

COMPANY: Tap Rock Operating
 PROJECT: Eddy County, New Mexico (NAD 83)
 SITE: Zeus Unit 24S33E0909
 WELL: Zeus Unit 24S33E0909 204H
 MAP SYSTE US State Plane 1983
 MAP ZONE New Mexico Eastern Zone
 NORTH REF Grid
 KB-MSL: 3638
 GLE: 3613

NOTES OCT

OCT 16 2018

RECEIVED

WELLBORE Wellbore #1
 DESIGN: Surveys
 VS AZI: 359.59

SURVEY TOOL PROGRAM:
 H 158.00 - 17367.00 HT MWD : MWD

MD	INC	AZI	Course Length	TVD	Subsea Depth	Local N/S	Local E/W	Map Northing
0	0	0	0	0	3638	0	0	447262.7
158	0.35	234	158	157.999	3480.001	-0.2837	-0.3904	447262.4
339	0.92	274.69	181	338.9879	3299.012	-0.4898	-2.2859	447262.2
521	1.01	306.77	182	520.9633	3117.037	0.5899	-5.0271	447263.2
706	0.48	268.81	185	705.948	2932.052	1.5498	-7.108	447264.2
890	1.01	279.09	184	889.9319	2748.068	1.79	-9.4799	447264.4
1072	1.01	289.81	182	1071.904	2566.096	2.587	-12.5729	447265.2
1261	0.66	314.77	189	1260.884	2377.116	3.9182	-14.9129	447266.6
1293	0.66	255.45	32	1292.882	2345.118	4.0017	-15.2221	447266.7
1451	0.6	268.3	158	1450.873	2187.127	3.7485	-16.9298	447266.4
1640	0.9	185.3	189	1639.861	1998.139	2.2411	-18.0561	447264.9
1829	2.2	193.6	189	1828.788	1809.212	-2.763	-19.0463	447259.9
2019	2	192.7	190	2018.66	1619.34	-9.5419	-20.6327	447253.1
2208	2.5	186.8	189	2207.514	1430.486	-16.8523	-21.8458	447245.8
2397	2.2	194.3	189	2396.355	1241.645	-24.4607	-23.2299	447238.2
2586	2.9	214.6	189	2585.171	1052.829	-31.9116	-26.8409	447230.7
2774	3.8	230.7	188	2772.852	865.1482	-39.7724	-34.3626	447222.9
2964	3.7	238.1	190	2962.446	675.5539	-46.9998	-44.4395	447215.7
3153	2.6	241.9	189	3151.158	486.8422	-52.2417	-53.3985	447210.4
3341	2.1	213.3	188	3339.006	298.9945	-57.1293	-59.0514	447205.5
3530	2.9	214.6	189	3527.824	110.1759	-63.9591	-63.6675	447198.7
3719	2.2	210.5	189	3716.636	-78.6359	-71.0203	-68.2236	447191.6
3908	2.4	219.3	189	3905.484	-267.484	-77.2083	-72.5712	447185.4
4097	2.6	220.9	189	4094.304	-456.304	-83.5108	-77.8844	447179.1
4286	3.6	222.3	189	4283.025	-645.025	-91.1399	-84.6848	447171.5
4476	2.8	208.6	190	4472.73	-834.73	-99.6266	-90.9211	447163
4665	3.5	220.1	189	4661.445	-1023.45	-108.093	-96.847	447154.6

