	94	12323.19	-8684.19	-845.97	-73.65	446416.7
12488	1	121.2	94	12417.18	-8778.18	-846.89	-72.51	446415.8
12613	0.4	280.6	125	12542.18	-8903.18	-847.37	-72.01	446415.3
12644	3.3	339.7	31	12573.16	-8934.16	-846.52	-72.43	446416.2
12676	5.6	348.9	32	12605.06	-8966.06	-844.12	-73.05	446418.6
12707	8.6	335	31	12635.82	-8996.82	-840.53	-74.32	446422.2
12739	12.3	325.6	32	12667.29	-9028.29	-835.55	-77.26	446427.1
12770	17.3	320.3	31	12697.25	-9058.25	-829.28	-82.07	446433.4
12802	17.8	317.9	32	12727.76	-9088.76	-821.99	-88.39	446440.7
12847	16.1	326.4	45	12770.81	-9131.81	-811.68	-96.45	446451
12896	19.3	337.9	49	12817.5	-9178.5	-798.51	-103.26	446464.2
12943	27.1	347.2	47	12860.68	-9221.68	-780.85	-108.57	446481.8
12991	30.5	349.7	48	12902.74	-9263.74	-758.19	-113.17	446504.5
13038	33.2	351	47	12942.66	-9303.66	-733.74	-117.32	446529
13055	32.4	352.5	17	12956.95	-9317.95	-724.63	-118.64	446538.1
13087	30.1	352.2	32	12984.3	-9345.3	-708.18	-120.85	446554.5
13118	33.6	352.5	31	13010.63	-9371.63	-691.97	-123.02	446570.7
13150	39.6	353.4	32	13036.31	-9397.31	-673.04	-125.35	446589.7
13181	44.7	355	31	13059.29	-9420.29	-652.35	-127.44	446610.3
13227	51.1	355.3	46	13090.11	-9451.11	-618.36	-130.32	446644.3
13274	60	355.3	47	13116.67	-9477.67	-579.77	-133.49	446682.9
13306	67.5	356.8	32	13130.81	-9491.81	-551.16	-135.45	446711.5
13369	78.5	0.9	63	13149.21	-9510.21	-491.03	-136.6	446771.7
13405	84.4	1	36	13154.56	-9515.56	-455.45	-136.01	446807.2
13432.91	86.7576	0.2282	27.91	13156.71	-9517.71	-427.63	-135.71	446835.1
13463	89.3	359.4	30.09	13157.75	-9518.75	-397.56	-135.81	446865.1
13489.91	89.4416	359.2867	26.91	13158.04	-9519.04	-370.65	-136.12	446892
13558	89.8	359	68.09	13158.49	-9519.49	-302.57	-137.13	446960.1
13651	90.8	358.7	93	13158.01	-9519.01	-209.59	-139	447053.1
13746	90.5	358.5	95	13156.93	-9517.93	-114.63	-141.32	447148.1
13840	90.4	357.4	94	13156.19	-9517.19	-20.69	-144.68	447242
13935	87.1	356.5	95	13158.26	-9519.26	74.14	-149.74	447336.8
14030	87.3	356.6	95	13162.9	-9523.9	168.85	-155.45	447431.5
14124	88	357.3	94	13166.76	-9527.76	262.64	-160.44	447525.3

14218	88.1	356.2	94	13169.96	-9530.96	356.43	-165.77	447619.1
14312	90.2	358	94	13171.35	-9532.35	450.29	-170.52	447713
14407	91.3	358.2	95	13170.11	-9531.11	545.23	-173.67	447807.9
14500	90.8	357.6	93	13168.4	-9529.4	638.15	-177.08	447900.8
