UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Principal facts for gravity stations near Medicine Lake and Mt. Shasta, California

by

Carol Finn

Open File Report 81- 427

1981

Principal facts for gravity stations near Medicine Lake and Mt. Shasta, California

by
Carol Finn

Explanation of the headings of the accompanying table of principal facts:

STATION IDENTIFICATION	The first four numbers are used to identify the station and the last three refer to the LaCoste G meter used (either G-235 or G-017). Stations with only four numbers were taken with LaCoste meter G-235.
LATITUDE AND LONGITUDE	Values listed here are in degrees and minutes to the nearest one hundredth of a minute. To obtain these positions, gravity stations were transferred from U.S. Forest Service aerial photos to USGS 1:62,500 topographic quads and then were digitized.
ELEVATION	Elevations are in feet to the nearest tenth. Elevations were read on a PG2 steroscope plotter from USGS aerial photos. This method produces some errors: (1) errors in the setup of the photogrammetric model, (2) possible errors in bench mark or spot elevation values, (3) my inability to read bench marks accurately, (4) scatter of elevation data collected for each gravity station about some mean value assumed to be the real station elevation. Errors of the first three types were not evaluated due to a lack of information for analysis. Errors of the last type were statistically analyzed as follows: means for each station were calculated and used in the reduction process. Standard deviations were also calculated for each station. The average of the standard deviations for all of the stations was 5.5 feet, with the extremes being 0.84 and 14.5 feet.
OBSERVED GRAVITY	This column lists each station's observed gravity value to the nearest hundredth of a milligal. These are relative to a value of 980213.99 at Medford, OR (Morelli, 1974) and to a value of 979981.91 at Klamath Falls, OR (Morelli, 1974).
THEORETICAL GRAVITY	Calculated using the Geodetic Reference System 1967 (International Association of Geodesy, 1971).

TERRAIN CORRECTIONS	Most of the stations were corrected for terrain by computer using "Bouguer" (unpublished program by R. H. Godson, U.S. Geological Survey, which is a modification of Plouff, 1977), but some of the inner zones (D-F) were done by hand. The density used in these corrections was 2.67 g per cm^3.
CURVATURE CORRECTION	See Lambert, 1930
FREE AIR ANOMALY	Free-air anomaly in milligals. The free air correction can be obtained by the following calculation: observed gravity - theoretical gravity - free-air anomaly = free-air correction.
COMPLETE BOUGUER ANOMALY	Complete Bouguer anomaly in milligals using densities of 2.67 g per cm^3.

REFERENCES

International Association of Geodesy, 1971, Geodetic reference system 1967: International Association of Geodesy, Special Publication no.3 (Bureau Central Association International Geodesie, Paris), 116 p.

Lambert, W. D., 1930, The reduction of observed values of gravity to sea level: Bulletin Geodesique, no. 26, Avril-Mai-Juin, p. 107-181.

Morelli, C., (Ed.), 1974, The International gravity standardization net 1971: International Association Geodesy Spec. Pub. no. 4, 194 p.

Plouff, Donald, 1977, Preliminary documentation for a Fortran program to compute gravity terrain corrections based on topography digitized on a geographic grid: U.S. Geological Survey Open-File Report 77-535, 45 p.