4854	3.5	202.2	189	4850.099	-1212.1	-117.847	-102.743	447144.8
5042	2.9	198.9	188	5037.805	-1399.8	-127.66	-106.452	447135
5211	3.1	204.6	169	5206.573	-1568.57	-135.86	-109.739	447126.8
5305	4.2	214.5	94	5300.382	-1662.38	-141.008	-112.747	447121.6
5400	6.4	225	95	5394.972	-1756.97	-147.62	-118.462	447115
5494	8.5	231	94	5488.175	-1850.18	-155.697	-127.567	447107
5589	8.8	232.2	95	5582.094	-1944.09	-164.569	-138.765	447098.1
5683	8.8	233.2	94	5674.988	-2036.99	-173.284	-150.204	447089.4
5778	9.4	225.7	95	5768.795	-2130.8	-183.055	-161.575	447079.6
5786.18	9.4348	225.6368	8.18	5776.865	-2138.86	-183.991	-162.533	447078.7
5872	9.8	225	85.82	5861.479	-2223.48	-194.073	-172.726	447068.6
5966	10.2	225.4	94	5954.05	-2316.05	-205.574	-184.309	447057.1
6061	10.3	224.5	95	6047.534	-2409.53	-217.538	-196.251	447045.1
6156	9.7	225.6	95	6141.091	-2503.09	-229.195	-207.922	447033.5
6250	9.5	225.7	94	6233.774	-2595.77	-240.154	-219.132	447022.5
6345	9.4	225.9	95	6327.485	-2689.49	-251.028	-230.314	447011.6
6439	9.2	225.5	94	6420.25	-2782.25	-261.637	-241.186	447001
6534	9.5	225.5	95	6513.987	-2875.99	-272.455	-252.195	446990.2
6628	9.9	226.9	94	6606.643	-2968.64	-283.414	-263.628	446979.2
6722	9.1	225.1	94	6699.354	-3061.35	-294.182	-274.794	446968.5
6817	9	224.7	95	6793.171	-3155.17	-304.767	-285.342	446957.9
6911	9	224	94	6886.014	-3248.01	-315.282	-295.621	446947.4
7006	8.7	224.1	95	6979.883	-3341.88	-325.787	-305.783	446936.9
7101	8.8	225.7	95	7073.777	-3435.78	-336.021	-315.984	446926.6
7195	8.6	224	94	7166.696	-3528.7	-346.099	-326.012	446916.6
7290	8.6	225.6	95	7260.628	-3622.63	-356.178	-336.021	446906.5
7384	8.6	225	94	7353.571	-3715.57	-366.065	-346.012	446896.6
7479	8.6	225	95	7447.503	-3809.5	-376.11	-356.057	446886.5
7574	8.8	225	95	7541.409	-3903.41	-386.271	-366.218	446876.4
7668	8.9	223.5	94	7634.29	-3996.29	-396.63	-376.308	446866
7762	8.4	224.5	94	7727.221	-4089.22	-406.802	-386.125	446855.9
7857	7.9	223.4	95	7821.261	-4183.26	-416.494	-395.475	446846.2
7951	9.4	225.4	94	7914.19	-4276.19	-426.578	-405.379	446836.1
8045	8.9	225	94	8006.993	-4368.99	-437.11	-415.987	446825.5
8140	8.8	223.2	95	8100.862	-4462.86	-447.604	-426.158	446815.1
8234	8.1	224.1	94	8193.841	-4555.84	-457.601	-435.689	446805.1
8329	7.9	222.8	95	8287.917	-4649.92	-467.198	-444.782	446795.5
8424	8	222.3	95	8382.004	-4744	-476.877	-453.667	446785.8
8518	9.2	228.3	94	8474.947	-4836.95	-486.715	-463.68	446775.9
8613	8.8	229.9	95	8568.778	-4930.78	-496.448	-474.909	446766.2
8708	8.3	228.2	95	8662.722	-5024.72	-505.699	-485.58	446757
8802	7.2	226.4	94	8755.862	-5117.86	-514.284	-494.904	446748.4
8897	8.1	227.3	95	8850.015	-5212.02	-522.928	-504.134	446739.7
8991	8.9	225.9	94	8942.982	-5304.98	-532.48	-514.222	446730.2
9085	7.7	225.9	94	9035.996	-5398	-541.923	-523.967	446720.7
9172.37	8.3332	236.1808	87.37	9122.516	-5484.52	-549.52	-533.431	446713.1
9180	8.4	237	7.63	9130.065	-5492.06	-550.131	-534.358	446712.5

