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PRINCIPAL FACTS FOR GRAVITY STATIONS IN THE AREA NORTH OF THE GRAND CANYON IN ARIZONA

BY

PETER POPENOE

This report has not been edited or reviewed for conformity to Geological Survey standards.

(200)
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1. Complete Bouguer gravity anomaly map of the area north of the Grand Canyon in Arizona, by Peter Popenoe. 1 map, scale 1:250,000. 1012 Federal Bldg., Denver, Colo. 80202; 8102 Federal Office Bldg., Salt Lake City, Utah 84111; 504 Custom House, San Francisco, Calif. 94111; 7638 Federal Bldg., Los Angeles, Calif. 90012; Arizona Bureau of Mines, College of Mines, University of Arizona, Tucson, Ariz. 85721. Material from which copy can be made at private expense is available in the Los Angeles office.

✓2. Principal facts for gravity stations in the area north of the Grand Canyon in Arizona, by Peter Popenoe. 16 p. [See information beneath No. 1, above.]

3. Total estimated remaining coal resources of the United States, January 1, 1967, by Paul Averitt. 1 table. 1012 Federal Bldg., Denver, Colo. 80202; 8102 Federal Office Bldg., Salt Lake City, Utah 84111; 7638 Federal Bldg., Los Angeles, Calif. 90012; 504 Custom House, San Francisco, Calif. 94111; 678 U.S. Court House Bldg., West 920 Riverside Ave., Spokane, Wash. 99201; 108 Skyline Bldg., 508 2nd Ave., Anchorage, Alaska 99501. Material from which copy can be made at private expense is available in all depositories.

4. Geology of the Ducktown, Isabella, and Persimmon Creek quadrangles, Tennessee and North Carolina, by Robert M. Hernon. 74 p., 2 figs. on 5 sheets. [Fig. 1 = geol. map, scale 1:48,000, explanation, 2 cross-sections; fig. 2 = location of metamorphic isograds.] 11 Post Office Bldg., Knoxville, Tenn. 37902; Division of Geology, Dept. of Conservation, G-5 State Office Bldg., Nashville, Tenn. 37219; Division of Mineral Resources, Dept. of Conservation and Development, State Office Bldg., Raleigh, N. C. 27602.

Material from which copy of the text, cross-sections, and fig. 2 can be made at private expense is available in the Knoxville office listed above. No reproducible material is available for fig. 1. However, reproducible copy at scale 1:24,000 was open-filed in 1964 and is available in the Knoxville office.

PRINCIPAL FACTS FOR GRAVITY STATIONS IN THE AREA NORTH OF THE GRAND CANYON IN ARIZONA

BY PETER POPENOE

ABBREVIATIONS OF THE HEADINGS OF THE ACCOMPANYING TABLES OF PRINCIPAL FACTS ARE EXPLAINED IN THE FOLLOWING LIST

UP MANTLE GRND CANYON ARIZ	PROJECT AREA DESIGNATION
65	THE YEAR THE STATIONS WERE ESTABLISHED
LAS VEGAS ARPT	GRAVITY BASE STATION WA-128, LAS VEGAS, NEV. LOCATED AT THE CENTER POINT OF THE OLD TERMINAL LOBBY (BEHRENDT AND WOOLLARD, 1961)
979604.90	GRAVITY BASE VALUE STATION WA-128 IN MILLIGALS
MSV	METER SCALE VALUE (GIVEN AS .99999 WHEN MG/UG EXPRESSED AS OBSERVED GRAVITY)
D1	DENSITY OF 2.67 G PER CC
D2	DENSITY OF 2.47 G PER CC
HAMMER	TERRAIN CORRECTION CHART USED TO CALCULATE ZONES A THROUGH H (HAMMER, 1939)). OUTER ZONES WERE COMPUTED TO A DISTANCE OF 166.7 KMS FROM THE STATION BY COMPUTER (PLOUFF, 1966).
STA	STATION NUMBER
7 LAT	NORTH LATITUDE IN DEGREES, MINUTES, AND HUNDREDTHS
6	OF MINUTES
5 LONG	WEST LONGITUDE IN DEGREES, MINUTES, AND HUNDREDTHS
4	OF MINUTES
3 F	ELEVATION IN FEET
2	

OG/UG — OBSERVED GRAVITY IN MILLIGALS. DECIMAL POINT
SHOULD BE MOVED ONE PLACE TO THE LEFT

TC — TERRAIN CORRECTION FOR 2.67 DENSITY

OG — OBSERVED GRAVITY IN MILLIGALS

FTH — THEORETICAL GRAVITY AT SEA LEVEL IN MILLIGALS

FAA — FREE AIR ANOMALY IN MILLIGALS

BA1 — SIMPLE BOUGUER ANOMALY IN MILLIGALS FOR ASSUMED
DENSITY OF 2.67 G PER CC

BA2 — SIMPLE BOUGUER ANOMALY IN MILLIGALS FOR ASSUMED
DENSITY OF 2.47 G PER CC

CC — CURVATURE CORRECTION IN MILLIGALS

TC1 — TERRAIN CORRECTION IN MILLIGALS FOR ASSUMED
DENSITY OF 2.67 G PER CC

TC2 — TERRAIN CORRECTION IN MILLIGALS FOR ASSUMED DENSITY
OF 2.47 G PER CC

CBA1 — COMPLETE BOUGUER ANOMALY IN MILLIGALS
ASSUMING A DENSITY OF 2.67 G PER CC

CBA2 — COMPLETE BOUGUER ANOMALY IN MILLIGALS
ASSUMING A DENSITY OF 2.47 G PER CC

GRAVITY MEASUREMENTS WERE MADE WITH LACOSTE AND RHOMBERG GRAVITY METER G-92
AND WORDEN GRAVITY METER NO 177

REFERENCES

BEHRENDT, J.C. AND WOOLLARD, G.P., 1961, AN EVALUATION OF THE GRAVITY CONTROL
7 NETWORK IN NORTH AMERICA, GEOPHYSICS, V.26, P.63

6 HAMMER, SIGMUND, 1939, TERRAIN CORRECTIONS FOR GRAVIMETER STATIONS, GEOPHYSICS,
5 V.4, PP. 184-194

4 PLOUFF, DONALD, 1966 DIGITAL TERRAIN CORRECTIONS BASED ON GEOGRAPHIC
3 COORDINATES (ABS): GEOPHYSICS, V.31, NO.6 P.1208

2

UP MANTLE GRNDCANYON ARIZ 65 LASVEGAS ARPRT GBV 979604.90 MSV .99999 D1 2.67 D2 2.47 HAMMER 0145

STA	LAT	LONG	E	MG/DG	TC	DG	FTH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0001	37 2.95	112 31.62	4974.0	14540.30	.6	1454.03	1921.25	.49	168.97-	156.27-	1.5	.6	.6	169.9-	157.2-
0002	36 56.74	112 31.57	4671.0	14718.70	1.3	1471.87	1912.28	1.18-	160.31-	148.39-	1.5	1.3	1.2	160.5-	148.7-
0003	36 42.79	112 12.92	7921.0	12325.00	1.0	1232.50	1892.16	85.01	184.85-	164.64-	1.7	1.0	.9	185.6-	165.4-
0004	36 59.56	112 31.80	4848.0	14643.00	.4	1464.30	1916.35	3.82	161.35-	148.98-	1.5	.4	.4	162.5-	150.1-
0005	36 57.81	112 31.59	4713.0	14700.10	.2	1470.01	1913.82	.63-	161.20-	149.17-	1.5	.2	.2	162.5-	150.5-
0006	36 55.85	112 29.50	4822.0	14598.20	.1	1459.82	1910.99	2.25	162.03-	149.72-	1.5	.1	.1	163.4-	151.1-
0007	36 55.47	112 27.50	4751.0	14584.10	.1	1458.41	1910.44	5.28-	167.15-	155.02-	1.5	.1	.1	168.6-	156.4-
0008	36 54.74	112 25.11	4863.0	14447.00	.1	1444.70	1909.39	7.41-	173.09-	160.68-	1.5	.1	.1	174.5-	162.1-
0009	36 54.33	112 23.70	5077.0	14275.30	.1	1427.53	1908.80	3.87-	176.84-	163.89-	1.5	.1	.1	178.2-	165.3-
0010	36 53.33	112 20.89	5418.0	13974.00	.1	1397.40	1907.35	.51-	185.10-	171.27-	1.6	.1	.1	186.6-	172.8-
0011	36 51.98	112 19.02	5722.0	13763.90	.6	1376.39	1905.41	9.00	185.94-	171.34-	1.6	.6	.6	186.9-	172.3-
0012	36 50.92	112 17.11	5904.0	13626.40	1.1	1362.64	1903.88	13.89	187.26-	172.19-	1.7	1.1	1.0	187.9-	172.9-
0013	36 50.80	112 15.19	6435.0	13272.80	1.6	1327.28	1903.70	28.60	190.63-	174.21-	1.7	1.6	1.5	190.7-	174.4-
0014	36 48.55	112 15.30	7147.0	12825.00	2.9	1282.50	1900.46	53.98	189.51-	171.28-	1.7	2.9	2.7	188.3-	170.3-
0015	36 46.81	112 15.38	7550.0	12558.00	3.4	1255.80	1897.95	67.66	189.57-	170.30-	1.7	3.4	3.1	187.9-	168.9-
0016	36 44.95	112 15.78	7615.0	12534.80	2.6	1253.48	1895.27	74.12	185.31-	165.88-	1.7	2.6	2.4	184.4-	165.2-
0017	36 44.60	112 14.02	7739.0	12446.50	2.5	1244.65	1894.77	77.45	186.21-	166.46-	1.7	2.5	2.3	185.4-	165.9-
0018	36 44.18	112 12.89	7827.0	12381.30	2.6	1238.13	1894.16	79.80	186.86-	166.88-	1.7	2.6	2.4	186.0-	166.2-
0019	36 44.00	112 10.78	7663.0	12463.50	2.3	1246.35	1893.90	72.87	186.20-	166.64-	1.7	2.3	2.1	187.6-	168.2-
0020	36 44.03	112 9.73	6926.0	12908.40	4.3	1290.84	1893.95	48.07	187.90-	170.22-	1.7	4.3	4.0	185.3-	167.9-
0021	36 44.29	112 5.94	6575.0	13119.90	2.0	1311.99	1894.32	35.86	188.15-	171.37-	1.7	2.0	1.9	187.9-	171.2-
0022	36 43.51	112 4.30	6150.0	13321.30	2.3	1332.13	1893.20	17.18	192.35-	176.65-	1.7	2.3	2.1	191.8-	176.3-
0023	36 43.85	112 2.70	5376.0	13774.40	2.6	1377.44	1893.69	10.75-	193.90-	180.18-	1.6	2.6	2.4	192.9-	179.4-
0024	36 43.09	112 .12	5149.0	13889.40	1.4	1388.94	1892.59	19.49-	194.91-	181.77-	1.6	1.4	1.3	195.1-	182.1-
0025	36 42.59	111 58.16	5069.0	13926.50	1.2	1392.65	1891.87	22.58-	195.28-	182.34-	1.5	1.2	1.1	195.6-	182.7-
0026	36 42.17	111 56.18	5006.0	13967.80	1.1	1396.78	1891.27	23.77-	194.32-	181.54-	1.5	1.1	1.0	194.7-	182.0-
0027	36 41.65	111 54.09	5001.0	13993.20	1.1	1399.32	1890.52	20.95-	191.33-	178.56-	1.5	1.1	1.0	191.7-	179.1-
0028	36 41.20	111 52.00	4845.0	14106.80	1.5	1410.68	1889.87	23.60-	188.67-	176.30-	1.5	1.5	1.4	188.7-	176.4-
0029	36 41.15	111 50.21	4756.0	14158.20	1.9	1415.82	1889.80	26.76-	188.79-	176.65-	1.5	1.9	1.8	188.4-	176.4-
0030	36 41.97	111 48.04	4541.0	14253.20	2.4	1425.32	1890.98	38.65-	193.36-	181.77-	1.4	2.4	2.2	192.4-	181.0-
0031	36 42.99	111 46.47	4300.0	14351.20	2.9	1435.12	1892.45	52.97-	199.47-	188.50-	1.4	2.9	2.7	198.0-	187.2-
0032	36 44.59	111 45.18	4117.0	14425.10	4.3	1442.51	1894.75	65.09-	205.35-	194.85-	1.4	4.3	4.0	202.5-	192.3-
0033	36 45.20	111 43.15	4047.0	14435.20	2.7	1443.52	1895.63	71.54-	209.42-	199.09-	1.3	2.7	2.5	208.0-	197.9-
0034	36 46.40	111 41.92	3847.0	14568.90	3.0	1456.89	1897.36	78.70-	209.77-	199.95-	1.3	3.0	2.8	208.1-	198.5-
0035	36 47.85	111 40.72	3762.0	14669.00	3.5	1466.90	1899.45	78.77-	206.94-	197.34-	1.3	3.5	3.2	204.7-	195.4-
0036	36 48.76	111 39.32	3587.0	14789.20	3.7	1478.92	1900.76	84.52-	206.73-	197.57-	1.2	3.7	3.4	204.2-	195.4-
0037	36 48.99	111 37.77	3535.0	14781.60	6.2	1478.16	1901.09	90.50-	210.93-	201.91-	1.2	6.2	5.7	205.9-	197.4-
0038	36 48.09	111 36.62	3756.0	14650.10	2.6	1465.01	1899.80	81.57-	209.54-	199.95-	1.3	2.6	2.4	208.2-	198.9-
0039	36 46.42	111 37.23	3979.0	14487.70	2.1	1448.77	1897.39	74.44-	210.00-	199.85-	1.3	2.1	1.9	209.2-	199.3-
0040	36 56.55	112 33.38	4749.0	14695.10	.2	1469.51	1912.00	4.07	157.73-	145.61-	1.5	.2	.2	159.0-	146.9-
0041	36 55.42	112 34.45	4673.0	14731.40	.2	1473.14	1910.37	2.19	157.02-	145.09-	1.5	.2	.2	158.3-	146.4-
0042	36 54.05	112 35.57	4640.0	14730.90	.2	1473.09	1908.39	1.01	157.07-	145.23-	1.5	.2	.2	158.4-	146.5-
0043	36 53.19	112 37.52	4648.0	14699.00	.2	1469.90	1907.15	.19-	158.54-	146.68-	1.5	.2	.2	159.8-	148.0-
0044	36 52.63	112 38.78	4709.0	14644.90	.1	1464.49	1906.34	.95	159.48-	147.47-	1.5	.1	.1	160.9-	148.9-
0045	36 52.55	112 41.21	4785.0	14600.20	.2	1460.02	1906.23	3.74	159.28-	147.07-	1.5	.2	.2	160.6-	148.4-