medicine lake area
gravity
Meter ID: Date: 11/22/80

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE-BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
mlms	:1001235	41	35.43	-121	36.28	6678.0	ca	979767.36	980311.27	3.04	-227.77	-1.52	0.00	83.89	-142.35	-127.95	
mlms	:1002235	41	35.28	-121	35.72	6674.9	ca	979768.69	980311.04	3.04	-227.66	-1.52	0.00	85.15	-140.98	-126.59	
mlms	:1003235	41	35.18	-121	35.18	6743.2	ca	979763.70	980310.89	3.14	-229.99	-1.52	0.00	86.74	-141.63	-127.09	
mlms	:1004235	41	34.86	-121	35.14	6695.6	ca	979765.37	980310.41	3.08	-228.37	-1.52	0.00	84.41	-142.40	-127.96	
mlms	:1005235	41	34.59	-121	34.80	6718.1	ca	979761.41	980309.70	3.50	-229.14	-1.52	0.00	83.27	-143.88	-129.42	
mlms	:1006235	41	34.01	-121	34.55	6715.8	ca	979759.55	980309.13	3.54	-229.06	-1.52	0.00	81.76	-145.27	-130.82	
mlms	:1007235	41	33.79	-121	34.38	6730.1	ca	979756.68	980308.80	3.47	-229.54	-1.52	0.00	80.56	-147.03	-132.54	
mlms	:1008235	41	33.89	-121	33.73	6694.9	ca	979760.63	980308.95	3.52	-228.34	-1.52	0.00	81.06	-145.28	-130.87	
mlms	:1009235	41	33.85	-121	33.37	6778.0	ca	979753.49	980308.90	3.55	-231.18	-1.52	0.00	81.79	-147.36	-132.77	
mlms	:1010235	41	33.84	-121	32.40	6774.1	ca	979752.06	980308.88	3.83	-231.05	-1.52	0.00	80.01	-148.73	-134.16	
mlms	:1011235	41	33.55	-121	31.83	6784.8	ca	979748.69	980308.45	4.21	-231.41	-1.52	0.00	78.07	-150.65	-136.08	
mlms	:1012235	41	33.80	-121	31.35	6788.2	ca	979748.94	980308.82	4.49	-231.53	-1.52	0.00	78.26	-150.29	-135.74	
mlms	:1013235	41	33.82	-121	30.55	6690.0	ca	979749.73	980308.85	6.08	-228.18	-1.52	0.00	69.80	-153.81	-139.57	
mlms	:1014235	41	33.40	-121	29.83	6485.2	ca	979762.70	980308.23	4.38	-221.19	-1.51	0.00	64.16	-154.17	-140.27	
mlms	:1201	41	19.95	-121	55.35	3930.8	ca	979896.15	980288.10	1.97	-134.07	-1.25	0.00	-22.35	-155.69	-147.20	
mlms	:1201017	41	38.59	-121	32.55	6176.2	ca	979793.53	980315.99	3.22	-210.65	-1.50	0.00	58.18	-150.76	-137.45	
mlms	:1202	41	20.79	-121	55.64	4019.4	ca	979889.40	980289.36	2.05	-137.09	-1.26	0.00	-22.02	-158.33	-149.65	
mlms	:1203	41	20.91	-121	55.10	4164.8	ca	979882.30	980289.54	3.69	-142.05	-1.29	0.00	-15.64	-155.29	-146.39	
mlms	:1203017	41	37.78	-121	31.36	6517.4	ca	979769.69	980314.78	3.85	-222.29	-1.51	0.00	67.61	-152.34	-138.34	
mlms	:1204	41	22.37	-121	55.16	4166.7	ca	979881.78	980291.72	2.13	-142.11	-1.29	0.00	-18.16	-159.43	-150.44	
mlms	:1204017	41	37.57	-121	31.51	6530.9	ca	979768.52	980314.47	4.76	-222.75	-1.51	0.00	68.03	-151.48	-137.50	
mlms	:1205	41	22.99	-121	54.08	4451.6	ca	979868.39	980292.65	1.76	-151.83	-1.34	0.00	-5.70	-157.10	-147.46	
mlms	:1206	41	22.64	-121	53.27	4531.8	ca	979862.09	980292.13	2.88	-154.57	-1.35	0.00	-3.93	-156.97	-147.22	
mlms	:1206017	41	36.70	-121	30.82	7104.5	ca	979730.95	980313.16	5.73	-242.31	-1.51	0.00	85.66	-152.44	-137.28	
mlms	:1207	41	22.07	-121	52.69	4678.5	ca	979855.57	980291.27	2.71	-159.57	-1.37	0.00	4.19	-154.04	-143.97	
mlms	:1207017	41	36.28	-121	31.27	6972.9	ca	979739.12	980312.53	4.98	-237.83	-1.52	0.00	82.09	-152.27	-137.35	
mlms	:1209	41	21.56	-121	53.06	5214.2	ca	979818.72	980290.51	5.98	-177.64	-1.43	0.00	18.45	-154.85	-143.81	
mlms	:1209235	41	38.59	-121	32.55	6176.2	ca	979793.41	980315.99	3.22	-210.65	-1.50	0.00	58.06	-150.87	-137.57	
mlms	:1210235	41	37.54	-121	31.50	6529.3	ca	979767.65	980314.42	4.75	-222.70	-1.51	0.00	67.05	-152.41	-138.44	
mlms	:1211.	41	20.99	-121	52.71	5537.4	ca	979798.84	980289.66	6.00	-188.86	-1.46	0.00	29.80	-154.53	-142.79	
mlms	:1211235	41	37.78	-121	31.36	6517.4	ca	979769.61	980314.78	3.85	-222.29	-1.51	0.00	67.53	-152.42	-138.42	
mlms	:1212	41	20.62	-121	52.45	5566.4	ca	979794.99	980289.10	6.01	-189.85	-1.47	0.00	29.23	-156.08	-144.28	
mlms	:1212235	41	37.31	-121	31.06	6857.1	ca	979747.74	980314.08	5.09	-233.88	-1.52	0.00	78.29	-152.01	-137.35	
mlms	:1213	41	20.44	-121	53.57	6114.2	ca	979748.35	980288.84	17.58	-208.54	-1.50	0.00	34.34	-158.12	-145.87	
mlms	:1213235	41	36.97	-121	30.94	7042.1	ca	979734.32	980313.57	7.09	-240.19	-1.52	0.00	82.76	-151.85	-136.91	
mlms	:1214	41	20.61	-121	53.38	6502.0	ca	979722.48	980289.09	21.10	-221.76	-1.51	0.00	44.66	-157.52	-144.65	
mlms	:1214235	41	36.71	-121	30.81	7096.6	ca	979730.27	980313.18	5.70	-242.04	-1.51	0.00	84.22	-153.64	-138.49	
mlms	:1215	41	20.79	-121	53.37	6304.0	ca	979741.16	980289.34	12.71	-215.01	-1.51	0.00	44.48	-159.33	-146.36	
mlms	:1215235	41	36.47	-121	31.11	6938.2	ca	979739.86	980312.82	5.22	-236.64	-1.52	0.00	79.28	-153.65	-138.82	
mlms	:1216	41	20.95	-121	54.14	5353.0	ca	979806.81	980289.59	7.62	-182.57	-1.45	0.00	20.50	-155.91	-144.67	