14595	92.2	357.5	95	13165.92	-9526.92	733.03	-181.14	447995.7
14690	92.8	359.7	95	13161.77	-9522.77	827.9	-183.46	448090.6
14784	90.3	359.9	94	13159.23	-9520.23	921.86	-183.79	448184.6
14878	89	359.1	94	13159.81	-9520.81	1015.85	-184.61	448278.5
14972	90.9	359.7	94	13159.89	-9520.89	1109.84	-185.59	448372.5
15067	90.7	0.6	95	13158.56	-9519.56	1204.83	-185.34	448467.5
15161	89.5	359.4	94	13158.4	-9519.4	1298.83	-185.34	448561.5
15256	89.1	358.9	95	13159.56	-9520.56	1393.81	-186.75	448656.5
15350	83.9	357.5	94	13165.29	-9526.29	1487.55	-189.69	448750.2
15445	88.1	355.4	95	13171.92	-9532.92	1582.11	-195.57	448844.8
15539	92.2	357.6	94	13171.67	-9532.67	1675.91	-201.3	448938.6
15632	92.9	359.5	93	13167.54	-9528.54	1768.79	-203.65	449031.5
15726	89.4	0.4	94	13165.65	-9526.65	1862.75	-203.74	449125.4
15821	89.8	359.9	95	13166.31	-9527.31	1957.75	-203.49	449220.4
15915	87	359.3	94	13168.94	-9529.94	2051.7	-204.14	449314.4
16010	85.1	358.3	95	13175.48	-9536.48	2146.45	-206.13	449409.1
16103	87.9	358.9	93	13181.16	-9542.16	2239.24	-208.39	449501.9
16197	91.4	359	94	13181.73	-9542.73	2333.2	-210.12	449595.9
16291	94	359.5	94	13177.3	-9538.3	2427.08	-211.34	449689.8
16386	93.8	0.8	95	13170.84	-9531.84	2521.86	-211.1	449784.6
16481	92	359.7	95	13166.04	-9527.04	2616.73	-210.68	449879.4
16574	93.5	359.5	93	13161.58	-9522.58	2709.62	-211.33	449972.3
16669	91.3	0.4	95	13157.6	-9518.6	2804.53	-211.41	450067.2
16763	90.2	359.1	94	13156.37	-9517.37	2898.52	-211.82	450161.2
16857	89.2	1.2	94	13156.86	-9517.86	2992.51	-211.58	450255.2
16951	89	0.3	94	13158.34	-9519.34	3086.49	-210.35	450349.2
17045	89.1	0	94	13159.89	-9520.89	3180.48	-210.1	450443.2
17139	91.5	1.3	94	13159.4	-9520.4	3274.46	-209.04	450537.2
17233	88.9	0.8	94	13159.07	-9520.07	3368.44	-207.31	450631.1
17328	89.8	359.9	95	13160.15	-9521.15	3463.43	-206.73	450726.1
17422	89.6	358.5	94	13160.64	-9521.64	3557.41	-208.05	450820.1
17517	91.4	1.1	95	13159.81	-9520.81	3652.4	-208.38	450915.1
17611	89.4	1	94	13159.16	-9520.16	3746.37	-206.65	451009.1
17706	90.8	359.2	95	13158.99	-9519.99	3841.37	-206.49	451104.1
17801	91.2	358.3	95	13157.33	-9518.33	3936.33	-208.56	451199
17895	90.3	356.7	94	13156.1	-9517.1	4030.23	-212.66	451292.9
17990	88.8	354.4	95	13156.85	-9517.85	4124.93	-220.03	451387.6