UP MANTLE GRNDCANYON ARIZ 65 LASVEGAS ARPRT GBV 979604.90 MSV .99999 D1 2.67 D2 2.47 HAMMER 0145

STA	LAT	LONG	E	MG/DG	TC	DG	ETH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0046	36 51.70	112 42.40	4734.0	14618.80	.2	1461.88	1905.00	2.03	159.25-	147.17-	1.5	.2	.2	160.6-	148.5-
0047	36 51.71	112 44.19	4952.0	14466.80	.3	1446.66	1905.02	7.31	161.40-	148.77-	1.5	.3	.3	162.6-	150.0-
0048	36 51.25	112 46.44	4850.0	14492.60	.4	1449.26	1904.35	.96	164.27-	151.90-	1.5	.4	.4	165.4-	153.0-
0049	36 50.78	112 49.58	4859.0	14475.40	.3	1447.54	1903.68	.77	164.78-	152.38-	1.5	.3	.3	166.0-	153.6-
0050	36 50.79	112 51.78	4891.0	14491.10	.2	1449.11	1903.69	5.33	161.30-	148.82-	1.5	.2	.2	162.6-	150.1-
0051	36 51.07	112 54.02	5114.0	14385.40	.2	1438.54	1904.09	15.32	158.91-	145.86-	1.6	.2	.2	160.3-	147.3-
0052	36 52.50	112 54.98	5154.0	14338.30	.3	1433.83	1906.16	12.30	163.29-	150.14-	1.6	.3	.3	164.6-	151.4-
0053	36 54.23	112 54.99	5170.0	14311.40	.3	1431.14	1908.65	8.62	167.52-	154.32-	1.6	.3	.3	168.8-	155.6-
0054	36 55.93	112 55.13	5014.0	14403.10	.3	1440.31	1911.11	.67	170.15-	157.35-	1.5	.3	.3	171.4-	158.6-
0055	36 56.83	112 56.21	5028.0	14411.20	.4	1441.12	1912.41	1.50	169.80-	156.97-	1.5	.4	.4	170.9-	158.1-
0056	36 56.80	112 58.38	4909.0	14525.80	.3	1452.58	1912.36	1.82	165.43-	152.90-	1.5	.3	.3	166.6-	154.1-
0057	36 57.95	112 58.31	5041.0	14447.50	.4	1444.75	1914.02	4.74	167.01-	154.14-	1.5	.4	.4	168.1-	155.2-
0058	36 59.81	112 58.80	4991.0	14484.60	.8	1448.46	1916.71	1.06	168.98-	156.24-	1.5	.8	.7	169.7-	157.0-
0059	36 51.09	112 39.39	4593.0	14677.80	.1	1467.78	1904.12	4.45-	160.93-	149.20-	1.5	.1	.1	162.3-	150.6-
0060	36 49.93	112 40.42	4549.0	14676.70	.1	1467.67	1902.45	7.02-	162.00-	150.39-	1.4	.1	.1	163.3-	151.7-
0061	36 48.44	112 40.68	4540.0	14641.30		1464.13	1900.30	9.26-	163.93-	152.34-	1.4	.0	.0	165.3-	153.7-
0062	36 47.07	112 41.78	4533.0	14616.90		1461.69	1898.33	10.38-	164.81-	153.25-	1.4	.0	.0	166.2-	154.7-
0063	36 45.95	112 43.00	4662.0	14515.40		1451.54	1896.71	6.79-	165.62-	153.72-	1.5	.0	.0	167.1-	155.2-
0064	36 44.53	112 44.60	4701.0	14459.80	.1	1445.98	1894.67	6.64-	166.79-	154.80-	1.5	.1	.1	168.2-	156.2-
0065	36 43.10	112 45.27	4786.0	14377.90		1437.79	1892.61	4.78-	167.83-	155.62-	1.5	.0	.0	169.3-	157.1-
0066	36 41.80	112 46.50	4877.0	14324.30		1432.43	1890.73	.29	165.86-	153.42-	1.5	.0	.0	167.4-	154.9-
0067	36 40.98	112 48.19	4922.0	14305.10		1430.51	1889.55	3.78	163.91-	151.35-	1.5	.0	.0	165.4-	152.9-
0068	36 40.02	112 49.21	4895.0	14306.90	.1	1430.69	1888.17	2.81	163.96-	151.47-	1.5	.1	.1	165.4-	152.9-
0069	36 38.22	112 49.75	4974.0	14238.20	.1	1423.82	1885.58	5.95	163.51-	150.81-	1.5	.1	.1	164.9-	152.2-
0070	36 36.96	112 50.91	4951.0	14221.60	.1	1422.16	1883.77	3.94	164.73-	152.10-	1.5	.1	.1	166.1-	153.5-
0071	36 36.15	112 52.49	5285.0	14018.40	.2	1401.84	1882.60	16.18	163.87-	150.38-	1.6	.2	.2	165.3-	151.8-
0072	36 34.25	112 52.79	5337.0	13956.30	.2	1395.63	1879.87	17.59	164.23-	150.61-	1.6	.2	.2	165.6-	152.0-
0073	36 31.87	112 53.50	5381.0	13917.80	.3	1391.78	1876.45	21.30	162.02-	148.29-	1.6	.3	.3	163.3-	149.6-
0074	36 30.82	112 55.90	5502.0	13820.70	.3	1382.07	1874.94	24.48	162.97-	148.93-	1.6	.3	.3	164.3-	150.2-
0075	36 30.82	112 57.00	5622.0	13758.60	.3	1375.86	1874.94	29.54	161.99-	147.65-	1.6	.3	.3	163.3-	149.0-
0076	36 30.18	112 59.24	5696.0	13723.30	.5	1372.33	1874.02	33.89	160.17-	145.63-	1.6	.5	.5	161.3-	146.7-
0077	36 29.99	113 .80	5875.0	13608.90	.9	1360.89	1873.75	39.55	160.61-	145.62-	1.7	.9	.8	161.4-	146.5-
0078	36 12.85	113 3.40	4552.0	13770.20	16.0	1377.02	1849.16	44.09-	199.17-	187.55-	1.4	16.0	14.8	184.6-	174.2-
0079	36 15.29	113 4.20	4606.0	14029.40	2.5	1402.94	1852.65	16.59-	173.51-	161.75-	1.5	2.5	2.3	172.5-	161.0-
0080	36 16.60	113 4.21	4649.0	14049.00	4.5	1404.90	1854.53	12.46-	170.85-	158.99-	1.5	4.5	4.2	167.9-	156.3-
0081	36 17.75	113 3.70	4713.0	14040.50	2.1	1404.05	1856.18	8.94-	169.51-	157.48-	1.5	2.1	1.9	168.9-	157.1-
0082	36 18.47	113 3.25	4772.0	14061.80	4.9	1406.18	1857.21	2.30-	164.88-	152.70-	1.5	4.9	4.5	161.5-	149.7-
0083	36 21.23	113 3.05	4912.0	14017.60	1.7	1401.76	1861.17	2.48	164.87-	152.33-	1.5	1.7	1.6	164.7-	152.2-
0084	36 22.12	113 2.80	4993.0	13980.00	1.8	1398.00	1862.45	5.06	165.05-	152.31-	1.5	1.8	1.7	164.8-	152.1-
0085	36 23.82	113 3.35	5150.0	13933.10	1.4	1393.31	1864.89	12.68	162.77-	149.63-	1.6	1.4	1.3	163.0-	149.9-
0086	36 25.55	113 3.42	5225.0	13912.80	1.8	1391.28	1867.37	15.22	162.79-	149.46-	1.6	1.8	1.7	162.6-	149.4-
0087	36 27.09	113 2.47	5509.0	13793.50	.8	1379.35	1869.58	27.77	159.91-	145.86-	1.6	.8	.7	160.7-	146.8-
0088	36 28.85	113 1.37	5629.0	13739.80	.6	1373.98	1872.11	31.15	160.62-	146.26-	1.6	.6	.6	161.6-	147.3-
0089	36 50.78	112 56.08	5064.0	14421.50	.2	1442.15	1903.68	14.65	157.88-	144.96-	1.5	.2	.2	159.2-	146.3-
0090	36 50.78	112 57.18	5065.0	14423.50	.1	1442.35	1903.68	14.94	157.62-	144.69-	1.5	.1	.1	159.0-	146.1-

UP MANTLE GRNDCANYON ARIZ 65 LASVEGAS ARPRT GBV 979604.90 MSV .99999 D1 2.67 D2 2.47 HAMMER 0145

STA	LAT	LONG	E	MG/DG	TC	DG	FTH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0091	36 50.75	112 59.62	5067.0	14465.70	.1	1446.57	1903.63	19.39	153.24-	140.31-	1.5	.1	.1	154.6-	141.7-
0092	36 51.13	113 3.42	4962.0	14561.60	.1	1456.16	1904.18	18.56	150.49-	137.83-	1.5	.1	.1	151.9-	139.2-
0093	36 48.73	113 3.46	4953.0	14551.70	.1	1455.17	1900.72	20.19	148.56-	135.92-	1.5	.1	.1	150.0-	137.3-
0094	36 46.90	113 3.63	4979.0	14511.60	.1	1451.18	1898.08	21.28	148.35-	135.64-	1.5	.1	.1	149.8-	137.0-
0095	36 45.18	113 3.78	4927.0	14526.90	.1	1452.69	1895.60	20.38	147.48-	134.90-	1.5	.1	.1	148.9-	136.3-
0096	36 43.67	113 4.00	4882.0	14531.10	.1	1453.11	1893.43	18.75	147.58-	135.12-	1.5	.1	.1	149.0-	136.5-
0097	36 41.55	113 4.10	4984.0	14441.50	.1	1444.15	1890.37	22.43	147.37-	134.65-	1.5	.1	.1	148.8-	136.1-
0098	36 39.90	113 4.30	4964.0	14435.60	.1	1443.56	1888.00	22.33	146.78-	134.12-	1.5	.1	.1	148.2-	135.5-
0099	36 38.20	113 4.50	5029.0	14361.90	.2	1436.19	1885.55	23.52	147.81-	134.98-	1.5	.2	.2	149.1-	136.3-
0100	36 36.43	113 4.55	5029.0	14257.70	.4	1425.77	1883.01	15.65	155.68-	142.85-	1.5	.4	.4	156.8-	144.0-
0101	36 35.20	113 4.50	5206.0	14148.70	.5	1414.87	1881.24	23.16	154.21-	140.92-	1.6	.5	.5	155.3-	142.0-
0102	36 34.10	113 4.30	5305.0	14060.70	.4	1406.07	1879.65	25.24	155.49-	141.96-	1.6	.4	.4	156.7-	143.2-
0103	36 32.80	113 4.33	5525.0	13912.50	.5	1391.25	1877.79	32.97	155.26-	141.16-	1.6	.5	.5	156.4-	142.3-
0104	36 31.90	113 3.50	5574.0	13860.00	.5	1386.00	1876.49	33.62	156.28-	142.06-	1.6	.5	.5	157.4-	143.2-
0105	36 30.00	113 2.60	5681.0	13770.00	.6	1377.00	1873.76	37.41	156.14-	141.64-	1.6	.6	.6	157.1-	142.6-
0106	36 24.10	113 10.05	6346.0	13314.90	2.3	1331.49	1865.29	62.87	153.33-	137.13-	1.7	2.3	2.1	152.7-	136.7-
0108	36 25.58	113 9.90	6330.0	13344.10	2.1	1334.41	1867.41	62.16	153.49-	137.34-	1.7	2.1	1.9	153.1-	137.1-
0109	36 24.20	113 12.05	6395.0	13318.40	1.7	1331.84	1865.43	67.69	150.19-	133.87-	1.7	1.7	1.6	150.2-	134.0-
0110	36 24.60	113 14.00	6214.0	13452.30	1.5	1345.23	1866.00	63.49	148.22-	132.36-	1.7	1.5	1.4	148.4-	132.7-
0111	36 24.93	113 16.37	6299.0	13424.20	2.0	1342.42	1866.48	68.19	146.41-	130.33-	1.7	2.0	1.9	146.1-	130.1-
0112	36 24.68	113 18.38	5440.0	13934.40	1.5	1393.44	1866.12	38.84	146.50-	132.62-	1.6	1.5	1.4	146.6-	132.8-
0113	36 24.77	113 19.50	5310.0	14024.10	1.0	1402.41	1866.25	35.46	145.45-	131.90-	1.6	1.0	.9	146.1-	132.6-
0114	36 26.43	113 19.53	5275.0	14042.20	1.1	1404.22	1868.63	31.60	148.12-	134.66-	1.6	1.1	1.0	148.6-	135.3-
0115	36 27.40	113 20.60	5162.0	14110.90	.8	1411.09	1870.03	26.45	149.41-	136.24-	1.6	.8	.7	150.2-	137.1-
0116	36 28.75	113 21.05	5096.0	14158.20	.8	1415.82	1871.97	23.04	150.58-	137.57-	1.6	.8	.7	151.4-	138.5-
0117	36 30.40	113 21.40	5033.0	14214.60	.7	1421.46	1874.34	20.39	151.08-	138.24-	1.5	.7	.6	151.9-	139.1-
0118	36 31.78	113 21.78	5035.0	14220.60	.6	1422.06	1876.32	19.19	152.35-	139.50-	1.5	.6	.6	153.3-	140.4-
0119	36 32.63	113 23.10	5039.0	14225.30	.5	1422.53	1877.54	18.81	152.66-	140.00-	1.5	.5	.5	153.9-	141.0-
0120	36 34.23	113 23.60	5144.0	14176.70	.5	1417.67	1879.84	21.52	153.73-	140.60-	1.6	.5	.5	154.8-	141.7-
0121	36 35.85	113 24.33	5041.0	14262.50		1426.25	1882.17	18.09	153.65-	140.79-	1.5	.0	.0	155.2-	142.3-
0122	36 37.18	113 25.45	5013.0	14298.70		1429.87	1884.09	17.17	153.62-	140.83-	1.5	.0	.0	155.1-	142.3-
0123	36 45.89	112 41.67	4645.0	14507.90		1450.79	1896.63	9.05-	167.30-	155.45-	1.5	.0	.0	168.8-	157.0-
0124	36 43.98	112 41.11	4816.0	14352.30		1435.23	1893.87	5.78-	169.86-	157.57-	1.5	.0	.0	171.4-	159.1-
0125	36 41.81	112 40.91	4980.0	14215.60	.1	1421.56	1890.75	.91-	170.58-	157.87-	1.5	.1	.1	172.0-	159.3-
0126	36 40.02	112 40.52	5129.0	14123.70	.3	1412.37	1888.17	6.48	168.26-	155.17-	1.6	.3	.3	169.6-	156.5-
0127	36 38.66	112 38.91	5118.0	14109.50	.5	1410.95	1886.21	5.99	168.38-	155.32-	1.6	.5	.5	169.5-	156.4-
0128	36 37.79	112 38.55	5227.0	14026.60	1.9	1402.66	1884.96	9.19	168.89-	155.55-	1.6	1.9	1.8	168.6-	155.4-
0129	36 36.20	112 38.32	5298.0	13965.80	3.3	1396.58	1882.67	12.07	168.42-	154.90-	1.6	3.3	3.1	166.7-	153.4-
0130	36 40.78	112 43.12	5030.0	14207.70	.1	1420.77	1889.27	4.48	166.89-	154.05-	1.5	.1	.1	168.3-	155.5-
0131	36 40.48	112 46.74	4954.0	14283.10		1428.31	1888.83	5.31	163.47-	150.83-	1.5	.0	.0	165.0-	152.3-
0132	36 38.72	112 46.40	5058.0	14181.40	.1	1418.14	1886.30	7.45	164.87-	151.96-	1.5	.1	.1	166.3-	153.4-
0133	36 35.60	112 45.75	5393.0	13917.20	.9	1391.72	1881.81	17.01	166.73-	152.97-	1.6	.9	.8	167.4-	153.8-
0134	36 34.97	112 43.65	5251.0	13978.70	3.1	1397.87	1880.91	10.72	168.18-	154.78-	1.6	3.1	2.9	166.7-	153.5-
0135	36 31.01	112 51.85	5431.0	13879.70	.3	1387.97	1875.21	23.43	161.60-	147.74-	1.6	.3	.3	162.9-	149.0-
0136	36 30.35	112 50.42	5378.0	13902.40	.3	1390.24	1874.26	21.67	161.56-	147.83-	1.6	.3	.3	162.9-	149.1-