medicine lake area
gravity
Meter ID: Date: 11/22/80

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE-BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
mlms	:1217	41	20.91	-121	55.25	4211.4	ca	979878.14	980289.54	3.31	-143.64	-1.30	0.00	-15.41	-157.04	-148.02	
mlms	:1219	41	20.12	-121	54.44	4560.4	ca	979857.37	980288.35	4.93	-155.54	-1.35	0.00	-2.20	-154.16	-144.49	
mlms	:1221	41	19.96	-121	55.35	3953.5	ca	979894.40	980288.12	1.97	-134.84	-1.25	0.00	-21.98	-156.10	-147.56	
mlms	:1222	41	19.89	-121	54.54	4246.2	ca	979876.14	980288.01	3.59	-144.83	-1.30	0.00	-12.62	-155.16	-146.08	
mlms	:1224	41	19.36	-121	53.15	4122.1	ca	979882.20	980287.22	4.71	-140.59	-1.28	0.00	-17.43	-154.59	-145.86	
mlms	:1225	41	18.44	-121	51.49	4192.0	ca	979883.31	980285.84	1.14	-142.98	-1.29	0.00	-8.37	-151.50	-142.39	
mlms	:1229	41	20.55	-121	50.92	5431.6	ca	979809.57	980289.00	3.21	-185.26	-1.46	0.00	31.24	-152.26	-140.58	
mlms	:1230	41	21.05	-121	50.20	5611.6	ca	979797.00	980289.75	3.33	-191.40	-1.47	0.00	34.84	-154.70	-142.63	
mlms	:1235	41	20.10	-121	48.24	4919.4	ca	979843.74	980288.33	1.35	-167.79	-1.40	0.00	17.95	-149.89	-139.20	
mlms	:1237	41	34.51	-122	10.82	4941.4	ca	979862.23	980309.88	3.02	-168.54	-1.40	0.00	16.95	-149.98	-139.35	
mlms	:1238	41	33.80	-122	10.33	5124.5	ca	979844.19	980308.82	3.96	-174.78	-1.42	0.00	17.17	-155.08	-144.11	
mlms	:1239	41	33.25	-122	9.87	5251.8	ca	979828.96	980308.00	8.39	-179.12	-1.44	0.00	14.73	-157.44	-146.48	
mlms	:1241	41	32.30	-122	9.89	6021.6	ca	979779.60	980306.58	10.17	-205.38	-1.50	0.00	39.14	-157.57	-145.04	
mlms	:1242	41	32.30	-122	9.67	6277.2	ca	979761.96	980306.58	11.71	-214.10	-1.51	0.00	45.52	-158.38	-145.40	
mlms	:1243	41	32.06	-122	9.65	6458.0	ca	979749.64	980306.22	12.13	-220.26	-1.51	0.00	50.55	-159.10	-145.75	
mlms	:1245	41	34.45	-122	10.07	5153.8	ca	979845.17	980309.80	3.26	-175.78	-1.43	0.00	19.94	-154.01	-142.94	
mlms	:1246	41	34.43	-122	8.92	5508.0	ca	979819.12	980309.77	3.19	-187.86	-1.46	0.00	27.20	-158.93	-147.08	
mlms	:1248	41	32.82	-122	6.92	5744.0	ca	979782.35	980307.35	24.55	-195.91	-1.48	0.00	15.02	-157.82	-146.81	
mlms	:1250017	41	33.46	-121	32.70	6568.8	ca	979763.49	980308.31	3.43	-224.04	-1.52	0.00	72.71	-149.41	-135.27	
mlms	:1251017	41	33.09	-121	33.44	6433.8	ca	979770.55	980307.76	3.00	-219.44	-1.51	0.00	67.64	-150.31	-136.44	
mlms	:1252017	41	32.69	-121	33.13	6404.5	ca	979770.87	980307.16	2.94	-218.44	-1.51	0.00	65.80	-151.21	-137.39	
mlms	:1253017	41	32.30	-121	32.99	6321.1	ca	979773.15	980306.58	2.85	-215.59	-1.51	0.00	60.83	-153.42	-139.78	
mlms	:1254017	41	31.64	-121	33.25	6108.2	ca	979782.33	980305.59	2.70	-208.33	-1.50	0.00	50.99	-156.14	-142.95	
mlms	:1255017	41	30.72	-121	34.00	5798.1	ca	979798.77	980304.21	2.10	-197.76	-1.48	0.00	39.67	-157.47	-144.92	
mlms	:1256017	41	31.08	-121	31.82	5700.4	ca	979805.40	980304.75	2.63	-194.42	-1.48	0.00	36.58	-156.70	-144.39	
mlms	:1257017	41	31.20	-121	30.95	5568.8	ca	979818.15	980304.93	2.09	-189.94	-1.47	0.00	36.78	-152.53	-140.48	
mlms	:1258017	41	31.58	-121	31.20	5647.1	ca	979814.87	980305.50	2.03	-192.61	-1.47	0.00	40.29	-151.76	-139.53	
mlms	:1259017	41	32.00	-121	31.58	5809.6	ca	979804.55	980306.13	2.46	-198.15	-1.48	0.00	44.61	-152.56	-140.01	
mlms	:1260017	41	32.23	-121	31.80	5974.7	ca	979793.46	980306.47	2.87	-203.78	-1.49	0.00	48.70	-153.71	-140.82	
mlms	:1261017	41	30.73	-121	30.04	5357.5	ca	979828.64	980304.23	1.83	-182.73	-1.45	0.00	28.12	-154.23	-142.62	
mlms	:1262	41	31.68	-122	21.79	2848.0	ca	980005.51	980305.65	1.87	-97.14	-1.00	0.00	-32.33	-128.60	-122.47	
mlms	:1263	41	31.22	-122	18.28	3471.0	ca	979966.51	980304.96	3.45	-118.39	-1.15	0.00	-12.07	-128.16	-120.77	
mlms	:1263017	41	29.75	-121	29.48	4991.7	ca	979848.56	980302.76	2.69	-170.25	-1.41	0.00	15.13	-153.85	-143.09	
mlms	:1264	41	37.24	-121	59.39	4660.0	ca	979873.56	980313.97	1.11	-158.94	-1.37	0.00	-2.26	-161.46	-151.32	
mlms	:1264017	41	31.43	-121	30.35	5615.9	ca	979815.24	980305.27	2.20	-191.54	-1.47	0.00	37.96	-152.86	-140.71	
mlms	:1265	41	35.82	-121	59.92	4660.4	ca	979868.04	980311.84	2.77	-158.95	-1.37	0.00	-5.62	-163.17	-153.14	
mlms	:1265017	41	31.83	-121	30.48	5674.8	ca	979811.36	980305.88	2.40	-193.55	-1.48	0.00	39.01	-153.62	-141.35	
mlms	:1266	41	35.92	-122	1.58	4856.0	ca	979862.91	980311.99	2.92	-165.62	-1.39	0.00	7.49	-156.61	-146.16	
mlms	:1266017	41	32.34	-121	30.68	5765.8	ca	979807.55	980306.64	2.21	-196.66	-1.48	0.00	42.99	-152.94	-140.47	
mlms	:1267	41	35.08	-122	2.19	5085.0	ca	979846.04	980310.73	3.85	-173.43	-1.42	0.00	13.39	-157.61	-146.72	