18010	90.2	354.8	20	13157.02	-9518.02	4144.84	-221.91	451407.5
18065	90.2	354.8	55	13156.83	-9517.83	4199.61	-226.9	451462.3

Map			Dogleg			
Easting	Lat	Long	Severity	T.Face	Vert Sec	Annotation
777585.8	32° 13' 38.1	103° 34' 9.1	0	0	0	
777584.8	32° 13' 38.1	103° 34' 9.1	0.2	251.8	-0.33	
777583.8	32° 13' 38.1	103° 34' 9.1	0.22	12.48	-0.59	
777582.5	32° 13' 38.1	103° 34' 9.1	1.63	296.69	-2.01	
777581.7	32° 13' 38.1	103° 34' 9.1	1.82	294.83	-5.67	
777582.5	32° 13' 38.1	103° 34' 9.1	1.38	294.84	-10.81	
777584.4	32° 13' 38.1	103° 34' 9.1	0.34	309.01	-16.55	
777586.5	32° 13' 38.1	103° 34' 9.1	0.89	192.13	-21.84	
777588.3	32° 13' 37.1	103° 34' 9.1	0.15	137.13	-26.38	
777590	32° 13' 37.1	103° 34' 9.1	0.22	167.62	-30.73	
777591.2	32° 13' 37.1	103° 34' 9.1	0.47	121.91	-34.84	
777592.4	32° 13' 37.1	103° 34' 9.1	0.42	265.75	-38.79	
777593.9	32° 13' 37.1	103° 34' 9.1	0.03	90.35	-42.79	
777594.5	32° 13' 37.1	103° 34' 9.1	0.59	203.56	-44.29	
777596.3	32° 13' 37.1	103° 34' 9.1	0.39	170.99	-48.88	
777597.2	32° 13' 37.1	103° 34' 9.1	0.75	37.36	-52.37	
777597.9	32° 13' 37.1	103° 34' 9.1	0.55	18.12	-56.88	
777598.5	32° 13' 37.1	103° 34' 9.1	0.43	187.74	-61.48	
777599.1	32° 13' 37.1	103° 34' 9.1	0.21	183.59	-65.54	
777599.6	32° 13' 37.1	103° 34' 9.1	1.5	12.38	-70.65	
777600.2	32° 13' 37.1	103° 34' 9.1	0.84	354.84	-77.59	
777600.7	32° 13' 37.1	103° 34' 9.1	0.44	166.65	-84.78	
777601.1	32° 13' 37.1	103° 34' 9.1	0.42	182.85	-91.4	
777601.5	32° 13' 37.1	103° 34' 9.1	0.32	176.51	-97.37	
777601.9	32° 13' 37.1	103° 34' 9.1	0.42	179.23	-102.83	
777602.1	32° 13' 37.1	103° 34' 9.1	0.33	165.45	-107.67	
777602.2	32° 13' 37.1	103° 34' 9.1	0.22	163.62	-112.14	

777603.3	32° 13' 37.0	103° 34' 9.0	1.33	281.42	-116.61
777605.6	32° 13' 37.0	103° 34' 9.0	0.35	304.33	-121.37
777608.3	32° 13' 37.0	103° 34' 9.0	0.38	233.76	-125.87
777610.9	32° 13' 36.0	103° 34' 9.0	0.44	163.09	-129.92
777612.2	32° 13' 36.0	103° 34' 9.0	1.39	126.09	-133.62
777612	32° 13' 36.0	103° 34' 9.0	0.4	95	-137.25
777612	32° 13' 36.0	103° 34' 9.0	0.68	301.58	-141.2
777612.6	32° 13' 36.0	103° 34' 9.0	0.39	322	-145.67
777613.4	32° 13' 36.0	103° 34' 9.0	0.35	202.73	-150.11
777614.3	32° 13' 36.0	103° 34' 9.0	0.53	185.02	-153.87
777615.2	32° 13' 36.0	103° 34' 9.0	0.27	217.57	-157.06
777616.2	32° 13' 36.0	103° 34' 9.0	0.89	19.13	-160.71
