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**Principal Facts for Gravity Stations in the Vicinity of San Bernardino,
Southern California**

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Abstract

New gravity measurements in the vicinity of San Bernardino, California were collected to help define the characteristics of the Rialto-Colton fault. The data were processed using standard reduction formulas and parameters. Rock properties such as lithology, magnetic susceptibility and density also were measured at several locations. Rock property measurements will be helpful for future modeling and density inversion calculations from the gravity data. On both the Bouguer and isostatic gravity maps, a prominent, 13-km long (8 mi), approximately 1-km (0.62 mi) wide gradient with an amplitude of 7 mGal, down to the northeast, is interpreted as the gravity expression of the Rialto-Colton fault. The gravity gradient strikes in a northwest direction and runs from the San Jacinto fault zone at its south end to San Sevine Canyon at the foot of the San Gabriel mountains at its north end. The Rialto-Colton fault has experienced both right-lateral strike-slip and normal fault motion that has offset basement rocks; therefore it is interpreted as a major, through-going fault.

Introduction

Between December 1998 and November 1999 the U.S. Geological Survey (USGS) established 611 gravity stations in the vicinity of San Bernardino, California. The stations were located south of the eastern San Gabriel Mountains and west of the San Bernardino Mountains in an area known as the San Bernardino basin (fig. 1). The San Bernardino basin is a strike-slip basin centered over a right-bend in the San Jacinto fault zone as it joins with the San Andreas fault to the northeast in Cajon Pass (fig. 1).

The purpose of the survey was to locate more precisely and characterize the Rialto-Colton fault, a strand in the San Jacinto fault zone. The information developed during this study will be used in ground-water models by the USGS Water Resources Division and for the purposes of deciphering the complex basin geometry and tectonic history in this area to help understand the development of similar strike-slip basins.

Gravity Data

Most of the data were collected between lat 34°00' and 34°15' N and long 117°00' and 117°37.5' W. Most stations were located on the Cucamonga Peak, Devore, San Bernardino North, Fontana, San Bernardino South, Redlands, and Yucaipa 7.5 minute quadrangles (fig. 2). All data were tied into secondary base station BWRI located in the parking lot of the Best Western Empire Inn in Rialto, CA (lat 34°4.14' N; long 117°22.62' W; observed gravity value 979520.09 mGal) (figs. 2 and 3). The value for observed gravity was calculated by multiple ties

to a station-pair in Cajon Pass: BB1 and BB1A, that are a part of the southern California high-precision gravity station network (Roberts and Jachens, 1986).

Horizontal and Vertical Control

Accurate location and elevation data for each gravity station are essential to reducing error in the gravity data reduction and giving accurate locations for features interpreted from the resulting gravity maps. Location uncertainties within several meters and elevation uncertainties within centimeters is appropriate for the resolution of our data (tightly spaced lines of stations crossing the Rialto-Colton fault were spaced at 200 m (650 ft) and had a total elevation fall along the line of approximately 40 m [130 ft]). Horizontal station locations were obtained with a small, portable Global Positioning System (GPS) unit and have an uncertainty of 10 m (30 ft) or less. Elevations were obtained using a differential GPS system of Trimble Real Time Kinematic (RTK) Series 4400 GPS receivers. These measurements have an uncertainty of typically 5-10 cm (2-4 in). Several GPS base stations were newly established for this survey or reestablished from existing stations in the National Geodetic Survey (NGS) database. We were able to survey most of the San Bernardino basin in real time with a 6 m (20 ft) radio antenna located at these base stations. The following information gives details on the base stations used in this study that expands upon what is currently available from the NGS. Future investigators may find this information useful to shortcut the lengthy and involved process of the establishment of GPS base stations. Where a map of the GPS station is not given here, the location is easily found using 1:24,000 topographic maps and/or city road maps along with the descriptions and latitudes/longitudes given below.

GPS Base Station RIALPORT2

-Lat 34° 07' 35.529" N; Long 117° 24' 30.755" W (on North American Datum 1983 [NAD 83], established by our survey)

-Elevation 436.44 m or 1431.90 ft (on North American Vertical Datum 1988 [NAVD 88], established by our survey)

New GPS base "RIALPORT2" (figs. 2 and 4) is at the Rialto Municipal Airport within several meters of station "RIALPORT" (now destroyed) listed in the NGS database (Permanent Identifier [PID] "EV9076") at URL <http://www.ngs.noaa.gov/datasheet.html>. Since the description in the NGS database was written, a new runway has been constructed, the old runway has become a taxiway, and the old taxiway has become a drag strip. The station is near the west end of the airport, north of the Sheriff Department's helicopter facility. It can be reached by proceeding west on Miro Way from Linden Ave. (fig. 4), entering the gate by Art Scholl

Aviation, passing the aircraft fuel pump, then heading west along the drag strip. Watch pavement markings for a former turnoff to the old runway. See figure 4 for reference points and distances. The station is marked by a black X in a circle on a 5 by 15 cm (2 by 6 in) rock almost flush with the ground in the median between the dragstrip and the taxiway. Access to the airport can be made by arrangement with the Director of Aviation for the City of Rialto, Richard Scanlan, 1451 N. Linden Avenue, (909) 820-2622.

Station coordinates were determined by RTK GPS survey using benchmarks "SIERRA" at Highland Ave. and Sierra Ave. and "SBD6106" at Cedar Ave. and 5th St. (see NGS web site) as primary horizontal and vertical control.

GPS Base Station KEND60

- Lat 34° 11' 13.164" N; Long 117° 20' 53.634" W (on NAD 83, established by the NGS)
- Elevation 515.30 m or 1690.62 ft (on NAVD 88, established by our survey)

Our GPS base "KEND60" (fig. 2) is in the same location as the horizontal control point "KENDALL" (PID "EV3617") in the NGS database. Since "KENDALL" only had good horizontal control, we obtained an elevation of 515.30 m for this mark from our processing of the GPS data where we fixed known benchmarks. To reach the station, proceed northwest on Interstate Highway 215 from San Bernardino to the exit ramp for Palm Avenue. Stay right off the freeway and go northeast on Palm Ave, turn right and go southeast on Kendall Drive for 1.1 km (0.7 mi). The station is located on top of the hill ahead on the left and may be reached by either of two routes. Either go left on Pine 0.24 km (0.15 mi) then right up a dirt track to the highest point of the hill or continue southeast on Kendall for 0.3 km (0.2 mi), turn left on Bailey Court and left again on a dirt road at the crest and proceed to the highest point of the hill. The square concrete foundation at the very top is the benchmark "Kendall 1964" (PID "EV3618" in the NGS database). KEND60 is about 10.7 m (35 ft) south-southwest of Kendall 1964 and is a California Department of Water Resources disc set in the top of a cylindrical, concrete monument that is 30 cm (1 ft) in diameter and projects 5 cm (2 in) above the ground. The NGS web site gives survey control information for their horizontal and vertical measurements.

GPS Base Station RED

- Lat 34° 05' 05.036" N; Long 117° 09' 09.458" W (on NAD 83, established by the NGS)
- Elevation 450.00 m or 1476.00 ft (on NAVD 88, established by the NGS)

GPS base "RED" (fig. 2) is at the Redlands Airport. It located at the control point "FAA L12 B" (PID "EV9277" in the NGS database). The NGS established the horizontal and vertical

location for this mark by GPS observations and their measurements were deemed accurate enough for us to use in our survey. RED is located approximately 1.1 km (0.7 mi) west of the terminal, at the far western end of the airport, south of the runway, and just east of the most westerly ramp to the paved aircraft parking area. It is in the dirt strip north of the deep drainage ditch between the aircraft parking area and the taxiway, in a hole with a metal cover, and is a stainless steel rod in a sleeve. The stamp on the rod is "FAA L12B 1992". Access to the airport is controlled by the City of Redlands Public Works Department, 35 Cajon St. Suite 22, Redlands, (909) 798-7655. The NGS web site gives survey control information for their horizontal and vertical measurements.

GPS Base Station TERR

- Lat 34° 02' 39.019" N; Long 117° 18' 33.098" W (on NAD 83, established by our survey)
- Elevation 340.28 m or 1116.4 ft (on NAVD 88, established by our survey)

GPS base "TERR" (fig. 2) is a newly established base station located in the Grand Terrace area south of Colton. The base is located near the cross on top of a bluff visible from southbound Interstate 215. Take the Mt Vernon exit from I 215 and proceed south on Mt Vernon Avenue up the bluff to a stop sign. Turn left on Grand Terrace Road, proceed east 300 m (0.2 mi), then turn left on Vista Grande Way. Proceed north about 150 m (0.1 mi) to a right turn in the road. The base station is located near the turn, on the opposite side of a cable fence on the north side of the road. It is approximately centered on the gate section of fence and is at a U bolt imbedded in a small patch of highly-weathered pavement. Geographic coordinates were obtained by a GPS network adjustment holding KEND60 and RED fixed.

Data Reduction

Gravity data (table 1) were processed using factory calibration constants for each meter augmented by correction factors obtained on the Mt. Hamilton calibration loop east of San Jose, CA (Barnes and others, 1969). Observed gravity was calculated based on assumed linear drift between "base ties" (i.e. repeat measurements at our gravity base station during data collection). The data were referenced to the International Gravity Standardization Net 1971 (Morelli, 1974) and the Geodetic Reference System 1967 ellipsoid (International Union of Geodesy and Geophysics, 1971).

Free-air anomalies were calculated using standard formulas (Swick, 1942). The complete Bouguer anomaly calculation incorporated the Bouguer correction, an earth curvature correction, field-based and computer-generated terrain corrections, and a reduction density of 2.67 g/cm³.

Terrain corrections for the Bouguer correction were calculated in the field up to a radius of 68 m (223 ft) from each station. Terrain corrections from 68 m (223 ft) to 590 m (0.37 mi) were computer calculated using a 30-m Digital Elevations Model (DEM). Terrain corrections out to 166.7 km (100 mi.) were calculated with a computer program by Plouff (1977).

Terrain corrections for data collected on the premises of the Cemex Materials Corporation (fig. 2; approximately lat 34° 10' N and long 117° 24' N) needed modification because mining operations had significantly changed the topography from that shown on the current 30 m DEM. The DEM was modified with field measurements of the dimensions of the mining pits and 1998 air photos. The DEM was then used to calculate the terrain corrections.

Isostatic corrections were made using an Airy-Heiskanen model of isostatic compensation (Heiskanen and Vening-Meinesz, 1958). The depth of the crust-mantle boundary was controlled using the following parameters: a crustal thickness at sea level of 25 km, a density contrast of 0.40 g/cm³ between the crust and the mantle, and a crustal density of 2.67 g/cm³ (Jachens and Griscom, 1985).

Physical Property Measurements

Along with gravity measurements, rock samples and rock property measurements were collected at locations shown in figure 5. These measurements will aid in future gravity modeling and gravity inversion calculations. Samples were brought back to the laboratory and the densities were measured on a precision electronic balance. Grain density, saturated bulk density, and dry bulk density were measured for each sample (table 2). Magnetic susceptibilities were measured both in the field and in the laboratory using a Geophysica KT-5 susceptibility meter.

Several trends in the saturated bulk density are revealed from the samples when grouped by rock type and location. Samples of Pelona schist from outcrops in the basin have, on average, low densities which range from 2.48-2.62 g/cm³ and have an average of 2.56 g/cm³. Magnetic susceptibility for these rocks is negligible, averaging 0.01 cgs x 10⁻³. Few samples were collected in the Crafton Hills area. The mylonitic rocks of the Crafton Hills average 2.63 g/cm³ in density and have an appreciable magnetic susceptibility of about 0.35 cgs x 10⁻³. Crafton Hills gneiss has a density averaging 2.61 g/cm³ and has a small magnetic susceptibility of about 0.04 cgs x 10⁻³. Few samples were also obtained in the Jurupa Hills area. Diorite samples collected from this area are dense, averaging 2.74 g/cm³ and magnetic susceptibility is weak, averaging 0.03 cgs x 10⁻³.

We obtained a sizeable data set in the southeastern San Gabriel Mountains, but the set covers limited areas. Tonalites and mylonitic tonalites range in density from 2.54-2.82 g/cm³ and average 2.70 g/cm³. These rocks have magnetic susceptibilities ranging from 0.52-1.25 cgs x 10⁻³ with an average of 0.83 cgs x 10⁻³. The gneisses are about as dense as the tonalitic rocks, averaging 2.69 g/cm³, but are weakly magnetic, averaging 0.02 cgs x 10⁻³. The number of

granitic rock samples collected from the San Gabriel Mountains is small, but average 2.54 g/cm^3 for density. Magnetic susceptibility for these granitic rocks varies widely.

Samples from Precambrian unit of Miller (1979), including San Bernardino Mountain gneiss and granite, range in density from $2.55\text{-}3.04 \text{ g/cm}^3$ and average 2.73 g/cm^3 . These rocks have magnetic susceptibilities ranging from $0.01\text{-}0.90 \text{ cgs} \times 10^{-3}$ and averaging $0.47 \text{ cgs} \times 10^{-3}$. Diorite samples were only taken from one outcrop, but many measurements were made. These samples average 2.70 g/cm^3 for density and $0.52 \text{ cgs} \times 10^{-3}$ for magnetic susceptibility. Tertiary sedimentary rocks (mica-rich sandstones and conglomerates) of the San Bernardino Mountains have densities ranging from $2.44\text{-}2.64 \text{ g/cm}^3$ and averaging 2.58 g/cm^3 . Their magnetic susceptibilities range from $0.07\text{-}0.60 \text{ cgs} \times 10^{-3}$ and average $0.28 \text{ cgs} \times 10^{-3}$.

Possible Sources of Error

Sources of error in our data set encompass several aspects. Elevation uncertainty of 5-10 cm (2-4 in) causes an uncertainty in the Bouguer and isostatic anomalies that is typically 0.01-0.02 mGal. There is some uncertainty in observed gravity from our assumptions of meter drift, though our system of base ties keeps this uncertainty typically less than 0.05 mGal. Our largest source of uncertainty is in the terrain corrections. Our terrain corrections are estimated to be accurate to within 10% of the value of the correction. Therefore, there is very little uncertainty in the values for our stations located on the flats of the San Bernardino basin (typically 0.2 mGal or less), but there is a larger uncertainty associated with the stations in the surrounding mountains and hills (0.4-1.5 mGal), because the terrain corrections are much higher.

Our data across the Rialto-Colton fault are quite uniform; contouring yields a smooth, consistent, linear gradient that indicates that the error for the data over the Rialto-Colton fault is probably much less than the maximum error given above. Also, data obtained from other agencies and surveys fits in very well with our newly acquired data. In cases where there was a misfit, we analyzed all involved data sets for possible sources of error and corrected them if possible. In a couple of cases, we double-checked our corrections on older data sets by reoccupying several previously established stations. The contour gravity maps (figs. 6 and 7) include data sets from the following surveys/agencies: 114 stations from the Defense Mapping Agency, 940 stations from University of California, Riverside (Tang and Ponce, 1982; Sikora and others, 1993), 171 stations from R.H. Chapman (written commun.; Tang and Ponce, 1982), 86 USGS stations, 102 stations from J.L. McWhirter (Tang and Ponce, 1982), 12 stations from R.B. Grannell and R.B. Greenwood (Tang and Ponce, 1982), 449 stations from Tien-Chang Lee (written commun., 1998), and 2 stations from the California high-precision gravity network (Roberts and Jachens, 1986).

Preliminary Gravity Map Interpretation

The gravity data reduction process removes effects on gravity produced by such influences as earth tides and elevation (or distance from the center of the earth). The resulting complete Bouguer anomaly reflects density variations in the earth's crust. The isostatic correction goes a step further and removes the long wavelength effects of variances in the crust-mantle boundary due to the isostatic support of topography. The resulting gravity values mostly reflect lateral density contrasts in the upper crust (approximately the upper 10 km or 6 mi.).

Sharp changes in gravity from one place to another, or "steep gradients", can result from many lateral lithologic changes, such as passing from bedrock over the edge of a sediment-filled basin, or passing over a boundary in the bedrock between rocks of different densities. Such information as hand-sample data collected in the field and analyzed to give bedrock density, and information obtained from seismic reflection and refraction studies can be used to constrain gravity modeling and reveal the location and shape of major subsurface lithologic changes.

On both the Bouguer and isostatic gravity maps, the Rialto-Colton fault shows as a prominent, 13-km (8 mi) long, 1-km (0.62 mi) wide gradient with an amplitude of 7 mGal, down to the northeast. It runs from the San Jacinto fault zone at its south end to San Sevine Canyon (fig. 1) at the foot of the San Gabriel mountains at its north end. This zone is shown in figures 6 and 7 along with the position of the maximum gradient along the zone.

If basement rocks are of uniform density and thus do not influence the gravity signature, the location of the maximum gradient is the most likely location of a basin-bounding fault. The location of the maximum gradient associated with the Rialto-Colton fault is approximately 1 km to the southwest of earlier interpretations of the fault location based on groundwater data from two wells (Woolfenden and Kadhim, 1997; Dutcher and Garrett, 1963). Preliminary 2-dimensional gravity modeling indicates that the fault has produced normal offset of the basement rocks of as much as 600 m (2000 ft) (Anderson and others, 1999).