pedicino lake area
gravity
Meter ID: Date: 11/22/80

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE-BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
mlms	:1267017	41	33.06	-121	30.72	6095.3	ca	979789.43	980307.71	3.24	-207.89	-1.50	0.00	54.76	-151.40	-138.27	
mlms	:1268	41	34.42	-122	3.09	5515.0	ca	979814.52	980309.75	4.28	-188.10	-1.46	0.00	23.28	-162.01	-150.21	
mlms	:1268017	41	33.40	-121	30.31	6202.8	ca	979780.87	980308.23	4.83	-211.56	-1.51	0.00	55.78	-152.45	-139.19	
mlms	:1269	41	34.29	-122	2.27	5524.8	ca	979815.90	980309.55	4.84	-188.44	-1.46	0.00	25.77	-159.29	-147.51	
mlms	:1270017	41	32.37	-121	30.17	5895.3	ca	979800.26	980306.68	2.70	-201.07	-1.49	0.00	47.82	-152.04	-139.32	
mlms	:1271017	41	32.44	-121	29.43	6138.7	ca	979784.36	980306.79	3.33	-209.37	-1.50	0.00	54.69	-152.85	-139.64	
mlms	:1272	41	33.46	-122	1.42	6670.8	ca	979737.50	980308.31	7.78	-227.52	-1.52	0.00	56.31	-164.95	-150.86	
mlms	:1272017	41	32.92	-121	34.06	6569.7	ca	979762.51	980307.51	3.33	-224.07	-1.52	0.00	72.62	-149.64	-135.49	
mlms	:1275	41	34.54	-121	59.25	5462.7	ca	979814.97	980309.93	4.80	-186.32	-1.46	0.00	18.63	-164.35	-152.70	
mlms	:1277	41	36.89	-121	58.35	4705.0	ca	979869.19	980313.45	1.22	-160.47	-1.37	0.00	-1.89	-162.51	-152.28	
mlms	:1278	41	35.63	-121	57.39	4854.6	ca	979859.04	980311.56	1.51	-165.58	-1.39	0.00	3.91	-161.55	-151.01	
mlms	:1279	41	34.74	-121	57.79	5123.0	ca	979836.54	980310.23	2.75	-174.73	-1.42	0.00	7.97	-165.43	-154.39	
mlms	:1286	41	29.58	-121	59.11	6816.0	ca	979726.73	980302.51	8.32	-232.47	-1.52	0.00	64.99	-160.68	-146.31	
mlms	:1288	41	29.53	-121	58.18	6160.0	ca	979766.61	980302.43	9.90	-210.10	-1.50	0.00	43.30	-158.40	-145.56	
mlms	:1289	41	29.55	-121	57.86	5524.0	ca	979810.45	980302.16	5.29	-188.41	-1.46	0.00	27.64	-156.94	-145.19	
mlms	:1292	41	25.45	-121	57.89	5042.8	ca	979826.68	980296.33	3.07	-172.00	-1.42	0.00	4.48	-165.86	-155.01	
mlms	:1293	41	25.48	-121	58.82	5121.6	ca	979819.94	980296.38	3.09	-174.68	-1.42	0.00	5.10	-167.92	-156.90	
mlms	:1294	41	26.07	-121	59.53	5345.6	ca	979806.52	980297.26	3.93	-182.32	-1.45	0.00	11.86	-167.98	-156.53	
mlms	:1295	41	26.95	-121	59.79	5712.6	ca	979785.05	980298.57	4.94	-194.64	-1.48	0.00	23.55	-167.83	-155.64	
mlms	:1301	41	15.98	-122	8.91	3360.0	ca	979950.99	980282.16	3.90	-114.60	-1.13	0.00	-15.22	-127.05	-119.93	
mlms	:1302	41	16.12	-122	8.87	3454.3	ca	979949.03	980282.38	3.28	-117.82	-1.15	0.00	-8.53	-124.22	-116.85	
mlms	:1303	41	16.30	-122	8.92	3490.2	ca	979945.76	980282.64	3.62	-119.04	-1.16	0.00	-8.70	-125.28	-117.85	
mlms	:1304	41	16.51	-122	8.92	3528.9	ca	979942.39	980282.96	4.21	-120.36	-1.17	0.00	-8.74	-126.06	-118.59	
mlms	:1305	41	16.73	-122	8.92	3566.9	ca	979939.54	980283.29	4.93	-121.66	-1.17	0.00	-8.35	-126.25	-118.74	
mlms	:1306	41	16.95	-122	8.92	3611.7	ca	979936.26	980283.62	6.09	-123.19	-1.18	0.00	-7.75	-126.02	-118.49	
mlms	:1307	41	17.17	-122	8.93	3659.0	ca	979931.92	980283.95	7.73	-124.80	-1.19	0.00	-7.97	-126.23	-118.70	
mlms	:1308	41	17.37	-122	8.94	3717.1	ca	979927.87	980284.24	9.79	-126.78	-1.21	0.00	-6.86	-125.05	-117.53	
mlms	:1309	41	17.50	-122	8.95	3804.9	ca	979921.75	980284.44	9.32	-129.77	-1.22	0.00	-4.92	-126.59	-119.65	
mlms	:1310	41	17.68	-122	8.81	3879.6	ca	979916.73	980284.71	9.37	-132.32	-1.24	0.00	-3.18	-127.37	-119.46	
mlms	:1311	41	15.95	-122	8.86	3421.9	ca	979951.27	980282.12	2.96	-116.71	-1.14	0.00	-9.08	-123.97	-116.66	
mlms	:1313	41	31.18	-122	22.52	2820.0	ca	980005.12	980304.90	2.22	-96.18	-1.00	0.00	-34.60	-129.56	-123.52	
mlms	:1314	41	30.42	-122	22.75	2870.0	ca	979999.70	980303.77	3.34	-97.89	-1.01	0.00	-34.18	-129.74	-123.65	
mlms	:1315	41	29.92	-122	23.05	2955.0	ca	979996.77	980303.02	2.16	-100.79	-1.03	0.00	-28.37	-128.03	-121.68	
mlms	:1316	41	32.26	-122	21.40	2865.0	ca	979997.33	980306.52	2.06	-97.72	-1.01	0.00	-39.78	-136.44	-130.29	
mlms	:1320	41	26.97	-122	5.94	6066.0	ca	979766.69	980298.60	4.77	-206.89	-1.50	0.00	38.38	-165.25	-152.28	
mlms	:1323	41	25.11	-122	5.35	5940.8	ca	979768.66	980295.82	5.76	-202.62	-1.49	0.00	31.37	-166.99	-154.36	
mlms	:1324	41	25.00	-122	5.99	6329.0	ca	979742.88	980295.66	6.96	-215.86	-1.51	0.00	42.23	-168.18	-154.78	
mlms	:1327	41	23.44	-122	6.02	5996.7	ca	979766.19	980293.32	6.57	-204.53	-1.50	0.00	36.64	-162.81	-150.11	
mlms	:1328	41	23.54	-122	6.50	6394.2	ca	979741.44	980293.47	7.83	-218.09	-1.51	0.00	49.10	-162.67	-149.19	
mlms	:1329	41	23.38	-122	7.04	6708.8	ca	979721.80	980293.23	9.03	-228.82	-1.52	0.00	59.26	-162.05	-147.96	