9274	9.2	230.6	94	9222.96	-5584.96	-558.641	-545.923	446704
9369	8.7	231	95	9316.803	-5678.8	-567.983	-557.375	446694.7
9463	9.5	229.5	94	9409.619	-5771.62	-577.495	-568.799	446685.2
9558	8.9	223.3	95	9503.399	-5865.4	-587.935	-579.8	446674.7
9652	9.5	216.8	94	9596.192	-5958.19	-599.439	-589.434	446663.2
9747	9.4	213.8	95	9689.903	-6051.9	-612.163	-598.446	446650.5
9841	10.2	223.7	94	9782.538	-6144.54	-624.56	-608.468	446638.1
9936	10.2	228.5	95	9876.038	-6238.04	-636.216	-620.579	446626.4
10031	9.5	227.8	95	9969.637	-6331.64	-647.056	-632.687	446615.6
10125	8.3	228.1	94	10062.5	-6424.5	-656.798	-643.484	446605.9
10220	8.7	221.7	95	10156.46	-6518.46	-666.742	-653.368	446595.9
10314	8.9	217.1	94	10249.36	-6611.36	-677.849	-662.483	446584.8
10409	10	217.9	95	10343.07	-6705.07	-690.22	-671.983	446572.4
10503	8.8	216.1	94	10435.8	-6797.8	-702.47	-681.233	446560.2
10597	9.2	211.1	94	10528.65	-6890.65	-714.714	-689.352	446547.9
10692	9.1	210.5	95	10622.44	-6984.44	-727.69	-697.087	446535
10787	11	214.8	95	10715.98	-7077.98	-741.607	-706.074	446521
10882	12.1	219.2	95	10809.05	-7171.05	-756.766	-717.54	446505.9
10976	11.4	219.2	94	10901.08	-7263.08	-771.6	-729.638	446491.1
11071	11	218.6	95	10994.27	-7356.27	-785.959	-741.227	446476.7
11165	10.8	227.6	94	11086.58	-7448.58	-798.908	-753.326	446463.7
11259	10.3	231.8	94	11179	-7541	-810.043	-766.434	446452.6
11354	8.4	229.8	95	11272.73	-7634.73	-819.775	-778.409	446442.9
11448	5.9	234.4	94	11365.99	-7727.99	-827.02	-787.583	446435.6
11542	5.1	237.1	94	11459.56	-7821.56	-832.102	-795.02	446430.6
11637	4.6	246.5	95	11554.22	-7916.22	-835.915	-802.059	446426.7
11731	3	248.2	94	11648.01	-8010.01	-838.332	-807.8	446424.3
11825	1.85	277.8	94	11741.93	-8103.93	-839.039	-811.587	446423.6
11919	0.3	349.6	94	11835.91	-8197.91	-838.591	-813.135	446424.1
11981	0.2	27.5	62	11897.91	-8259.91	-838.336	-813.114	446424.3
12170	24.9	358.6	189	12080.98	-8442.98	-797.633	-813.947	446465
12202	25.9	2.1	32	12109.88	-8471.88	-783.914	-813.856	446478.7
12233	28.7	4.7	31	12137.43	-8499.43	-769.726	-812.997	446492.9
12265	32.2	4.4	32	12165.01	-8527.01	-753.562	-811.713	446509.1
12296	36.2	2.7	31	12190.65	-8552.65	-736.175	-810.648	446526.5
12328	38.9	358.8	32	12216.02	-8578.02	-716.684	-810.413	446546
12516	48.4	0.5	188	12351.9	-8713.9	-587.077	-811.037	446675.6
12547	48.5	0.7	31	12372.46	-8734.46	-563.879	-810.794	446698.8
12564.31	50.2865	0.3581	17.31	12383.72	-8745.72	-550.738	-810.674	446711.9
12578	51.7	0.1	13.69	12392.34	-8754.34	-540.1	-810.631	446722.6
12610	55.6	359.9	32	12411.3	-8773.3	-514.332	-810.632	446748.3
12641	58.8	359.4	31	12428.1	-8790.1	-488.279	-810.794	446774.4
12672	61.5	358.5	31	12443.52	-8805.52	-461.399	-811.289	446801.3
12689	62.8	357.8	17	12451.47	-8813.47	-446.376	-811.775	446816.3
12732	64.3	357	43	12470.62	-8832.62	-407.918	-813.523	446854.7
12779	72.5	356.7	47	12487.9	-8849.9	-364.322	-815.925	446898.3
12826	79.5	354.6	47	12499.27	-8861.27	-318.882	-819.395	446943.8