UP MANTLE GRNDCANYON ARIZ 65 LASVEGAS ARPRT GBV 979604.90 MSV .99999 D1 2.67 D2 2.47 HAMMER 0145

STA	LAT	LONG	E	MG/DG	TC	DG	FTM	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0137	36 28.70	112 48.91	5378.0	13887.10	.3	1388.71	1871.89	22.51	160.72-	146.99-	1.6	.3	.3	162.0-	148.3-
0138	36 28.92	112 46.11	5491.0	13815.70	1.1	1381.57	1872.21	25.67	161.40-	147.39-	1.6	1.1	1.0	161.9-	148.0-
0139	36 29.52	112 45.50	5545.0	13787.40	1.4	1378.74	1873.07	27.06	161.86-	147.71-	1.6	1.4	1.3	162.1-	148.0-
0140	36 31.21	112 42.38	5635.0	13731.70	4.2	1373.17	1875.50	27.52	164.46-	150.08-	1.6	4.2	3.9	161.9-	147.8-
0141	36 29.66	112 43.63	5592.0	13763.70	1.1	1376.37	1873.27	28.90	161.61-	147.34-	1.6	1.1	1.0	162.1-	147.9-
0142	36 28.00	112 43.08	5682.0	13661.70	1.4	1366.17	1870.89	29.55	164.03-	149.53-	1.6	1.4	1.3	164.2-	149.8-
0143	36 26.58	112 41.61	5748.0	13524.40	8.0	1352.44	1868.85	24.06	171.77-	157.10-	1.6	8.0	7.4	165.4-	151.3-
0144	36 25.07	112 41.90	5793.0	13508.00	2.9	1350.80	1866.68	28.82	168.55-	153.76-	1.7	2.9	2.7	167.4-	152.8-
0145	36 24.31	112 39.90	5734.0	13470.90	7.4	1347.09	1865.59	20.65	174.70-	160.07-	1.6	7.4	6.8	168.9-	154.9-
0146	36 24.02	112 44.35	5593.0	13649.30	1.9	1364.93	1865.17	25.66	164.89-	150.62-	1.6	1.9	1.8	164.6-	150.4-
0147	36 43.10	113 27.80	4907.0	14489.40	.6	1448.94	1892.61	17.75	149.43-	136.91-	1.5	.6	.6	150.3-	137.8-
0148	36 41.45	113 27.40	4968.0	14408.00	.4	1440.80	1890.23	17.72	151.54-	138.86-	1.5	.4	.4	152.6-	140.0-
0149	36 41.50	113 24.95	4816.0	14518.60		1451.86	1890.30	14.42	149.66-	137.37-	1.5	.0	.0	151.2-	138.9-
0150	36 42.50	113 22.53	4500.0	14732.50		1473.25	1891.74	4.66	148.65-	137.16-	1.4	.0	.0	150.1-	138.6-
0151	36 43.55	113 20.58	4312.0	14879.30		1487.93	1893.26	.16	146.75-	135.74-	1.4	.0	.0	148.2-	137.1-
0152	36 43.87	113 18.80	4300.0	14920.10		1492.01	1893.72	2.49	143.71-	132.74-	1.7	.0	.0	145.4-	134.4-
0153	36 45.45	113 17.38	4457.0	14836.30	.8	1483.63	1895.99	6.75	145.09-	133.72-	1.4	.8	.7	145.7-	134.4-
0154	36 47.60	113 17.43	5271.0	14414.40	1.8	1441.44	1899.09	37.98	141.60-	126.15-	1.6	1.8	1.7	141.4-	128.1-
0155	36 48.29	113 14.70	5070.0	14606.00	.4	1460.60	1900.08	37.25	135.48-	122.54-	1.5	.4	.4	136.6-	123.6-
0156	36 47.73	113 11.19	4946.0	14676.90		1467.69	1899.28	33.49	135.01-	122.39-	1.5	.0	.0	136.5-	123.9-
0157	36 49.04	113 8.78	4751.0	14714.40		1471.44	1901.17	17.02	144.84-	132.71-	1.5	.0	.0	146.3-	134.2-
0158	36 49.05	113 5.79	4944.0	14608.70		1460.87	1901.18	24.58	143.86-	131.24-	1.5	.0	.0	145.4-	132.7-
0159	36 24.20	112 59.12	5878.0	13473.80	.9	1347.38	1865.43	34.64	165.62-	150.62-	1.7	.9	.8	166.4-	151.5-
0160	36 22.90	112 58.31	5918.0	13424.70	1.1	1342.47	1863.56	35.35	166.27-	151.17-	1.7	1.1	1.0	166.9-	151.9-
0161	36 25.11	112 56.42	5813.0	13537.90	.8	1353.79	1866.74	33.63	164.41-	149.58-	1.7	.8	.7	165.3-	150.6-
0162	36 24.58	112 54.83	5914.0	13476.50	1.3	1347.65	1865.98	37.74	163.74-	148.65-	1.7	1.3	1.2	164.1-	149.2-
0163	36 24.09	112 51.54	5709.0	13588.70	1.0	1358.87	1865.27	30.40	164.10-	149.53-	1.6	1.0	.9	164.7-	150.2-
0164	36 23.15	112 48.82	5757.0	13537.10	1.4	1353.71	1863.92	31.10	165.04-	150.34-	1.6	1.4	1.3	165.2-	150.6-
0165	36 22.00	112 48.35	5879.0	13416.80	2.4	1341.68	1862.27	32.19	168.11-	153.10-	1.7	2.4	2.2	167.4-	152.6-
0166	36 20.58	112 46.49	5713.0	13397.00	11.2	1339.70	1860.24	16.64	177.99-	163.41-	1.6	11.2	10.4	168.4-	154.6-
0167	36 55.94	112 24.81	4822.0	14472.20		1447.22	1911.12	10.48-	174.76-	162.45-	1.5	.0	.0	176.3-	164.0-
0168	36 57.70	112 23.70	4930.0	14400.00		1440.00	1913.66	10.09-	178.05-	165.47-	1.5	.0	.0	179.6-	167.0-
0169	37 .22	112 23.30	5038.0	14370.30		1437.03	1917.30	6.55-	178.19-	165.33-	1.5	.0	.0	179.7-	166.8-
0170	37 .08	112 14.83	5254.0	14104.90		1410.49	1917.10	12.58-	191.58-	178.17-	1.6	.0	.0	193.2-	179.8-
0171	36 58.68	112 12.79	5553.0	13888.50		1388.85	1915.08	4.09-	193.28-	179.11-	1.6	.0	.0	194.9-	180.7-
0172	36 57.11	112 14.16	5473.0	13933.30	.5	1393.33	1912.81	4.87-	191.33-	177.36-	1.6	.5	.5	192.4-	178.5-
0173	36 56.22	112 15.22	5422.0	13961.60	.6	1396.16	1911.53	5.54-	190.27-	176.43-	1.6	.6	.6	191.3-	177.4-
0174	36 56.00	112 13.07	5925.0	13650.50	1.1	1365.05	1911.21	10.94	190.92-	175.80-	1.7	1.1	1.0	191.5-	176.5-
0175	36 55.30	112 11.88	6438.0	13340.20	1.1	1334.02	1910.20	29.13	190.21-	173.78-	1.7	1.1	1.0	190.8-	174.5-
0176	36 54.48	112 9.92	6668.0	13187.00	1.1	1318.70	1909.01	36.61	190.56-	173.55-	1.7	1.1	1.0	191.2-	174.3-
0177	36 45.03	112 11.27	7436.0	12607.30	1.9	1260.73	1895.39	64.44	188.90-	169.92-	1.7	1.9	1.8	188.7-	169.8-
0178	36 45.99	112 11.75	7595.0	12504.00	2.3	1250.40	1896.77	67.67	191.09-	171.71-	1.7	2.3	2.1	190.5-	171.3-
0179	36 48.14	112 9.80	7104.0	12812.60	1.6	1281.26	1899.87	49.29	192.74-	174.61-	1.7	1.6	1.5	192.8-	174.8-
0180	36 49.87	112 9.32	6869.0	12973.80	1.4	1297.38	1902.36	40.83	193.19-	175.66-	1.7	1.4	1.3	193.5-	176.1-
0181	36 51.85	112 8.95	6668.0	13129.70	1.0	1312.97	1905.22	34.68	192.50-	175.48-	1.7	1.0	.9	193.2-	176.3-

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STA	LAT	LONG	E	MG/DG	TC	DG	FTH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0182	36 53.03	112 8.59	6594.0	13205.10	1.0	1320.51	1906.92	33.56	191.09-	174.27-	1.7	1.0	.9	191.8-	175.1-
0183	36 54.73	112 8.16	6529.0	13285.50	.9	1328.55	1909.37	33.04	189.40-	172.74-	1.7	.9	.8	190.2-	173.6-
0184	36 55.06	112 6.32	6543.0	13279.10	1.0	1327.91	1909.85	33.24	189.68-	172.98-	1.7	1.0	.9	190.4-	173.8-
0185	36 55.95	112 4.83	6207.0	13461.80	1.2	1346.18	1911.13	18.65	192.82-	176.98-	1.7	1.2	1.1	193.3-	177.6-
0186	36 56.43	112 3.36	5494.0	13868.10	1.2	1386.81	1911.83	8.43-	195.61-	181.59-	1.6	1.2	1.1	196.0-	182.1-
0187	36 58.68	112 2.00	5104.0	14099.00	2.4	1409.90	1915.08	25.25-	199.14-	186.11-	1.6	2.4	2.2	198.3-	185.5-
0188	37 .06	112 1.92	5004.0	14177.50	2.5	1417.75	1917.07	28.79-	199.27-	186.50-	1.5	2.5	2.3	198.3-	185.7-
0189	36 55.07	112 3.12	5506.0	13861.40	1.4	1386.14	1909.87	6.01-	193.59-	179.54-	1.6	1.4	1.3	193.8-	179.8-
0190	36 53.47	112 3.41	5773.0	13689.60	1.5	1368.96	1907.56	4.22	192.47-	177.73-	1.6	1.5	1.4	192.6-	177.9-
0191	36 51.96	112 3.73	5960.0	13558.00	1.6	1355.80	1905.38	11.37	191.88-	176.66-	1.7	1.6	1.5	192.0-	176.9-
0192	36 50.48	112 3.83	5994.0	13526.50	1.6	1352.65	1903.24	12.99	191.22-	175.92-	1.7	1.6	1.5	191.3-	176.1-
0193	36 49.02	112 4.29	5791.0	13640.10	1.9	1364.01	1901.14	7.38	189.92-	175.14-	1.7	1.9	1.8	189.7-	175.0-
0194	36 46.98	112 3.72	5556.0	13766.20	2.2	1376.62	1898.20	.84	188.45-	174.27-	1.6	2.2	2.0	187.9-	173.9-
0195	36 45.71	112 3.16	5445.0	13797.10	2.0	1379.71	1896.37	4.67-	190.18-	176.28-	1.6	2.0	1.9	189.8-	176.0-
0196	36 56.28	111 29.60	3862.0	14818.30		1481.83	1911.61	66.61-	198.18-	188.32-	1.3	.0	.0	199.5-	189.6-
0197	36 58.12	111 29.90	4249.0	14615.60		1461.56	1914.27	53.15-	197.91-	187.07-	1.4	.0	.0	199.3-	188.5-
0198	36 59.88	111 30.82	4060.0	14747.40	.7	1474.74	1916.81	60.28-	198.60-	188.24-	1.3	.7	.6	199.2-	188.9-
0199	37 .15	111 34.40	4041.0	14717.40		1471.74	1917.20	65.46-	203.13-	192.82-	1.3	.0	.0	204.4-	194.1-
0200	37 2.40	111 37.03	3922.0	14807.60	1.0	1480.76	1920.45	70.87-	204.49-	194.48-	1.3	1.0	.9	204.8-	194.9-
0201	36 51.69	112 1.62	6026.0	13462.50	.6	1346.25	1904.99	7.85	197.45-	182.07-	1.7	.6	.6	198.6-	183.2-
0202	36 52.32	111 59.49	6195.0	13324.70	.7	1332.47	1905.90	9.05	202.01-	186.20-	1.7	.7	.6	203.0-	187.3-
0203	36 54.45	111 58.28	5948.0	13498.20	.5	1349.82	1908.97	.11	202.54-	187.36-	1.7	.5	.5	203.7-	188.6-
0204	36 56.67	111 58.22	5815.0	13596.90	.6	1359.69	1912.17	5.73-	203.84-	189.00-	1.7	.6	.6	204.9-	190.1-
0205	36 50.43	111 56.90	6414.0	13157.30	.8	1315.73	1903.17	15.61	202.91-	186.54-	1.7	.8	.7	203.8-	187.5-
0206	36 50.09	111 55.85	6502.0	13077.20	.9	1307.72	1902.68	16.36	205.15-	188.56-	1.7	.9	.8	206.0-	189.5-
0207	36 50.58	111 53.07	6403.0	13153.50	.9	1315.35	1903.39	13.98	204.16-	187.82-	1.7	.9	.8	205.0-	188.7-
0208	36 54.45	111 49.85	5918.0	13532.30	.6	1353.23	1908.97	.70	200.92-	185.82-	1.7	.6	.6	202.0-	186.9-
0209	36 53.85	111 45.10	6279.0	13272.50	1.5	1327.25	1908.10	9.51	204.41-	188.38-	1.7	1.5	1.4	204.6-	188.7-
0210	36 48.98	111 48.09	6567.0	12969.10	1.6	1296.91	1901.08	13.26	210.47-	193.71-	1.7	1.6	1.5	210.6-	193.9-
0211	36 47.12	111 51.22	6539.0	12965.20	1.4	1296.52	1898.40	12.92	209.85-	193.17-	1.7	1.4	1.3	210.2-	193.6-
0212	36 47.55	111 51.97	6460.0	13025.10	1.2	1302.51	1899.02	10.87	209.22-	192.73-	1.7	1.2	1.1	209.7-	193.3-
0213	36 46.92	111 53.90	6582.0	12970.00	1.4	1297.00	1898.11	17.73	206.51-	189.71-	1.7	1.4	1.3	206.8-	190.1-
0214	36 35.89	111 39.47	5186.0	13770.40	1.3	1377.04	1882.23	17.55-	198.23-	180.99-	1.6	1.3	1.2	194.5-	181.4-
0215	36 38.81	111 39.40	5073.0	13859.80	1.3	1385.98	1886.43	23.43-	196.26-	183.32-	1.5	1.3	1.2	196.5-	183.6-
0216	36 39.80	111 38.98	4984.0	13886.50	1.8	1388.65	1887.86	30.55-	200.35-	187.63-	1.5	1.8	1.7	200.1-	187.4-
0217	36 41.80	111 39.20	4581.0	14066.80	2.0	1406.68	1890.73	53.28-	209.35-	197.66-	1.5	2.0	1.9	208.9-	197.3-
0218	36 44.13	111 38.28	4050.0	14390.90	1.8	1439.09	1894.09	74.15-	212.13-	201.79-	1.3	1.8	1.7	211.6-	201.4-
0219	36 50.88	111 37.23	3442.0	14910.50	3.7	1491.05	1903.82	89.08-	206.35-	197.56-	1.2	3.7	3.4	203.9-	195.4-
0220	36 51.97	111 34.82	3151.0	15059.20	9.7	1505.92	1905.39	103.14-	210.49-	202.45-	1.1	9.7	9.0	201.9-	194.6-
0221	36 40.60	111 57.03	4954.0	13967.80	1.0	1396.78	1889.01	26.39-	195.17-	182.53-	1.5	1.0	.9	195.7-	183.1-
0222	36 38.72	111 56.50	4915.0	14004.60	1.0	1400.46	1886.30	23.67-	191.12-	178.58-	1.5	1.0	.9	191.6-	179.2-
0223	36 36.98	111 58.83	5204.0	13793.30	1.6	1379.33	1883.80	15.13-	192.43-	179.15-	1.6	1.6	1.5	192.4-	179.3-
0224	36 35.03	111 59.01	5346.0	13678.60	1.9	1367.86	1880.99	10.45-	192.58-	178.94-	1.6	1.9	1.8	192.3-	178.7-
0225	36 34.22	111 59.99	5543.0	13545.10	2.6	1354.51	1879.83	4.12-	192.96-	178.82-	1.6	2.6	2.4	192.0-	178.0-
0226	36 32.34	111 59.52	5500.0	13535.10	2.6	1353.51	1877.12	6.46-	193.84-	179.80-	1.6	2.6	2.4	192.8-	179.0-