777617.2	32° 13' 36.0	103° 34' 9.0	0.32	9.91	-165.33
777618.1	32° 13' 36.0	103° 34' 9.0	0.43	180	-169.84
777618.8	32° 13' 36.0	103° 34' 9.0	0.35	157.71	-173.84
777619.3	32° 13' 36.0	103° 34' 9.0	0.12	91.45	-177.59
777620.1	32° 13' 36.0	103° 34' 9.0	1.12	335.81	-182.15
777621.7	32° 13' 36.0	103° 34' 9.0	0.63	325.16	-187.75
777623.7	32° 13' 36.0	103° 34' 9.0	0.67	198.33	-193.22
777625.9	32° 13' 36.0	103° 34' 9.0	0.47	253.1	-197.92
777628.7	32° 13' 36.0	103° 34' 9.0	0.29	289.28	-202.36
777631.6	32° 13' 36.0	103° 34' 9.0	0.34	201.05	-206.45
777633.7	32° 13' 36.0	103° 34' 9.0	0.99	117.72	-210.44
777635	32° 13' 36.0	103° 34' 9.0	0.25	34.81	-214.69
777636.5	32° 13' 36.0	103° 34' 9.0	1.37	357.17	-220.2
777637.8	32° 13' 35.0	103° 34' 9.0	2.42	35.38	-228.42
777637.9	32° 13' 35.0	103° 34' 9.0	0.98	68.11	-231.21
777637.6	32° 13' 35.0	103° 34' 9.0	1.17	106.88	-239.36
777635.6	32° 13' 35.0	103° 34' 9.0	1.75	27.34	-250.21
777633	32° 13' 35.0	103° 34' 9.0	0.53	174.43	-261.76
777630.8	32° 13' 35.0	103° 34' 9.0	2.17	333.82	-274.67
777628.8	32° 13' 35.0	103° 34' 9.0	2.02	0	-290.62
777626.6	32° 13' 35.0	103° 34' 9.0	0.32	3.67	-308.5
777624.2	32° 13' 35.0	103° 34' 9.0	1.49	0	-327.56
777621.4	32° 13' 34.0	103° 34' 9.0	0.25	65.78	-347.99
777618.3	32° 13' 34.0	103° 34' 9.0	0.23	117.52	-368.16
777614.9	32° 13' 34.0	103° 34' 9.0	0.65	14.83	-388.9
777611.1	32° 13' 34.0	103° 34' 9.0	0.35	24.92	-410.08
777607.3	32° 13' 33.0	103° 34' 9.0	1.05	180	-430.91
777603.6	32° 13' 33.0	103° 34' 9.0	0.74	175.03	-450.38
777600.2	32° 13' 33.0	103° 34' 9.0	0.13	269.71	-469.11
777596.8	32° 13' 33.0	103° 34' 9.0	0.22	163.36	-487.88
777593.3	32° 13' 33.0	103° 34' 9.0	0.15	135.46	-506.19
777589.6	32° 13' 33.0	103° 34' 9.0	0.41	39.28	-524.61
777585.4	32° 13' 32.0	103° 34' 9.0	0.35	25.94	-543.63
777581	32° 13' 32.0	103° 34' 9.0	0.13	148.3	-562.56
777576.6	32° 13' 32.0	103° 34' 9.0	0.42	174.31	-581.29

777572.4 32° 13' 32.1 103° 34' 9.1	0.96	176.49	-598.78
777568.6 32° 13' 32.1 103° 34' 9.1	0.75	313.2	-616.22
777565.8 32° 13' 31.1 103° 34' 9.1	1.97	326.48	-635.57
777563.5 32° 13' 31.1 103° 34' 9.1	0.53	0	-656.49
777561 32° 13' 31.1 103° 34' 9.1	0.27	39.18	-678.19
777558.4 32° 13' 31.1 103° 34' 9.1	0.22	167.14	-699.63
777555.7 32° 13' 31.1 103° 34' 10	0.21	6.61	-721.29
777553.5 32° 13' 30.1 103° 34' 10	1.71	200.2	-741.75