13015	90.3	358.4	189	12516.05	-8878.05	-131.291	-830.816	447131.4
13108	90.2	358.2	93	12515.65	-8877.65	-38.3329	-833.575	447224.3
13202	89.6	359.6	94	12515.81	-8877.81	55.6468	-835.379	447318.3
13296	89.6	4.3	94	12516.47	-8878.47	149.5638	-832.182	447412.2
13391	86.4	5.5	95	12519.78	-8881.78	244.145	-824.074	447506.8
13486	85.5	5.9	95	12526.49	-8888.49	338.4381	-814.663	447601.1
13580	87.4	3.3	94	12532.31	-8894.31	431.9433	-807.141	447694.6
13674	88.3	0.5	94	12535.84	-8897.84	525.8152	-804.028	447788.5
13769	90.6	359.5	95	12536.75	-8898.75	620.8032	-804.028	447883.5
13863	91.2	359.5	94	12535.27	-8897.27	714.7876	-804.848	447977.4
13957	90.8	359.8	94	12533.63	-8895.63	808.7712	-805.423	448071.4
14052	89.4	358.3	95	12533.47	-8895.47	903.7529	-806.998	448166.4
14146	88.2	358.1	94	12535.44	-8897.44	997.6842	-809.949	448260.3
14241	91.3	358.2	95	12535.85	-8897.85	1092.622	-813.016	448355.3
14335	91.6	358.6	94	12533.47	-8895.47	1186.555	-815.64	448449.2
14429	90.8	358.2	94	12531.5	-8893.5	1280.497	-818.264	448543.2
14523	89.7	358	94	12531.09	-8893.09	1374.443	-821.38	448637.1
14618	92.2	0.8	95	12529.52	-8891.52	1469.408	-822.376	448732.1
14712	92.4	0.7	94	12525.75	-8887.75	1563.324	-821.146	448826
14806	92	1.9	94	12522.14	-8884.14	1657.228	-819.015	448919.9
14900	89.4	1.9	94	12520.99	-8882.99	1751.162	-815.899	449013.8
14995	89.7	1.7	95	12521.74	-8883.74	1846.112	-812.915	449108.8
15089	90.7	2.6	94	12521.41	-8883.41	1940.043	-809.389	449202.7
15183	88	1.3	94	12522.47	-8884.47	2033.972	-806.19	449296.6
15278	87.6	0.9	95	12526.12	-8888.12	2128.884	-804.368	449391.5
15372	87.9	1	94	12529.81	-8891.81	2222.798	-802.811	449485.5
15467	89.2	0.6	95	12532.22	-8894.22	2317.756	-801.485	449580.4
15561	89.8	0.5	94	12533.04	-8895.04	2411.748	-800.583	449674.4
15655	89.1	359.8	94	12533.94	-8895.94	2505.742	-800.336	449768.4
15749	88.7	359.7	94	12535.74	-8897.74	2599.724	-800.746	449862.4
15843	88.8	359.6	94	12537.79	-8899.79	2693.7	-801.321	449956.4
15938	89	359.2	95	12539.62	-8901.62	2788.677	-802.315	450051.3
16032	90.7	358.4	94	12539.86	-8901.86	2882.651	-804.284	450145.3
16125	92.5	358.6	93	12537.27	-8899.27	2975.579	-806.717	450238.2
16219	93.3	358.7	94	12532.51	-8894.51	3069.432	-808.929	450332.1
16314	91.1	359	95	12528.86	-8890.86	3164.337	-810.834	450427
16409	90.2	359	95	12527.79	-8889.79	3259.316	-812.492	450522
16503	89.5	358.8	94	12528.03	-8890.03	3353.297	-814.296	450616
16597	89.5	358.2	94	12528.85	-8890.85	3447.261	-816.757	450709.9
16691	89.2	357.5	94	12529.92	-8891.92	3541.188	-820.283	450803.8
16785	90.2	357.3	94	12530.41	-8892.41	3635.089	-824.547	450897.7
16880	90	356.8	95	12530.25	-8892.25	3729.963	-829.436	450992.6
16974	89.9	356.6	94	12530.33	-8892.33	3823.807	-834.847	451086.5
17067	90.2	357.3	93	12530.25	-8892.25	3916.674	-839.795	451179.3
17162	91.1	356.8	95	12529.17	-8891.17	4011.541	-844.684	451274.2
17218.14	91.4586	355.4862	56.14	12527.92	-8889.92	4067.538	-848.459	451330.2
17256	91.7	354.6	37.86	12526.87	-8888.87	4105.242	-851.729	451367.9