medicine lake area
gravity
Meter ID: Date: 11/22/80

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE-BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
mlms	:1330	41	22.13	-122	5.88	5916.6	ca	979767.28	980291.36	6.35	-201.80	-1.49	0.00	32.17	-164.77	-152.23	
mlms	:1338	41	21.67	-121	42.31	4559.1	ca	979869.87	980290.67	0.55	-155.50	-1.35	0.00	7.86	-148.44	-138.49	
mlms	:1339	41	22.48	-121	40.42	4496.1	ca	979878.02	980291.88	0.62	-153.42	-1.34	0.00	9.07	-145.07	-135.26	
mlms	:1340	41	23.50	-121	39.98	4371.4	ca	979883.05	980293.41	0.52	-149.10	-1.32	0.00	0.66	-149.24	-139.70	
mlms	:1401017	41	35.03	-121	37.41	6763.8	ca	979755.42	980310.66	3.42	-230.69	-1.52	0.00	80.62	-148.17	-133.61	
mlms	:1402017	41	34.86	-121	38.93	6964.3	ca	979736.99	980310.41	4.06	-237.53	-1.52	0.00	81.28	-153.71	-138.75	
mlms	:1403017	41	34.90	-121	37.78	6899.2	ca	979744.46	980310.47	3.88	-235.31	-1.52	0.00	82.57	-150.38	-135.54	
mlms	:1404017	41	34.95	-121	38.30	6918.2	ca	979741.82	980310.55	3.90	-235.96	-1.52	0.00	81.64	-151.93	-137.06	
mlms	:1406017	41	34.91	-121	39.88	6636.7	ca	979756.66	980310.48	3.40	-226.36	-1.52	0.00	70.10	-154.38	-140.09	
mlms	:1407017	41	34.46	-121	40.25	6491.5	ca	979769.03	980309.81	3.00	-221.41	-1.51	0.00	69.49	-150.43	-136.43	
mlms	:1408017	41	34.32	-121	41.25	6450.0	ca	979768.48	980309.60	3.14	-219.99	-1.51	0.00	65.26	-153.11	-139.21	
mlms	:1409017	41	34.17	-121	41.57	6402.9	ca	979772.59	980309.38	2.77	-218.38	-1.51	0.00	65.16	-151.96	-138.14	
mlms	:1410017	41	34.40	-121	42.50	6363.2	ca	979775.44	980309.72	2.61	-217.03	-1.51	0.00	63.93	-152.00	-138.25	
mlms	:1411017	41	35.16	-121	42.37	6037.5	ca	979796.15	980310.86	2.79	-205.92	-1.50	0.00	52.90	-151.73	-138.70	
mlms	:1412017	41	35.50	-121	42.56	5809.3	ca	979812.63	980311.37	2.27	-198.14	-1.48	0.00	47.43	-149.93	-137.36	
mlms	:1413017	41	35.39	-121	42.06	6060.1	ca	979795.76	980311.20	3.48	-206.69	-1.50	0.00	54.29	-150.42	-137.39	
mlms	:1414017	41	35.28	-121	41.09	6275.1	ca	979783.47	980311.04	2.74	-214.03	-1.51	0.00	62.37	-150.43	-136.88	
mlms	:1415017	41	35.44	-121	40.26	6535.3	ca	979765.76	980311.27	3.16	-222.90	-1.51	0.00	68.87	-152.39	-138.30	
mlms	:1417017	41	35.66	-121	39.14	6832.7	ca	979746.49	980311.61	3.75	-233.04	-1.52	0.00	77.22	-153.59	-138.90	
mlms	:1418017	41	35.80	-121	38.34	6993.0	ca	979737.88	980311.81	3.99	-238.51	-1.52	0.00	83.46	-152.58	-137.55	
mlms	:1419017	41	36.17	-121	37.69	7088.0	ca	979733.75	980312.37	4.44	-241.75	-1.51	0.00	87.70	-151.13	-135.92	
mlms	:1420017	41	36.59	-121	37.40	6957.5	ca	979743.84	980313.00	3.94	-237.30	-1.52	0.00	84.90	-149.97	-135.02	
mlms	:1421017	41	36.83	-121	37.11	6977.0	ca	979742.08	980313.36	4.17	-237.97	-1.52	0.00	84.61	-150.70	-135.72	
mlms	:1422017	41	36.54	-121	36.45	6834.0	ca	979755.34	980312.92	3.87	-233.09	-1.52	0.00	84.87	-145.86	-131.17	
mlms	:1423017	41	35.84	-121	36.66	6770.4	ca	979760.78	980311.88	3.23	-230.92	-1.52	0.00	85.38	-143.82	-129.23	
mlms	:1517235	41	36.40	-121	31.99	7091.7	ca	979735.65	980312.71	5.14	-241.88	-1.51	0.00	89.60	-148.65	-133.48	
mlms	:1518235	41	36.31	-121	32.20	7066.9	ca	979737.09	980312.58	5.32	-241.03	-1.51	0.00	88.85	-148.38	-133.27	
mlms	:1519235	41	36.00	-121	32.66	6934.1	ca	979746.99	980312.12	5.14	-236.50	-1.52	0.00	86.73	-146.14	-131.32	
mlms	:1520235	41	35.84	-121	32.92	6839.6	ca	979754.78	980311.88	5.38	-233.28	-1.52	0.00	85.88	-143.53	-128.92	
mlms	:2001235	41	35.18	-121	36.87	6686.8	ca	979762.77	980310.89	3.30	-228.07	-1.52	0.00	80.51	-145.78	-131.37	
mlms	:2401235	41	37.79	-121	36.56	6764.8	ca	979760.11	980314.80	3.97	-230.73	-1.52	0.00	81.26	-147.01	-132.48	
mlms	:2402235	41	37.80	-121	37.13	6794.5	ca	979757.57	980314.81	3.99	-231.74	-1.52	0.00	81.50	-147.77	-133.17	
mlms	:2403235	41	37.73	-121	37.73	6726.9	ca	979761.23	980314.70	3.95	-229.44	-1.52	0.00	78.92	-148.08	-133.63	
mlms	:2404235	41	37.70	-121	38.34	6603.6	ca	979767.76	980314.66	3.74	-225.23	-1.52	0.00	73.90	-149.10	-134.91	
mlms	:2405235	41	37.35	-121	38.91	6530.0	ca	979772.64	980314.14	3.69	-222.72	-1.51	0.00	72.39	-148.15	-134.11	
mlms	:2409235	41	35.46	-121	39.15	6877.9	ca	979743.85	980311.30	4.12	-234.58	-1.52	0.00	79.12	-152.86	-138.09	
mlms	:2410235	41	36.54	-121	35.82	6914.7	ca	979751.61	980312.92	4.26	-235.84	-1.52	0.00	88.72	-144.38	-129.54	
mlms	:2411235	41	36.22	-121	35.06	6833.5	ca	979758.13	980312.45	3.67	-233.07	-1.52	0.00	88.09	-142.82	-128.12	
mlms	:2412235	41	35.89	-121	34.50	6698.2	ca	979766.13	980311.95	3.76	-228.46	-1.52	0.00	83.87	-142.34	-127.94	
mlms	:2413235	41	35.69	-121	34.02	6717.2	ca	979764.91	980311.65	3.93	-229.10	-1.52	0.00	84.74	-141.95	-127.52	