The Rialto-Colton fault could connect with known, previously mapped faults at both ends of the gradient. To the south, the Rialto-Colton gradient connects with and is on strike with the San Jacinto fault zone. There is no fault on the other side of the San Jacinto fault the Rialto-Colton fault could connect with after restoring 25 km (about 15 mi) of right-lateral offset on the San Jacinto fault zone, which is the amount of offset suggested from observations further south along the San Jacinto fault zone (Morton and Matti, 1993). Therefore, the Rialto-Colton fault is interpreted as a strand in the San Jacinto fault zone. Where the Rialto-Colton fault intersects the Cucamonga fault zone at San Sevine Canyon there is an apparent right-lateral offset of faults in the Cucamonga fault zone and the Rialto-Colton fault connects and is on strike with the Day Canyon fault in the San Gabriel Mountains (figs. 1 and 5). The Rialto-Colton fault also crosses a linear magnetic high shown on aeromagnetic maps of the basin (U.S. Geological Survey, 1996). The magnetic anomaly crosses the fault at a bend halfway along the length of the gravity

gradient. The magnetic anomaly is offset in a right-lateral strike-slip sense in several discrete steps along the gravity gradient at this location. The total right-lateral offset seen in the magnetic anomaly, on the Cucamonga fault zone along the Rialto-Colton fault, and in mylonite zones along the Day Canyon fault are all approximately 2 km (1.25 mi).

Conclusions

On the basis of the gravity and magnetic observations, we interpret the maximum gradient along the isostatic anomaly as representing the approximate location of the Rialto-Colton fault, a major, through-going fault that has experienced both right-lateral offset of 2 km (1.25 mi.) and normal offset of basement rocks (down to the northeast) in the past. We connect it to the local fault structure by suggesting it is a strand of the San Jacinto fault zone that continues through the cities of Rialto and Colton and becomes the Day Canyon fault as it enters the San Gabriel Mountains.

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Table 1. Principal facts of gravity stations in the San Bernardino area.

[Latitudes and longitudes are given in North American Datum 1927 (NAD27). CBA, complete Bouguer anomaly; Elev, elevation; FAA, free air anomaly; ISO, isostatic anomaly; Og, observed gravity; SBA, simple Bouguer anomaly; Tc, terrain correction.]

Station	Lat		Long		Elev ft	Og mGal	FAA mGal	SBA mGal	Tc		CBA mGal	ISO mGal
	deg	min	deg	min					inner mGal	total mGal		
98BWRI	34	4.14	117	22.62	1068.0	979520.09	-33.76	-70.18	0.01	1.10	-69.51	-5.76
98RI001	34	5.09	117	22.94	1156.7	979511.07	-35.76	-75.21	0.01	1.18	-74.50	-9.55
98RI002	34	5.20	117	22.94	1162.2	979510.64	-35.83	-75.47	0.01	1.19	-74.74	-9.62
98RI003	34	5.30	117	22.95	1170.3	979510.11	-35.74	-75.65	0.01	1.21	-74.92	-9.65
98RI004	34	5.41	117	22.95	1183.5	979509.07	-35.69	-76.05	0.01	1.22	-75.31	-9.87
98RI005	34	5.52	117	22.94	1192.6	979508.24	-35.82	-76.49	0.01	1.23	-75.74	-10.12
98RI006	34	5.65	117	22.95	1201.0	979507.26	-36.19	-77.15	0.00	1.24	-76.40	-10.58
98RI007	34	5.74	117	22.95	1211.1	979506.15	-36.47	-77.78	0.00	1.25	-77.02	-11.07
98RI008	34	5.85	117	22.95	1221.6	979504.82	-36.97	-78.63	0.00	1.26	-77.86	-11.74
98RI009	34	5.95	117	22.95	1228.0	979503.65	-37.68	-79.56	0.00	1.28	-78.78	-12.51
98RI010	34	6.08	117	22.95	1240.5	979502.11	-38.22	-80.53	0.01	1.31	-79.72	-13.25
98RI011	34	6.28	117	22.95	1260.2	979499.56	-39.20	-82.18	0.01	1.34	-81.35	-14.57
98RI012	34	6.38	117	22.95	1269.5	979498.55	-39.48	-82.77	0.01	1.35	-81.94	-15.00
98RI013	34	6.49	117	22.95	1280.0	979497.48	-39.71	-83.37	0.00	1.35	-82.53	-15.42
98RI014	34	6.60	117	22.95	1289.9	979496.62	-39.80	-83.79	0.01	1.38	-82.93	-15.64
98RI015	34	6.71	117	22.95	1299.1	979495.81	-39.89	-84.20	0.00	1.38	-83.34	-15.88
98RI016	34	5.78	117	24.00	1241.6	979509.47	-30.34	-72.69	0.00	1.25	-71.94	-6.70
98RI017	34	5.89	117	24.00	1247.5	979508.62	-30.79	-73.34	0.00	1.26	-72.58	-7.15
98RI018	34	6.00	117	24.00	1258.1	979506.59	-31.98	-74.89	0.01	1.29	-74.10	-8.50
98RI019	34	6.11	117	24.00	1271.3	979504.35	-33.13	-76.49	0.00	1.29	-75.71	-9.93
98RI020	34	6.22	117	24.00	1280.5	979502.67	-34.10	-77.77	0.01	1.32	-76.96	-11.01
98RI021	34	6.31	117	24.00	1289.2	979501.29	-34.79	-78.76	0.01	1.33	-77.94	-11.85
98RI022	34	6.43	117	24.00	1300.0	979499.82	-35.41	-79.75	0.01	1.35	-78.91	-12.62
98RI023	34	6.54	117	24.00	1311.0	979498.49	-35.86	-80.57	0.00	1.36	-79.74	-13.27
98RI024	34	6.65	117	24.00	1323.6	979497.08	-36.24	-81.38	0.00	1.38	-80.53	-13.89
98RI025	34	6.76	117	24.00	1334.4	979495.90	-36.55	-82.07	0.01	1.40	-81.20	-14.39
98RI026	34	6.85	117	24.00	1344.4	979494.86	-36.78	-82.63	0.00	1.40	-81.76	-14.80
98RI027	34	6.97	117	24.00	1355.5	979493.74	-37.02	-83.25	0.00	1.43	-82.36	-15.20
98RI028	34	7.08	117	24.00	1366.8	979492.77	-37.08	-83.70	0.01	1.46	-82.79	-15.46
98RI029	34	7.20	117	24.00	1377.3	979491.93	-37.10	-84.08	0.01	1.48	-83.15	-15.63
98RI030	34	7.27	117	24.00	1386.2	979491.28	-37.02	-84.29	0.01	1.49	-83.35	-15.72
98RI031	34	7.83	117	25.07	1477.2	979486.41	-34.11	-84.49	0.01	1.64	-83.43	-15.57
98RI032	34	7.73	117	25.06	1462.2	979487.31	-34.48	-84.35	0.01	1.62	-83.31	-15.61
98RI033	34	7.62	117	25.06	1449.4	979488.17	-34.67	-84.10	0.01	1.59	-83.08	-15.57
98RI034	34	7.51	117	25.06	1434.9	979489.16	-34.89	-83.83	0.01	1.57	-82.83	-15.49
98RI035	34	7.40	117	25.06	1423.1	979490.06	-34.95	-83.48	0.01	1.55	-82.50	-15.34
98RI036	34	7.29	117	25.06	1410.3	979491.11	-34.95	-83.05	0.01	1.52	-82.08	-15.11
98RI037	34	7.18	117	25.06	1396.0	979492.45	-34.80	-82.41	0.01	1.50	-81.46	-14.67
98RI038	34	7.07	117	25.06	1383.4	979493.64	-34.64	-81.82	0.01	1.49	-80.89	-14.28
98RI039	34	6.96	117	25.06	1372.2	979494.82	-34.36	-81.16	0.01	1.46	-80.24	-13.81
98RI040	34	6.85	117	25.06	1359.8	979496.11	-34.08	-80.46	0.01	1.45	-79.55	-13.31
98RI041	34	6.75	117	25.06	1349.1	979497.37	-33.69	-79.70	0.01	1.43	-78.81	-12.72
98RI042	34	6.64	117	25.06	1337.3	979498.93	-33.08	-78.69	0.01	1.41	-77.82	-11.91
98RI043	34	6.53	117	25.06	1326.5	979500.49	-32.39	-77.63	0.01	1.39	-76.77	-11.03
98RI044	34	6.42	117	25.06	1315.5	979501.96	-31.80	-76.66	0.00	1.35	-75.84	-10.28
98RI045	34	6.31	117	25.06	1305.5	979503.35	-31.19	-75.72	0.01	1.35	-74.89	-9.51
98RI046	34	6.20	117	25.06	1294.2	979505.84	-29.61	-73.75	0.01	1.33	-72.94	-7.74
98RI047	34	6.08	117	25.06	1285.4	979506.22	-29.89	-73.73	0.01	1.31	-72.93	-7.92
98RI048	34	8.57	117	26.12	1592.8	979479.92	-30.76	-85.09	0.01	1.96	-83.75	-15.30
98RI049	34	8.46	117	26.11	1575.5	979481.37	-30.79	-84.52	0.01	1.92	-83.22	-14.96
98RI050	34	8.35	117	26.12	1559.1	979482.60	-30.94	-84.12	0.01	1.89	-82.84	-14.76
98RI051	34	8.25	117	26.12	1543.4	979483.82	-31.06	-83.70	0.01	1.86	-82.45	-14.54
98RI056	34	7.71	117	26.11	1467.9	979489.76	-31.47	-81.53	0.01	1.71	-80.40	-13.39

Table 1. Principal facts of gravity stations in the San Bernardino area. -- Continued

Station	Lat		Long		Elev ft	Og mGal	FAA mGal	SBA mGal	Tc		CBA mGal	ISO mGal
	deg	min	deg	min					inner mGal	total mGal		
98RI057	34	7.60	117	26.11	1453.3	979491.06	-31.39	-80.95	0.01	1.69	-79.84	-13.01
98RI058	34	7.50	117	26.12	1440.7	979492.29	-31.20	-80.34	0.01	1.66	-79.25	-12.60
98RI059	34	7.38	117	26.12	1426.7	979493.66	-30.98	-79.64	0.01	1.62	-78.59	-12.15
98RI060	34	7.27	117	26.11	1414.3	979494.81	-30.84	-79.08	0.01	1.59	-78.05	-11.78
98RI061	34	7.17	117	26.11	1401.2	979496.10	-30.64	-78.43	0.01	1.57	-77.42	-11.32
98RI062	34	7.06	117	26.10	1387.9	979497.45	-30.39	-77.73	0.01	1.54	-76.74	-10.81
98RI063	34	6.94	117	26.10	1375.0	979498.68	-30.21	-77.10	0.01	1.52	-76.13	-10.40
98RI064	34	3.79	117	21.12	1041.0	979515.19	-40.71	-76.21	0.03	1.14	-75.50	-11.06
98RI065	34	3.89	117	21.12	1055.6	979513.61	-41.05	-77.06	0.11	1.22	-76.26	-11.66
98RI066	34	4.04	117	21.12	1068.9	979511.84	-41.78	-78.24	0.23	1.35	-77.33	-12.51
98RI067	34	4.23	117	21.12	1067.7	979511.09	-42.91	-79.33	0.01	1.15	-78.61	-13.52
98RI068	34	4.31	117	21.11	1070.5	979510.55	-43.30	-79.81	0.01	1.16	-79.09	-13.88
98RI069	34	4.17	117	20.85	1037.9	979512.19	-44.53	-79.93	0.01	1.17	-79.18	-13.96
98RI070	34	4.27	117	20.85	1040.0	979511.32	-45.34	-80.81	0.01	1.18	-80.05	-14.68
98RI071	34	4.38	117	20.85	1051.7	979509.84	-45.88	-81.75	0.02	1.20	-80.97	-15.45
98RI072	34	4.49	117	20.85	1082.1	979507.06	-45.95	-82.86	0.01	1.19	-82.10	-16.41
98RI073	34	4.60	117	20.85	1086.3	979505.97	-46.80	-83.85	0.01	1.21	-83.08	-17.22
98RI074	34	4.71	117	20.85	1089.5	979504.84	-47.78	-84.94	0.00	1.21	-84.18	-18.16
98RI075	34	4.82	117	20.85	1095.3	979503.41	-48.82	-86.18	0.01	1.23	-85.39	-19.20
98RI076	34	4.92	117	20.85	1099.3	979502.13	-49.86	-87.36	0.01	1.24	-86.56	-20.23
98RI077	34	5.04	117	20.85	1103.1	979500.99	-50.81	-88.44	0.01	1.26	-87.63	-21.11
98RI078	34	5.14	117	20.85	1107.7	979500.11	-51.40	-89.18	0.01	1.27	-88.36	-21.69
98RI079	34	5.25	117	20.85	1117.1	979498.93	-51.85	-89.95	0.01	1.28	-89.12	-22.28
98RI080	34	5.36	117	20.86	1124.1	979498.03	-52.25	-90.58	0.01	1.29	-89.75	-22.76
98RI081	34	5.47	117	20.86	1145.8	979496.12	-52.27	-91.35	0.02	1.31	-90.50	-23.35
98RI082	34	5.54	117	22.82	1186.4	979508.04	-36.63	-77.09	0.01	1.24	-76.33	-10.59
98RI083	34	5.52	117	22.69	1182.1	979507.91	-37.13	-77.45	0.00	1.23	-76.70	-10.90
98RI084	34	5.53	117	22.55	1182.3	979507.63	-37.41	-77.73	0.00	1.23	-76.98	-11.07
98RI085	34	5.53	117	22.42	1179.9	979506.56	-38.71	-78.95	0.00	1.23	-78.19	-12.17
98RI086	34	5.53	117	22.28	1178.5	979505.14	-40.26	-80.45	0.01	1.24	-79.68	-13.55
98RI087	34	5.53	117	22.14	1174.4	979504.27	-41.51	-81.57	0.01	1.25	-80.79	-14.55
98RI088	34	5.53	117	22.03	1170.7	979503.87	-42.26	-82.19	0.01	1.25	-81.41	-15.08
98RI089	34	5.53	117	21.89	1167.8	979503.29	-43.11	-82.94	0.00	1.25	-82.17	-15.73
98RI090	34	5.53	117	21.77	1168.9	979502.49	-43.81	-83.68	0.00	1.25	-82.90	-16.37
98RI091	34	5.53	117	21.58	1187.9	979499.91	-44.60	-85.12	0.03	1.28	-84.31	-17.63
98RI092	34	5.53	117	21.51	1189.4	979499.19	-45.18	-85.75	0.01	1.27	-84.96	-18.24
98RI093	34	5.53	117	21.37	1188.7	979498.15	-46.29	-86.83	0.03	1.29	-86.02	-19.19
98RI094	34	5.53	117	21.23	1179.2	979497.50	-47.83	-88.05	0.01	1.28	-87.25	-20.31
98RI095	34	5.53	117	21.10	1165.9	979497.04	-49.54	-89.31	0.01	1.29	-88.49	-21.45
98RI096	34	5.53	117	20.99	1159.2	979496.33	-50.88	-90.42	0.04	1.33	-89.56	-22.43
98RI097	34	5.53	117	20.85	1150.2	979495.56	-52.50	-91.73	0.01	1.31	-90.88	-23.64
98RI098	34	5.54	117	20.73	1156.9	979493.82	-53.62	-93.08	0.03	1.34	-92.21	-24.85
98RI099	34	5.53	117	20.60	1170.6	979491.54	-54.60	-94.52	0.06	1.38	-93.62	-26.17
98RI100	34	5.53	117	20.47	1141.8	979492.43	-56.42	-95.36	0.04	1.36	-94.46	-26.90
98RI101	34	3.15	117	20.70	885.4	979526.55	-43.09	-73.29	0.14	1.43	-72.22	-8.33
98RI102	34	3.35	117	23.46	1030.0	979523.67	-32.65	-67.78	0.02	1.04	-67.16	-5.23
98RI103	34	2.30	117	23.72	950.6	979532.90	-29.42	-61.84	0.09	1.20	-61.03	-0.81
98RI104	34	3.27	117	19.75	919.0	979520.54	-46.11	-77.45	0.00	1.28	-76.55	-11.67
98RI105	34	3.34	117	19.72	919.5	979519.31	-47.39	-78.75	0.01	1.30	-77.83	-12.83
98RI106	34	3.45	117	19.62	927.0	979515.96	-50.18	-81.80	0.01	1.29	-80.89	-15.64
98RI107	34	3.54	117	19.54	950.9	979512.66	-51.36	-83.79	0.00	1.25	-82.93	-17.49
98RI108	34	3.63	117	19.48	955.1	979510.50	-53.25	-85.83	0.00	1.26	-84.96	-19.34
98RI109	34	3.76	117	19.45	963.5	979507.32	-55.83	-88.69	0.00	1.26	-87.82	-21.99
98RI110	34	3.86	117	19.43	955.5	979505.93	-58.11	-90.70	0.06	1.34	-89.74	-23.75
98RI115	34	4.41	117	19.32	1004.9	979496.11	-64.05	-98.32	0.00	1.30	-97.44	-30.54
98RI116	34	4.51	117	19.30	1010.6	979494.94	-64.82	-99.29	0.01	1.32	-98.39	-31.33
98RI117	34	4.62	117	19.28	1017.3	979493.81	-65.48	-100.17	0.01	1.33	-99.26	-32.03

Table 1. Principal facts of gravity stations in the San Bernardino area. -- Continued