17307	91.8	356.8	51	12525.31	-8887.31	4156.072	-855.551	451418.7
17367	91.8	356.8	60	12523.43	-8885.43	4215.949	-858.899	451478.6

Map			Dogleg			
Easting	Lat	Long	Severity	T.Face	Vert Sec	Annotation
777610.9	32° 13' 38.1	103° 34' 9.1	0	0	0	
777610.5	32° 13' 38.1	103° 34' 9.1	0.2215	234	-0.28	
777608.6	32° 13' 38.1	103° 34' 9.1	0.383	59.9064	-0.47	
777605.8	32° 13' 38.1	103° 34' 9.1	0.2968	96.8244	0.63	
777603.8	32° 13' 38.1	103° 34' 9.1	0.3768	205.057	1.6	
777601.4	32° 13' 38.1	103° 34' 9.1	0.2959	19.3308	1.86	
777598.3	32° 13' 38.1	103° 34' 9.1	0.1037	95.3592	2.68	
777595.9	32° 13' 38.1	103° 34' 9.1	0.263	145.9181	4.02	
777595.6	32° 13' 38.1	103° 34' 9.1	2.0412	240.3416	4.11	
777593.9	32° 13' 38.1	103° 34' 9.1	0.0969	119.347	3.87	
777592.8	32° 13' 38.1	103° 34' 9.1	0.5392	241.2408	2.37	
777591.8	32° 13' 38.1	103° 34' 9.1	0.6962	13.9641	-2.63	
777590.2	32° 13' 38.1	103° 34' 9.1	0.1067	188.9141	-9.39	
777589	32° 13' 38.1	103° 34' 9.1	0.2912	332.1762	-16.7	
777587.6	32° 13' 38.1	103° 34' 9.1	0.227	137.996	-24.29	
777584	32° 13' 37.1	103° 34' 9.1	0.5991	62.6551	-31.72	
777576.5	32° 13' 37.1	103° 34' 9.1	0.6881	54.4961	-39.53	
777566.4	32° 13' 37.1	103° 34' 9.1	0.2599	105.3504	-46.68	
777557.5	32° 13' 37.1	103° 34' 9.1	0.5921	171.1448	-51.86	
777551.8	32° 13' 37.1	103° 34' 9.1	0.669	233.0522	-56.71	
777547.2	32° 13' 37.1	103° 34' 10	0.4243	4.704	-63.5	
777542.6	32° 13' 37.1	103° 34' 10	0.3825	192.564	-70.53	
777538.3	32° 13' 37.1	103° 34' 10	0.2144	64.9213	-76.69	
777533	32° 13' 37.1	103° 34' 10	0.1121	20.0371	-82.95	
777526.2	32° 13' 37.1	103° 34' 10	0.5306	5.0289	-90.53	
777519.9	32° 13' 37.1	103° 34' 10	0.5797	217.0071	-98.97	
777514	32° 13' 37.1	103° 34' 10	0.4972	47.9118	-107.4	