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STA	LAT	LONG	E	MG/DG	TC	DG	ETH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0227	36 30.70	111 59.52	5555.0	13461.00	2.7	1346.10	1874.77	6.34-	195.60-	181.42-	1.6	2.7	2.5	194.5-	180.5-
0228	36 28.95	111 58.80	5574.0	13401.90	2.0	1340.19	1872.25	7.95-	197.85-	183.63-	1.6	2.0	1.9	197.5-	183.3-
0229	36 27.48	111 58.52	5746.0	13286.90	1.8	1328.69	1870.14	1.17-	196.93-	182.27-	1.6	1.8	1.7	196.7-	182.2-
0230	36 25.58	111 58.40	5742.0	13255.30	2.0	1325.53	1867.41	1.98-	197.60-	182.95-	1.6	2.0	1.9	197.2-	182.7-
0231	36 24.32	111 57.40	5928.0	13114.20	1.9	1311.42	1865.60	3.20	198.76-	183.63-	1.7	1.9	1.8	198.6-	183.5-
0232	36 22.54	111 57.20	6176.0	12928.00	2.5	1292.80	1863.05	10.45	199.97-	184.20-	1.7	2.5	2.3	199.2-	183.6-
0233	36 20.23	111 57.22	6794.0	12539.10	4.1	1253.91	1859.73	32.95	198.52-	181.18-	1.7	4.1	3.8	196.1-	179.1-
0234	36 26.31	111 54.21	5722.0	13288.10	2.2	1328.81	1868.46	1.63-	196.57-	181.97-	1.6	2.2	2.0	196.0-	181.6-
0235	36 27.53	111 52.20	5613.0	13405.90	3.0	1340.59	1870.21	1.84-	193.07-	178.75-	1.6	3.0	2.8	191.7-	177.6-
0236	36 28.40	111 51.60	5539.0	13416.20	8.5	1341.62	1871.46	9.02-	197.73-	183.59-	1.6	8.5	7.9	190.8-	177.3-
0237	36 23.52	112 .49	6270.0	12914.00	3.6	1291.40	1864.45	16.47	197.14-	181.14-	1.7	3.6	3.3	195.2-	179.5-
0238	36 21.59	112 .30	6775.0	12616.40	4.0	1261.64	1861.69	36.94	193.68-	176.59-	1.7	4.0	3.7	191.6-	174.6-
0239	36 31.80	111 56.52	5286.0	13637.20	1.1	1363.72	1876.35	15.59-	195.68-	182.19-	1.6	1.1	1.0	196.2-	182.8-
0240	36 33.31	111 54.53	5169.0	13765.80	.8	1376.58	1878.52	15.89-	192.00-	178.81-	1.6	.8	.7	192.8-	179.7-
0241	36 55.55	111 28.27	4029.0	14725.00	.1	1472.50	1910.56	59.18-	196.45-	186.16-	1.3	.1	.1	197.7-	187.4-
0242	36 53.70	111 29.49	4184.0	14572.40		1457.24	1907.89	57.20-	199.74-	189.07-	1.4	.0	.0	201.1-	190.5-
0243	36 51.83	111 30.22	4386.0	14401.20	.1	1440.12	1905.19	52.63-	202.06-	190.87-	1.4	.1	.1	203.4-	192.2-
0244	36 50.22	111 30.42	4572.0	14253.00		1425.30	1902.87	47.64-	203.41-	191.74-	1.5	.0	.0	204.9-	193.2-
0245	36 31.20	112 6.47	8474.0	11800.30	4.3	1180.03	1875.49	101.17	187.53-	165.90-	1.7	4.3	4.0	184.9-	163.6-
0246	36 32.59	112 5.51	8204.0	11966.10	5.2	1196.61	1877.48	90.39	189.12-	168.18-	1.7	5.2	4.8	185.6-	165.1-
0247	36 30.05	112 6.81	8646.0	11673.20	4.5	1167.32	1873.83	106.46	188.17-	166.10-	1.7	4.5	4.2	185.4-	163.6-
0248	36 33.13	112 4.38	7312.0	12526.50	3.6	1252.65	1878.26	61.84	187.28-	168.62-	1.7	3.6	3.3	185.4-	167.0-
0249	36 34.70	112 4.88	7158.0	12659.30	3.4	1265.93	1880.52	58.39	185.48-	167.21-	1.7	3.4	3.1	183.8-	165.8-
0250	36 36.47	112 5.62	7013.0	12778.70	2.8	1277.87	1883.06	54.16	184.77-	166.87-	1.7	2.8	2.6	183.7-	166.0-
0251	36 38.12	112 6.85	7101.0	12733.70	2.5	1273.37	1885.44	55.55	186.37-	168.25-	1.7	2.5	2.3	185.6-	167.7-
0252	36 38.90	112 9.11	8369.0	11964.40	5.1	1196.44	1886.56	96.64	188.48-	167.13-	1.7	5.1	4.7	185.1-	164.1-
0253	36 54.46	112 29.39	4676.0	14665.40		1466.54	1908.99	2.75-	162.05-	150.12-	1.5	.0	.0	163.6-	151.6-
0254	36 53.30	112 27.53	4870.0	14480.20		1448.02	1907.31	1.36-	167.27-	154.84-	1.5	.0	.0	168.8-	156.3-
0255	36 51.20	112 26.42	5179.0	14232.60		1423.26	1904.28	5.96	170.49-	157.27-	1.6	.0	.0	172.1-	158.9-
0256	36 49.40	112 26.09	5372.0	14068.30		1406.83	1901.69	10.27	172.75-	159.04-	1.6	.0	.0	174.4-	160.6-
0257	36 47.78	112 24.95	5705.0	13804.30	.6	1380.43	1899.35	17.50	176.86-	162.30-	1.6	.6	.6	177.9-	163.3-
0258	36 45.40	112 22.40	5992.0	13565.00	1.0	1356.50	1895.92	23.98	180.17-	164.88-	1.7	1.0	.9	180.9-	165.7-
0259	36 45.42	112 25.30	5701.0	13769.70	.7	1376.97	1895.95	17.07	177.16-	162.61-	1.6	.7	.6	178.1-	163.6-
0260	36 45.09	112 27.50	5550.0	13899.10	.3	1389.91	1895.47	16.29	172.79-	158.63-	1.6	.3	.3	174.1-	159.9-
0261	36 44.82	112 29.30	5586.0	13961.80		1396.18	1895.08	26.33	163.98-	149.72-	1.6	.0	.0	165.6-	151.3-
0262	36 44.38	112 32.70	5305.0	14076.60		1407.66	1894.45	12.04	168.70-	155.16-	1.6	.0	.0	170.3-	156.8-
0263	36 42.00	112 35.30	5331.0	14015.40	.2	1401.54	1891.02	11.79	169.84-	156.23-	1.6	.2	.2	171.2-	157.6-
0264	36 45.88	112 31.76	5295.0	14123.30		1412.33	1896.61	13.60	166.79-	153.28-	1.6	.0	.0	168.4-	154.9-
0265	36 47.05	112 31.00	5242.0	14188.70		1418.87	1898.30	13.48	165.12-	151.74-	1.6	.0	.0	166.7-	153.3-
0266	36 48.73	112 30.67	5108.0	14308.50		1430.85	1900.72	10.44	163.59-	150.55-	1.6	.0	.0	165.2-	152.2-
0267	36 49.29	112 33.87	4676.0	14588.40		1458.84	1901.53	2.80-	162.18-	150.24-	1.5	.0	.0	163.7-	151.7-
0268	36 52.70	112 35.31	4547.0	14770.80		1477.08	1906.45	1.79-	156.70-	145.10-	1.4	.0	.0	158.1-	146.5-
0269	36 58.70	112 34.98	4844.0	14661.70	.3	1466.17	1915.11	6.55	158.48-	146.11-	1.5	.3	.3	159.7-	147.3-
0270	37 .05	112 36.50	5005.0	14538.80	.6	1453.88	1917.06	7.45	163.07-	150.30-	1.5	.6	.6	164.0-	151.2-
0271	36 59.45	112 43.32	5389.0	14164.10	1.7	1416.41	1916.19	6.94	176.66-	162.91-	1.6	1.7	1.6	176.6-	162.9-