Station	Lat		Long		Elev ft	Og mGal	FAA mGal	SBA mGal	Tc		CBA mGal	ISO mGal
	deg	min	deg	min					inner mGal	total mGal		
98RI118	34	4.75	117	19.28	1024.9	979492.81	-65.94	-100.90	0.01	1.34	-99.97	-32.54
98RI119	34	2.56	117	18.50	1090.8	979508.52	-40.97	-78.18	0.14	1.40	-77.22	-12.22
98RI120	34	2.82	117	18.51	929.0	979515.80	-49.28	-80.96	0.07	1.53	-79.81	-14.44
98RI121	34	2.94	117	18.48	930.9	979513.20	-51.87	-83.61	0.01	1.44	-82.55	-16.99
98RI122	34	3.04	117	18.50	934.2	979511.59	-53.30	-85.17	0.01	1.41	-84.14	-18.45
98RI123	34	3.19	117	18.48	939.0	979508.70	-55.95	-87.98	0.01	1.39	-86.97	-21.05
98RI124	34	3.31	117	18.49	939.1	979506.45	-58.36	-90.39	0.01	1.38	-89.39	-23.32
98RI125	34	3.40	117	18.48	937.1	979504.52	-60.61	-92.57	0.02	1.40	-91.55	-25.35
98RI126	34	3.49	117	18.45	941.9	979502.23	-62.57	-94.69	0.01	1.38	-93.70	-27.35
98RI127	34	3.59	117	18.39	942.7	979499.56	-65.30	-97.46	0.01	1.39	-96.45	-29.91
98RI128	34	3.55	117	18.78	945.9	979504.64	-59.87	-92.13	0.02	1.35	-91.17	-25.03
98RI129	34	3.65	117	18.65	962.5	979500.05	-63.04	-95.86	0.04	1.36	-94.90	-28.51
98RI130	34	3.75	117	18.52	953.8	979497.85	-66.19	-98.72	0.02	1.38	-97.74	-31.09
98RI131	34	3.85	117	18.52	958.5	979496.19	-67.55	-100.24	0.01	1.37	-99.27	-32.48
98RI132	34	3.98	117	18.53	966.0	979494.56	-68.66	-101.60	0.01	1.37	-100.63	-33.66
98RI133	34	2.44	117	24.51	1012.0	979530.24	-26.50	-61.01	0.07	1.24	-60.18	-0.38
98RI134	34	2.91	117	24.25	1010.6	979529.81	-27.72	-62.18	0.01	1.08	-61.52	-0.84
98RI135	34	2.80	117	24.72	1190.9	979519.96	-20.45	-61.07	0.71	1.73	-59.82	0.33
98RI136	34	7.27	117	23.48	1370.6	979491.31	-38.45	-85.20	0.00	1.47	-84.27	-16.30
98RI137	34	6.84	117	23.48	1327.2	979494.97	-38.27	-83.54	0.01	1.41	-82.66	-15.37
98RI138	34	5.54	117	24.52	1226.5	979511.31	-29.59	-71.42	0.01	1.23	-70.68	-6.17
98RI139	34	5.54	117	23.49	1204.8	979511.14	-31.80	-72.89	0.00	1.22	-72.16	-6.92
98RI140	34	5.98	117	23.50	1250.0	979505.00	-34.30	-76.93	0.00	1.28	-76.16	-10.23
98RI141	34	6.39	117	23.49	1286.0	979499.40	-37.09	-80.95	0.01	1.35	-80.12	-13.55
98RI142	34	7.72	117	23.50	1414.4	979487.78	-38.49	-86.73	0.01	1.56	-85.73	-17.03
98RI143	34	8.14	117	23.48	1456.5	979483.37	-39.53	-89.21	0.01	1.65	-88.14	-18.76
98RI144	34	7.84	117	24.53	1462.5	979486.27	-35.65	-85.53	0.01	1.62	-84.49	-16.28
98RI145	34	8.15	117	25.07	1517.0	979483.70	-33.52	-85.26	0.01	1.73	-84.14	-15.76
98RI146	34	8.46	117	25.04	1555.3	979480.58	-33.48	-86.52	0.01	1.80	-85.34	-16.43
98RI147	34	7.27	117	24.54	1399.6	979491.09	-35.95	-83.68	0.01	1.50	-82.73	-15.46
98RI148	34	6.85	117	24.54	1351.0	979495.20	-35.82	-81.90	0.00	1.42	-81.01	-14.42
98RI149	34	6.39	117	24.54	1307.9	979501.43	-33.00	-77.61	0.00	1.34	-76.79	-10.93
98RI150	34	5.99	117	24.53	1266.5	979508.57	-29.19	-72.39	0.00	1.28	-71.62	-6.39
98RI151	34	5.78	117	25.06	1251.8	979510.22	-28.63	-71.33	0.00	1.26	-70.57	-6.04
98RI152	34	5.97	117	25.57	1279.4	979506.38	-30.14	-73.78	0.01	1.31	-72.98	-8.49
98RI153	34	5.96	117	26.10	1275.7	979506.30	-30.56	-74.07	0.01	1.33	-73.25	-9.13
98RI154	34	5.52	117	26.08	1227.5	979510.00	-30.77	-72.64	0.01	1.26	-71.87	-8.43
98RI155	34	5.74	117	26.35	1249.0	979508.49	-30.57	-73.17	0.00	1.30	-72.37	-8.76
98RI156	34	6.41	117	25.57	1320.6	979502.44	-30.82	-75.86	0.01	1.39	-75.00	-9.79
98RI157	34	6.83	117	25.57	1363.8	979497.38	-32.41	-78.92	0.01	1.46	-78.00	-12.11
98RI158	34	7.28	117	25.58	1414.5	979492.10	-33.55	-81.79	0.01	1.56	-80.80	-14.17
98RI159	34	8.14	117	25.60	1525.1	979484.47	-31.98	-83.99	0.02	1.78	-82.82	-14.79
98RI160	34	7.71	117	25.59	1465.1	979488.47	-33.02	-82.99	0.01	1.65	-81.92	-14.59
98RI161	34	1.64	117	23.84	1136.5	979524.49	-19.42	-58.18	0.21	1.27	-57.37	1.80
98RI162	34	2.68	117	25.04	1140.7	979522.51	-22.46	-61.36	0.46	1.56	-60.26	-0.51
98RI163	34	5.97	117	25.07	1271.1	979507.93	-29.37	-72.73	0.01	1.30	-71.94	-7.11
98RI164	34	6.83	117	26.08	1363.6	979499.60	-30.21	-76.71	0.01	1.49	-75.76	-10.20
98RI165	34	7.59	117	24.46	1429.5	979488.86	-35.81	-84.57	0.01	1.56	-83.57	-15.73
98RI166	34	7.71	117	23.97	1429.9	979487.84	-36.96	-85.73	0.01	1.57	-84.73	-16.37
98RI167	34	7.72	117	26.63	1463.3	979492.80	-28.87	-78.78	0.01	1.78	-77.58	-10.86
98RI168	34	7.72	117	27.15	1451.2	979496.68	-26.13	-75.63	0.01	1.85	-74.35	-7.93
98RI169	34	8.15	117	26.62	1524.6	979486.57	-29.94	-81.94	0.01	1.91	-80.63	-13.18
98RI174	34	9.90	117	26.11	1815.6	979461.25	-30.34	-92.26	0.01	2.46	-90.50	-19.89
98RI175	34	9.03	117	24.53	1607.5	979472.04	-37.90	-92.73	0.01	1.89	-91.47	-21.33
98RI176	34	9.47	117	24.55	1665.5	979466.26	-38.85	-95.65	0.01	2.02	-94.28	-23.45
98RI177	34	9.47	117	25.05	1701.2	979466.01	-35.74	-93.76	0.01	2.07	-92.35	-21.83
98RI178	34	9.47	117	25.57	1727.8	979466.55	-32.70	-91.62	0.01	2.16	-90.13	-19.90

Table 1. Principal facts of gravity stations in the San Bernardino area. -- Continued

Station	Lat		Long		Elev ft	Og mGal	FAA mGal	SBA mGal	Tc		CBA mGal	ISO mGal
	deg	min	deg	min					inner mGal	total mGal		
98RI179	34	9.88	117	25.55	1791.8	979460.92	-32.88	-93.99	0.02	2.30	-92.39	-21.49
98RI180	34	9.99	117	24.94	1769.6	979460.07	-35.97	-96.33	0.01	2.21	-94.80	-23.38
98RI181	34	10.32	117	25.49	1866.0	979456.44	-31.00	-94.64	0.02	2.44	-92.92	-21.27
98RI182	34	10.73	117	26.11	1966.4	979453.14	-25.43	-92.50	0.01	2.88	-90.37	-18.41
98RI183	34	10.54	117	27.02	1925.4	979455.78	-26.38	-92.05	0.21	3.96	-88.82	-17.64
98RI184	34	10.18	117	27.35	1805.4	979463.66	-29.28	-90.86	0.03	3.72	-87.83	-17.39
98RI185	34	9.89	117	27.95	1699.3	979471.48	-31.03	-88.99	0.02	3.87	-85.78	-16.12
98RI186	34	9.35	117	28.34	1596.2	979480.94	-30.52	-84.96	0.01	3.25	-82.33	-13.77
98RI187	34	9.84	117	28.73	1712.6	979472.28	-28.91	-87.32	0.08	4.39	-83.59	-14.40
98RI188	34	9.04	117	29.34	1516.6	979489.23	-29.28	-81.00	0.02	3.40	-78.20	-10.67
98RI189	34	9.74	117	29.59	1681.0	979476.29	-27.74	-85.07	0.06	4.75	-80.98	-12.37
98RI190	34	9.94	117	29.77	1782.9	979469.38	-25.34	-86.15	0.13	5.33	-81.51	-12.66
99RI200	34	21.90	117	32.30	4047.0	979320.13	21.54	-116.49	0.04	3.78	-113.97	-30.94
99RI201	34	21.08	117	31.56	3848.5	979333.35	17.25	-114.01	0.07	3.65	-111.58	-28.90
99RI202	34	19.14	117	30.24	3395.0	979363.44	7.42	-108.37	0.15	4.11	-105.39	-23.94
99RI203	34	18.09	117	30.65	3687.0	979346.14	19.05	-106.70	0.17	4.84	-103.05	-22.89
99RI204	34	18.96	117	32.54	4369.0	979307.11	42.92	-106.09	0.78	6.86	-100.55	-20.22
99RI205	33	48.09	117	12.72	1423.0	979492.59	-5.48	-54.01	0.00	0.65	-53.93	0.93
99RI206	33	48.95	117	12.46	1433.0	979492.68	-5.64	-54.52	0.00	0.67	-54.41	1.45
99RI207	33	49.81	117	14.05	1469.0	979489.69	-6.45	-56.55	0.00	0.64	-56.49	-1.31
99RI208	33	49.81	117	12.98	1443.0	979492.12	-6.46	-55.68	0.00	0.67	-55.58	0.58
99RI209	33	50.67	117	12.21	1455.0	979490.52	-8.13	-57.75	0.01	0.79	-57.54	0.12
99RI210	33	51.77	117	11.54	1593.0	979480.24	-6.96	-61.30	0.08	1.11	-60.81	-1.47
99RI211	33	51.18	117	12.17	1467.0	979489.78	-8.45	-58.49	0.01	0.85	-58.22	-0.04
99RI212	34	8.15	117	26.12	1529.6	979484.90	-31.14	-83.31	0.02	1.84	-82.07	-14.32
99RI213	34	8.46	117	26.12	1575.4	979481.35	-30.82	-84.55	0.01	1.92	-83.24	-14.98
99RI214	34	8.57	117	26.12	1592.7	979479.94	-30.75	-85.07	0.01	1.96	-83.74	-15.29
99RI215	34	8.68	117	26.11	1607.5	979478.59	-30.86	-85.69	0.01	1.99	-84.33	-15.70
99RI216	34	8.79	117	26.11	1624.7	979477.14	-30.85	-86.26	0.01	2.03	-84.87	-16.07
99RI217	34	8.90	117	26.11	1644.2	979475.58	-30.73	-86.81	0.01	2.06	-85.39	-16.41
99RI218	34	9.02	117	26.11	1662.9	979474.07	-30.65	-87.37	0.01	2.11	-85.91	-16.73
99RI219	34	9.12	117	26.11	1679.1	979472.73	-30.61	-87.87	0.01	2.14	-86.39	-17.04
99RI220	34	9.23	117	26.11	1696.6	979471.18	-30.66	-88.53	0.02	2.19	-86.99	-17.46
99RI221	34	9.34	117	26.11	1714.3	979469.71	-30.62	-89.09	0.01	2.22	-87.53	-17.82
99RI222	34	9.46	117	26.11	1737.0	979467.81	-30.56	-89.80	0.01	2.27	-88.20	-18.30
99RI223	34	9.56	117	26.11	1753.0	979466.45	-30.55	-90.34	0.02	2.33	-88.69	-18.63
99RI224	34	9.66	117	26.11	1772.0	979464.90	-30.46	-90.89	0.01	2.36	-89.21	-18.99
99RI225	34	9.77	117	26.11	1792.1	979463.14	-30.48	-91.60	0.02	2.41	-89.88	-19.48
99RI226	34	9.88	117	26.11	1810.5	979461.62	-30.42	-92.17	0.01	2.45	-90.41	-19.83
99RI227	34	9.99	117	26.11	1830.6	979459.98	-30.33	-92.76	0.01	2.50	-90.96	-20.21
99RI228	34	10.10	117	26.11	1851.5	979458.53	-29.96	-93.11	0.02	2.56	-91.26	-20.33
99RI229	34	10.20	117	26.11	1873.2	979457.14	-29.45	-93.34	0.02	2.60	-91.45	-20.36
99RI230	34	10.33	117	26.12	1893.2	979456.28	-28.61	-93.18	0.02	2.67	-91.23	-19.93
99RI231	34	10.43	117	26.12	1917.2	979455.23	-27.55	-92.94	0.03	2.73	-90.94	-19.49
99RI232	34	10.53	117	26.12	1934.6	979454.35	-26.93	-92.91	0.01	2.76	-90.89	-19.27
99RI233	34	10.64	117	26.12	1951.9	979453.82	-25.99	-92.56	0.01	2.82	-90.48	-18.68
99RI234	34	10.76	117	26.12	1968.0	979453.07	-25.39	-92.51	0.01	2.90	-90.36	-18.36
99RI235	34	10.86	117	26.13	1985.6	979452.42	-24.53	-92.25	0.03	2.99	-90.01	-17.85
99RI236	34	10.98	117	26.19	2011.1	979451.58	-23.14	-91.73	0.02	3.10	-89.39	-17.07
99RI237	34	11.07	117	26.24	2026.7	979451.09	-22.29	-91.41	0.04	3.22	-88.95	-16.51
99RI242	34	12.11	117	26.87	2241.7	979436.72	-17.89	-94.35	0.27	5.06	-90.12	-16.38
99RI243	34	12.28	117	27.14	2291.0	979432.46	-17.75	-95.89	1.13	6.80	-89.94	-16.07
99RI244	34	12.47	117	27.33	2334.9	979428.84	-17.51	-97.15	1.22	7.66	-90.35	-16.27
99RI245	34	12.67	117	27.42	2371.9	979425.29	-17.86	-98.76	1.66	8.17	-91.45	-17.12
99RI246	34	12.90	117	27.48	2423.8	979422.20	-16.39	-99.06	1.58	7.77	-92.18	-17.53
99RI247	34	13.08	117	27.65	2452.4	979420.28	-15.88	-99.52	1.57	8.18	-92.24	-17.40
99RI248	34	13.23	117	27.83	2492.1	979417.74	-14.89	-99.89	1.29	8.24	-92.56	-17.57

Table 1. Principal facts of gravity stations in the San Bernardino area. -- Continued