777508.1	32° 13' 37.0	103° 34' 10	0.5758	261.0664	-117.11	
777504.4	32° 13' 36.9	103° 34' 10	0.3337	195.4245	-126.89	
777501.1	32° 13' 36.9	103° 34' 10	0.2124	59.0288	-135.07	
777498.1	32° 13' 36.9	103° 34' 10	1.3445	34.8129	-140.2	
777492.4	32° 13' 36.9	103° 34' 10	2.5214	29.08	-146.77	
777483.3	32° 13' 36.9	103° 34' 10	2.3794	23.321	-154.78	
777472.1	32° 13' 36.0	103° 34' 10	0.3685	31.6249	-163.57	
777460.7	32° 13' 36.9	103° 34' 11	0.1627	90.4941	-172.2	
777449.3	32° 13' 36.4	103° 34' 11	1.3979	293.0953	-181.89	
777448.3	32° 13' 36.4	103° 34' 11	0.4433	343.385	-182.82	330' HL Intercept- 5786.18' MD
777438.1	32° 13' 36.9	103° 34' 11	0.4433	343.4474	-192.83	
777426.6	32° 13' 36.9	103° 34' 11	0.4319	10.0481	-204.25	
777414.6	32° 13' 36.9	103° 34' 11	0.1987	301.538	-216.13	
777402.9	32° 13' 35.9	103° 34' 11	0.6628	162.8819	-227.7	
777391.7	32° 13' 35.9	103° 34' 11	0.2135	175.2828	-238.58	
777380.5	32° 13' 35.9	103° 34' 12	0.1108	161.9198	-249.37	
777369.7	32° 13' 35.0	103° 34' 12	0.2236	197.7139	-259.9	
777358.7	32° 13' 35.9	103° 34' 12	0.3158	0	-270.64	
777347.2	32° 13' 35.4	103° 34' 12	0.494	31.2197	-281.52	
777336.1	32° 13' 35.9	103° 34' 12	0.9078	199.4868	-292.21	
777325.5	32° 13' 35.9	103° 34' 12	0.1244	211.9801	-302.72	
777315.2	32° 13' 35.9	103° 34' 12	0.1165	269.6543	-313.16	
777305.1	32° 13' 35.0	103° 34' 12	0.3162	177.1137	-323.59	
777294.9	32° 13' 34.9	103° 34' 13	0.277	68.4567	-333.75	
777284.8	32° 13' 34.9	103° 34' 13	0.3465	231.2869	-343.76	
777274.8	32° 13' 34.9	103° 34' 13	0.2518	90.791	-353.76	
777264.8	32° 13' 34.0	103° 34' 13	0.0954	269.7034	-363.58	
777254.8	32° 13' 34.9	103° 34' 13	0	0	-373.55	
777244.6	32° 13' 34.4	103° 34' 13	0.2105	0	-383.64	
777234.6	32° 13' 34.9	103° 34' 13	0.2676	292.6862	-393.93	
777224.7	32° 13' 34.9	103° 34' 13	0.5554	163.7528	-404.03	
777215.4	32° 13' 34.9	103° 34' 13	0.5513	196.7779	-413.65	
777205.5	32° 13' 34.0	103° 34' 14	1.6273	12.3293	-423.67	
777194.9	32° 13' 33.9	103° 34' 14	0.5362	187.0526	-434.12	
777184.7	32° 13' 33.9	103° 34' 14	0.3099	249.2572	-444.54	
777175.2	32° 13' 33.9	103° 34' 14	0.7578	169.746	-454.47	
777166.1	32° 13' 33.0	103° 34' 14	0.2839	221.4908	-464	
777157.2	32° 13' 33.9	103° 34' 14	0.128	325.0867	-473.62	
777147.2	32° 13' 33.4	103° 34' 14	1.5923	39.7767	-483.38	
777136	32° 13' 33.9	103° 34' 14	0.4967	148.7527	-493.04	
777125.3	32° 13' 33.9	103° 34' 14	0.5897	205.9772	-502.21	
777116	32° 13' 33.9	103° 34' 15	1.1982	191.5531	-510.73	
777106.7	32° 13' 33.9	103° 34' 15	0.9557	8.0289	-519.31	
777096.6	32° 13' 33.0	103° 34' 15	0.879	344.8042	-528.79	
777086.9	32° 13' 32.9	103° 34' 15	1.2766	180	-538.16	
777077.4	32° 13' 32.9	103° 34' 15	1.7908	71.3196	-545.69	330' HL Intercept- 9172.37' MD
777076.5	32° 13' 32.9	103° 34' 15	1.7908	61.1385	-546.29	