UP MANTLE GRNDCANYON ARIZ 65 LASVEGAS ARPRT GBV 979604.90 MSV .99999 D1 2.67 D2 2.47 HAMMER 0145

STA	LAT	LONG	E	MG/DG	TC	DG	FTH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0272	36 57.12	112 41.97	5090.0	14432.60	.7	1443.26	1912.82	9.05	164.36-	151.37-	1.5	.7	.6	165.2-	152.3-
0273	36 54.55	112 45.30	5067.0	14382.30	1.2	1438.23	1909.11	5.57	167.06-	154.13-	1.5	1.2	1.1	167.4-	154.5-
0274	36 53.50	112 44.41	5033.0	14421.90	.6	1442.19	1907.60	7.85	163.62-	150.78-	1.5	.6	.6	164.5-	151.7-
0275	36 56.79	112 52.40	5140.0	14278.30	.5	1427.83	1912.35	1.20-	176.32-	163.20-	1.6	.5	.5	177.4-	164.3-
0276	36 58.52	112 52.21	5239.0	14204.90	2.8	1420.49	1914.65	1.74-	180.22-	166.85-	1.6	2.8	2.6	179.0-	165.9-
0277	37 1.10	112 50.25	5476.0	14081.80	.6	1408.18	1918.57	4.50	182.06-	168.09-	1.6	.6	.6	183.1-	169.1-
0278	36 56.80	113 .55	4832.0	14618.60		1461.86	1912.36	3.86	160.76-	148.43-	1.5	.0	.0	162.3-	149.9-
0279	36 56.80	113 2.40	4955.0	14569.20		1456.92	1912.36	10.48	158.33-	145.69-	1.5	.0	.0	159.8-	147.2-
0280	36 56.26	113 3.80	5169.0	14461.10		1446.11	1911.58	20.57	155.54-	142.35-	1.6	.0	.0	157.1-	144.0-
0281	36 56.38	113 5.72	5304.0	14409.50	.7	1440.95	1911.76	27.92	152.78-	139.24-	1.6	.7	.6	153.7-	140.2-
0282	36 55.09	113 3.82	5099.0	14499.90		1449.99	1909.89	19.56	154.16-	141.15-	1.6	.0	.0	155.8-	142.8-
0283	36 52.80	113 3.38	4934.0	14582.60		1458.26	1906.59	15.62	152.48-	139.88-	1.5	.0	.0	154.0-	141.4-
0284	36 54.20	113 5.82	4975.0	14616.10		1461.61	1908.61	20.81	148.69-	135.99-	1.5	.0	.0	150.2-	137.5-
0285	36 52.51	113 8.84	4827.0	14753.60		1475.36	1906.17	23.08	141.37-	129.05-	1.5	.0	.0	142.9-	130.6-
0286	36 52.51	113 10.11	4796.0	14797.40		1479.74	1906.17	24.55	138.85-	126.61-	1.5	.0	.0	140.4-	128.1-
0287	36 52.95	113 12.19	4684.0	14889.00		1488.90	1906.81	22.55	137.03-	125.08-	1.5	.0	.0	138.5-	126.6-
0288	36 54.05	113 14.01	4649.0	14915.70	.1	1491.57	1908.39	20.34	138.05-	126.19-	1.5	.1	.1	139.5-	127.6-
0289	36 56.78	113 14.39	4362.0	15091.90		1509.19	1912.33	7.04	141.57-	130.44-	1.4	.0	.0	143.0-	131.8-
0290	36 57.70	113 13.00	4413.0	15040.40		1504.04	1913.66	5.35	144.99-	133.73-	1.4	.0	.0	146.4-	135.1-
0291	36 59.10	113 11.11	4497.0	14974.90	.5	1497.49	1915.68	4.68	148.53-	137.05-	1.4	.5	.5	149.4-	138.0-
0292	36 45.27	113 1.59	5041.0	14459.50		1445.95	1895.73	24.23	147.51-	134.65-	1.5	.0	.0	149.0-	136.2-
0293	36 46.15	113 .40	5143.0	14402.20		1440.22	1897.00	26.82	148.40-	135.28-	1.6	.0	.0	150.0-	136.9-
0294	36 46.42	112 57.18	5336.0	14251.70		1425.17	1897.39	29.52	152.27-	138.66-	1.6	.0	.0	153.9-	140.3-
0295	36 43.00	112 57.80	5185.0	14305.10		1430.51	1892.46	25.59	151.06-	137.82-	1.6	.0	.0	152.7-	139.4-
0296	36 42.08	112 56.27	5083.0	14301.60		1430.16	1891.14	16.98	156.19-	143.22-	1.5	.0	.0	157.7-	144.7-
0297	36 41.39	112 53.42	4922.0	14349.50		1434.95	1890.14	7.63	160.06-	147.50-	1.5	.0	.0	161.6-	149.0-
0298	36 40.99	112 50.40	4847.0	14350.90		1435.09	1889.57	1.30	163.84-	151.47-	1.5	.0	.0	165.3-	153.0-
0299	36 22.54	113 4.75	5430.0	13754.10	1.6	1375.41	1863.05	22.94	162.05-	148.20-	1.6	1.6	1.5	162.1-	148.3-
0300	36 22.27	113 6.45	6061.0	13406.00	2.2	1340.60	1862.66	47.83	158.67-	143.20-	1.7	2.2	2.0	158.2-	142.9-
0301	36 22.85	113 9.77	6590.0	13154.50	2.3	1315.45	1863.49	71.56	152.96-	130.14-	1.7	2.3	2.1	152.4-	135.7-
0302	36 21.40	113 9.62	6663.0	13081.90	2.7	1308.19	1861.41	73.24	153.76-	136.76-	1.7	2.7	2.5	152.8-	136.0-
0303	36 20.45	113 8.60	6246.0	13285.60	2.6	1328.56	1860.05	55.78	157.01-	141.07-	1.7	2.6	2.4	156.1-	140.4-
0304	36 13.85	113 8.19	5205.0	13724.20	2.9	1372.42	1850.59	11.26	166.07-	152.78-	1.6	2.9	2.7	164.8-	151.7-
0305	36 27.20	113 12.00	6225.0	13404.60	1.3	1340.46	1869.74	56.02	156.06-	140.17-	1.7	1.3	1.2	156.5-	140.7-
0306	36 45.70	113 12.65	5082.0	14541.80		1454.18	1896.35	35.69	137.45-	124.48-	1.5	.0	.0	139.0-	126.0-
0307	36 44.53	113 11.37	5090.0	14511.90		1451.19	1894.67	35.14	138.27-	125.28-	1.5	.0	.0	139.8-	126.8-
0308	36 42.90	113 9.65	5085.0	14425.70		1442.57	1892.32	28.40	144.84-	131.87-	1.5	.0	.0	146.3-	133.4-
0309	36 40.55	113 10.40	5324.0	14213.70	.5	1421.37	1888.94	33.05	148.34-	134.75-	1.6	.5	.5	149.4-	135.9-
0310	36 39.10	113 13.20	5440.0	14081.20	.8	1408.12	1886.85	32.79	152.55-	138.67-	1.6	.8	.7	153.4-	139.6-
0311	36 37.30	113 14.05	5610.0	13922.80	2.5	1392.28	1884.26	35.52	155.61-	141.29-	1.6	2.5	2.3	154.7-	140.6-
0312	36 35.80	113 13.18	5648.0	13878.90	.9	1387.89	1882.10	36.86	155.57-	141.15-	1.6	.9	.8	156.3-	142.0-
0313	36 33.75	113 14.80	5865.0	13713.20	1.1	1371.32	1879.15	43.63	156.18-	141.22-	1.7	1.1	1.0	156.8-	141.9-
0314	36 32.10	113 15.92	6044.0	13591.40	1.3	1359.14	1876.78	50.65	155.27-	139.84-	1.7	1.3	1.2	155.7-	140.3-
0315	36 29.87	113 14.60	5913.0	13672.50	1.1	1367.25	1873.57	49.65	151.80-	136.71-	1.7	1.1	1.0	152.4-	137.4-
0316	36 31.98	113 11.90	5720.0	13833.10	.8	1383.31	1876.61	44.54	150.34-	135.74-	1.6	.8	.7	151.1-	136.6-

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STA	LAT	LONG	E	MG/DG	TC	OG	FTH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0317	36 32.47	113 8.80	5554.0	13891.90	.6	1389.19	1877.31	34.11	155.11-	140.94-	1.6	.6	.6	156.1-	141.9-
0318	36 23.03	113 19.55	5306.0	14009.90	1.0	1400.99	1863.75	36.16	144.61-	131.07-	1.6	1.0	.9	145.2-	131.8-
0319	36 21.85	113 20.25	5429.0	13932.30	.8	1393.23	1862.06	41.66	143.30-	129.45-	1.6	.8	.7	144.1-	130.4-
0320	36 20.73	113 22.20	5352.0	13974.30	.7	1397.43	1860.45	40.23	142.11-	128.45-	1.6	.7	.6	143.0-	129.5-
0321	36 19.35	113 21.05	5337.0	13977.50	.8	1397.75	1858.47	41.12	140.71-	127.09-	1.6	.8	.7	141.5-	128.0-
0322	36 17.42	113 19.00	5424.0	13886.30	2.6	1388.63	1855.70	42.94	141.85-	128.01-	1.6	2.6	2.4	140.9-	127.2-
0323	36 15.97	113 17.00	5294.0	13934.40	1.7	1393.44	1853.63	37.61	142.75-	129.24-	1.6	1.7	1.6	142.7-	129.2-
0324	36 14.30	113 16.40	5379.0	13845.30	2.8	1384.53	1851.23	39.08	144.17-	130.45-	1.6	2.8	2.6	143.0-	129.5-
0325	36 11.25	113 15.65	5437.0	13583.90	11.9	1358.39	1846.86	22.77	162.47-	148.59-	1.6	11.9	11.0	152.2-	139.2-
0326	37 .90	113 33.38	2696.0	16055.00	.6	1605.50	1918.28	59.23-	151.09-	144.21-	1.0	.6	.6	151.5-	144.6-
0327	36 59.05	113 32.21	2895.0	15909.10	.6	1590.91	1915.61	52.44-	151.07-	143.68-	1.0	.6	.6	151.5-	144.1-
0328	36 58.60	113 30.70	2905.0	15888.40	.7	1588.84	1914.96	52.92-	151.89-	144.48-	1.0	.7	.6	152.2-	144.9-
0329	36 59.56	113 28.87	2800.0	15928.50	.7	1592.85	1916.35	60.17-	155.56-	148.42-	1.0	.7	.6	155.9-	148.8-
0330	36 58.72	113 33.87	2822.0	15945.80	.7	1594.58	1915.14	55.16-	151.30-	144.10-	1.0	.7	.6	151.6-	144.5-
0331	36 56.18	113 33.29	3123.0	15710.10	1.2	1571.01	1911.47	46.76-	153.16-	145.19-	1.1	1.2	1.1	153.1-	145.2-
0332	36 54.05	113 33.80	3521.0	15430.10	2.3	1543.01	1906.39	34.27-	154.22-	145.24-	1.2	2.3	2.1	153.1-	144.3-
0333	36 52.94	113 33.75	3801.0	15267.00	2.2	1526.70	1906.79	22.65-	152.15-	142.45-	1.3	2.2	2.0	151.3-	141.8-
0334	36 49.65	113 33.50	4961.0	14553.70	2.0	1455.37	1902.05	19.81	149.20-	136.54-	1.5	2.0	1.9	148.7-	136.1-
0335	36 48.10	113 33.10	5225.0	14391.30	2.0	1439.13	1899.81	30.62	147.39-	134.05-	1.6	2.0	1.9	147.0-	133.8-
0336	36 46.30	113 33.15	5137.0	14429.00	1.5	1442.90	1897.22	28.72	146.30-	133.19-	1.6	1.5	1.4	146.4-	133.4-
0337	36 44.50	113 33.58	5099.0	14498.60	.7	1449.86	1894.62	34.70	139.02-	126.01-	1.6	.7	.6	139.9-	127.0-
0338	36 43.00	113 31.70	5151.0	14419.60	.6	1441.96	1892.46	33.85	141.64-	128.50-	1.6	.6	.6	142.6-	129.5-
0339	36 41.50	113 31.70	5139.0	14415.40	.6	1441.54	1890.30	34.46	140.62-	127.51-	1.6	.6	.6	141.6-	128.5-
0340	36 39.60	113 31.95	5131.0	14382.00	.6	1438.20	1887.57	33.10	141.70-	128.61-	1.6	.6	.6	142.7-	129.6-
0341	36 37.90	113 31.70	5176.0	14315.00	.6	1431.50	1885.12	33.27	143.14-	129.93-	1.6	.6	.6	144.1-	130.9-
0342	36 36.57	113 32.70	5234.0	14280.90	.7	1428.09	1883.21	37.04	141.28-	127.92-	1.6	.7	.6	142.2-	128.9-
0343	36 34.62	113 33.56	5368.0	14161.80	.8	1416.18	1880.40	40.53	142.36-	128.66-	1.6	.8	.7	143.2-	129.6-
0344	36 33.30	113 33.85	5433.0	14087.30	.9	1408.73	1878.50	41.08	144.01-	130.15-	1.6	.9	.8	144.7-	131.0-
0345	36 32.30	113 34.70	5530.0	14017.20	1.0	1401.72	1877.07	44.63	143.77-	129.66-	1.6	1.0	.9	144.4-	130.4-
0346	36 30.70	113 35.50	5674.0	13860.60	1.2	1386.06	1874.77	44.80	148.50-	134.02-	1.6	1.2	1.1	148.9-	134.5-
0347	36 37.35	113 23.40	4856.0	14400.20	.4	1440.02	1884.33	12.31	153.13-	140.73-	1.5	.4	.4	154.2-	141.8-
0348	36 39.15	113 21.10	4566.0	14597.60	.4	1459.76	1886.92	2.20	153.36-	141.71-	1.5	.4	.4	154.5-	142.8-
0349	36 39.20	113 17.90	4492.0	14647.70	.4	1464.77	1886.99	.18	152.86-	141.39-	1.4	.4	.4	153.9-	142.4-
0350	36 39.70	113 16.50	4428.0	14703.80	.7	1470.38	1887.71	.94-	151.80-	140.50-	1.4	.7	.6	152.5-	141.3-
0351	36 42.00	112 12.78	8161.0	12163.70	3.2	1216.37	1891.02	92.57	185.47-	164.65-	1.7	3.2	3.0	184.0-	163.4-
0352	36 40.37	112 12.42	8212.0	12120.10	3.1	1212.01	1888.68	95.34	184.43-	163.47-	1.7	3.1	2.9	183.0-	162.3-
0353	36 39.12	112 11.00	8426.0	11959.20	3.7	1195.92	1886.88	101.16	185.91-	164.40-	1.7	3.7	3.4	183.9-	162.7-
0354	36 38.10	112 10.21	8521.0	11877.40	4.1	1187.74	1885.41	103.37	186.93-	165.18-	1.7	4.1	3.8	184.5-	163.1-
0355	36 36.80	112 11.05	8522.0	11871.50	3.7	1187.15	1883.54	104.75	185.59-	163.84-	1.7	3.7	3.4	183.6-	162.1-
0356	36 35.21	112 10.55	8744.0	11707.20	4.3	1170.72	1881.25	111.46	186.44-	164.12-	1.7	4.3	4.0	183.8-	161.8-
0357	36 33.51	112 10.20	8822.0	11639.60	4.3	1163.96	1878.81	114.48	186.08-	163.57-	1.6	4.3	4.0	183.4-	161.2-
0358	36 32.56	112 10.12	8636.0	11740.10	3.9	1174.01	1877.44	108.42	185.80-	163.76-	1.7	3.9	3.6	183.6-	161.9-
0359	36 31.70	112 8.95	8547.0	11783.70	3.7	1178.37	1876.20	105.65	185.54-	163.72-	1.7	3.7	3.4	183.5-	162.0-
0360	36 30.35	112 8.42	8602.0	11742.50	3.8	1174.25	1874.26	108.64	184.42-	162.47-	1.7	3.8	3.5	182.3-	160.7-
0361	36 28.71	112 7.53	8516.0	11761.60	4.2	1176.16	1871.91	104.83	185.31-	163.57-	1.7	4.2	3.9	182.8-	161.4-