Station	Lat		Long		Elev ft	Og mGal	FAA mGal	SBA mGal	Tc		CBA mGal	ISO mGal
	deg	min	deg	min					inner mGal	total mGal		
99RI249	34	13.75	117	27.99	2584.4	979410.29	-14.39	-102.54	0.59	6.87	-96.59	-20.89
99RI250	34	11.15	117	26.28	2044.1	979450.41	-21.44	-91.16	0.05	3.32	-88.61	-16.07
99RI251	34	10.20	117	27.16	1830.4	979461.81	-28.81	-91.24	0.03	3.47	-88.47	-17.90
99RI252	34	10.09	117	27.17	1812.9	979463.11	-29.00	-90.83	0.02	3.30	-88.22	-17.84
99RI253	34	9.98	117	27.17	1793.5	979464.44	-29.34	-90.51	0.02	3.15	-88.05	-17.84
99RI254	34	9.88	117	27.17	1775.2	979465.87	-29.49	-90.04	0.02	3.04	-87.68	-17.64
99RI255	34	9.77	117	27.17	1756.9	979467.32	-29.61	-89.53	0.02	2.93	-87.28	-17.43
99RI256	34	9.66	117	27.17	1739.8	979468.70	-29.68	-89.02	0.01	2.82	-86.87	-17.20
99RI257	34	9.55	117	27.17	1721.3	979470.16	-29.81	-88.52	0.01	2.74	-86.44	-16.95
99RI258	34	9.34	117	27.16	1687.8	979473.06	-29.77	-87.33	0.01	2.58	-85.41	-16.26
99RI259	34	9.23	117	27.16	1670.7	979474.60	-29.68	-86.66	0.01	2.51	-84.80	-15.84
99RI260	34	9.12	117	27.16	1655.4	979476.05	-29.52	-85.97	0.01	2.45	-84.17	-15.39
99RI261	34	8.96	117	23.22	1524.0	979472.21	-45.49	-97.47	0.01	1.85	-96.22	-25.37
99RI262	34	9.02	117	23.32	1534.3	979471.65	-45.17	-97.49	0.01	1.86	-96.23	-25.35
99RI263	34	9.09	117	23.42	1545.3	979471.17	-44.71	-97.41	0.01	1.88	-96.14	-25.21
99RI264	34	9.15	117	23.53	1557.5	979470.46	-44.35	-97.48	0.01	1.90	-96.18	-25.23
99RI265	34	9.21	117	23.64	1569.7	979469.96	-43.79	-97.33	0.01	1.92	-96.03	-25.05
99RI266	34	9.27	117	23.74	1580.1	979469.49	-43.37	-97.26	0.01	1.93	-95.94	-24.93
99RI267	34	9.33	117	23.85	1592.0	979468.91	-42.91	-97.21	0.01	1.95	-95.88	-24.84
99RI268	34	9.40	117	23.95	1607.8	979468.12	-42.31	-97.15	0.01	1.98	-95.80	-24.71
99RI269	34	9.47	117	24.07	1625.6	979467.25	-41.61	-97.05	0.02	2.01	-95.67	-24.53
99RI270	34	9.53	117	24.17	1639.4	979466.48	-41.16	-97.08	0.02	2.03	-95.68	-24.52
99RI271	34	9.60	117	24.26	1654.5	979465.61	-40.71	-97.14	0.02	2.06	-95.73	-24.51
99RI272	34	9.66	117	24.37	1671.4	979464.71	-40.11	-97.11	0.01	2.07	-95.69	-24.45
99RI273	34	9.72	117	24.47	1688.0	979463.79	-39.55	-97.12	0.02	2.10	-95.68	-24.40
99RI274	34	9.79	117	24.58	1704.9	979463.00	-38.85	-97.00	0.03	2.09	-95.57	-24.25
99RI275	34	9.85	117	24.68	1724.5	979462.09	-38.00	-96.81	0.01	2.14	-95.34	-23.99
99RI276	34	9.92	117	24.79	1743.2	979461.23	-37.20	-96.65	0.01	2.18	-95.15	-23.75
99RI277	34	10.04	117	25.00	1782.2	979459.53	-35.40	-96.18	0.01	2.24	-94.63	-23.16
99RI278	34	10.11	117	25.10	1800.0	979458.92	-34.43	-95.82	0.02	2.29	-94.23	-22.71
99RI279	34	10.17	117	25.21	1820.2	979458.16	-33.38	-95.46	0.02	2.32	-93.83	-22.28
99RI280	34	10.24	117	25.31	1841.3	979457.28	-32.37	-95.17	0.02	2.36	-93.51	-21.89
99RI281	34	10.30	117	25.42	1855.7	979456.73	-31.65	-94.94	0.02	2.41	-93.24	-21.59
99RI282	34	10.37	117	25.52	1870.0	979456.23	-30.90	-94.68	0.02	2.47	-92.93	-21.22
99RI283	34	10.43	117	25.63	1887.6	979455.68	-29.88	-94.26	0.02	2.52	-92.46	-20.72
99RI284	34	10.50	117	25.73	1906.4	979454.91	-28.98	-94.00	0.02	2.58	-92.15	-20.35
99RI285	34	10.56	117	25.84	1922.7	979454.44	-28.00	-93.58	0.02	2.65	-91.66	-19.83
99RI286	34	10.62	117	25.94	1935.1	979454.27	-27.09	-93.09	0.02	2.73	-91.10	-19.23
99RI287	34	10.68	117	26.04	1953.0	979453.60	-26.16	-92.77	0.01	2.79	-90.72	-18.81
99RI288	34	9.23	117	27.16	1670.7	979474.62	-29.66	-86.64	0.01	2.51	-84.78	-15.82
99RI289	34	9.12	117	27.16	1655.4	979476.05	-29.52	-85.97	0.01	2.45	-84.17	-15.39
99RI290	34	9.02	117	27.16	1639.8	979477.45	-29.44	-85.37	0.01	2.40	-83.61	-15.00
99RI291	34	8.90	117	27.16	1619.4	979479.26	-29.38	-84.62	0.01	2.33	-82.91	-14.50
99RI292	34	8.79	117	27.16	1602.8	979480.79	-29.26	-83.93	0.01	2.28	-82.28	-14.06
99RI293	34	8.68	117	27.16	1586.1	979482.36	-29.11	-83.20	0.01	2.23	-81.60	-13.57
99RI294	34	8.58	117	27.16	1571.5	979483.57	-29.13	-82.73	0.01	2.18	-81.16	-13.30
99RI295	34	8.47	117	27.16	1556.4	979484.92	-29.05	-82.13	0.01	2.13	-80.61	-12.93
99RI296	34	8.36	117	27.16	1540.6	979486.54	-28.76	-81.30	0.01	2.09	-79.82	-12.32
99RI301	34	7.82	117	27.16	1464.1	979495.49	-26.25	-76.18	0.01	1.89	-74.87	-8.28
99RI302	34	7.61	117	27.16	1437.6	979497.75	-26.19	-75.22	0.01	1.82	-73.97	-7.74
99RI303	34	7.50	117	27.16	1422.8	979498.56	-26.61	-75.14	0.01	1.79	-73.92	-7.88
99RI304	34	7.39	117	27.16	1408.8	979499.43	-26.91	-74.96	0.01	1.75	-73.76	-7.91
99RI305	34	7.26	117	27.17	1392.1	979500.40	-27.33	-74.81	0.01	1.72	-73.64	-8.01
99RI306	34	7.17	117	27.17	1382.5	979501.04	-27.46	-74.62	0.01	1.69	-73.47	-7.99
99RI307	34	7.01	117	27.17	1363.7	979502.27	-27.78	-74.29	0.01	1.65	-73.18	-7.96
99RI308	34	6.83	117	27.17	1343.6	979503.67	-28.02	-73.84	0.01	1.59	-72.79	-7.88
99RI309	34	6.63	117	27.17	1320.5	979505.17	-28.41	-73.45	0.01	1.54	-72.43	-7.86

Table 1. Principal facts of gravity stations in the San Bernardino area. -- Continued

Station	Lat		Long		Elev ft	Og mGal	FAA mGal	SBA mGal	Tc		CBA mGal	ISO mGal
	deg	min	deg	min					inner mGal	total mGal		
99RI310	34	6.42	117	27.17	1299.5	979506.39	-28.87	-73.19	0.01	1.49	-72.22	-8.00
99RI311	34	10.48	117	26.60	1918.3	979455.98	-26.76	-92.19	0.02	3.12	-89.80	-18.50
99RI312	34	10.26	117	26.69	1875.9	979457.97	-28.45	-92.43	0.03	3.02	-90.13	-19.24
99RI313	34	10.10	117	26.86	1833.5	979461.18	-29.01	-91.54	0.02	3.01	-89.24	-18.69
99RI314	34	9.94	117	27.03	1794.1	979464.36	-29.31	-90.50	0.02	3.00	-88.19	-17.98
99RI315	34	9.60	117	27.36	1720.7	979470.32	-29.78	-88.46	0.01	2.88	-86.25	-16.78
99RI316	34	9.44	117	27.53	1681.2	979473.56	-30.03	-87.37	0.01	2.84	-85.18	-16.06
99RI317	34	9.27	117	27.72	1643.9	979477.11	-29.75	-85.81	0.01	2.80	-83.66	-14.92
99RI318	34	9.09	117	27.94	1600.1	979481.27	-29.45	-84.03	0.01	2.76	-81.89	-13.57
99RI319	34	8.92	117	28.10	1565.2	979484.78	-28.99	-82.37	0.01	2.69	-80.29	-12.34
99RI320	34	8.76	117	28.27	1531.3	979488.23	-28.50	-80.73	0.01	2.64	-78.69	-11.10
99RI321	34	8.59	117	28.45	1501.8	979491.04	-28.23	-79.45	0.02	2.59	-77.46	-10.26
99RI322	34	8.45	117	28.61	1471.0	979493.44	-28.53	-78.70	0.01	2.54	-76.75	-9.88
99RI323	34	8.30	117	28.79	1442.8	979495.63	-28.78	-77.99	0.01	2.50	-76.06	-9.54
99RI324	34	10.09	117	27.17	1812.9	979463.11	-29.00	-90.83	0.02	3.30	-88.22	-17.84
99RI325	34	10.20	117	27.16	1830.4	979461.75	-28.87	-91.30	0.03	3.47	-88.53	-17.96
99RI326	34	10.32	117	27.17	1851.6	979460.47	-28.32	-91.47	0.06	3.72	-88.47	-17.72
99RI327	34	10.44	117	27.08	1892.6	979457.74	-27.37	-91.91	0.14	3.84	-88.79	-17.80
99RI328	34	10.66	117	27.06	1970.7	979453.18	-24.89	-92.10	1.09	5.10	-87.75	-16.40
99RI329	34	10.77	117	27.00	2090.7	979447.36	-19.58	-90.88	0.65	4.53	-87.14	-15.60
99RI330	34	10.85	117	26.87	2149.7	979444.56	-16.94	-90.26	0.60	4.29	-86.77	-15.04
99RI331	34	11.01	117	26.80	2264.9	979437.97	-12.92	-90.17	0.62	4.35	-86.66	-14.66
99RI332	34	11.08	117	26.87	2442.6	979426.48	-7.80	-91.11	0.90	5.01	-86.99	-14.95
99RI333	34	11.23	117	26.94	2585.8	979418.02	-3.00	-91.19	0.81	5.33	-86.80	-14.57
99RI334	34	11.33	117	27.03	2675.0	979412.79	0.02	-91.22	1.08	5.83	-86.34	-14.03
99RI335	34	11.45	117	26.99	2687.8	979411.41	-0.33	-92.00	1.60	6.28	-86.68	-14.16
99RI336	34	11.56	117	27.04	2610.0	979416.81	-2.40	-91.42	1.27	5.68	-86.67	-13.98
99RI337	34	11.61	117	27.16	2577.7	979419.42	-2.90	-90.81	1.02	5.57	-86.17	-13.45
99RI338	34	11.69	117	27.33	2650.9	979415.50	-0.04	-90.46	0.95	5.92	-85.49	-12.74
99RI339	34	11.79	117	27.26	2639.8	979415.86	-0.87	-90.90	0.74	5.57	-86.28	-13.33
99RI340	34	10.32	117	27.17	1851.6	979460.48	-28.31	-91.46	0.06	3.72	-88.46	-17.71
99RI341	34	12.06	117	26.74	2221.3	979437.87	-18.59	-94.35	0.16	4.64	-90.54	-16.82
99RI342	34	12.14	117	26.64	2213.9	979437.29	-19.98	-95.49	0.66	4.99	-91.32	-17.42
99RI343	34	12.26	117	26.65	2227.2	979435.02	-21.17	-97.13	1.13	5.52	-92.44	-18.37
99RI344	34	12.37	117	26.65	2245.2	979433.16	-21.49	-98.06	1.18	5.59	-93.30	-19.06
99RI345	34	12.48	117	26.60	2263.0	979431.15	-21.98	-99.16	1.14	5.52	-94.47	-20.04
99RI346	34	12.58	117	26.54	2281.7	979429.30	-22.21	-100.03	0.78	5.17	-95.70	-21.09
99RI347	34	12.69	117	26.56	2299.3	979427.59	-22.42	-100.84	0.89	5.38	-96.31	-21.54
99RI348	34	12.77	117	26.41	2604.6	979408.00	-13.41	-102.24	1.38	4.89	-98.29	-23.41
99RI349	34	12.91	117	26.19	2858.5	979391.41	-6.32	-103.81	0.96	4.80	-100.01	-24.89
99RI350	34	13.06	117	25.92	2993.4	979381.96	-3.30	-105.39	0.58	5.07	-101.36	-25.92
99RI351	34	12.94	117	25.65	3017.8	979378.93	-3.86	-106.79	0.73	5.98	-101.85	-26.47
99RI352	34	12.81	117	26.10	3032.6	979379.31	-1.91	-105.34	1.86	6.81	-99.58	-24.62
99RI353	34	12.56	117	26.11	2559.9	979411.60	-13.72	-101.03	0.87	4.27	-97.68	-22.97
99RI354	34	12.33	117	26.03	2534.5	979415.08	-12.31	-98.75	0.35	3.70	-95.96	-21.55
99RI355	34	12.08	117	26.01	2402.6	979424.38	-15.06	-97.00	0.67	3.94	-93.94	-19.89
99RI360	34	11.92	117	27.34	2664.0	979413.62	-1.01	-91.87	1.07	6.17	-86.66	-13.54
99RI361	34	11.77	117	27.53	2877.0	979401.98	7.58	-90.54	1.15	6.64	-84.91	-12.17
99RI362	34	11.63	117	27.67	3134.9	979385.93	15.98	-90.94	1.78	8.00	-84.01	-11.61
99RI363	34	11.48	117	27.96	3556.6	979358.17	28.08	-93.22	2.47	11.49	-82.90	-10.99
99RI364	34	11.72	117	28.14	3762.3	979346.05	34.97	-93.35	2.07	11.48	-83.09	-10.92
99RI366	34	11.97	117	28.23	3954.0	979333.52	40.11	-94.75	1.92	11.93	-84.07	-11.59
99RI367	34	12.09	117	28.43	4156.5	979321.34	46.80	-94.96	1.54	12.20	-84.05	-11.51
99RI368	34	12.13	117	28.56	4390.6	979305.88	53.29	-96.45	1.63	14.02	-83.75	-11.27
99RI369	34	12.10	117	29.05	4668.0	979289.22	62.75	-96.45	1.58	15.31	-82.51	-10.37
99RI370	34	12.13	117	29.27	4741.0	979285.09	65.44	-96.25	1.37	15.06	-82.57	-10.49
99RI371	34	12.20	117	29.60	4956.2	979271.38	71.87	-97.17	1.45	16.19	-82.38	-10.38

Table 1. Principal facts of gravity stations in the San Bernardino area. -- Continued