777064.9	32° 13' 32.1	103° 34' 15	1.3438	306.0593	-554.72	
777053.5	32° 13' 32.1	103° 34' 15	0.5304	173.1031	-563.98	
777042.1	32° 13' 32.1	103° 34' 15	0.8876	342.7409	-573.41	
777031.1	32° 13' 32.4	103° 34' 16	1.2188	235.7786	-583.77	
777021.4	32° 13' 32.1	103° 34' 16	1.2756	296.765	-595.21	
777012.4	32° 13' 32.1	103° 34' 16	0.529	257.0466	-607.87	
777002.4	32° 13' 32.1	103° 34' 16	1.9811	69.5374	-620.19	
776990.3	32° 13' 31.1	103° 34' 16	0.8945	92.3621	-631.76	
776978.2	32° 13' 31.1	103° 34' 16	0.7475	189.3629	-642.51	
776967.4	32° 13' 31.1	103° 34' 16	1.2775	177.9332	-652.18	
776957.5	32° 13' 31.1	103° 34' 16	1.0804	289.7343	-662.05	
776948.4	32° 13' 31.1	103° 34' 17	0.7781	283.584	-673.09	
776938.9	32° 13' 31.4	103° 34' 17	1.1661	7.2042	-685.39	
776929.6	32° 13' 31.1	103° 34' 17	1.3142	192.8791	-697.58	
776921.5	32° 13' 31.1	103° 34' 17	0.9342	294.601	-709.76	
776913.8	32° 13' 31.1	103° 34' 17	0.1455	223.359	-722.68	
776904.8	32° 13' 30.1	103° 34' 17	2.149	23.6784	-736.54	
776893.3	32° 13' 30.1	103° 34' 17	1.4827	40.8607	-751.61	
776881.2	32° 13' 30.1	103° 34' 17	0.7447	180	-766.36	
776869.6	32° 13' 30.1	103° 34' 17	0.4386	195.9494	-780.64	
776857.5	32° 13' 30.1	103° 34' 18	1.8211	101.1081	-793.5	
776844.4	32° 13' 30.1	103° 34' 18	0.9755	125.0847	-804.54	
776832.5	32° 13' 30.1	103° 34' 18	2.0287	188.7191	-814.18	
776823.3	32° 13' 30.1	103° 34' 18	2.7263	169.3756	-821.36	
776815.8	32° 13' 30.1	103° 34' 18	0.8943	163.4153	-826.39	
776808.8	32° 13' 30.1	103° 34' 18	0.9866	126.8005	-830.15	
776803.1	32° 13' 30.1	103° 34' 18	1.7062	176.8199	-832.53	
776799.3	32° 13' 30.1	103° 34' 18	1.7707	146.7021	-833.21	
776797.7	32° 13' 30.1	103° 34' 18	1.8928	170.7816	-832.75	
776797.7	32° 13' 30.1	103° 34' 18	0.3031	139.1704	-832.5	
776796.9	32° 13' 30.1	103° 34' 18	13.0821	330.8902	-791.79	
776797	32° 13' 30.1	103° 34' 18	5.6358	57.9219	-778.07	
776797.9	32° 13' 30.1	103° 34' 18	9.8153	24.2298	-763.89	
776799.1	32° 13' 30.1	103° 34' 18	10.9478	357.3829	-747.73	
776800.2	32° 13' 31.1	103° 34' 18	13.2652	345.8576	-730.36	
776800.4	32° 13' 31.1	103° 34' 18	11.2377	317.0816	-710.87	
776799.8	32° 13' 32.4	103° 34' 18	5.0912	7.6671	-581.26	
776800.1	32° 13' 32.1	103° 34' 18	0.5807	56.319	-558.06	
776800.2	32° 13' 32.1	103° 34' 18	10.4287	351.6209	-544.92	330' HL Intercept- 12564.31' MD
776800.2	32° 13' 32.1	103° 34' 18	10.4287	351.8435	-534.29	
776800.2	32° 13' 33.1	103° 34' 18	12.1979	357.5751	-508.52	
776800.1	32° 13' 33.4	103° 34' 18	10.4112	352.3812	-482.46	
776799.6	32° 13' 33.1	103° 34' 18	9.0662	343.6491	-455.58	
776799.1	32° 13' 33.1	103° 34' 18	8.4694	334.3769	-440.56	
776797.3	32° 13' 34.1	103° 34' 18	3.8656	334.2961	-402.09	
776794.9	32° 13' 34.1	103° 34' 18	17.4569	357.9947	-358.47	
776791.5	32° 13' 35.1	103° 34' 18	15.5109	343.5045	-313.01	