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STA	LAT	LONG	E	MG/DG	TC	DG	FTH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0362	36 26.53	112 8.09	8748.0	11570.40	4.5	1157.04	1868.78	110.64	187.40-	165.08-	1.7	4.5	4.2	184.6-	162.6-
0363	36 24.59	112 7.88	8760.0	11512.10	4.6	1151.21	1865.99	108.72	189.73-	167.37-	1.7	4.6	4.3	186.8-	164.8-
0364	36 22.82	112 7.57	8733.0	11494.90	4.6	1149.49	1863.45	107.00	190.52-	168.24-	1.7	4.6	4.3	187.6-	165.6-
0365	36 21.33	112 7.10	8779.0	11437.60	4.9	1143.76	1861.31	107.73	191.36-	168.95-	1.6	4.9	4.5	188.1-	166.1-
0366	36 20.07	112 6.98	8829.0	11380.70	4.9	1138.07	1859.50	108.55	192.25-	169.72-	1.6	4.9	4.5	189.0-	166.8-
0367	36 42.08	112 15.52	7826.0	12421.00	3.0	1242.10	1891.14	86.70	179.92-	159.95-	1.7	3.0	2.8	178.6-	158.9-
0368	36 41.92	112 17.22	7760.0	12457.90	3.3	1245.79	1890.91	84.42	179.95-	160.15-	1.7	3.3	3.1	178.4-	158.8-
0369	36 41.36	112 20.50	6345.0	13295.80	5.3	1329.58	1890.10	36.05	180.12-	163.92-	1.7	5.3	4.9	176.5-	160.7-
0370	36 40.07	112 20.81	6371.0	13257.50	7.5	1325.75	1888.24	36.52	180.53-	164.27-	1.7	7.5	6.9	174.7-	159.1-
0371	36 39.30	112 22.75	6644.0	13116.30	1.9	1311.63	1887.14	49.17	177.19-	160.23-	1.7	1.9	1.8	177.0-	160.1-
0372	36 38.04	112 23.52	6753.0	13043.30	1.9	1304.33	1885.32	53.92	176.15-	158.91-	1.7	1.9	1.8	176.0-	158.8-
0373	36 38.63	112 25.40	6353.0	13300.20	1.4	1330.02	1886.17	41.17	175.27-	159.05-	1.7	1.4	1.3	175.6-	159.5-
0374	36 36.97	112 26.87	6408.0	13270.80	1.5	1327.08	1883.78	45.79	172.52-	156.17-	1.7	1.5	1.4	172.7-	156.5-
0375	36 37.64	112 31.30	5849.0	13675.30	1.0	1367.53	1884.75	32.74	166.53-	151.60-	1.7	1.0	.9	167.2-	152.4-
0376	36 36.70	112 31.62	5971.0	13583.60	1.5	1358.36	1883.39	36.39	167.04-	151.80-	1.7	1.5	1.4	167.2-	152.1-
0377	36 19.38	112 7.68	8788.0	11389.10	5.0	1138.91	1856.51	106.53	192.87-	170.45-	1.6	5.0	4.6	189.5-	167.5-
0378	36 19.40	112 9.95	8394.0	11647.50	5.1	1164.75	1858.54	95.32	190.65-	169.23-	1.7	5.1	4.7	187.3-	166.2-
0379	36 17.18	112 12.74	7932.0	11867.70	5.9	1186.77	1855.36	77.12	193.12-	172.88-	1.7	5.9	5.5	188.9-	169.1-
0380	36 18.40	112 13.48	8005.0	11853.90	7.8	1185.39	1857.11	80.85	191.88-	171.45-	1.7	7.8	7.2	185.8-	166.0-
0381	36 21.00	112 13.92	8357.0	11750.00	4.5	1175.00	1860.84	99.80	184.92-	163.59-	1.7	4.5	4.2	182.1-	161.1-
0382	36 20.03	112 18.26	7842.0	12117.20	7.3	1211.72	1859.45	89.53	177.65-	157.63-	1.7	7.3	6.8	172.1-	152.5-
0383	36 20.17	112 21.00	7517.0	12291.80	15.0	1229.18	1859.65	76.25	179.85-	160.67-	1.7	15.0	13.9	166.6-	148.5-
0384	36 7.00	111 56.84	7862.0	11384.70	39.5	1138.47	1840.78	36.82	231.03-	210.96-	1.7	39.5	36.5	193.2-	176.2-
0385	36 8.73	111 56.07	7847.0	11676.90	14.1	1167.69	1843.26	62.16	205.18-	185.16-	1.7	14.1	13.0	192.8-	173.9-
0386	36 12.05	111 56.92	8353.0	11429.80	11.5	1142.98	1848.01	80.24	204.34-	183.03-	1.7	11.5	10.6	194.5-	174.1-
0387	36 13.39	111 57.88	8499.0	11328.30	16.5	1132.83	1849.93	81.88	207.67-	185.98-	1.7	16.5	15.3	192.9-	172.4-
0388	36 13.82	111 58.90	8501.0	11386.20	11.5	1138.62	1850.55	87.25	202.38-	180.68-	1.7	11.5	10.6	192.6-	171.8-
0389	36 15.49	112 .15	8199.0	11655.40	9.6	1165.54	1852.94	83.40	195.93-	175.01-	1.7	9.6	8.9	188.0-	167.8-
0391	36 15.58	112 1.29	8602.0	11428.90	7.0	1142.89	1853.07	98.48	194.58-	172.63-	1.7	7.0	6.5	189.3-	167.8-
0392	36 14.60	112 2.72	8262.0	11663.70	6.8	1166.37	1851.66	91.42	190.06-	168.97-	1.7	6.8	6.3	185.0-	164.4-
0394	36 13.10	112 14.18	7478.0	12017.70	13.3	1201.77	1849.51	55.31	199.46-	180.38-	1.7	13.3	12.3	187.9-	169.8-
0395	36 14.21	112 12.68	7830.0	11827.90	11.6	1182.79	1851.10	67.81	198.95-	175.97-	1.7	11.6	10.7	189.1-	170.0-
0396	36 15.38	112 11.91	7863.0	11871.60	7.3	1187.16	1852.78	73.61	194.28-	174.21-	1.7	7.3	6.8	188.7-	169.1-
0397	36 16.07	112 9.08	8160.0	11720.60	5.4	1172.06	1853.77	85.42	192.58-	171.76-	1.7	5.4	5.0	188.9-	168.5-
0398	36 15.77	112 7.53	8354.0	11605.40	5.7	1160.54	1853.34	92.56	192.05-	170.73-	1.7	5.7	5.3	188.1-	167.1-
0399	36 15.52	112 6.20	8147.0	11758.80	4.7	1175.88	1852.98	88.81	188.75-	167.96-	1.7	4.7	4.3	185.8-	165.4-
0400	36 13.60	112 7.10	8222.0	11660.80	7.2	1166.08	1850.23	88.81	191.31-	170.33-	1.7	7.2	6.7	185.8-	165.3-
0401	36 13.00	112 7.10	8115.0	11732.80	7.5	1173.28	1849.37	86.81	189.66-	168.95-	1.7	7.5	6.9	183.9-	163.8-
0402	36 14.62	112 5.17	8329.0	11622.50	5.4	1162.25	1851.69	93.57	190.19-	168.94-	1.7	5.4	5.0	186.5-	165.6-
0403	36 13.11	112 3.40	8241.0	11602.90	10.1	1160.29	1849.53	85.50	195.26-	174.23-	1.7	10.1	9.3	186.9-	166.6-
0404	36 13.63	112 3.56	8086.0	11753.40	7.3	1175.34	1850.27	85.25	190.24-	169.60-	1.7	7.3	6.8	184.6-	164.5-
0405	36 15.68	112 3.18	8236.0	11701.90	6.2	1170.19	1853.21	91.44	189.22-	168.20-	1.7	6.2	5.7	184.7-	164.2-
0406	36 16.44	112 4.30	8517.0	11524.50	5.6	1152.45	1854.30	98.82	191.34-	169.61-	1.7	5.6	5.2	187.4-	166.1-
0407	36 18.65	112 5.90	8736.0	11412.20	5.9	1141.22	1857.47	105.00	192.63-	170.33-	1.7	5.9	5.5	188.4-	166.5-
0408	36 24.69	112 8.94	9157.0	11277.80	5.4	1127.78	1866.13	122.44	189.53-	166.16-	1.6	5.4	5.0	185.7-	162.8-

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STA	LAT	LONG	E	MG/DG	TC	DG	FTH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0409	36 25.48	112 9.83	8982.0	11417.10	4.7	1141.71	1867.27	118.80	187.21-	164.29-	1.6	4.7	4.3	184.1-	161.6-
0410	36 26.10	112 12.30	8713.0	11628.90	4.0	1162.89	1868.16	113.82	183.03-	160.79-	1.7	4.0	3.7	180.7-	158.8-
0411	36 26.90	112 13.65	8591.0	11719.60	3.7	1171.96	1869.31	110.27	182.41-	160.49-	1.7	3.7	3.4	180.4-	158.8-
0412	36 27.95	112 14.83	8275.0	11913.30	3.3	1191.33	1870.82	98.45	183.48-	162.36-	1.7	3.3	3.1	181.9-	161.0-
0413	36 24.11	112 13.90	8501.0	11739.20	3.9	1173.92	1865.30	107.79	181.84-	160.14-	1.7	3.9	3.6	179.6-	158.2-
0414	36 22.94	112 13.95	8095.0	11974.10	3.7	1197.41	1863.62	94.81	180.98-	160.32-	1.7	3.7	3.4	179.0-	158.6-
0415	36 22.63	112 16.05	7854.0	12147.60	4.4	1214.76	1863.18	89.96	177.62-	157.57-	1.7	4.4	4.1	174.9-	155.2-
0416	36 23.48	112 18.07	7859.0	12171.60	4.1	1217.16	1864.40	91.61	176.14-	156.08-	1.7	4.1	3.8	173.7-	154.0-
0417	36 24.79	112 19.00	7749.0	12240.80	4.2	1224.08	1866.28	86.31	177.69-	157.91-	1.7	4.2	3.9	175.2-	155.7-
0418	36 26.20	112 19.70	7926.0	12136.80	5.1	1213.68	1868.30	90.52	179.51-	159.28-	1.7	5.1	4.7	176.1-	156.3-
0419	36 27.41	112 21.25	7369.0	12496.20	3.5	1249.62	1870.04	72.38	178.67-	159.87-	1.7	3.5	3.2	176.9-	158.4-
0420	36 25.80	112 24.20	7449.0	10363.30	13.1	1236.33	1867.73	68.92	184.86-	165.85-	1.0	13.1	12.1	173.5-	155.5-
0421	36 29.92	112 31.53	6168.0	13297.40	4.3	1329.74	1873.65	36.03	174.10-	156.36-	1.7	4.3	4.0	171.5-	156.1-
0422	36 29.35	112 30.13	6409.0	13160.60	3.0	1316.06	1872.83	45.82	172.53-	156.17-	1.7	3.0	2.8	171.2-	155.1-
0423	36 29.01	112 25.37	7060.0	12730.60	2.9	1273.06	1872.34	64.49	176.04-	158.02-	1.7	2.9	2.7	174.8-	157.0-
0424	36 33.78	112 26.39	6632.0	13067.40	2.0	1306.74	1879.19	51.09	174.86-	157.93-	1.7	2.0	1.9	174.6-	157.7-
0425	36 33.07	112 24.70	6954.0	12849.70	2.5	1284.97	1878.17	60.60	176.31-	158.57-	1.7	2.5	2.3	175.5-	158.0-
0426	36 34.57	112 22.98	7097.0	12778.10	5.6	1277.81	1880.33	64.72	177.07-	158.95-	1.7	5.6	5.2	173.2-	155.5-
0427	36 37.56	112 20.92	6802.0	12982.60	6.6	1296.26	1884.63	53.15	178.59-	161.23-	1.7	6.6	6.1	173.7-	156.8-
0428	36 35.09	112 20.25	7237.0	12688.90	3.3	1268.89	1881.08	66.21	178.35-	159.88-	1.7	3.3	3.1	176.8-	158.5-
0429	36 33.30	112 20.31	7609.0	12438.40	3.9	1243.84	1876.50	80.69	178.54-	159.12-	1.7	3.9	3.6	176.3-	157.2-
0430	36 32.12	112 20.22	7743.0	12326.60	2.6	1232.66	1876.81	83.80	180.00-	160.24-	1.7	2.6	2.4	179.1-	159.5-
0431	36 29.98	112 18.75	7983.0	12106.40	2.9	1210.64	1873.73	87.40	184.57-	164.20-	1.7	2.9	2.7	183.4-	163.2-
0432	36 29.40	112 17.50	8093.0	12030.90	3.0	1203.09	1872.90	91.02	184.70-	164.04-	1.7	3.0	2.8	183.4-	162.9-
0433	36 27.90	112 15.61	8353.0	11866.10	3.4	1186.61	1870.74	101.13	183.45-	162.13-	1.7	3.4	3.1	181.8-	160.7-
0434	36 24.40	112 6.29	8813.0	11452.40	5.2	1145.24	1865.72	108.00	192.25-	169.76-	1.6	5.2	4.8	188.7-	166.6-
0435	36 25.98	112 5.48	8688.0	11542.10	6.1	1154.21	1867.99	102.96	193.03-	170.86-	1.7	6.1	5.6	188.6-	167.0-
0436	36 41.30	113 33.85	5093.0	14488.60	.6	1448.86	1890.01	37.74	135.77-	122.77-	1.5	.6	.6	136.7-	123.7-
0437	36 39.80	113 36.10	5218.0	14440.50	.7	1444.05	1887.86	46.84	130.93-	117.61-	1.6	.7	.6	131.8-	118.6-
0438	36 40.35	113 37.85	5084.0	14567.60	.7	1456.76	1888.65	46.17	127.04-	114.07-	1.5	.7	.6	127.8-	115.0-
0439	36 40.93	113 39.80	5131.0	14576.40	.9	1457.64	1889.48	50.63	124.18-	111.09-	1.6	.9	.8	124.9-	111.9-
0440	36 41.50	113 41.15	4927.0	14735.20	1.0	1473.52	1890.30	46.51	121.35-	108.77-	1.5	1.0	.9	121.9-	109.4-
0441	36 40.62	113 43.10	4382.0	15058.30	1.3	1505.83	1889.04	28.86	120.43-	109.25-	1.4	1.3	1.2	120.5-	109.5-
0442	36 40.52	113 45.23	4184.0	15178.40	1.0	1517.84	1888.89	22.40	120.15-	109.47-	1.4	1.0	.9	120.6-	110.0-
0444	36 39.52	113 50.52	4213.0	14792.10	1.3	1479.21	1887.45	12.07-	155.60-	144.85-	1.4	1.3	1.2	155.7-	145.1-
0445	36 40.21	113 53.40	4480.0	14758.30	1.3	1475.83	1891.15	5.80	146.52-	135.09-	1.4	1.3	1.2	146.6-	135.2-
0446	36 39.82	113 54.11	4160.0	14921.10	1.5	1492.11	1887.85	4.70	146.14-	135.53-	1.4	1.5	1.4	146.0-	135.5-
0447	36 36.29	113 56.40	3666.0	15200.00	1.4	1520.00	1882.80	18.05-	142.95-	133.59-	1.2	1.4	1.3	142.8-	133.5-
0448	36 36.45	113 57.70	3675.0	15256.90	1.7	1525.69	1883.03	11.75-	136.95-	127.57-	1.2	1.7	1.6	136.5-	127.2-
0449	36 37.20	113 58.35	3877.0	15236.80	2.2	1523.68	1884.11	4.16	127.93-	118.04-	1.3	2.2	2.0	127.0-	117.3-
0450	36 38.38	114 .72	4800.0	14822.00	4.5	1482.20	1885.81	47.75	115.79-	103.54-	1.5	4.5	4.2	112.8-	100.8-
0451	36 40.43	114 .80	3523.0	15611.40	5.9	1561.14	1888.76	3.69	116.34-	107.35-	1.2	5.9	5.5	111.6-	103.1-
0452	36 41.55	114 1.28	3092.0	15823.20	3.3	1582.32	1890.37	17.27-	122.61-	114.72-	1.1	3.3	3.1	120.4-	112.7-
0453	36 42.81	114 1.66	2687.0	15935.00	2.1	1593.50	1892.19	45.99-	137.53-	130.67-	1.0	2.1	1.9	136.4-	129.8-
0454	36 45.21	114 3.62	2069.0	16170.80	1.2	1617.08	1895.65	83.98-	154.46-	149.18-	.8	1.2	1.1	154.1-	148.9-