Station	Lat		Long		Elev ft	Og mGal	FAA mGal	SBA mGal	Tc		CBA mGal	ISO mGal
	deg	min	deg	min					inner mGal	total mGal		
99RI373	34	12.33	117	29.93	5102.4	979263.47	77.52	-96.51	0.51	15.05	-82.87	-10.84
99RI374	34	12.26	117	30.02	5153.1	979259.55	78.46	-97.29	0.81	16.31	-82.40	-10.54
99RI375	34	12.16	117	30.11	5059.4	979265.93	76.17	-96.38	1.04	16.13	-81.67	-9.98
99RI376	34	12.08	117	30.18	5001.8	979269.47	74.41	-96.18	1.30	16.41	-81.18	-9.63
99RI377	34	11.87	117	30.33	4828.0	979281.61	70.51	-94.16	0.80	16.26	-79.28	-8.09
99RI378	34	11.93	117	30.29	4860.2	979279.28	71.12	-94.64	0.78	15.83	-80.21	-8.91
99RI379	34	12.78	117	30.94	5716.6	979221.11	92.26	-102.71	2.29	20.88	-83.31	-11.14
99RI380	34	10.16	117	28.44	1770.6	979466.23	-29.96	-90.35	0.47	5.64	-85.39	-15.51
99RI381	34	10.26	117	28.10	1871.7	979459.76	-27.06	-90.90	0.70	5.56	-86.05	-15.86
99RI382	34	10.37	117	27.75	1911.3	979456.63	-26.62	-91.81	0.90	5.57	-86.96	-16.43
99RI383	34	10.49	117	27.33	1950.2	979454.23	-25.53	-92.04	0.44	4.59	-88.20	-17.26
99RI384	34	10.16	117	28.67	1844.0	979463.31	-25.97	-88.87	0.44	5.51	-84.06	-14.32
99RI385	34	10.09	117	28.84	1862.6	979462.54	-24.90	-88.42	0.29	5.15	-83.98	-14.44
99RI386	34	10.77	117	29.17	2414.0	979431.52	-5.01	-87.35	1.01	7.89	-80.34	-9.90
99RI387	34	10.85	117	29.22	2415.3	979430.52	-6.00	-88.38	1.54	9.03	-80.23	-9.68
99RI388	34	10.65	117	29.16	2323.3	979437.36	-7.54	-86.77	0.68	7.13	-80.50	-10.25
99RI389	34	10.54	117	29.13	2249.5	979441.75	-9.93	-86.65	0.59	6.64	-80.84	-10.76
99RI390	34	10.44	117	29.08	2157.5	979446.82	-13.37	-86.96	0.57	6.35	-81.42	-11.47
99RI391	34	10.34	117	29.06	2094.0	979450.00	-16.02	-87.44	0.52	5.96	-82.27	-12.47
99RI392	34	10.26	117	29.06	2038.6	979452.96	-18.16	-87.69	0.49	5.75	-82.71	-13.04
99RI393	34	10.19	117	28.93	1950.4	979457.62	-21.70	-88.22	0.43	5.52	-83.44	-13.80
99RI394	34	9.99	117	28.85	1791.8	979467.20	-26.75	-87.87	0.15	4.85	-83.71	-14.34
99RI395	34	9.81	117	28.95	1705.8	979473.49	-28.30	-86.48	0.12	4.52	-82.63	-13.61
99RI396	34	9.76	117	28.81	1690.7	979474.14	-29.00	-86.66	0.08	4.27	-83.05	-14.04
99RI397	34	9.63	117	28.89	1633.5	979478.68	-29.66	-85.37	0.08	4.12	-81.88	-13.12
99RI398	34	9.53	117	28.87	1589.4	979481.75	-30.60	-84.80	0.07	3.98	-81.45	-12.84
99RI399	34	9.42	117	28.86	1564.6	979483.72	-30.81	-84.17	0.03	3.76	-81.03	-12.60
99RI400	34	9.30	117	28.93	1544.0	979485.83	-30.46	-83.12	0.02	3.60	-80.13	-11.94
99RI401	34	9.19	117	29.10	1523.3	979487.92	-30.17	-82.12	0.01	3.52	-79.20	-11.29
99RI402	34	9.04	117	29.14	1506.4	979489.58	-29.89	-81.26	0.01	3.32	-78.54	-10.91
99RI403	34	9.02	117	29.14	1504.3	979489.79	-29.85	-81.15	0.01	3.30	-78.45	-10.86
99RI404	34	8.92	117	29.18	1486.9	979491.29	-29.84	-80.56	0.02	3.21	-77.93	-10.53
99RI405	34	8.82	117	29.24	1479.1	979492.23	-29.50	-79.94	0.03	3.12	-77.40	-10.21
99RI406	34	10.06	117	29.09	1888.2	979462.13	-22.86	-87.26	0.30	5.19	-82.79	-13.45
99RI407	34	9.94	117	30.04	1765.3	979470.40	-25.98	-86.19	0.11	5.54	-81.32	-12.58
99RI408	34	9.94	117	30.29	1797.3	979468.64	-24.73	-86.03	0.10	5.58	-81.13	-12.52
99RI409	34	10.44	117	30.66	2156.3	979446.83	-13.48	-87.02	0.71	7.65	-80.17	-10.94
99RI410	34	10.33	117	30.67	2102.0	979450.33	-14.93	-86.62	0.41	6.92	-80.49	-11.45
99RI411	34	10.23	117	30.61	2036.1	979454.13	-17.19	-86.63	0.31	6.48	-80.91	-12.00
99RI412	34	10.14	117	30.56	1962.7	979458.54	-19.55	-86.49	0.23	6.19	-81.05	-12.26
99RI413	34	10.03	117	30.55	1892.3	979462.90	-21.66	-86.20	0.14	5.85	-81.07	-12.46
99RI414	34	9.90	117	30.47	1833.0	979466.72	-23.23	-85.75	0.10	5.42	-81.03	-12.60
99RI415	34	10.55	117	30.68	2272.4	979440.01	-9.53	-87.03	0.90	8.13	-79.75	-10.35
99RI416	34	10.40	117	30.91	2187.6	979444.88	-12.43	-87.04	0.90	7.63	-80.22	-11.17
99RI423	34	9.94	117	31.04	1992.1	979457.16	-17.89	-85.83	0.14	5.58	-81.01	-12.80
99RI424	34	9.94	117	31.35	2064.2	979452.73	-15.54	-85.94	0.13	5.61	-81.11	-13.07
99RI425	34	9.94	117	31.87	2165.9	979446.81	-11.89	-85.76	0.15	5.79	-80.78	-13.00
99RI426	34	9.79	117	30.25	1758.8	979471.39	-25.39	-85.37	0.09	5.10	-80.95	-12.59
99RI427	34	9.71	117	30.09	1702.7	979475.08	-26.86	-84.94	0.05	4.87	-80.73	-12.42
99RI428	34	9.60	117	30.03	1668.3	979477.58	-27.44	-84.34	0.03	4.59	-80.40	-12.25
99RI429	34	9.49	117	30.03	1641.9	979479.58	-27.77	-83.77	0.03	4.37	-80.04	-12.07
99RI430	34	9.37	117	30.03	1617.8	979481.62	-27.83	-83.01	0.03	4.16	-79.48	-11.73
99RI431	34	9.27	117	30.03	1595.1	979483.34	-28.11	-82.51	0.03	3.99	-79.14	-11.57
99RI432	34	9.16	117	30.04	1571.7	979485.32	-28.17	-81.78	0.03	3.84	-78.56	-11.19
99RI433	34	9.03	117	30.04	1544.5	979487.47	-28.40	-81.08	0.02	3.64	-78.05	-10.90
99RI434	34	8.74	117	29.73	1479.3	979492.44	-29.16	-79.61	0.02	3.20	-77.00	-10.20
99RI435	34	9.48	117	29.62	1614.4	979481.44	-28.49	-83.55	0.03	4.18	-80.00	-11.86

Table 1. Principal facts of gravity stations in the San Bernardino area. -- Continued

Station	Lat		Long		Elev ft	Og mGal	FAA mGal	SBA mGal	Tc		CBA mGal	ISO mGal
	deg	min	deg	min					inner mGal	total mGal		
99RI436	34	9.43	117	29.19	1579.6	979483.50	-29.63	-83.50	0.05	3.94	-80.18	-11.91
99RI437	34	9.68	117	29.20	1673.6	979476.79	-27.85	-84.93	0.09	4.36	-81.22	-12.54
99RI438	34	9.67	117	28.14	1654.5	979475.21	-31.21	-87.64	0.02	3.60	-84.68	-15.48
99RI439	34	9.90	117	28.32	1664.8	979473.83	-31.94	-88.72	0.04	4.38	-84.99	-15.49
99RI440	34	11.24	117	26.32	2063.9	979449.54	-20.58	-90.97	0.06	3.42	-88.33	-15.67
99RI441	34	11.28	117	26.20	2059.6	979449.72	-20.86	-91.10	0.03	3.29	-88.59	-15.80
99RI442	34	11.33	117	26.09	2052.2	979449.86	-21.48	-91.47	0.03	3.23	-89.01	-16.09
99RI443	34	11.38	117	25.97	2055.0	979449.13	-22.02	-92.11	0.04	3.18	-89.70	-16.64
99RI444	34	11.42	117	25.86	2063.5	979448.21	-22.19	-92.57	0.06	3.14	-90.21	-17.03
99RI445	34	11.50	117	25.61	2024.8	979448.93	-25.23	-94.28	0.07	3.11	-91.94	-18.52
99RI446	34	11.59	117	25.50	2005.0	979448.86	-27.37	-95.75	0.83	4.00	-92.51	-18.77
99RI447	34	11.59	117	25.38	1984.0	979448.64	-29.48	-97.15	0.28	3.33	-94.57	-20.86
99RI448	34	11.64	117	25.26	1964.7	979448.59	-31.41	-98.42	0.32	3.39	-95.78	-21.92
99RI449	34	11.72	117	25.16	1966.1	979447.58	-32.40	-99.46	0.29	3.38	-96.83	-22.80
99RI450	34	11.86	117	25.08	1989.5	979445.41	-32.57	-100.42	0.29	3.42	-97.76	-23.47
99RI451	34	12.02	117	25.08	2037.5	979441.23	-32.46	-101.95	0.13	3.30	-99.42	-24.90
99RI452	34	12.13	117	25.02	2036.2	979440.45	-33.52	-102.96	0.15	3.39	-100.34	-25.62
99RI453	34	12.27	117	25.47	2154.7	979434.81	-28.21	-101.70	0.58	4.08	-98.43	-23.75
99RI454	34	12.14	117	24.82	2012.6	979441.83	-34.37	-103.01	0.21	3.40	-100.38	-25.54
99RI455	34	12.17	117	24.59	2049.6	979438.83	-33.93	-103.84	0.28	3.28	-101.33	-26.32
99RI456	34	12.36	117	24.60	2085.7	979436.61	-33.02	-104.16	0.12	3.20	-101.74	-26.46
99RI457	34	12.50	117	24.53	2042.8	979438.05	-35.81	-105.49	0.10	3.39	-102.86	-27.33
99RI458	34	12.58	117	24.44	2010.5	979438.80	-38.21	-106.78	0.04	3.47	-104.07	-28.37
99RI459	34	12.66	117	24.35	2008.2	979438.83	-38.51	-107.00	0.01	3.50	-104.27	-28.40
99RI460	34	12.77	117	24.24	2012.8	979438.42	-38.64	-107.29	0.02	3.58	-104.47	-28.38
99RI461	34	12.87	117	24.14	2025.0	979437.24	-38.82	-107.88	0.04	3.69	-104.96	-28.67
99RI462	34	12.95	117	24.05	2023.7	979436.84	-39.45	-108.47	0.02	3.81	-105.43	-28.98
99RI463	34	13.12	117	24.06	2032.8	979436.56	-39.11	-108.44	0.02	4.07	-105.14	-28.45
99RI464	34	13.27	117	24.08	2072.0	979434.15	-38.05	-108.71	0.08	4.29	-105.20	-28.33
99RI465	34	10.94	117	22.29	1662.5	979454.82	-52.63	-109.33	0.01	2.68	-107.30	-32.76
99RI466	34	10.69	117	23.05	1649.1	979457.30	-51.06	-107.30	0.06	2.59	-105.36	-31.68
99RI467	34	10.19	117	23.14	1590.3	979461.66	-51.53	-105.76	0.01	2.30	-104.08	-31.24
99RI468	34	11.26	117	23.83	1820.0	979451.35	-41.73	-103.80	0.30	3.02	-101.48	-27.40
99RI469	34	12.15	117	23.95	2077.9	979434.89	-35.18	-106.05	0.15	3.03	-103.80	-28.51
99RI470	34	12.10	117	24.25	2048.7	979438.06	-34.69	-104.56	0.37	3.25	-102.09	-27.02
99RI471	34	12.27	117	24.16	2005.1	979439.29	-37.80	-106.18	0.07	3.14	-103.80	-28.41
99RI472	34	12.41	117	24.07	1994.5	979439.39	-38.89	-106.92	0.11	3.31	-104.36	-28.71
99RI473	34	12.94	117	24.68	2060.7	979435.95	-36.85	-107.13	0.07	3.90	-104.00	-27.91
99RI474	34	13.71	117	25.65	2215.4	979426.33	-33.00	-108.56	0.52	5.59	-103.79	-27.06
99RI475	34	12.69	117	24.82	2121.4	979433.39	-33.35	-105.70	0.53	4.00	-102.50	-26.86
99RI477	34	12.48	117	25.15	2490.5	979412.06	-19.67	-104.62	0.94	4.37	-101.15	-26.08
99RI478	34	12.72	117	25.31	2743.6	979394.78	-13.49	-107.06	2.37	6.63	-101.41	-26.12
99RI483	34	14.64	117	25.09	2762.1	979391.94	-17.28	-111.48	0.48	6.03	-106.43	-28.31
99RI484	34	4.73	117	4.76	2292.4	979398.70	-40.82	-119.00	0.12	4.38	-115.47	-33.40
99RI485	34	5.47	117	5.63	2148.3	979406.02	-48.08	-121.36	0.15	4.65	-117.50	-35.36
99RI486	34	4.56	117	3.83	2437.0	979390.24	-35.44	-118.56	0.27	5.13	-114.32	-31.55
99RI487	34	4.69	117	2.87	2654.7	979375.82	-29.57	-120.11	0.05	5.39	-115.68	-31.82
99RI488	34	4.87	117	2.65	2737.7	979370.06	-27.78	-121.15	0.19	6.03	-116.09	-31.81
99RI489	34	4.99	117	2.50	2799.5	979365.63	-26.57	-122.05	0.60	6.89	-116.15	-31.58
99RI490	34	5.23	117	2.45	2881.3	979361.16	-23.68	-121.95	0.41	7.25	-115.71	-30.81
99RI491	34	5.47	117	2.15	2963.7	979354.01	-23.42	-124.50	2.13	10.37	-115.16	-29.69
99RI492	34	5.62	117	1.98	3033.7	979349.62	-21.43	-124.90	1.76	10.51	-115.44	-29.63
99RI493	34	5.77	117	1.79	3124.6	979343.70	-19.02	-125.59	1.96	10.76	-115.90	-29.76
99RI494	34	5.92	117	1.58	3202.3	979339.50	-16.12	-125.34	1.45	10.22	-116.21	-29.71
99RI495	34	6.08	117	1.37	3278.1	979334.95	-13.77	-125.57	0.92	9.73	-116.95	-30.09
99RI496	34	6.16	117	1.09	3332.6	979330.27	-13.43	-127.10	1.07	10.45	-117.77	-30.59
99RI497	34	6.25	117	0.81	3432.0	979325.47	-9.01	-126.07	0.58	10.45	-116.76	-29.24

Table 1. Principal facts of gravity stations in the San Bernardino area. -- Continued

Station	Lat		Long		Elev ft	Og mGal	FAA mGal	SBA mGal	Tc		CBA mGal	ISO mGal
	deg	min	deg	min					inner mGal	total mGal		
99RI498	34	6.18	117	0.47	3528.7	979318.25	-7.04	-127.40	0.70	10.89	-117.67	-29.95
99RI499	34	6.12	117	0.07	3674.2	979310.07	-1.46	-126.77	0.77	10.82	-117.14	-29.20
99RI486	34	4.56	117	3.83	2437.0	979390.27	-35.41	-118.53	0.27	5.13	-114.29	-31.52
99RI500	34	5.22	117	2.79	2773.3	979367.44	-27.54	-122.13	0.36	6.91	-116.20	-31.62
99RI501	34	4.68	117	1.96	3091.9	979349.02	-15.25	-120.70	0.43	6.33	-115.43	-30.81
99RI502	34	5.39	117	0.24	4786.9	979243.97	38.07	-125.19	1.83	11.30	-115.27	-28.78
99RI503	34	5.47	117	0.53	4966.6	979228.91	39.79	-129.60	3.05	15.40	-115.60	-29.33
99RI504	34	5.33	117	0.90	4773.0	979242.17	35.05	-127.74	1.75	13.20	-115.92	-30.08
99RI505	34	5.41	117	1.50	4344.0	979268.05	20.49	-127.67	2.87	12.82	-116.17	-30.64
99RI506	34	5.05	117	1.44	3986.0	979292.50	11.78	-124.17	2.53	10.18	-115.24	-29.96
99RI507	34	5.02	117	1.77	3575.7	979319.34	0.09	-121.87	1.25	7.82	-115.21	-30.14
99RI508	34	4.86	117	1.89	3273.7	979337.56	-9.87	-121.52	0.75	6.93	-115.69	-30.84
99RI509	34	4.51	117	2.02	2959.3	979357.76	-18.74	-119.67	0.18	5.85	-114.85	-30.47
99RI510	34	2.48	117	5.82	2354.3	979401.09	-29.46	-109.76	0.13	2.75	-107.87	-29.96
99RI511	34	2.84	117	5.63	2569.8	979388.63	-22.16	-109.81	1.34	4.60	-106.13	-27.60
99RI512	34	3.15	117	5.29	2668.4	979383.31	-18.64	-109.65	0.78	4.23	-106.37	-27.07
99RI513	34	3.53	117	4.76	3035.8	979360.91	-7.03	-110.57	0.82	5.38	-106.24	-25.98
99RI514	34	3.73	117	4.27	3229.7	979348.36	-1.62	-111.78	0.76	6.04	-106.83	-25.85
99RI515	34	3.94	117	3.41	3345.5	979338.40	-0.99	-115.09	1.82	7.46	-108.75	-26.64
99RI516	34	3.83	117	3.07	3121.1	979353.23	-7.10	-113.55	1.30	5.64	-108.98	-26.58
99RI517	34	3.72	117	3.11	3054.4	979359.09	-7.36	-111.54	0.79	4.88	-107.71	-25.48
99RI518	34	2.45	117	6.36	2193.4	979411.62	-34.02	-108.83	0.12	2.54	-107.11	-29.78
99RI519	34	2.54	117	4.82	2402.0	979396.25	-29.90	-111.82	0.44	3.53	-109.17	-30.10
99RI520	34	2.60	117	4.41	2501.5	979390.06	-26.82	-112.13	0.91	4.18	-108.86	-29.29
99RI521	34	2.42	117	4.08	2368.4	979395.90	-33.24	-114.02	0.18	3.56	-111.32	-31.60
99RI522	34	2.58	117	3.44	2462.1	979390.14	-30.42	-114.39	0.07	3.63	-111.66	-31.07
99RI523	34	3.45	117	2.79	2668.2	979380.80	-21.59	-112.59	0.24	4.40	-109.14	-26.80
99RI524	34	3.09	117	3.20	2643.1	979382.79	-21.46	-111.60	0.47	4.32	-108.23	-26.78
99RI525	34	4.22	117	2.02	2912.0	979362.34	-18.20	-117.52	0.12	5.26	-113.28	-29.26
99RI526	34	4.21	117	0.97	3213.8	979341.62	-10.53	-120.14	0.21	6.85	-114.38	-29.45
99RI527	34	3.77	117	0.44	3296.6	979336.47	-7.28	-119.71	0.14	6.58	-114.24	-29.39
99RI528	34	4.07	117	0.24	3482.8	979325.03	-1.63	-120.42	0.38	8.03	-113.54	-28.19
99RI529	34	3.77	117	2.01	2808.7	979367.20	-22.43	-118.22	0.05	4.82	-114.39	-30.90
99RI530	34	3.86	117	2.72	2841.8	979370.33	-16.31	-113.23	0.12	4.23	-110.00	-27.12
99RI531	34	5.31	117	2.30	2924.0	979357.69	-23.25	-122.97	1.31	8.68	-115.31	-30.17
99RI532	34	5.15	117	3.82	2672.7	979373.66	-30.68	-121.84	0.38	5.27	-117.53	-34.04
99RI533	34	7.00	117	8.75	1597.5	979440.15	-67.89	-122.38	0.24	5.22	-117.78	-36.81
99RI534	34	2.57	117	6.84	2130.1	979415.36	-36.40	-109.05	0.21	2.61	-107.24	-30.25
99RI535	34	3.33	117	6.71	1884.7	979432.14	-43.76	-108.04	0.06	3.00	-105.76	-27.56
99RI536	34	2.78	117	7.23	1926.8	979427.11	-44.07	-109.78	0.17	2.61	-107.91	-31.03
99RI537	34	2.58	117	19.81	901.4	979524.66	-42.68	-73.42	0.02	1.32	-72.47	-8.61
99RI538	34	2.68	117	20.09	951.7	979523.93	-38.82	-71.27	0.24	1.41	-70.25	-6.50
99RI539	34	2.62	117	19.36	908.5	979521.82	-44.91	-75.89	0.04	1.37	-74.89	-10.57
99RI540	34	2.72	117	19.12	917.1	979520.25	-45.81	-77.08	0.02	1.37	-76.09	-11.41
99RI541	34	2.89	117	18.93	921.5	979517.33	-48.55	-79.98	0.01	1.38	-78.98	-13.90
99RI542	34	3.08	117	18.80	925.2	979514.23	-51.57	-83.12	0.00	1.37	-82.13	-16.67
99RI543	34	3.28	117	18.62	933.8	979508.75	-56.52	-88.37	0.01	1.38	-87.37	-21.46
99RI544	34	3.62	117	18.20	948.9	979496.70	-67.62	-99.99	0.01	1.40	-98.97	-32.21
99RI545	34	3.78	117	17.98	957.8	979492.62	-71.09	-103.76	0.01	1.42	-102.73	-35.55
99RI546	34	3.98	117	17.56	975.8	979488.07	-74.23	-107.51	0.01	1.46	-106.45	-38.60
99RI547	34	4.25	117	17.46	977.3	979486.29	-76.24	-109.57	0.00	1.48	-108.50	-40.17
99RI548	34	4.13	117	17.97	961.7	979490.27	-73.56	-106.36	0.00	1.43	-105.32	-37.62
99RI549	34	4.10	117	17.12	987.2	979484.57	-76.82	-110.49	0.01	1.52	-109.38	-40.94
99RI550	34	4.50	117	16.93	1000.1	979481.55	-79.19	-113.30	0.01	1.56	-112.14	-42.95
99RI551	34	4.66	117	17.05	999.4	979481.68	-79.35	-113.43	0.02	1.58	-112.26	-42.95
99RI552	34	4.96	117	17.14	995.5	979481.89	-79.92	-113.88	0.01	1.62	-112.67	-43.01
99RI553	34	5.16	117	17.07	1000.0	979481.38	-80.29	-114.39	0.03	1.68	-113.13	-43.11