777552.8 32° 13' 30.1 103° 34' 10	1.12	289.79	-761.63
777552.6 32° 13' 30.1 103° 34' 10	3.12	172.95	-779.31
777552.3 32° 13' 30.1 103° 34' 10	0.69	202.08	-794.17
777552.2 32° 13' 30.1 103° 34' 10	0.42	180	-808.38
777551.4 32° 13' 30.1 103° 34' 10	0.9	113.52	-821.82
777549.9 32° 13' 30.1 103° 34' 10	1.96	167.06	-833.61
777548.1 32° 13' 29.1 103° 34' 10	0.89	164.68	-843.09
777546.4 32° 13' 29.1 103° 34' 10	1.16	184.38	-851.11
777545 32° 13' 29.1 103° 34' 10	0.91	161.97	-857.48
777543.6 32° 13' 29.1 103° 34' 10	0.31	310.65	-863.44
777541.4 32° 13' 29.1 103° 34' 10	1.64	124.02	-868.66
777538.5 32° 13' 29.1 103° 34' 10	0.79	161.39	-872.36
777537.5 32° 13' 29.1 103° 34' 10	2.11	115.12	-873.22
777536.4 32° 13' 29.1 103° 34' 10	2.69	114.16	-873.69
777535.2 32° 13' 29.1 103° 34' 10	3.73	77.97	-873.63
777533.6 32° 13' 29.1 103° 34' 10	4.03	34.36	-873.04
777529.8 32° 13' 29.1 103° 34' 10	0.49	11.84	-871.21
777524.3 32° 13' 29.1 103° 34' 10	0.75	187.94	-868.63
777519.3 32° 13' 29.1 103° 34' 10	0.29	70.45	-866.19
777515.1 32° 13' 29.1 103° 34' 10	0.95	137.54	-863.31
777511.5 32° 13' 29.1 103° 34' 10	0.76	238.25	-860.86
777507.7 32° 13' 29.1 103° 34' 10	0.67	253.66	-859.48
777505 32° 13' 29.1 103° 34' 10	1.51	164.73	-858.57
777504.1 32° 13' 29.1 103° 34' 10	0.99	108.1	-857.12
777503.9 32° 13' 29.1 103° 34' 10	0.2	61.96	-855.06
777503.3 32° 13' 29.1 103° 34' 10	0.68	312.57	-852.57
777502.5 32° 13' 29.1 103° 34' 10	0.72	180	-850.24
777502.2 32° 13' 29.1 103° 34' 10	0.54	45.08	-848.15
777501.6 32° 13' 29.1 103° 34' 10	0.66	317.66	-845.35
777501.3 32° 13' 29.1 103° 34' 10	1.07	145.2	-842.7
777501.8 32° 13' 29.1 103° 34' 10	0.44	18.67	-840.3
777502.2 32° 13' 29.1 103° 34' 10	0.73	203.82	-838.03
777502 32° 13' 29.1 103° 34' 10	0.34	337.09	-835.98
777502 32° 13' 30.1 103° 34' 10	0.23	121.19	-833.75
777501.3 32° 13' 30.1 103° 34' 10	1	284.96	-831.35
777500.2 32° 13' 30.1 103° 34' 10	1.39	192.85	-829.77
777499.7 32° 13' 30.1 103° 34' 10	1.24	218.24	-830.15
777499.9 32° 13' 30.1 103° 34' 10	0.96	317.6	-832.1
777500.8 32° 13' 29.1 103° 34' 10	0.56	337.69	-835

777502.7	32° 13' 29.1	103° 34' 10	1.55	237.32	-837.34	
777505.2	32° 13' 29.1	103° 34' 10	0.26	93.85	-838.87	
777507.9	32° 13' 29.1	103° 34' 10	0.74	258.86	-840.05	
777510.2	32° 13' 29.1	103° 34' 10	0.82	140.6	-841	
777511.8	32° 13' 29.1	103° 34' 10	0.19	127.35	-842.28	