uP MANTLE GRNDCANYON ARIZ 65 LASVEGAS ARPRT GBV 979604.90 MSV .99999 D1 2.67 D2 2.47 HAMMER 0145

STA	LAT	LONG	E	MG/DG	TC	DG	FTH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0455	36 47.30	114 5.61	1561.0	16443.90	1.1	1644.39	1898.66	107.45-	160.63-	156.65-	.6	1.1	1.0	160.1-	156.3-
0456	36 44.00	113 22.78	4417.0	14823.50		1482.35	1893.90	3.60	146.68-	135.41-	1.4	.0	.0	148.1-	136.8-
0457	36 45.80	113 23.68	4377.0	14886.20		1488.62	1896.50	3.72	145.40-	134.23-	1.4	.0	.0	146.8-	135.6-
0458	36 47.45	113 23.40	4254.0	14982.80		1498.28	1898.87	.56-	145.49-	134.64-	1.4	.0	.0	146.9-	136.0-
0459	36 48.95	113 23.88	4302.0	14997.60		1499.76	1901.04	3.27	143.30-	132.32-	1.4	.0	.0	144.7-	133.7-
0460	36 50.60	113 23.50	4249.0	15061.80	.1	1506.18	1903.42	2.32	142.44-	131.59-	1.4	.1	.1	143.7-	132.9-
0461	36 52.97	113 25.27	4040.0	15166.20	1.0	1516.62	1906.83	10.30-	147.94-	137.63-	1.3	1.0	.9	148.2-	138.0-
0462	36 54.68	113 25.96	3920.0	15253.00	.8	1525.30	1909.30	15.37-	148.92-	138.92-	1.3	.8	.7	149.4-	139.5-
0463	36 56.58	113 26.92	3867.0	15249.60	2.2	1524.96	1912.04	23.44-	155.18-	145.31-	1.3	2.2	2.0	154.3-	144.6-
0464	36 53.09	113 21.91	3800.0	15347.60	1.9	1534.76	1907.01	14.90-	144.36-	134.66-	1.3	1.9	1.8	143.8-	134.2-
0465	36 54.68	113 21.72	3800.0	15340.30	5.5	1534.03	1909.30	17.92-	147.39-	137.69-	1.3	5.5	5.1	143.2-	133.9-
0466	36 56.20	113 21.45	3440.0	15534.40	2.2	1553.44	1911.50	34.55-	151.75-	142.97-	1.2	2.2	2.0	150.8-	142.2-
0467	36 57.50	113 20.82	3340.0	15595.70	1.4	1559.57	1913.37	39.70-	153.49-	144.97-	1.1	1.4	1.3	153.2-	144.8-
0468	36 59.69	113 20.14	3222.0	15673.70	1.1	1567.37	1916.54	46.16-	155.93-	147.71-	1.1	1.1	1.0	155.9-	147.8-
0469	37 1.21	113 18.28	3405.0	15546.20	2.2	1554.62	1918.73	43.90-	159.91-	151.22-	1.2	2.2	2.0	158.9-	150.4-
0470	36 59.82	113 35.53	2719.0	16049.20	.7	1604.92	1916.72	56.09-	148.73-	141.79-	1.0	.7	.6	149.0-	142.2-
0471	36 58.90	113 37.63	2849.0	15959.00	.7	1595.90	1915.39	51.56-	148.62-	141.35-	1.0	.7	.6	148.9-	141.8-
0472	36 58.76	113 39.85	2798.0	15985.50	1.3	1598.55	1915.19	53.50-	148.83-	141.69-	1.0	1.3	1.2	148.5-	141.5-
0473	36 58.43	113 41.85	2635.0	16075.20	6.0	1607.52	1914.72	59.38-	149.15-	142.43-	.9	6.0	5.6	144.1-	137.7-
0474	36 58.14	113 43.56	2320.0	16264.50	6.8	1626.45	1914.30	69.65-	148.69-	142.77-	.8	6.8	6.3	142.7-	137.3-
0475	36 58.18	113 44.24	2278.0	16289.00	6.4	1628.90	1914.35	71.21-	148.82-	143.01-	.8	6.4	5.9	143.2-	137.9-
0476	36 57.57	113 38.19	3002.0	15855.50	.9	1585.55	1913.47	45.60-	147.88-	140.22-	1.0	.9	.8	148.0-	140.4-
0477	36 56.49	113 39.15	3339.0	15641.80	1.0	1564.18	1911.92	33.73-	147.49-	138.96-	1.1	1.0	.9	147.6-	139.2-
0478	36 54.85	113 39.59	3684.0	15396.20	1.3	1539.62	1909.55	23.48-	149.00-	139.59-	1.2	1.3	1.2	148.9-	139.6-
0479	36 52.73	113 39.56	3965.0	15190.20	2.5	1519.02	1906.49	14.61-	149.69-	139.57-	1.3	2.5	2.3	148.5-	138.6-
0480	36 50.90	113 39.30	4220.0	15019.10	2.1	1501.91	1903.85	5.10-	148.88-	138.11-	1.4	2.1	1.9	148.2-	137.6-
0481	36 49.78	113 39.65	4387.0	14913.20	2.9	1491.32	1902.23	1.62	147.84-	136.65-	1.4	2.9	2.7	146.3-	135.4-
0482	36 48.50	113 41.40	4881.0	14662.70	2.4	1466.27	1900.39	24.85	141.44-	128.98-	1.5	2.4	2.2	140.5-	128.3-
0484	36 47.90	113 46.69	6800.0	13506.10	8.2	1350.61	1899.52	90.42	141.25-	123.90-	1.7	8.2	7.6	134.8-	118.0-
0485	36 47.33	113 47.88	6880.0	13452.20	9.3	1345.22	1898.70	93.37	141.03-	123.47-	1.7	9.3	8.6	133.4-	116.6-
0486	36 46.70	113 49.35	6800.0	13523.20	8.1	1352.32	1897.79	93.86	137.81-	120.46-	1.7	8.1	7.5	131.4-	114.7-
0487	36 46.09	113 51.11	6160.0	14000.30	7.8	1400.03	1896.91	82.30	127.57-	111.84-	1.7	7.8	7.2	121.5-	106.3-
0488	36 44.43	113 52.80	5600.0	14293.00	5.0	1429.30	1894.52	61.33	129.46-	115.17-	1.6	5.0	4.6	126.1-	112.2-
0489	36 42.78	113 53.68	4800.0	14786.70	2.9	1478.67	1892.15	37.88	125.65-	113.40-	1.5	2.9	2.7	124.3-	112.2-
0490	36 46.05	113 51.66	6460.0	13803.20	9.1	1380.32	1896.86	90.84	129.24-	112.76-	1.7	9.1	8.4	121.8-	106.1-
0491	36 45.72	113 53.62	4720.0	14886.70	11.4	1488.67	1896.38	36.13	124.68-	112.64-	1.5	11.4	10.5	114.8-	103.6-
0492	36 47.81	113 55.80	2869.0	15927.60	5.6	1592.76	1899.39	36.82-	134.56-	127.24-	1.0	5.6	5.2	130.0-	123.0-
0493	36 49.80	113 57.59	2073.0	16188.50	2.1	1618.85	1902.26	88.44-	159.07-	153.78-	.8	2.1	1.9	157.8-	152.7-
0494	36 49.80	113 59.57	1837.0	16206.10	1.5	1620.61	1902.26	108.88-	171.46-	166.77-	.7	1.5	1.4	170.7-	166.1-
0495	36 51.59	113 57.91	1923.0	16135.50	1.5	1613.55	1904.84	110.43-	175.95-	171.04-	.7	1.5	1.4	175.2-	170.3-
0496	36 52.90	113 56.40	1943.0	16148.70	1.8	1614.87	1906.73	109.12-	175.32-	170.36-	.7	1.8	1.7	174.2-	169.4-
0497	36 54.73	113 55.52	2018.0	16139.90	1.5	1613.99	1909.37	105.59-	174.34-	169.19-	.7	1.5	1.4	173.5-	168.5-
0498	36 56.40	113 55.38	2115.0	16118.40	1.2	1611.84	1911.79	101.03-	173.09-	167.69-	.8	1.2	1.1	172.7-	167.4-
0499	36 30.80	113 24.30	5120.0	14118.90	.6	1411.89	1874.91	18.42	156.02-	142.95-	1.6	.6	.6	157.0-	144.0-
0500	36 30.00	113 26.45	5425.0	13983.60	.7	1398.36	1873.76	34.71	150.12-	136.27-	1.6	.7	.6	151.0-	137.3-

UP MANTLE GRNDCANYON ARIZ 65 LASVEGAS ARPRT GBV 979604.90 MSV .99999 D1 2.67 D2 2.47 HAMMER 0145

STA	LAT	LONG	E	MG/DG	TC	DG	FTH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0501	36 28.82	113 27.95	5360.0	14000.80	.7	1400.08	1872.07	32.01	150.60-	136.92-	1.6	.7	.6	151.5-	137.9-
0502	36 27.85	113 29.82	5560.0	13931.20	.9	1393.12	1870.67	45.25	144.18-	129.99-	1.6	.9	.8	144.9-	130.8-
0503	36 27.70	113 31.90	5625.0	13822.30	1.0	1382.23	1870.46	40.68	150.96-	136.60-	1.6	1.0	.9	151.6-	137.3-
0504	36 26.30	113 33.35	5745.0	13744.30	1.2	1374.43	1868.45	46.17	149.56-	134.90-	1.6	1.2	1.1	150.0-	135.4-
0505	36 23.80	113 34.70	5720.0	13704.20	1.3	1370.42	1864.86	43.40	151.48-	136.88-	1.6	1.3	1.2	151.8-	137.3-
0506	36 22.70	113 36.40	5855.0	13625.20	1.6	1362.52	1863.28	49.77	149.71-	134.77-	1.7	1.6	1.5	149.8-	135.0-
0507	36 21.00	113 37.50	5815.0	13643.90	1.6	1364.39	1860.84	50.32	147.80-	132.96-	1.7	1.6	1.5	147.9-	133.2-
0508	36 19.50	113 37.00	5758.0	13654.10	1.5	1365.41	1858.69	48.13	148.04-	133.34-	1.6	1.5	1.4	148.1-	133.5-
0509	36 17.95	113 35.93	5764.0	13639.00	1.4	1363.90	1856.46	49.41	146.97-	132.26-	1.6	1.4	1.3	147.2-	132.6-
0510	36 16.30	113 34.80	5706.0	13681.60	1.3	1368.16	1854.10	50.58	143.82-	129.25-	1.6	1.3	1.2	144.1-	129.7-
0511	36 14.57	113 34.77	5749.0	13649.70	1.4	1364.97	1851.62	53.54	142.19-	127.53-	1.6	1.4	1.3	142.4-	127.8-
0512	36 13.43	113 35.60	5782.0	13597.30	1.5	1359.73	1849.99	53.41	143.58-	128.82-	1.6	1.5	1.4	143.7-	129.0-
0513	36 11.85	113 35.90	5845.0	13524.70	1.6	1352.47	1847.72	54.33	144.80-	129.88-	1.7	1.6	1.5	144.9-	130.1-
0514	36 9.70	113 35.45	5891.0	13452.20	1.7	1345.22	1844.65	54.49	146.22-	131.18-	1.7	1.7	1.6	146.2-	131.3-
0515	36 9.40	113 33.58	6131.0	13298.70	2.0	1329.87	1844.22	62.12	146.76-	131.11-	1.7	2.0	1.9	146.5-	130.9-
0516	36 9.10	113 32.00	6149.0	13286.40	2.1	1328.64	1843.79	63.01	146.48-	130.78-	1.7	2.1	1.9	146.1-	130.6-
0517	36 7.90	113 30.97	6167.0	13246.20	2.2	1324.62	1842.07	62.40	147.70-	131.96-	1.7	2.2	2.0	147.2-	131.7-
0518	36 6.98	113 30.00	6173.0	13226.60	2.4	1322.66	1840.75	62.32	147.98-	132.23-	1.7	2.4	2.2	147.3-	131.7-
0519	36 5.72	113 28.38	6088.0	13257.00	2.6	1325.70	1838.95	59.18	148.23-	132.70-	1.7	2.6	2.4	147.3-	132.0-
0520	36 4.22	113 27.25	6102.0	13216.80	3.3	1321.68	1836.80	58.62	149.27-	133.70-	1.7	3.3	3.1	147.7-	132.3-
0521	36 2.20	113 27.83	6103.0	13122.20	4.2	1312.22	1833.92	52.14	155.78-	140.21-	1.7	4.2	3.9	153.3-	138.0-
0522	36 .65	113 27.70	6065.0	13094.20	4.9	1309.42	1831.70	47.99	158.64-	143.16-	1.7	4.9	4.5	155.4-	140.4-
0523	35 59.40	113 27.50	6075.0	13058.90	4.7	1305.89	1829.91	47.18	159.79-	144.28-	1.7	4.7	4.3	156.8-	141.7-
0524	35 57.90	113 27.20	6155.0	12976.10	5.9	1297.61	1827.77	48.57	161.13-	145.42-	1.7	5.9	5.5	156.9-	141.6-
0525	35 56.00	113 27.30	5932.0	13111.40	4.3	1311.14	1825.06	43.85	158.25-	143.11-	1.7	4.3	4.0	155.7-	140.8-
0526	35 54.38	113 26.65	5978.0	13051.60	4.7	1305.16	1822.74	44.51	159.16-	143.90-	1.7	4.7	4.3	156.2-	141.3-
0527	35 53.95	113 25.50	6002.0	13022.20	5.0	1302.22	1822.13	44.44	160.05-	144.73-	1.7	5.0	4.6	156.8-	141.8-
0528	35 53.50	113 24.70	6235.0	12827.00	9.6	1282.70	1821.49	47.46	164.96-	149.05-	1.7	9.6	8.9	157.1-	141.9-
0529	36 23.90	113 20.60	5263.0	14040.80	.8	1404.08	1865.00	33.96	145.34-	131.91-	1.6	.8	.7	146.1-	132.8-
0530	36 23.78	113 23.50	5290.0	14022.10	.7	1402.21	1864.83	34.80	145.42-	131.92-	1.6	.7	.6	146.3-	132.9-
0531	36 23.10	113 25.60	5330.0	14002.50	.8	1400.25	1863.85	37.58	144.01-	130.41-	1.6	.8	.7	144.8-	131.3-
0532	36 22.90	113 27.80	5674.0	13793.20	1.8	1379.32	1863.56	49.27	144.04-	129.56-	1.6	1.8	1.7	143.8-	129.5-
0533	36 22.20	113 30.60	5567.0	13842.20	1.2	1384.22	1862.56	45.12	144.55-	130.34-	1.6	1.2	1.1	145.0-	130.8-
0534	36 22.20	113 33.77	5444.0	13855.40	1.1	1385.54	1862.56	34.88	150.60-	138.70-	1.6	1.1	1.0	151.1-	137.3-
0535	36 20.63	113 33.02	5620.0	13726.50	1.1	1372.65	1860.31	40.78	150.69-	136.35-	1.6	1.1	1.0	151.2-	137.0-
0536	36 19.50	113 32.00	5500.0	13783.40	1.0	1378.34	1858.69	36.81	150.57-	136.53-	1.6	1.0	.9	151.2-	137.2-
0537	36 19.05	113 29.40	5435.0	13835.80	.9	1383.58	1858.04	36.59	148.58-	134.71-	1.6	.9	.8	149.3-	135.5-
0538	36 16.10	113 29.10	5283.0	13906.40	1.3	1390.64	1853.81	33.59	146.40-	132.91-	1.6	1.3	1.2	146.7-	133.3-
0539	36 14.80	113 27.65	4769.0	14167.30	4.2	1416.73	1851.95	13.23	149.25-	137.08-	1.5	4.2	3.9	146.6-	134.7-
0540	36 8.43	113 36.90	5996.0	13359.80	4.5	1335.98	1842.83	56.93	147.35-	132.04-	1.7	4.5	4.2	144.6-	129.5-
0541	36 8.33	113 38.90	6066.0	13340.60	2.4	1334.06	1842.68	61.74	144.93-	129.45-	1.7	2.4	2.2	144.2-	129.0-
0542	36 8.70	113 41.10	6042.0	13400.90	2.8	1340.09	1843.21	64.98	140.87-	125.45-	1.7	2.8	2.6	139.8-	124.6-
0543	36 9.43	113 42.70	6179.0	13358.70	3.6	1335.87	1844.26	72.59	137.92-	122.15-	1.7	3.6	3.3	136.0-	120.6-
0544	36 10.60	113 44.70	5110.0	14025.60	6.4	1402.56	1845.93	37.13	136.96-	123.92-	1.6	6.4	5.9	132.2-	119.6-
0545	36 12.62	113 45.60	4488.0	14446.20	4.9	1444.62	1848.83	17.83	135.08-	123.62-	1.4	4.9	4.5	131.6-	120.5-