medicine lake area
gravity
Meter ID: Date: 11/22/80

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE-BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
mlms	:2414235	41	35.47	-121	33.36	6776.1	ca	979759.82	980311.32	3.56	-231.11	-1.52	0.00	85.51	-143.56	-128.97	
mlms	:2415235	41	35.20	-121	32.90	6885.0	ca	979751.57	980310.91	3.80	-234.83	-1.52	0.00	87.90	-144.65	-129.84	
mlms	:2416235	41	35.01	-121	32.47	6878.8	ca	979748.99	980310.63	4.20	-234.62	-1.52	0.00	85.02	-146.91	-132.14	
mlms	:2417235	41	35.03	-121	32.12	6970.5	ca	979744.30	980310.66	4.33	-237.74	-1.52	0.00	88.91	-146.02	-131.06	
mlms	:2418235	41	35.26	-121	31.43	7078.3	ca	979731.10	980311.01	6.20	-241.42	-1.51	0.00	85.50	-151.23	-136.16	
mlms	:2419235	41	34.54	-121	32.02	6980.8	ca	979742.33	980309.93	4.49	-238.10	-1.52	0.00	88.65	-146.48	-131.51	
mlms	:2420235	41	34.07	-121	31.67	6937.1	ca	979740.84	980309.23	4.69	-236.60	-1.52	0.00	83.76	-149.67	-134.81	
mlms	:2422235	41	33.93	-121	32.88	6834.7	ca	979749.29	980309.02	3.88	-233.11	-1.52	0.00	82.79	-147.96	-133.26	
mlms	:2423235	41	34.26	-121	33.67	6754.9	ca	979758.14	980309.51	3.59	-230.39	-1.52	0.00	83.65	-144.67	-130.13	
mlms	:2425235	41	34.99	-121	33.73	6771.4	ca	979758.97	980310.60	3.37	-230.95	-1.52	0.00	84.94	-144.16	-129.58	
mlms	:2426235	41	35.04	-121	33.16	6860.2	ca	979753.95	980310.68	3.63	-233.98	-1.52	0.00	88.19	-143.68	-128.92	
mlms	:2427235	41	35.04	-121	34.06	6796.0	ca	979758.73	980310.68	3.31	-231.79	-1.52	0.00	86.94	-143.06	-128.42	
mlms	:2428235	41	35.33	-121	34.17	6709.5	ca	979764.86	980311.11	3.51	-228.84	-1.52	0.00	84.50	-142.35	-127.90	
mlms	:2429235	41	35.65	-121	34.65	6685.1	ca	979767.25	980311.59	3.34	-228.01	-1.52	0.00	84.12	-142.07	-127.66	
mlms	:2430235	41	35.78	-121	35.10	6673.4	ca	979768.43	980311.79	3.23	-227.61	-1.52	0.00	84.00	-141.89	-127.51	
mlms	:2431235	41	35.37	-121	35.22	6725.5	ca	979765.52	980311.17	3.06	-229.39	-1.52	0.00	86.61	-141.24	-126.73	
mlms	:2451017	41	34.83	-121	37.24	6900.0	ca	979744.17	980310.37	3.71	-235.34	-1.52	0.00	82.46	-150.68	-135.84	
mlms	:2452017	41	34.86	-121	37.07	6710.6	ca	979759.52	980310.41	3.07	-229.88	-1.52	0.00	79.97	-147.35	-132.88	
mlms	:2453017	41	34.53	-121	37.54	7000.8	ca	979740.93	980309.91	3.96	-238.76	-1.52	0.00	89.14	-147.19	-132.14	
mlms	:2454017	41	34.53	-121	37.16	6936.7	ca	979745.27	980309.91	3.86	-236.59	-1.52	0.00	87.46	-146.78	-131.87	
mlms	:2455017	41	34.76	-121	36.48	6650.9	ca	979763.73	980310.26	3.23	-226.84	-1.52	0.00	78.72	-146.41	-132.07	
mlms	:2456017	41	34.74	-121	36.06	6659.1	ca	979765.99	980310.23	3.28	-227.12	-1.52	0.00	81.78	-143.59	-129.23	
mlms	:2457017	41	34.59	-121	35.62	6666.0	ca	979766.12	980310.01	3.10	-227.36	-1.52	0.00	82.78	-142.99	-128.62	
mlms	:2458017	41	33.97	-121	29.79	6930.9	ca	979741.50	980309.08	7.95	-236.39	-1.52	0.00	83.98	-145.98	-131.34	
mlms	:2464017	41	34.83	-121	32.80	6987.3	ca	979742.82	980310.37	4.10	-238.32	-1.52	0.00	89.31	-146.42	-131.41	
mlms	:2465017	41	34.89	-121	33.02	6835.6	ca	979754.06	980310.45	3.84	-233.14	-1.52	0.00	86.21	-144.61	-129.91	
mlms	:3101017	41	38.24	-121	36.17	6599.0	ca	979767.28	980315.47	3.56	-225.07	-1.52	0.00	72.18	-150.84	-136.64	
mlms	:3102017	41	38.61	-121	35.66	6519.8	ca	979773.42	980316.02	3.53	-222.37	-1.51	0.00	70.33	-150.03	-136.00	
mlms	:3103017	41	39.99	-121	34.77	5939.2	ca	979803.94	980318.09	2.55	-202.57	-1.49	0.00	44.22	-157.30	-144.46	
mlms	:3104017	41	40.26	-121	33.36	5609.5	ca	979829.37	980318.49	2.16	-191.32	-1.47	0.00	38.26	-152.38	-140.24	
mlms	:3105017	41	40.90	-121	32.94	5387.0	ca	979842.86	980319.45	1.81	-183.74	-1.45	0.00	29.88	-153.50	-141.82	
mlms	:3106017	41	41.52	-121	32.63	5323.7	ca	979849.83	980320.38	1.47	-181.58	-1.45	0.00	29.97	-151.58	-140.02	
mlms	:3107017	41	42.22	-121	31.80	5114.8	ca	979863.21	980321.43	1.35	-174.45	-1.42	0.00	27.67	-151.85	-140.74	
mlms	:3108017	41	42.93	-121	31.49	4994.5	ca	979876.52	980322.49	1.94	-170.35	-1.41	0.00	23.61	-146.20	-135.39	
mlms	:3109017	41	43.95	-121	31.99	4788.7	ca	979892.20	980324.02	0.80	-163.33	-1.38	0.00	18.43	-145.49	-135.05	
mlms	:3110017	41	44.28	-121	32.29	4764.4	ca	979897.33	980324.52	0.75	-162.50	-1.38	0.00	20.77	-142.36	-131.97	
mlms	:3120235	41	37.33	-121	35.80	7174.0	ca	979734.65	980314.11	5.61	-244.69	-1.51	0.00	94.94	-145.65	-130.33	
mlms	:3130235	41	32.59	-121	42.08	6026.1	ca	979792.50	980307.01	2.07	-205.53	-1.50	0.00	52.03	-152.93	-139.88	
mlms	:3131235	41	31.46	-121	41.35	5658.9	ca	979808.31	980305.32	1.67	-193.01	-1.47	0.00	35.02	-157.79	-145.52	
mlms	:3132235	41	31.59	-121	42.20	5812.8	ca	979801.19	980305.52	1.99	-198.26	-1.48	0.00	42.17	-155.59	-143.00	