Table 1. Principal facts of gravity stations in the San Bernardino area. -- Continued

Station	Lat		Long		Elev ft	Og mGal	FAA mGal	SBA mGal	Tc		CBA mGal	ISO mGal
	deg	min	deg	min					inner mGal	total mGal		
99RI554	34	5.53	117	16.85	1010.8	979480.87	-80.30	-114.77	0.01	1.76	-113.43	-42.67
99RI555	34	5.66	117	16.66	1019.2	979480.56	-80.00	-114.76	0.15	1.94	-113.24	-42.12
99RI556	34	6.08	117	16.37	1037.5	979480.71	-78.72	-114.10	0.00	1.93	-112.60	-40.60
99RI557	34	6.25	117	16.38	1037.6	979481.32	-78.34	-113.72	0.01	1.99	-112.16	-39.93
99RI558	34	6.38	117	16.43	1039.2	979481.79	-77.90	-113.34	0.01	2.02	-111.74	-39.37
99RI559	34	6.61	117	16.35	1044.3	979481.98	-77.55	-113.17	0.00	2.10	-111.49	-38.70
99RI560	34	6.95	117	15.97	1063.0	979479.83	-78.42	-114.67	0.01	2.30	-112.81	-39.19
99RI561	34	7.12	117	15.90	1076.3	979478.74	-78.49	-115.20	0.01	2.37	-113.27	-39.33
99RI562	34	6.78	117	16.18	1048.7	979481.50	-77.85	-113.62	0.00	2.19	-111.86	-38.67
99RI563	34	7.37	117	15.83	1096.8	979477.54	-78.11	-115.52	0.00	2.47	-113.50	-39.13
99RI564	34	7.61	117	15.91	1119.1	979476.94	-76.95	-115.12	0.01	2.55	-113.02	-38.37
99RI565	34	7.89	117	15.93	1139.8	979476.86	-75.48	-114.35	0.04	2.70	-112.11	-37.08
99RI566	34	8.06	117	16.08	1164.0	979476.43	-73.87	-113.57	0.04	2.73	-111.31	-36.17
99RI567	34	5.34	117	16.98	997.1	979481.63	-80.56	-114.57	0.00	1.70	-113.28	-42.93
99RI568	34	10.72	117	24.61	1821.1	979455.03	-37.19	-99.30	0.23	2.67	-97.33	-24.54
99RI569	34	10.61	117	24.39	1782.3	979456.12	-39.60	-100.38	0.51	2.90	-98.17	-25.44
99RI570	34	10.50	117	24.16	1743.6	979457.35	-41.85	-101.32	0.32	2.67	-99.33	-26.63
99RI571	34	10.38	117	23.94	1704.8	979458.47	-44.21	-102.36	0.32	2.63	-100.39	-27.75
99RI572	34	10.27	117	23.72	1667.2	979459.82	-46.25	-103.11	0.23	2.51	-101.25	-28.65
99RI573	34	10.16	117	23.50	1631.5	979461.19	-48.08	-103.72	0.11	2.36	-102.00	-29.43
99RI574	34	10.55	117	23.72	1679.6	979458.54	-46.75	-104.04	0.11	2.54	-102.15	-29.11
99RI575	34	10.34	117	23.47	1627.6	979460.83	-49.06	-104.57	0.09	2.45	-102.76	-29.89
99RI576	34	10.21	117	23.49	1612.0	979462.21	-48.96	-103.94	0.03	2.33	-102.24	-29.58
99RI577	34	10.01	117	23.64	1610.0	979464.03	-47.05	-101.96	0.02	2.22	-100.37	-28.11
99RI578	34	9.94	117	23.76	1630.5	979463.73	-45.33	-100.94	0.05	2.21	-99.36	-27.29
99RI579	34	9.86	117	23.85	1643.8	979463.75	-43.94	-100.01	0.08	2.20	-98.45	-26.56
99RI580	34	9.71	117	23.95	1633.2	979465.60	-42.88	-98.58	0.03	2.09	-97.12	-25.54
99RI581	34	9.59	117	23.99	1626.1	979466.51	-42.47	-97.93	0.05	2.08	-96.49	-25.12
99RI582	34	10.28	117	24.00	1708.6	979458.87	-43.32	-101.59	0.59	2.85	-99.40	-26.96
99RI583	34	10.24	117	24.40	1754.3	979458.58	-39.25	-99.08	0.12	2.37	-97.39	-25.25
99RI584	34	9.96	117	24.46	1714.6	979461.71	-39.46	-97.94	0.29	2.45	-96.16	-24.50
99RI585	34	9.60	117	23.57	1585.0	979467.10	-45.76	-99.82	0.03	2.06	-98.38	-26.73
99RI586	34	10.99	117	19.16	1474.4	979462.15	-63.06	-113.34	0.18	4.64	-109.28	-32.49
99RI587	34	10.99	117	18.74	1474.9	979461.63	-63.53	-113.83	0.38	5.24	-109.18	-32.09
99RI588	34	11.18	117	19.18	1554.7	979457.80	-60.12	-113.14	0.10	4.76	-108.99	-31.97
99RI589	34	11.14	117	19.77	1556.6	979458.20	-59.48	-112.57	0.03	4.03	-109.15	-32.62
99RI590	34	10.64	117	19.06	1445.8	979463.84	-63.57	-112.88	0.01	3.85	-109.60	-33.24
99RI591	34	10.92	117	20.48	1563.8	979458.93	-57.77	-111.11	0.02	3.27	-108.45	-32.74
99RI592	34	11.26	117	21.13	1647.8	979456.18	-53.10	-109.30	0.02	3.28	-106.66	-30.91
99RI593	34	11.84	117	21.06	1766.8	979448.30	-50.60	-110.86	0.05	4.04	-107.50	-30.87
99RI594	34	11.61	117	20.54	1668.9	979453.12	-54.66	-111.58	0.05	4.16	-108.07	-31.41
99RI595	34	11.84	117	20.45	1760.3	979447.85	-51.66	-111.69	0.11	4.56	-107.81	-30.79
99RI596	34	12.22	117	20.84	1917.2	979438.85	-46.43	-111.82	0.14	4.93	-107.63	-30.36
99RI597	34	12.43	117	21.34	1975.2	979435.79	-44.33	-111.70	0.17	5.01	-107.44	-30.19
99RI598	34	12.05	117	21.54	1817.5	979446.09	-48.33	-110.32	0.05	4.06	-106.96	-30.34
99RI599	34	12.27	117	22.04	1828.1	979446.49	-47.24	-109.59	0.04	4.18	-106.11	-29.49
99RI600	34	12.52	117	21.92	1932.3	979439.23	-45.05	-110.96	0.15	4.75	-106.94	-29.92
99RI601	34	11.52	117	21.63	1705.4	979453.58	-50.64	-108.81	0.02	3.31	-106.15	-30.33
99RI602	34	11.70	117	21.47	1724.3	979451.37	-51.33	-110.14	0.03	3.63	-107.17	-30.99
99RI603	34	11.90	117	21.34	1792.9	979447.33	-49.20	-110.34	0.04	3.91	-107.12	-30.59
99RI604	34	12.08	117	21.23	1842.7	979444.19	-47.90	-110.75	0.05	4.28	-107.18	-30.33
99RI605	34	12.18	117	21.17	1872.1	979442.37	-47.10	-110.95	0.08	4.56	-107.10	-30.08
99RI606	34	12.28	117	21.11	1928.0	979438.56	-45.79	-111.55	0.13	4.81	-107.47	-30.28
99RI607	34	12.37	117	21.06	1996.7	979434.45	-43.57	-111.67	0.22	5.07	-107.35	-30.02
99RI608	34	12.47	117	21.00	2076.2	979429.16	-41.52	-112.33	0.39	5.44	-107.67	-30.18
99RI609	34	12.57	117	20.92	2131.9	979425.19	-40.39	-113.10	0.95	6.30	-107.60	-29.93
99RI610	34	12.73	117	20.83	2259.5	979416.28	-37.53	-114.59	1.85	7.58	-107.85	-29.94

Table 1. Principal facts of gravity stations in the San Bernardino area. -- Continued

Station	Lat		Long		Elev ft	Og mGal	FAA mGal	SBA mGal	Tc		CBA mGal	ISO mGal
	deg	min	deg	min					inner mGal	total mGal		
99RI611	34	12.83	117	20.69	2454.5	979405.83	-29.78	-113.49	0.66	6.35	-108.03	-29.95
99RI612	34	12.88	117	20.52	2589.5	979397.89	-25.10	-113.41	0.76	6.47	-107.87	-29.65
99RI613	34	12.97	117	20.44	2709.7	979390.46	-21.35	-113.77	1.14	7.05	-107.68	-29.32
99RI614	34	13.19	117	20.33	2915.5	979378.64	-14.12	-113.56	0.74	7.14	-107.44	-28.78
99RI615	34	13.41	117	20.48	3103.0	979366.99	-8.45	-114.28	1.52	8.49	-106.85	-28.04
99RI616	34	13.27	117	20.80	3325.4	979351.16	-3.17	-116.59	3.30	11.13	-106.58	-28.20
99RI617	34	13.77	117	21.47	3693.8	979329.74	9.34	-116.64	3.31	12.36	-105.48	-26.94
99RI618	34	13.85	117	20.78	4338.2	979287.89	27.97	-119.99	3.14	15.27	-106.04	-27.16
99RI619	34	14.18	117	20.69	4585.6	979274.15	37.02	-119.37	3.79	14.97	-105.75	-26.47
99RI620	34	14.29	117	21.06	5102.5	979237.66	48.97	-125.06	3.34	20.80	-105.67	-26.61
99RI621	34	12.79	117	22.29	2060.6	979432.05	-40.55	-110.83	0.33	4.90	-106.70	-29.53
99RI622	34	13.07	117	22.64	2149.7	979427.81	-36.80	-110.12	0.21	4.92	-106.00	-28.66
99RI623	34	13.39	117	22.85	2312.1	979418.73	-31.06	-109.91	0.17	5.17	-105.59	-27.95
99RI624	34	12.80	117	22.95	1899.0	979441.95	-45.86	-110.63	0.26	4.76	-106.59	-29.75
99RI625	34	13.22	117	23.40	2029.4	979435.25	-40.88	-110.10	0.11	4.80	-106.06	-28.90
99RI626	34	14.23	117	24.89	2490.5	979408.95	-25.24	-110.18	0.12	5.03	-106.05	-28.32
99RI627	34	11.22	117	20.84	1688.0	979453.08	-52.36	-109.93	0.32	3.57	-107.02	-31.13

Table 2. Physical property measurements for rocks in the San Bernardino area.

[Latitudes and longitudes are given in North American Datum 1927 (NAD27). Susc, magnetic susceptibility. Rock identification is based on hand samples and mapped geologic units on the following 7.5 minute Quadrangles: Yucaipa (Diblee, 1968); San Bernardino North (Miller, 1979); Redlands (Morton, 1978a); Fontana (Morton, 1978b); Riverside East (Morton and Cox, 1994); Devore (Morton and Matti, 1991); and the 1:24,000 geologic map of the Cucamonga fault zone (Morton, 1976). Geologic mapping is still in progress in this area. Map units should be considered preliminary and should be compared with the most current map versions. See the National Geologic Map Database (URL <http://ngmdb.usgs.gov/>) or the Southern California Areal Mapping Project's web site (URL <http://geology.wr.usgs.gov/wgmt/scamp/scamp.html>) for more information on the newest geological map releases for the San Bernardino area.]

Station id	Lat		Long		Density (g/cm ³)			Susc cgs units x 10 ⁻³	Map unit	Rock type
	deg	min	deg	min	Grain	Saturated bulk	Dry bulk			
California State University San Bernardino area										
KENDALL	34	11.22	117	20.84	2.68	2.54	2.46	0.01	P	Pelona schist
RIRO2b	34	11.22	117	20.84	2.64	2.52	2.44	0.01	P	Pelona schist
RIRO2	34	11.22	117	20.84	2.71	2.57	2.49	0.02	P	Pelona schist
RI566	34	8.06	117	16.09	2.67	2.62	2.59	0.01	P	Pelona schist
RI566b	34	8.06	117	16.09	2.66	2.62	2.59	0.01	P	Pelona schist
RI587	34	11.00	117	18.74	2.65	2.48	2.38	0.01	P	Pelona schist
Craifton Hills area										
RI513	34	3.53	117	4.76	2.98	2.92	2.89	0.03	f/my	felsic dike
RI514a	34	3.89	117	3.91	2.71	2.66	2.63	0.26	sc	schist
RI512	34	3.16	117	5.29	2.70	2.60	2.54	0.44	gn/my	mylonite
RI516	34	3.83	117	3.08	2.75	2.58	2.48	0.05	my	mylonitic gneiss/augen
RI517	34	3.72	117	3.11	2.79	2.67	2.61	0.02	my	mylonitic gneiss/augen
RI512a	34	3.16	117	5.29	2.61	2.57	2.54	0.05	gn/my	granitic gneiss
Jurupa Hills area										
RI135a	34	2.80	117	24.72	2.82	2.79	2.77	0.03	Kqd/s	quartz diorite
RI135b	34	2.80	117	24.72	2.78	2.68	2.63	0.02	Kqd/s	diorite
RI162	34	2.68	117	25.04	2.71	2.68	2.66	0.01	s	cataclastic gneiss/gneiss
Southeastern San Gabriel Mountains										
RI365a	34	11.91	117	28.14	2.86	2.82	2.79	0.52	Kt	coarse tonalite/gneiss/schist
RI365b	34	11.91	117	28.14	2.82	2.80	2.79	0.74	Kt	tonalite-porphyrific/banded
RI364a	34	11.72	117	28.14	2.79	2.77	2.77	1.11	Km	mylonitic tonalite
RI364b	34	11.72	117	28.14	2.76	2.73	2.71	1.25	Km	mylonitic tonalite
RI361	34	11.77	117	27.53	2.66	2.54	2.47	0.59	Km/gc	mylonitic tonalite
RI339a	34	11.79	117	27.26	2.71	2.61	2.55	0.79	Km	mylonitic tonalite
RI339b	34	11.79	117	27.26	2.72	2.62	2.57	0.79	Km	mylonitic tonalite
RI362	34	11.63	117	27.67	2.77	2.65	2.58	0.02	gc	mylonitic gneiss
RI338	34	11.69	117	27.33	2.76	2.73	2.71	0.02	gc	mylonitic gneiss
RI332	34	11.08	117	26.87	2.58	2.54	2.51	0.00	gc	migmatic gneiss/porphyroblasts
RI419	34	10.52	117	31.22	2.72	2.69	2.67	0.02	s	gneiss-granulitic
RI417	34	10.42	117	30.97	2.88	2.85	2.84	0.03	s	gneiss-granulitic
RI330	34	10.85	117	26.87	2.73	2.68	2.64	0.02	gc	gneiss-granulitic
RI245	34	12.67	117	27.42	2.62	2.55	2.50	0.49	Kggd	granodiorite
RI348	34	12.77	117	26.41	2.61	2.53	2.49	0.00	Tgd	porphyritic granodiorite
RI469a	34	12.15	117	23.95	2.63	2.55	2.50	0.01	Tgd	Pelona schist
RI469b	34	12.15	117	23.95	2.62	2.54	2.48	0.01	Tgd	granite
San Bernardino Mountains										
RI614a	34	13.34	117	20.42	2.76	2.73	2.71	0.01	pCg	felsic migmatite
RI619a	34	14.37	117	21.01	3.07	3.04	3.03	0.24	pCg	gneiss migmatite
RI612a	34	12.90	117	20.51	2.92	2.87	2.85	0.06	pCg	gneiss migmatite
RI609a	34	12.70	117	20.85	2.68	2.67	2.66	0.90	pCg	granoblastic gneiss
RI613	34	12.97	117	20.44	2.62	2.55	2.51	0.57	pCg	migmatic granoblastic gneiss