776780	32° 13' 37.0	103° 34' 18	6.054	19.5162	-125.34
776777.3	32° 13' 37.9	103° 34' 19	0.2404	243.4352	-32.37
776775.5	32° 13' 38.9	103° 34' 19	1.6204	113.1987	61.62
776778.7	32° 13' 39.0	103° 34' 18	4.9999	90.0164	155.51
776786.8	32° 13' 40.0	103° 34' 18	3.5971	159.4732	250.04
776796.2	32° 13' 41.0	103° 34' 18	1.0363	156.1045	344.26
776803.7	32° 13' 42.0	103° 34' 18	3.4214	306.1242	437.71
776806.8	32° 13' 43.0	103° 34' 18	3.1268	287.7746	531.56
776806.8	32° 13' 44.4	103° 34' 18	2.6399	336.4957	626.54
776806	32° 13' 45.0	103° 34' 18	0.6383	0	720.53
776805.4	32° 13' 46.0	103° 34' 18	0.5319	143.1316	814.51
776803.9	32° 13' 47.0	103° 34' 18	2.1598	226.9785	909.5
776800.9	32° 13' 48.0	103° 34' 18	1.2942	189.4584	1003.45
776797.8	32° 13' 49.0	103° 34' 18	3.2649	1.848	1098.41
776795.2	32° 13' 50.0	103° 34' 18	0.5318	53.1164	1192.36
776792.6	32° 13' 50.9	103° 34' 18	0.9515	206.5645	1286.32
776789.5	32° 13' 51.0	103° 34' 18	1.1894	190.3054	1380.29
776788.5	32° 13' 52.0	103° 34' 18	3.9507	48.2205	1475.25
776789.7	32° 13' 53.0	103° 34' 18	0.2378	333.4554	1569.16
776791.8	32° 13' 54.0	103° 34' 18	1.3448	108.4239	1663.05
776795	32° 13' 55.0	103° 34' 18	2.766	180	1756.96
776797.9	32° 13' 56.0	103° 34' 18	0.3795	326.3099	1851.88
776801.5	32° 13' 57.0	103° 34' 18	1.4312	41.9864	1945.78
776804.7	32° 13' 58.4	103° 34' 18	3.1878	205.7042	2039.69
776806.5	32° 13' 59.0	103° 34' 18	0.5952	224.9714	2134.59
776808.1	32° 14' 0.30	103° 34' 18	0.3364	18.4237	2228.49
776809.4	32° 14' 1.2	103° 34' 18	1.4317	342.897	2323.43
776810.3	32° 14' 2.1	103° 34' 18	0.6471	350.5376	2417.41
776810.5	32° 14' 3.10	103° 34' 18	1.0531	224.9959	2511.4
776810.1	32° 14' 4.0	103° 34' 18	0.4386	194.0328	2605.39
776809.5	32° 14' 4.90	103° 34' 18	0.1504	315.0057	2699.36
776808.5	32° 14' 5.90	103° 34' 18	0.4707	296.5653	2794.35
776806.6	32° 14' 6.8	103° 34' 18	1.9987	334.7967	2888.33
776804.1	32° 14' 7.7	103° 34' 18	1.9474	6.3352	2981.28
776801.9	32° 14' 8.6	103° 34' 18	0.8577	7.1135	3075.14
776800	32° 14' 9.6	103° 34' 18	2.3372	172.2342	3170.06
776798.4	32° 14' 10.0	103° 34' 18	0.9474	180	3265.05
776796.6	32° 14' 11.4	103° 34' 18	0.7745	195.9452	3359.04
776794.1	32° 14' 12.4	103° 34' 18	0.6383	269.9974	3453.02
776790.6	32° 14' 13.0	103° 34' 18	0.8101	246.7964	3546.97
776786.3	32° 14' 14.0	103° 34' 18	1.0849	348.6895	3640.9
776781.4	32° 14' 15.0	103° 34' 18	0.5669	248.1991	3735.8
776776	32° 14' 16.0	103° 34' 18	0.2379	243.4349	3829.68
776771.1	32° 14' 17.0	103° 34' 18	0.8189	66.8014	3922.58
776766.2	32° 14' 18.0	103° 34' 18	1.0837	330.9494	4017.48
776762.4	32° 14' 18.0	103° 34' 18	2.4252	285.2845	4073.51
776759.1	32° 14' 18.0	103° 34' 18	2.4252	285.2552	4111.23

330' HL Intercept- 17218.14' MD

776755.3	32° 14' 19.1	103° 34' 18	4.3162	87.3629	4162.09
776752	32° 14' 20.1	103° 34' 18	0	0	4221.99 Projection to TD-17367.00' MD