777512.9	32° 13' 29.1	103° 34' 10	0.51	153.39	-843.49	
777513.2	32° 13' 29.1	103° 34' 10	0.65	150.88	-844.36	
777512.8	32° 13' 29.1	103° 34' 10	0.56	131.9	-844.63	
777512.2	32° 13' 29.1	103° 34' 10	0.34	92.27	-844.27	
777511.6	32° 13' 29.1	103° 34' 10	0.15	262.15	-843.75	
777510.9	32° 13' 29.1	103° 34' 10	0.13	209.79	-843.39	
777510.7	32° 13' 29.1	103° 34' 10	0.62	190.15	-843.39	
777511.3	32° 13' 29.1	103° 34' 10	0.84	4	-844.23	
777512.1	32° 13' 29.1	103° 34' 10	0.25	208.99	-845.42	
777513.3	32° 13' 29.1	103° 34' 10	0.36	296.46	-846.35	
777513.8	32° 13' 29.1	103° 34' 10	1.11	174.15	-846.84	
777513.4	32° 13' 29.1	103° 34' 10	10.04	65.42	-845.98	
777512.7	32° 13' 29.1	103° 34' 10	7.5	21.87	-843.58	
777511.5	32° 13' 29.1	103° 34' 10	11.08	323.18	-839.98	
777508.5	32° 13' 29.1	103° 34' 10	12.69	330.58	-834.98	
777503.7	32° 13' 30.1	103° 34' 10	16.69	342.27	-828.67	
777497.4	32° 13' 30.1	103° 34' 10	2.75	303.49	-821.33	
777489.3	32° 13' 30.1	103° 34' 10	6.67	128.47	-810.97	
777482.5	32° 13' 30.1	103° 34' 10	9.64	53.12	-797.76	
777477.2	32° 13' 30.1	103° 34' 10	18.29	29.51	-780.05	
777472.6	32° 13' 30.1	103° 34' 10	7.51	20.61	-757.36	
777468.5	32° 13' 31.1	103° 34' 11	5.93	14.81	-732.88	
777467.1	32° 13' 31.1	103° 34' 11	6.71	135.18	-723.76	
777464.9	32° 13' 31.1	103° 34' 11	7.2	183.74	-707.3	
777462.8	32° 13' 31.1	103° 34' 11	11.3	2.72	-691.07	
777460.4	32° 13' 31.1	103° 34' 11	18.82	5.47	-672.13	
777458.3	32° 13' 31.1	103° 34' 11	16.81	12.49	-651.42	
777455.5	32° 13' 32.1	103° 34' 11	13.92	2.09	-617.41	
777452.3	32° 13' 32.1	103° 34' 11	18.94	0	-578.8	
777450.3	32° 13' 32.1	103° 34' 11	23.81	10.51	-550.18	
777449.2	32° 13' 33.1	103° 34' 11	18.53	20.26	-490.04	
777449.8	32° 13' 33.1	103° 34' 11	16.39	0.97	-454.47	
777450.1	32° 13' 34.1	103° 34' 11	8.89	341.89	-426.65	330' HL Intercept - 13432.91' MD
777450	32° 13' 34.1	103° 34' 11	8.89	341.95	-396.58	
777449.7	32° 13' 34.1	103° 34' 11	0.67	321.34	-369.67	330' HL Intercept - 13489.91' MD
777448.6	32° 13' 35.1	103° 34' 11	0.67	321.34	-301.58	
777446.8	32° 13' 36.1	103° 34' 11	1.12	343.3	-208.59	
777444.5	32° 13' 37.1	103° 34' 11	0.38	213.69	-113.61	
777441.1	32° 13' 38.1	103° 34' 11	1.18	264.81	-19.66	
777436	32° 13' 38.1	103° 34' 11	3.6	195.24	75.21	
777430.3	32° 13' 39.1	103° 34' 11	0.24	26.54	169.96	