Table 2. Physical property measurements for rocks in the San Bernardino area. -- Continued

Station id	Lat		Long		Density (g/cm ³)			Susc cgs units x 10 ⁻³	Map unit	Rock type
	deg	min	deg	min	Grain	Saturated bulk	Dry bulk			
San Bernardino Mountains -- Continued										
RIRO1	34	12.61	117	17.01	2.64	2.62	2.60	0.74	pCg	minor granite
RI620	34	14.29	117	21.07	2.65	2.61	2.60	0.78	pCg	granoblastic granite
RI499c	34	6.12	117	0.07	2.84	2.77	2.73	0.48	Qof/grd	altered biotite-rich diorite
RI499a	34	6.12	117	0.07	2.67	2.63	2.60	0.77	grd	altered biotite-rich diorite
RI499d	34	6.12	117	0.07	2.71	2.68	2.67	1.12	grd	altered biotite-rich diorite
RI499e	34	6.12	117	0.07	2.74	2.66	2.62	0.14	grd	altered biotite-rich diorite
RI499d	34	6.12	117	0.07	2.80	2.65	2.57	0.49	grd	altered biotite-rich diorite
RI499b	34	6.12	117	0.07	2.91	2.80	2.74	0.09	grd	altered biotite-rich diorite
RI493b	34	5.77	117	1.80	2.66	2.59	2.55	0.60	Tp	mica-rich sandstone
RI491b	34	5.48	117	2.15	2.68	2.64	2.61	0.20	grd	mica-rich sandstone
RI493	34	5.77	117	1.80	2.60	2.53	2.48	0.51	Tp	mica-rich sandstone
RI502b	34	5.54	117	0.45	2.59	2.44	2.35	0.07	Tp	mica-rich sandstone
RI491c	34	5.48	117	2.15	2.67	2.63	2.60	0.20	Tps	conglomerate of schist
RI491a	34	5.48	117	2.15	2.70	2.62	2.57	0.08	Tps	sheared conglomerate of schist

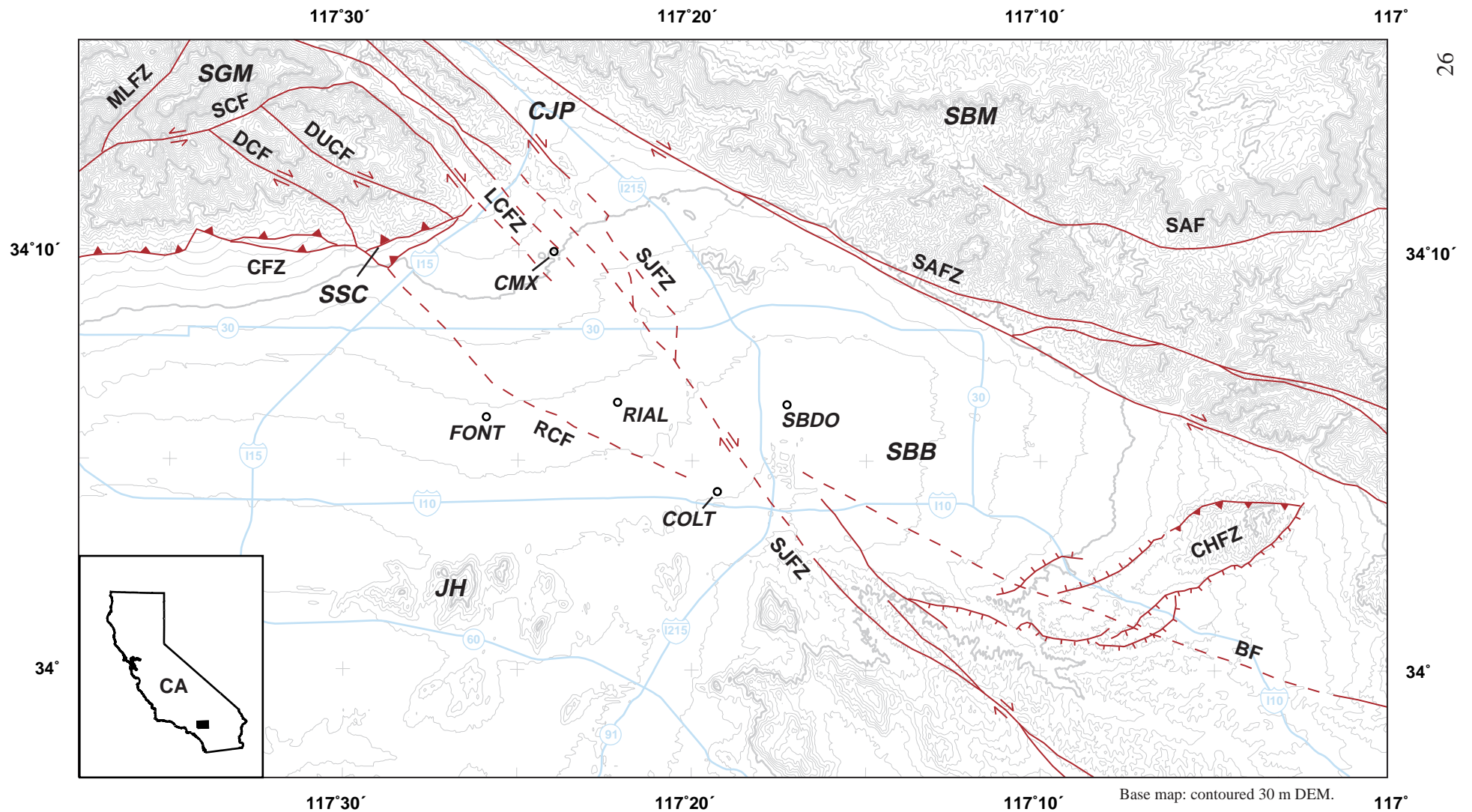
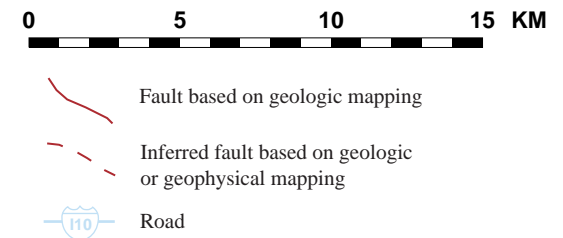


Figure 1. Index map showing San Bernardino basin and vicinity, California. BF, Banning fault; CFZ, Cucamonga fault zone; CHFZ, Crafton Hills fault zone; COLT, Colton; CJP, Cajon Pass; CMX, Cemex Materials Corp.; DCF, Day Canyon fault; DUCF, Duncan Canyon fault; FONT, Fontana; JH, Jurupa Hills; LCFZ, Lytle Creek fault zone; MLFZ, Middle Fork Lytle Creek fault zone; RCF, Rialto-Colton fault; RIAL, Rialto; SAF, Santa Ana fault; SAFZ, San Andreas fault zone; SBB, San Bernardino Basin; SBDO, San Bernardino; SBM, San Bernardino Mountains; SCF, Stoddard Canyon fault; SGM, San Gabriel Mountains; SJFZ, San Jacinto fault zone; SSC, San Sevine Canyon. Fault locations are from the following studies: RCF, this study; MLFZ, Morton and others, 1990; DCF/ DUCF, Morton, 1976; all other faults, Matti and Morton, 1993.



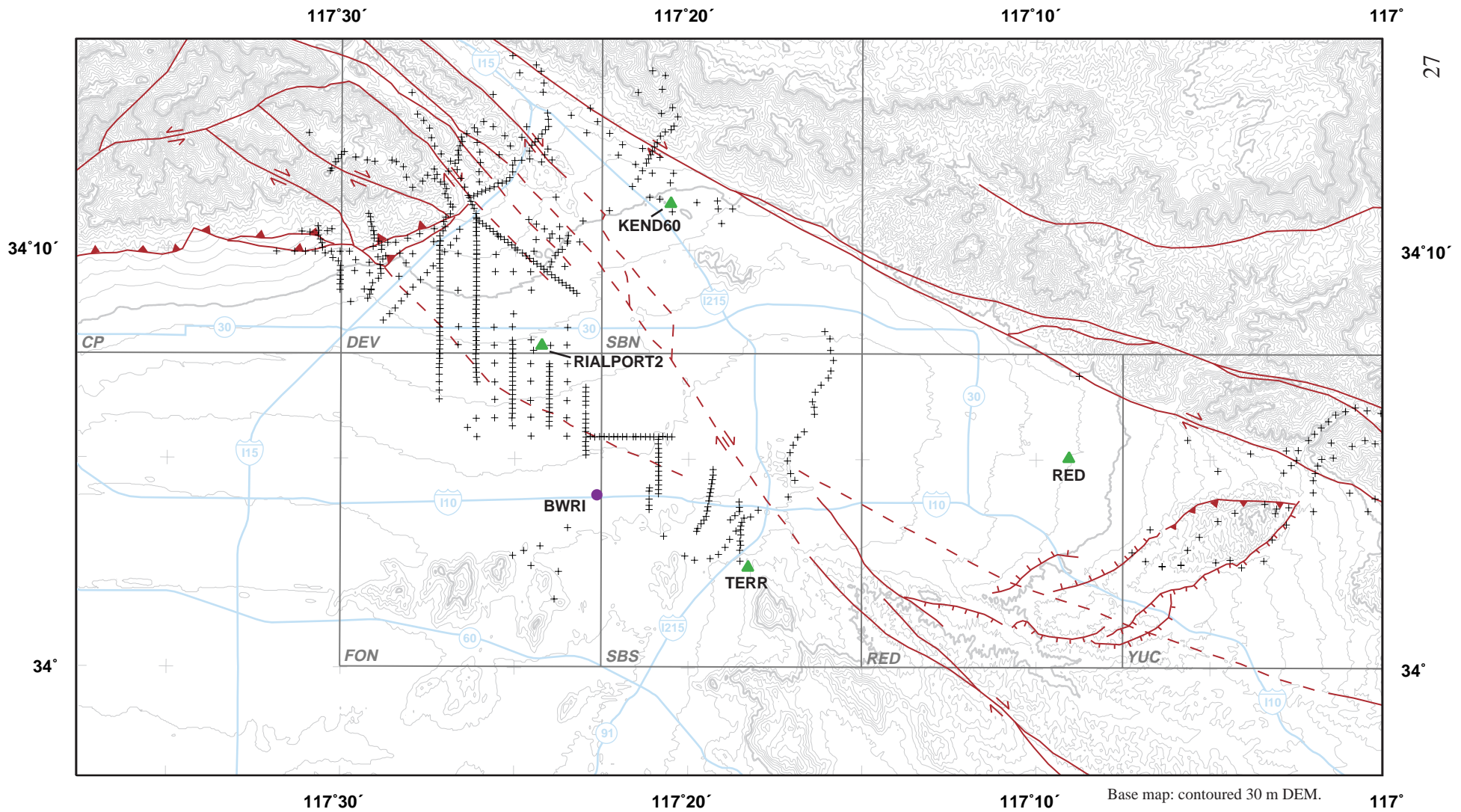
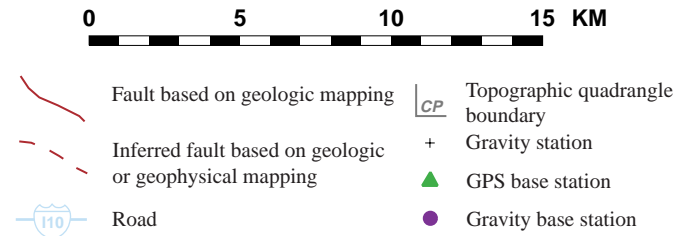


Figure 2. Map showing locations of 7.5 minute topographic quadrangles, gravity stations, gravity base stations, and GPS base stations included in this report. Quadrangle names: CP, Cucamonga Peak; DEV, Devore; FON, Fontana; RED, Redlands; SBN, San Bernardino North; SBS, San Bernardino South; YUC, Yucaipa. See figure 1 for fault names.



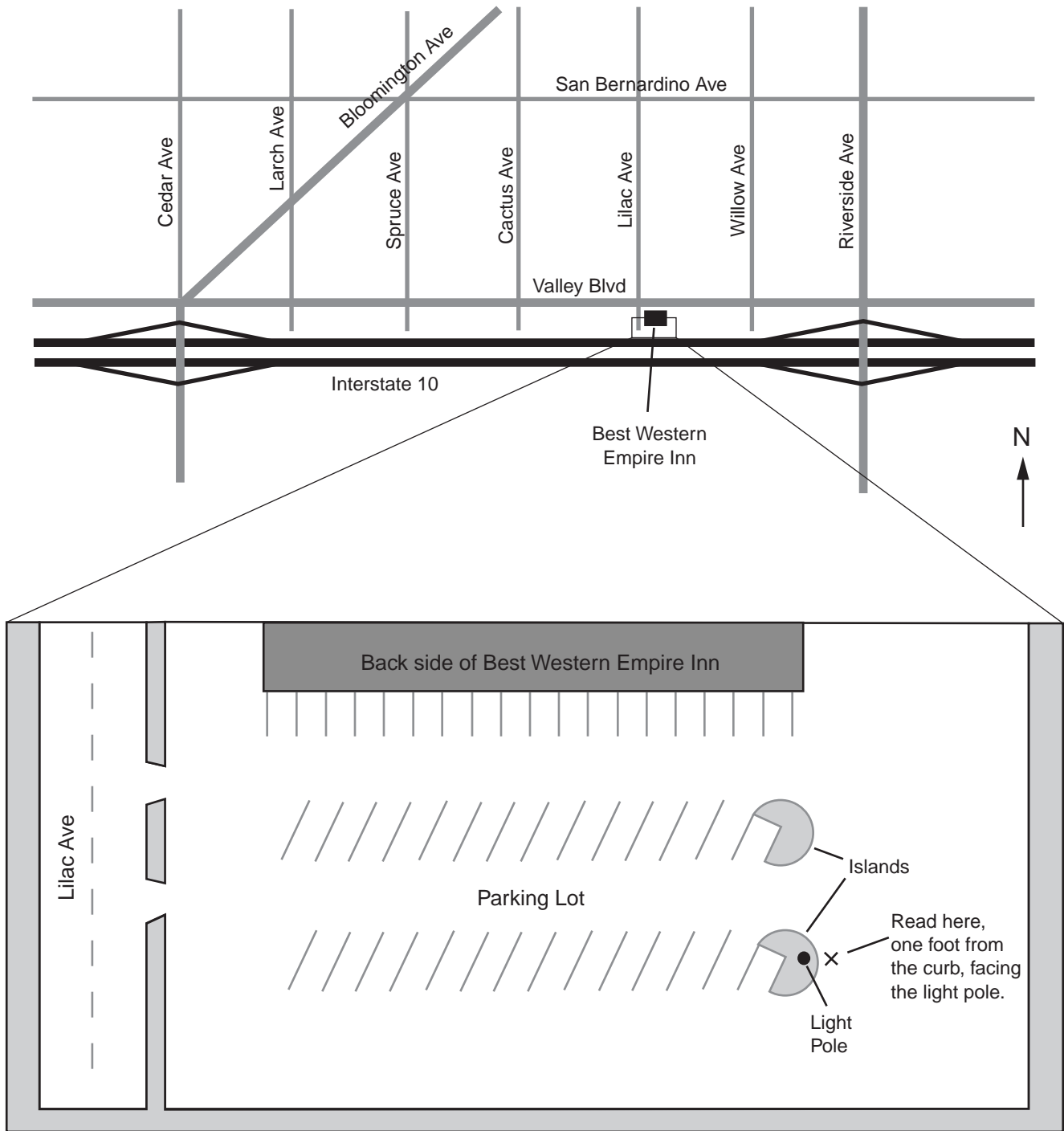


Figure 3. Diagram showing location of the gravity base station BWRI in Rialto, CA (also see figure 2). Lat $34^{\circ} 4.14' N$; long $117^{\circ} 22.62' W$; observed gravity value: 979520.09 mGal.