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STA	LAT	LONG	E	MG/DG	TC	DG	FTH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0546	36 14.10	113 45.65	4398.0	14512.40	2.6	1451.24	1850.95	13.87	135.97-	124.75-	1.4	2.6	2.4	134.8-	123.8-
0547	36 15.65	113 46.60	4480.0	14489.40	2.3	1448.94	1853.17	17.05	135.58-	124.14-	1.4	2.3	2.1	134.7-	123.4-
0548	36 17.00	113 46.20	4500.0	14501.60	2.1	1450.16	1855.10	18.22	135.09-	123.61-	1.4	2.1	1.9	134.4-	123.1-
0549	37 .03	113 54.92	2604.0	16104.10	1.1	1610.41	1917.03	61.72-	150.43-	143.79-	.9	1.1	1.0	150.2-	143.7-
0550	36 58.12	113 55.19	2241.0	16138.00	1.1	1613.80	1914.27	89.70-	166.05-	160.33-	.8	1.1	1.0	165.8-	160.1-
0551	36 55.10	113 51.75	1970.0	16438.50	8.7	1643.85	1909.91	80.78-	147.89-	142.87-	.7	8.7	8.0	139.9-	135.6-
0552	36 38.90	113 38.40	4961.0	14614.10	.7	1461.41	1866.56	41.34	127.67-	115.01-	1.5	.7	.6	128.5-	115.9-
0553	36 36.70	113 38.03	5136.0	14431.80	.8	1443.18	1863.39	42.73	132.25-	119.14-	1.6	.8	.7	133.1-	120.0-
0554	36 36.56	113 39.28	4911.0	14591.10	1.7	1459.11	1863.19	37.71	129.60-	117.07-	1.5	1.7	1.6	129.4-	117.0-
0555	36 36.20	113 40.80	4651.0	14752.40	1.8	1475.24	1862.67	29.92	128.54-	116.67-	1.5	1.8	1.7	128.2-	116.5-
0556	36 34.48	113 39.70	4983.0	14470.50	1.0	1447.05	1860.20	35.41	134.36-	121.64-	1.5	1.0	.9	134.9-	122.2-
0557	36 33.10	113 39.70	4930.0	14429.30	1.2	1442.93	1878.22	28.29	139.67-	127.09-	1.5	1.2	1.1	140.0-	127.5-
0558	36 31.25	113 40.20	4263.0	14762.20	5.7	1476.22	1875.56	1.54	143.70-	132.82-	1.4	5.7	5.3	139.4-	128.9-
0559	36 31.20	113 41.90	4075.0	14973.50	5.2	1497.35	1875.49	5.07	133.76-	123.36-	1.3	5.2	4.8	129.9-	119.9-
0560	36 31.80	113 43.60	3759.0	15207.40	4.0	1520.74	1876.35	2.11-	130.18-	120.58-	1.3	4.0	3.7	127.5-	118.2-
0561	36 33.36	113 45.58	3575.0	15349.10	5.5	1534.91	1878.59	7.48-	129.28-	120.16-	1.2	5.5	5.1	125.0-	116.3-
0562	36 32.57	113 47.27	3313.0	15297.10	1.7	1529.71	1877.45	36.18-	149.05-	140.60-	1.1	1.7	1.6	148.5-	140.1-
0563	36 30.70	113 49.00	3085.0	15330.00	1.4	1533.00	1874.77	51.64-	156.74-	148.87-	1.1	1.4	1.3	156.4-	148.7-
0564	36 28.87	113 48.50	3057.0	15383.40	2.0	1538.34	1872.14	46.30-	150.45-	142.65-	1.1	2.0	1.9	149.6-	141.9-
0565	36 27.35	113 50.20	2818.0	15442.20	1.5	1544.22	1869.95	60.71-	156.72-	149.53-	1.0	1.5	1.4	156.2-	149.1-
0566	36 26.43	113 51.55	2623.0	15540.80	1.3	1554.08	1868.63	67.87-	157.23-	150.53-	.9	1.3	1.2	156.8-	150.2-
0567	36 25.30	113 53.03	2426.0	15662.90	1.1	1566.29	1867.01	72.56-	155.21-	149.02-	.9	1.1	1.0	155.0-	148.9-
0568	36 24.55	113 51.18	2783.0	15470.20	1.3	1547.02	1865.93	57.18-	152.00-	144.89-	1.0	1.3	1.2	151.7-	144.7-
0569	36 22.55	113 49.50	3035.0	15396.20	3.0	1539.62	1863.06	38.02-	141.42-	133.67-	1.1	3.0	2.8	139.5-	132.0-
0570	36 22.93	113 51.30	2521.0	15643.30	1.8	1564.33	1863.61	62.18-	148.07-	141.64-	.9	1.8	1.7	147.2-	140.8-
0571	36 22.42	113 53.60	2228.0	15746.70	1.3	1574.67	1862.88	78.66-	154.57-	148.88-	.8	1.3	1.2	154.1-	148.5-
0572	36 23.10	113 56.78	2213.0	15801.10	.8	1580.11	1863.85	75.61-	151.00-	145.36-	.8	.8	.7	151.0-	145.5-
0573	36 22.05	113 58.80	1939.0	16056.10	1.2	1605.61	1862.34	74.37-	140.43-	135.48-	.7	1.2	1.1	139.9-	135.1-
0574	36 31.51	114 3.49	4440.0	15002.90	4.1	1500.29	1875.93	41.88	109.39-	98.06-	1.4	4.1	3.8	106.7-	95.7-
0575	36 29.96	114 1.30	3528.0	15330.50	1.2	1533.05	1873.70	8.87-	129.07-	120.07-	1.2	1.2	1.1	129.1-	120.2-
0576	36 29.58	113 59.20	3176.0	15532.50	.8	1553.25	1873.16	21.22-	129.43-	121.32-	1.1	.8	.7	129.7-	121.7-
0577	36 27.90	113 58.50	2804.0	15724.70	1.7	1572.47	1870.74	34.57-	130.10-	122.94-	1.0	1.7	1.6	129.4-	122.3-
0578	36 26.30	113 58.30	2468.0	15886.90	1.6	1588.69	1868.45	47.64-	131.73-	125.43-	.9	1.6	1.5	131.0-	124.8-
0579	36 25.00	113 57.50	2238.0	15950.70	1.2	1595.07	1866.58	61.02-	137.27-	131.56-	.8	1.2	1.1	136.9-	131.3-
0580	36 22.31	114 1.51	1986.0	16131.10	1.5	1613.11	1862.72	62.82-	130.48-	125.41-	.7	1.5	1.4	129.7-	124.7-
0581	36 20.55	114 .20	1735.0	16229.20	1.1	1622.92	1860.19	74.09-	133.20-	128.77-	.6	1.1	1.0	132.7-	128.4-
0582	36 19.53	113 59.70	1599.0	16233.60	1.3	1623.36	1858.73	84.98-	139.45-	135.37-	.6	1.3	1.2	138.8-	134.8-
0583	36 15.47	114 .05	1199.0	16492.50	2.2	1649.25	1852.91	90.88-	131.73-	128.67-	.4	2.2	2.0	129.9-	127.1-
0584	36 16.05	114 .25	1277.0	16415.00	2.0	1641.50	1853.74	92.13-	135.64-	132.38-	.5	2.0	1.9	134.1-	131.0-
0585	36 16.70	113 58.40	1735.0	16081.10	1.0	1608.11	1854.67	83.38-	142.49-	138.06-	.6	1.0	.9	142.1-	137.8-
0586	36 16.82	113 56.50	1814.0	16072.80	1.2	1607.28	1854.84	76.95-	138.75-	134.12-	.7	1.2	1.1	138.3-	133.7-
0587	36 18.33	113 55.70	2032.0	15889.40	1.0	1588.94	1857.01	76.96-	146.18-	141.00-	.7	1.0	.9	145.9-	140.8-
0588	36 17.80	113 55.20	2011.0	15909.00	1.2	1590.90	1856.25	76.21-	144.72-	139.59-	.7	1.2	1.1	144.2-	139.2-
0589	36 17.30	113 54.80	1944.0	15939.40	1.4	1593.94	1855.53	78.75-	144.98-	140.02-	.7	1.4	1.3	144.3-	139.4-
0590	36 16.40	113 53.50	2074.0	15860.00	1.8	1586.00	1854.24	73.18-	143.84-	138.55-	.8	1.8	1.7	142.8-	137.7-

UP MANTLE GRNDCANYON ARIZ 65 LASVEGAS ARPRT GBV 979604.90 MSV .99999 D1 2.67 D2 2.47 HAMMER 0145

STA	LAT	LONG	E	MG/DG	TC	DG	FTH	FAA	BA1	BA2	CC	TC1	TC2	CBA1	CBA2
0591	36 15.50	113 51.70	2465.0	15691.80	2.7	1569.18	1852.95	51.94-	135.92-	129.63-	.9	2.7	2.5	134.1-	128.0-
0592	36 16.50	113 49.88	3707.0	14986.80	4.4	1498.68	1854.39	7.10-	133.39-	123.93-	1.2	4.4	4.1	130.2-	121.0-
0593	36 16.10	113 47.60	4615.0	14442.60	3.0	1444.26	1853.81	24.42	132.81-	121.03-	1.5	3.0	2.8	131.3-	119.7-
0594	36 18.20	113 44.20	4354.0	14566.10	2.2	1456.61	1856.82	9.22	139.11-	128.00-	1.4	2.2	2.0	138.3-	127.4-
0595	36 18.20	113 42.20	4603.0	14358.20	3.7	1435.82	1856.82	11.84	144.98-	133.23-	1.5	3.7	3.4	142.8-	131.3-
0596	36 18.00	113 40.05	4922.0	14141.50	4.5	1414.15	1856.54	20.44	147.25-	134.68-	1.5	4.5	4.2	144.3-	132.0-
0597	36 16.60	113 39.38	5349.0	13871.40	2.1	1387.14	1854.53	35.58	146.66-	133.01-	1.6	2.1	1.9	146.2-	132.7-
0598	36 24.60	113 34.80	5670.0	13755.20	1.2	1375.52	1866.00	42.65	150.52-	136.05-	1.6	1.2	1.1	150.9-	136.6-
0599	36 26.20	113 35.30	5499.0	13877.20	1.4	1387.72	1868.30	36.48	150.86-	136.83-	1.6	1.4	1.3	151.1-	137.1-
0600	36 28.60	113 37.80	4953.0	14220.90	3.2	1422.09	1871.75	16.08	152.66-	140.02-	1.5	3.2	3.0	151.0-	138.5-
0601	36 9.75	113 20.90	3760.0	14770.80	3.3	1477.08	1844.72	14.04-	142.14-	132.55-	1.3	3.3	3.1	140.1-	130.8-
0602	36 11.32	113 22.90	3676.0	14874.80	4.1	1487.48	1846.96	13.79-	139.03-	129.64-	1.2	4.1	3.8	136.1-	127.0-
0603	36 12.55	113 24.70	3607.0	14934.10	6.2	1493.41	1848.73	16.11-	138.99-	129.79-	1.2	6.2	5.7	134.0-	125.3-
0604	36 35.50	113 59.20	3946.0	15142.70	1.5	1514.27	1881.67	3.68	130.76-	120.69-	1.3	1.5	1.4	130.6-	120.6-
0605	36 33.84	113 59.95	3640.0	15364.80	1.6	1536.48	1879.28	.49-	124.50-	115.21-	1.2	1.6	1.5	124.1-	114.9-
0606	36 32.50	114 1.17	3830.0	15272.10	1.9	1527.21	1877.35	10.03	120.46-	110.68-	1.3	1.9	1.8	119.9-	110.2-
0607	36 34.87	113 55.35	3740.0	15036.70	3.1	1503.67	1880.76	25.38-	152.80-	143.26-	1.3	3.1	2.9	151.0-	141.7-
0608	36 33.15	113 54.85	3120.0	15380.50	1.2	1538.05	1878.29	46.82-	153.12-	145.15-	1.1	1.2	1.1	153.0-	145.2-
0609	36 31.98	113 54.85	3010.0	15422.10	2.1	1542.21	1876.61	51.32-	153.87-	146.19-	1.1	2.1	1.9	152.9-	145.4-
0610	36 39.33	113 52.10	4212.0	14767.10	1.1	1476.71	1877.18	34.64	157.88-	147.13-	1.4	1.1	1.0	158.2-	147.5-
0611	36 39.18	113 45.90	4070.0	15199.60	1.1	1519.96	1886.96	15.73	122.93-	112.54-	1.3	1.1	1.0	123.1-	112.8-
0612	36 37.10	113 47.00	3805.0	15175.50	2.6	1517.55	1883.97	8.60-	138.23-	128.52-	1.3	2.6	2.4	136.9-	127.4-
0613	36 36.20	113 47.05	3575.0	15223.10	4.1	1522.31	1882.67	24.17-	145.96-	136.84-	1.2	4.1	3.8	143.1-	134.2-
0614	36 34.63	113 46.90	3575.0	15314.30	4.1	1531.43	1880.42	12.79-	134.59-	125.46-	1.2	4.1	3.8	131.7-	122.9-
0615	36 31.60	113 50.27	3326.0	15149.60	.9	1514.96	1876.06	48.31-	161.63-	153.14-	1.1	.9	.8	161.8-	153.4-
0616	36 30.70	113 52.38	3183.0	15223.60	.7	1522.36	1874.77	53.06-	161.51-	153.38-	1.1	.7	.6	161.9-	153.9-
0617	36 33.15	113 52.15	3725.0	14870.60	1.5	1487.06	1878.29	40.93-	167.84-	158.33-	1.3	1.5	1.4	167.6-	158.2-
0618	36 27.60	113 53.30	2910.0	15385.40	.7	1538.54	1870.31	58.10-	157.24-	149.81-	1.0	.7	.6	157.5-	150.2-
0619	36 31.30	113 3.00	5629.0	13816.40	.4	1381.64	1875.63	35.29	156.48-	142.12-	1.6	.4	.4	157.7-	143.3-