medicine lake area
gravity
Meter ID: Date: 11/22/80

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE-BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
mlms	:3133235	41	31.34	-121	41.56	5611.7	ca	979810.37	980305.14	1.64	-191.40	-1.47	0.00	32.82	-158.41	-146.23	
mlms	:3134235	41	30.54	-121	42.36	5585.1	ca	979812.57	980303.95	1.65	-190.49	-1.47	0.00	33.72	-156.59	-144.47	
mlms	:3135235	41	30.27	-121	42.27	5340.3	ca	979827.31	980303.54	1.40	-182.14	-1.45	0.00	25.86	-156.33	-144.73	
mlms	:3201235	41	34.60	-121	35.05	6697.5	ca	979763.81	980310.02	3.32	-228.43	-1.52	0.00	83.42	-143.21	-128.78	
mlms	:3202235	41	33.84	-121	34.83	6776.7	ca	979753.50	980308.88	3.86	-231.13	-1.52	0.00	81.69	-147.10	-132.54	
mlms	:3203235	41	33.50	-121	34.91	6851.9	ca	979747.35	980308.38	4.25	-233.70	-1.52	0.00	83.11	-147.85	-133.15	
mlms	:3204235	41	33.25	-121	35.22	6750.3	ca	979751.31	980308.00	5.05	-230.23	-1.52	0.00	77.90	-148.80	-134.36	
mlms	:3205235	41	32.93	-121	35.51	6632.1	ca	979756.76	980307.52	3.54	-226.20	-1.52	0.00	72.72	-151.46	-137.18	
mlms	:3206235	41	32.54	-121	35.42	6468.4	ca	979764.84	980306.94	3.14	-220.62	-1.51	0.00	66.01	-152.98	-139.04	
mlms	:3207235	41	32.06	-121	35.01	6294.6	ca	979772.19	980306.22	2.62	-214.69	-1.51	0.00	57.74	-155.64	-142.06	
mlms	:3208235	41	31.73	-121	35.25	6200.2	ca	979777.15	980305.73	2.83	-211.47	-1.51	0.00	54.32	-155.82	-142.44	
mlms	:3209235	41	31.55	-121	35.70	6134.5	ca	979780.29	980305.45	2.63	-209.23	-1.50	0.00	51.56	-156.54	-143.29	
mlms	:3210235	41	31.46	-121	36.19	6013.7	ca	979787.03	980305.32	2.32	-205.11	-1.50	0.00	47.08	-157.20	-144.20	
mlms	:3211235	41	30.97	-121	36.13	5836.8	ca	979795.12	980304.59	2.26	-199.08	-1.49	0.00	39.28	-159.02	-146.40	
mlms	:3212235	41	30.36	-121	35.60	5696.1	ca	979803.87	980303.67	1.87	-194.28	-1.48	0.00	35.72	-158.17	-145.82	
mlms	:3214235	41	29.27	-121	36.48	5480.4	ca	979815.02	980302.04	1.91	-186.92	-1.46	0.00	28.24	-158.23	-146.36	
mlms	:3216235	41	31.60	-121	37.77	5912.7	ca	979796.25	980305.53	2.11	-201.67	-1.49	0.00	46.60	-154.45	-141.64	
mlms	:3217235	41	30.90	-121	37.35	5793.2	ca	979800.65	980304.48	2.07	-197.59	-1.48	0.00	40.82	-156.19	-143.64	
mlms	:3218235	41	31.86	-121	38.12	5998.1	ca	979791.67	980305.92	2.19	-204.58	-1.50	0.00	49.66	-154.22	-141.24	
mlms	:3219235	41	32.27	-121	38.35	6108.7	ca	979788.19	980306.53	2.55	-208.35	-1.50	0.00	55.95	-151.35	-138.15	
mlms	:3220235	41	32.72	-121	37.86	6365.5	ca	979775.14	980307.20	2.73	-217.11	-1.51	0.00	66.36	-149.52	-135.78	
mlms	:3222235	41	34.12	-121	39.33	6428.2	ca	979773.96	980309.30	3.63	-219.25	-1.51	0.00	68.98	-148.15	-134.32	
mlms	:3224235	41	33.00	-121	40.04	6081.0	ca	979792.11	980307.63	2.54	-207.41	-1.50	0.00	56.18	-150.18	-137.04	
mlms	:3225235	41	33.17	-121	39.16	6420.4	ca	979772.83	980307.88	2.82	-218.98	-1.51	0.00	68.54	-149.13	-135.28	
mlms	:3226235	41	33.19	-121	39.06	6430.3	ca	979772.50	980307.91	2.83	-219.32	-1.51	0.00	69.11	-148.89	-135.01	
mlms	:3401017	41	39.30	-121	35.29	6184.1	ca	979788.88	980317.05	2.77	-210.92	-1.50	0.00	53.21	-156.45	-143.10	
mlms	:3403017	41	40.36	-121	37.10	5871.0	ca	979808.92	980318.64	2.51	-200.24	-1.49	0.00	42.24	-156.98	-144.30	
mlms	:3406017	41	40.01	-121	40.26	5540.4	ca	979831.17	980318.12	1.72	-188.97	-1.46	0.00	33.94	-154.77	-142.75	
mlms	:3407017	41	38.52	-121	41.17	5400.9	ca	979837.43	980315.89	1.64	-184.21	-1.45	0.00	29.32	-154.70	-142.98	
mlms	:3408017	41	38.39	-121	41.27	5491.4	ca	979833.68	980315.70	1.94	-187.30	-1.46	0.00	34.27	-152.54	-140.65	
mlms	:3409017	41	38.01	-121	40.60	5594.3	ca	979826.28	980315.13	1.89	-190.81	-1.47	0.00	37.11	-153.27	-141.15	
mlms	:3410017	41	37.09	-121	41.18	5735.3	ca	979817.70	980313.75	2.06	-195.61	-1.48	0.00	43.16	-151.87	-139.45	
mlms	:3412017	41	36.60	-121	40.53	5974.0	ca	979804.50	980313.02	2.49	-203.76	-1.49	0.00	53.13	-149.63	-136.72	
mlms	:3413017	41	37.27	-121	40.43	5872.3	ca	979811.93	980314.02	2.28	-200.29	-1.49	0.00	50.00	-149.50	-136.80	
mlms	:3414017	41	38.14	-121	40.05	5835.2	ca	979815.61	980315.32	2.22	-199.02	-1.49	0.00	48.89	-149.40	-136.78	
mlms	:3415017	41	38.07	-121	39.31	5938.9	ca	979809.28	980315.21	2.64	-202.56	-1.49	0.00	52.41	-149.00	-136.18	
mlms	:3416017	41	37.54	-121	39.58	5899.6	ca	979804.67	980314.42	2.19	-201.22	-1.49	0.00	44.90	-155.62	-142.85	
mlms	:3418017	41	38.56	-121	39.50	5775.3	ca	979816.41	980315.95	1.99	-196.98	-1.48	0.00	43.43	-153.04	-140.53	
mlms	:3419017	41	39.16	-121	39.54	5743.0	ca	979819.62	980316.84	2.06	-195.88	-1.48	0.00	42.70	-152.60	-140.16	
mlms	:3420017	41	39.48	-121	39.58	5628.3	ca	979825.71	980317.33	1.90	-191.97	-1.47	0.00	37.54	-154.00	-141.80	