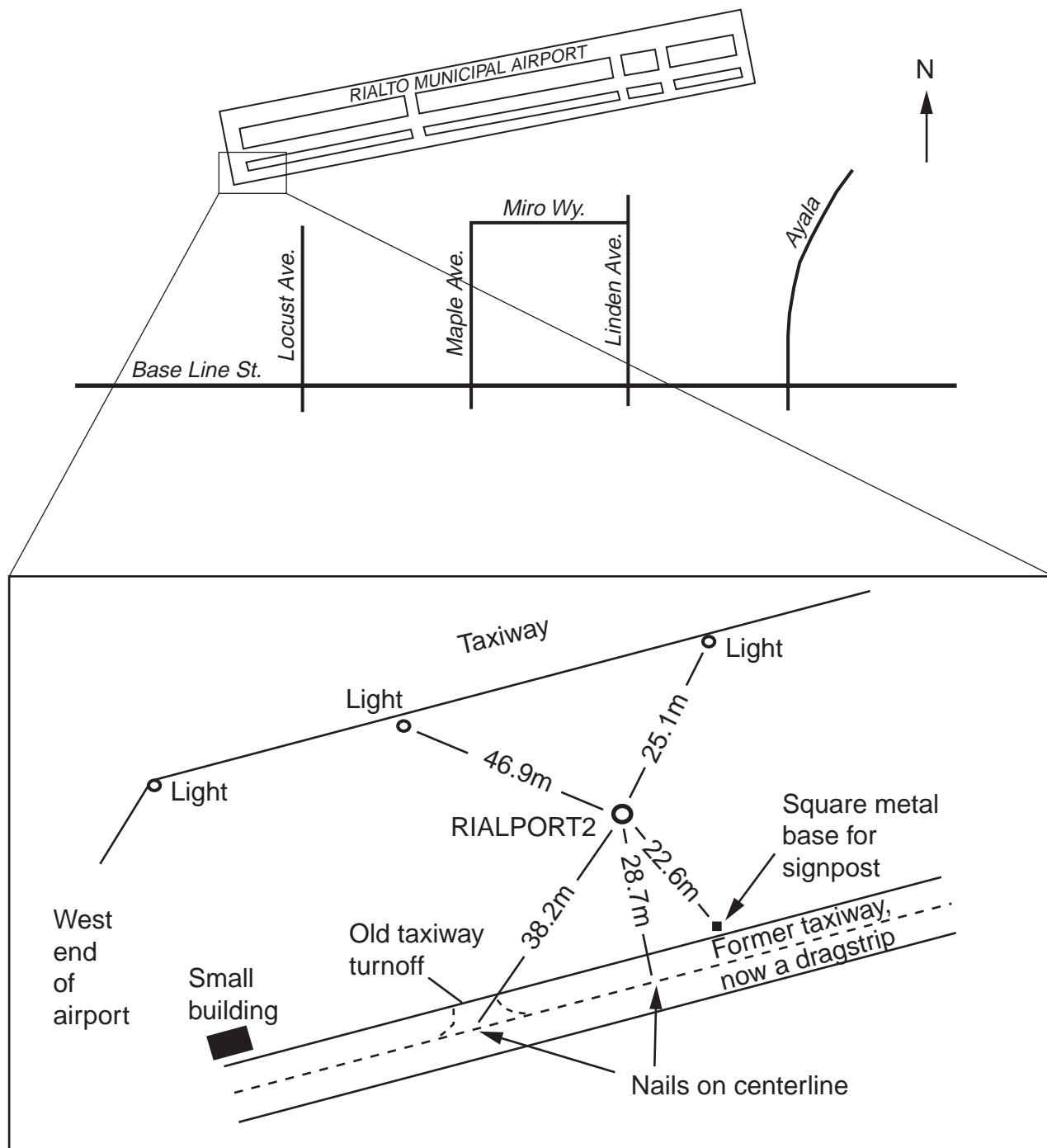


Figure 4. Diagram showing the location of RIALPORT2 GPS base station at the Rialto Municipal Airport (also see figure 2).

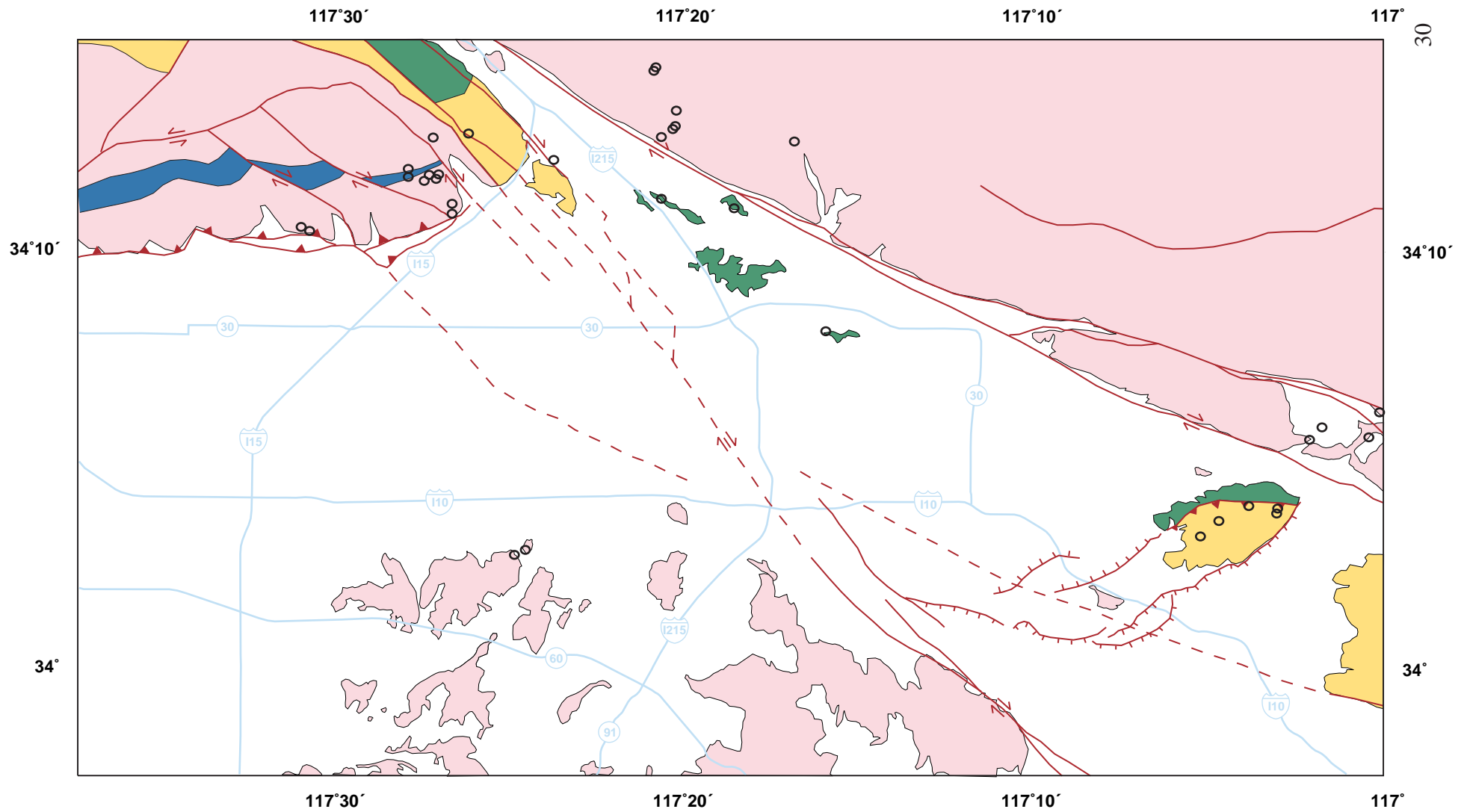
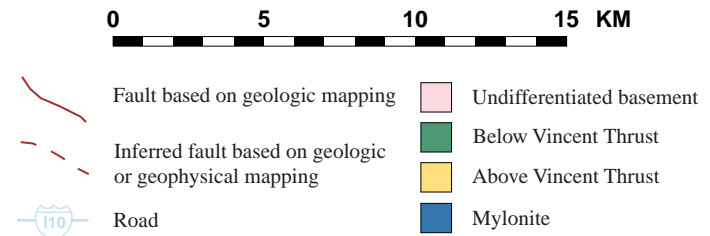


Figure 5. Map showing locations of rock samples and physical property measurements. Simplified geology is from Matti and others, 1992. See figure 1 for fault names.



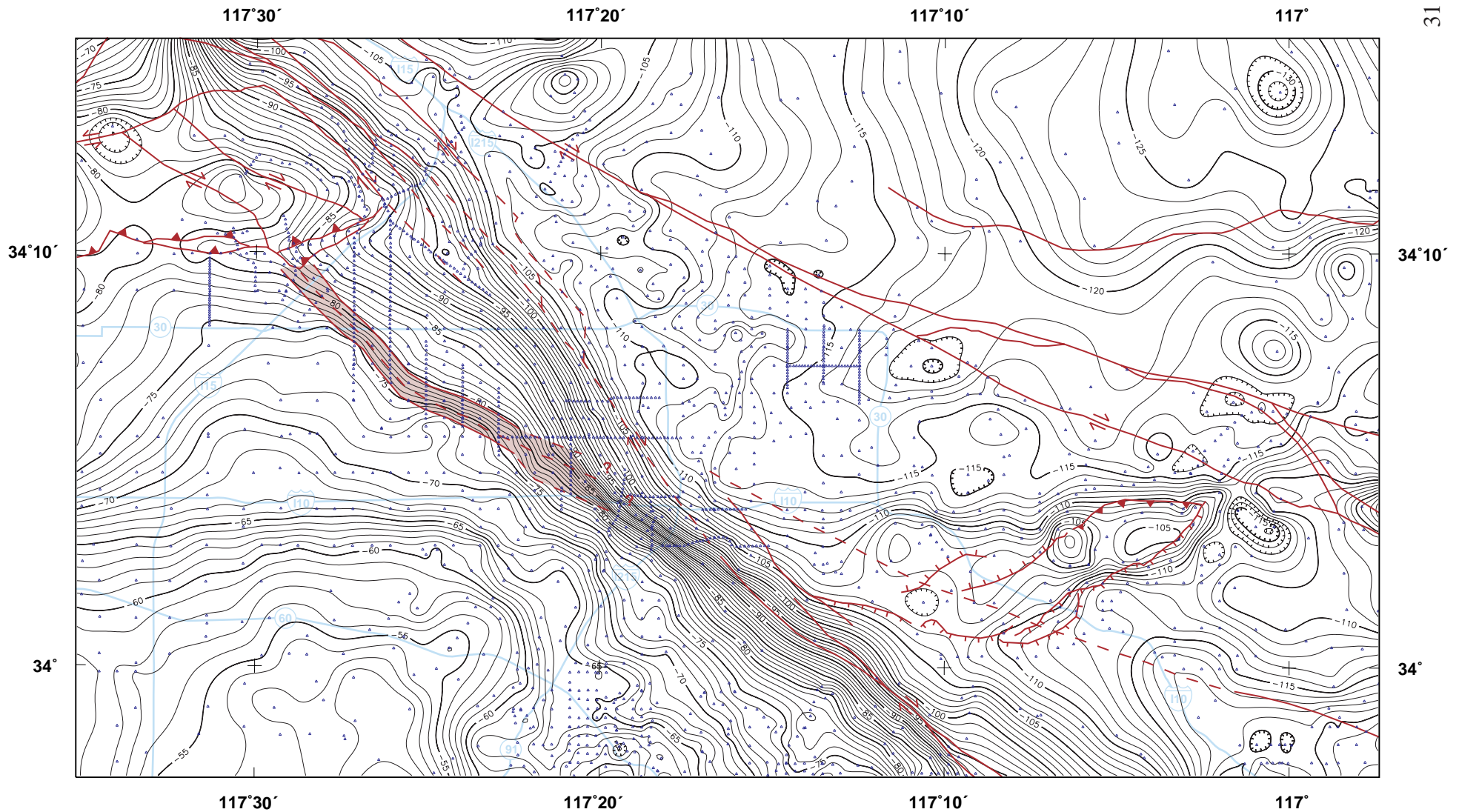
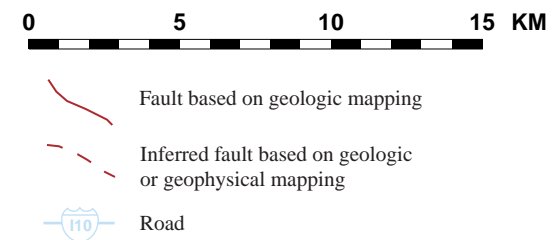


Figure 6. Map showing the Bouguer gravity anomaly of the San Bernardino basin. Stations are shown as blue triangles. Contour interval, 1 mGal. The Rialto-Colton fault zone is an approximately 1-km (0.62 mi) wide band highlighted in pink and the dotted line in the middle of the zone follows the maximum gravity gradient, the inferred location of the fault. See figure 1 for fault names.



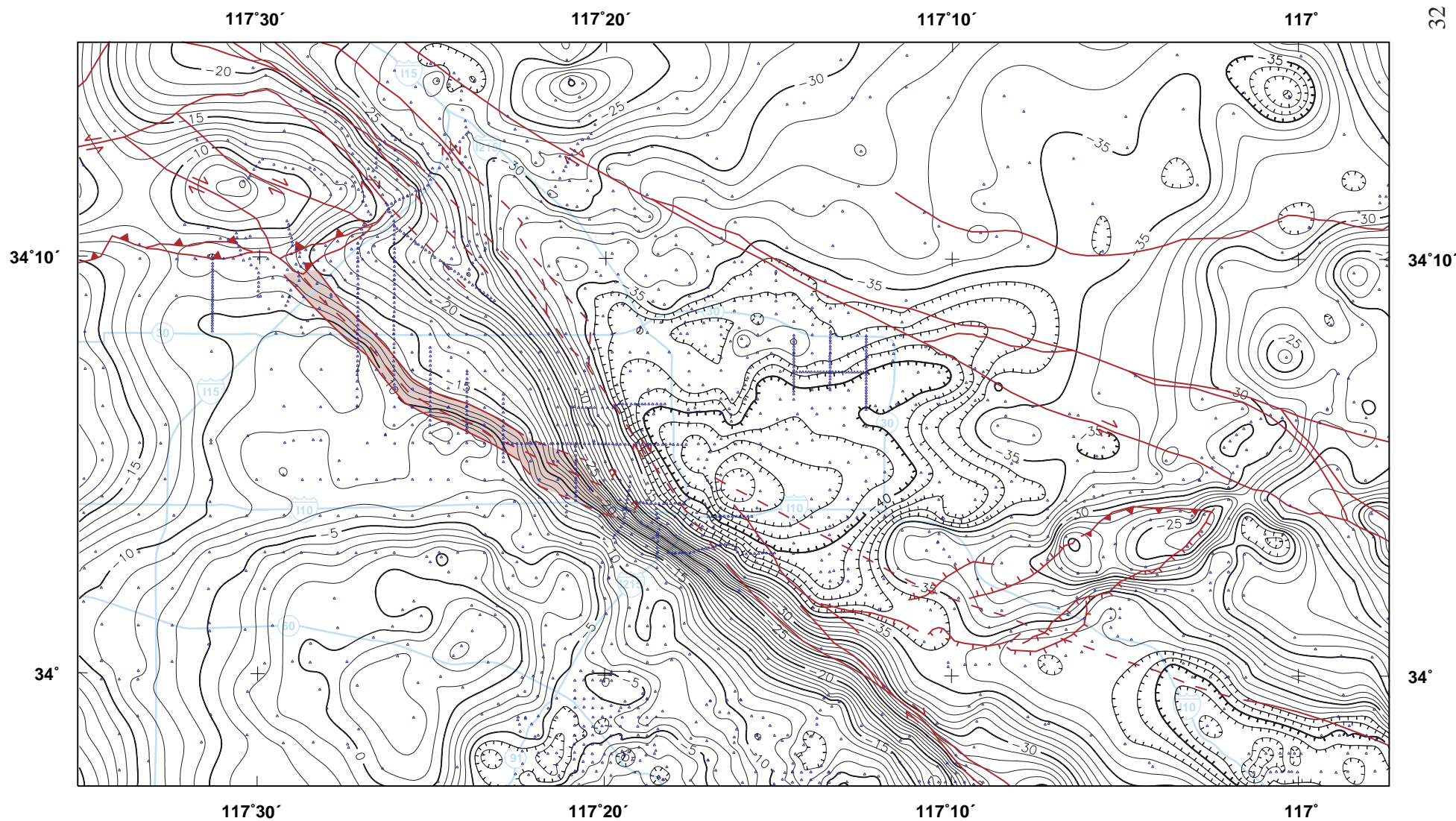


Figure 7. Map showing the isostatic gravity anomaly of the San Bernardino basin. Stations are shown as blue triangles. Contour interval, 1 mGal. The Rialto-Colton fault zone is an approximately 1-km (0.62 mi) wide band highlighted in pink and the dotted line in the middle of the zone follows the maximum gravity gradient, the inferred location of the fault. See figure 1 for fault names.