777425.3	32° 13' 40.1	103° 34' 11	1.05	44.99	263.78	

777420 32° 13' 41.1 103° 34' 11	1.17	275.18	357.61
777415.3 32° 13' 42.1 103° 34' 11	2.94	40.62	451.5
777412.1 32° 13' 43.1 103° 34' 11	1.18	10.3	546.46
777408.7 32° 13' 44.1 103° 34' 11	0.84	230.2	639.4
777404.6 32° 13' 45.1 103° 34' 11	1.48	355.92	734.31
777402.3 32° 13' 46.1 103° 34' 11	2.4	74.68	829.19
777402 32° 13' 47.1 103° 34' 11	2.67	175.42	923.15
777401.2 32° 13' 48.1 103° 34' 11	1.62	211.61	1017.15
777400.2 32° 13' 49.1 103° 34' 11	2.12	17.53	1111.14
777400.4 32° 13' 50.1 103° 34' 11	0.97	102.52	1206.13
777400.4 32° 13' 51.1 103° 34' 11	1.81	225	1300.12
777399 32° 13' 52.1 103° 34' 11	0.67	231.34	1395.11
777396.1 32° 13' 52.1 103° 34' 11	5.73	195	1488.87
777390.2 32° 13' 53.1 103° 34' 11	4.94	333.41	1583.47
777384.5 32° 13' 54.1 103° 34' 11	4.95	28.22	1677.31
777382.1 32° 13' 55.1 103° 34' 11	2.18	69.72	1770.2
777382 32° 13' 56.1 103° 34' 11	3.84	165.57	1864.16
777382.3 32° 13' 57.1 103° 34' 11	0.67	308.66	1959.15
777381.6 32° 13' 58.1 103° 34' 11	3.05	192.08	2053.11
777379.7 32° 13' 59.1 103° 34' 11	2.26	207.67	2147.87
777377.4 32° 14' 0.4 103° 34' 11	3.08	12.09	2240.67
777375.7 32° 14' 1.3 103° 34' 11	3.72	1.64	2334.65
777374.4 32° 14' 2.2 103° 34' 11	2.82	10.86	2428.53
777374.7 32° 14' 3.2 103° 34' 11	1.38	98.72	2523.31
777375.1 32° 14' 4.1 103° 34' 11	2.22	211.43	2618.17
777374.5 32° 14' 5.0 103° 34' 11	1.63	352.42	2711.06
777374.4 32° 14' 6.0 103° 34' 11	2.5	157.75	2805.97
777374 32° 14' 6.9 103° 34' 11	1.81	229.77	2899.96
777374.2 32° 14' 7.8 103° 34' 11	2.47	115.47	2993.95
777375.4 32° 14' 8.8 103° 34' 11	0.98	257.46	3087.92
777375.7 32° 14' 9.7 103° 34' 11	0.34	288.43	3181.9
777376.7 32° 14' 10.1 103° 34' 11	2.9	28.44	3275.87
777378.5 32° 14' 11.1 103° 34' 11	2.82	190.89	3369.83
777379.1 32° 14' 12.1 103° 34' 11	1.34	315	3464.82
777377.7 32° 14' 13.1 103° 34' 11	1.5	261.87	3558.81
777377.4 32° 14' 14.1 103° 34' 11	3.33	55.3	3653.79
777379.1 32° 14' 15.1 103° 34' 11	2.13	182.86	3747.76
777379.3 32° 14' 16.1 103° 34' 11	2.4	307.87	3842.75
777377.2 32° 14' 17.1 103° 34' 11	1.04	293.97	3937.72
777373.1 32° 14' 18.1 103° 34' 11	1.95	240.65	4031.65
777365.8 32° 14' 19.1 103° 34' 11	2.89	236.88	4126.4
777363.9 32° 14' 19.1 103° 34' 11	7.28	15.95	4146.32
777358.9 32° 14' 19.1 103° 34' 11	0	0	4201.13 Projection to TD - 18065.00' MD