medicine lake area
gravity
Meter ID: Date: 11/22/80

STATION IDENTIFICATION proj	sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE-BOUGUER d1=2.67	d2=2.50	SPEC FIELDS
mlms	:3452235	41	36.00	-121	37.35	6847.0	ca	979755.57	980312.12	3.85	-233.53	-1.52	0.00	87.13	-144.07	-129.35	
mlms	:3453235	41	36.17	-121	37.17	6822.3	ca	979759.47	980312.37	3.34	-232.69	-1.52	0.00	88.45	-142.41	-127.71	
mlms	:3454235	41	35.78	-121	37.00	6773.7	ca	979757.12	980311.79	3.33	-231.03	-1.52	0.00	82.12	-147.10	-132.51	
mlms	:3455235	41	35.49	-121	37.65	6743.4	ca	979758.38	980311.35	3.74	-230.00	-1.52	0.00	80.97	-146.80	-132.30	
mlms	:3456235	41	35.43	-121	37.38	6733.4	ca	979763.45	980311.27	3.16	-229.66	-1.52	0.00	85.19	-142.82	-128.30	
mlms	:3462235	41	38.76	-121	33.20	6176.4	ca	979793.15	980316.25	3.64	-210.66	-1.50	0.00	57.56	-150.96	-137.69	
mlms	:3465235	41	38.68	-121	34.25	6232.8	ca	979791.33	980316.13	4.41	-212.58	-1.51	0.00	61.16	-148.52	-135.17	
mlms	:4003	41	36.67	-121	33.14	7913.0	ca	979675.72	980313.12	13.02	-269.89	-1.48	0.00	106.43	-151.92	-135.47	
mlms	:4004	41	37.30	-121	33.85	7662.0	ca	979691.36	980314.06	15.76	-261.33	-1.49	0.00	97.55	-149.51	-133.78	
mlms	:4005	41	37.12	-121	34.24	7432.8	ca	979717.76	980313.79	7.51	-253.51	-1.50	0.00	102.68	-144.82	-129.07	
mlms	:4006	41	37.04	-121	34.70	7455.4	ca	979717.58	980313.67	7.89	-254.28	-1.50	0.00	104.75	-143.15	-127.37	
mlms	:4013	41	31.59	-121	37.90	5937.2	ca	979795.41	980305.52	2.23	-202.50	-1.49	0.00	48.08	-153.68	-140.83	
mlms	:4014	41	34.13	-121	35.51	6862.8	ca	979743.21	980309.31	5.08	-234.07	-1.52	0.00	79.05	-151.45	-136.78	
mlms	:4017	41	31.55	-121	36.58	6078.8	ca	979784.31	980305.45	2.44	-207.33	-1.50	0.00	50.35	-156.04	-142.90	