INTRODUCTION

This atlas presents data on ground-water quality for the Tonopah 1° x 2° quadrangle. The basic data were compiled as part of the Great Basin Regional Aquifer-Systems Analysis of the U.S. Geological Survey (Harrill and others, 1983).

The data herein were obtained from various sources, including published reports and computerized data files. The computer files accessed for this effort are: (1) WATSTORE, the National Water-Data Storage and Retrieval system maintained by the Water Resources Division of the U.S. Geological Survey; (2) WADS, a system created by the Desert Research Institute, University of Nevada; and (3) RASS, a system maintained by the Geologic Division of the U.S. Geological Survey. Other potential major sources of data are: the National Uranium Resource Evaluation (NURE), a U.S. Department of Energy project; reports of sampling efforts begun in 1980 by the U.S. Bureau of Land Management; and U.S. Geological Survey reports on various hydrographic areas. Only those analyses that pass certain quality-control criteria are included herein. A chemical analysis is excluded if (1) determinations do not exist for all of the principal ions, or (2) the analytical results do not meet the following criterion for electrical balance: total cations and total anions must agree within 10 percent, using the formula:

$$\text{imbalance (in percent)} = \frac{(\text{cations} - \text{anions})}{(\text{cations} + \text{anions})} \times 100 ,$$

where the concentrations are expressed in milliequivalents per liter. This electrical imbalance should be small for comprehensive analyses and it therefore serves as a check on the quality of the analytical results.

Where sample sites are closely spaced, or where more than one analysis is available for a single site, areal averaging is applied to prevent overprinting of information on the map (see side 1). Furthermore, if data for a deep well or for a thermal water are available within an area containing other data (shallow or nonthermal), the other data are not included in the averaging. Finally, if data for both a deep well (1,000 feet or greater) and a thermal water (30 °C or greater) are available, only the deep data are used. The averaging is done over a map area of 0.5 inch by 0.5 inch at a scale of 1:250,000, which is equivalent to about 4 square miles. One consequence of this procedure is that the actual map location corresponding to the sampling site does not necessarily coincide exactly with the computer-plotted location on the map (which is at the center of the 4-square-mile averaging area). Thus, the plotted data for springs may be offset from the spring locations shown on the topograhic base map.

The general chemical character of each water (that is, the relative proportions of principal cations and anions) is shown in the trilinear diagrams (side 1) and indicated by a letter code on the map (see "Explanation"). The characteristics and uses of trilinear diagrams are discussed by Hem (1985, p. 178-180). Both the map and the trilinear diagrams used the same depth-and-temperature symbols. The bar graph (side 1) indicates the relative proportion of major cations and anions for the indicated ranges of dissolved-solids concentration.

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CONVERSION FACTORS AND ABBREVIATIONS

"Inch-pound" units of measure used in this report may be converted to International System (metric) units by using the following factors:

Multiply	*By*	*To obtain*
Feet (ft)	0.3048	Meters (m)
Inch (in.)	25.40	Millimeters (mm)
Square miles (mi^2)	2.590	Square kilometers (km^2)

For temperature, degrees Celsius (°C) can be converted to degrees Fahrenheit (°F) by using the formula °F = [(1.8)(°C)] + 32.

Site designation[1]	Latitude, longitude (deg-min-sec)[2]	Type of site	Temperature (degrees Celsius)	pH (units)	Specific conductance (microsiemens per centimeter at 25°C)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Silica (mg/L)	Dissolved solids[3] (mg/L)	Cation-anion balance[4]	Sampling date (year-month-day)	Well depth (feet)	Source of data[5]
NO2 E50 21C	380030 1162330	Spring	11	7.5	192	19	3.7	17	2.8	93	0	13	6.3	0.3	55	160	2	67-08-02	—	WATSTORE
NO2 E52 19B	380140 1160960	Spring	14	7.6	427	62	1.8	26	0.6	220	0	27	11	0.1	34	270	-1	67-08-03	—	WATSTORE
NO2 E47 14A	380140 1164050	Spring	29	7.8	1,560	58	18	280	27	700	0	220	36	6.2	25	1,000	0	67-07-28	—	WATSTORE
NO2 E49 13A	380150 1162630	Spring	14	7.3	352	32	5.5	31	6.7	160	0	20	16	0.4	57	250	1	67-07-29	—	WATSTORE
NOT SPECIFIED	380247 1175924	Well	16	9.3	6,410	4.4	0.1	1,300	86	97	150	250	1,700	2.3	47	3,600	-1	57-05-24	—	Van Denburgh and Glancy, 1970
NO2 E51 02D	380250 1161140	Spring	22	7.7	565	68	6.0	45	1.1	280	0	31	22	0.2	42	350	0	67-08-03	—	WATSTORE
NO2 E43 01A	380354 1170610	Well	28	7.6	403	28	4.2	43	9.0	150	0	34	21	0.7	76	290	1	67-05-08	—	WATSTORE
NO3 E51 19B	380615 1161860	Well	17	7.1	209	15	2.5	22	4.7	78	0	15	10	0.5	58	170	4	67-08-02	—	WATSTORE
NO3 E49 14	380650 1162740	Spring	16	7.8	531	6.7	0.7	120	0.6	280	0	32	14	0.9	30	340	0	67-07-29	—	WATSTORE
NO3 E46 10B	380740 1164840	Well	15	7.5	462	28	3.9	67	5.5	190	0	46	22	0.9	70	340	1	67-07-30	—	WATSTORE
NO3 E48 06A	380840 1163830	Spring	16	7.6	296	18	1.3	43	8.6	140	0	20	8.8	1.4	90	260	2	67-07-28	—	WATSTORE
NO3 E48 03A	380850 1163510	Well	19	7.7	294	22	1.0	37	6.6	110	0	27	16	0.7	75	240	2	67-07-28	—	WATSTORE
NO4 E47 29	381020 1164410	Spring	25	7.4	328	25	2.6	41	7.9	160	0	21	12	0.8	72	260	1	67-07-27	—	WATSTORE
NO4 E46 26C	381020 1164730	Spring	26	7.4	301	17	2.0	46	4.4	120	0	27	15	0.5	46	220	3	67-07-30	—	WATSTORE
NO4 E50 20C	381060 1162230	Spring	60	7.3	1,300	73	17	190	23	710	0	96	32	3.0	50	830	-2	67-05-11	—	WATSTORE
NO4 E50 20C	381060 1162230	Spring	41	7.8	1,270	71	23	190	13	710	0	98	33	3.7	47	830	-2	67-08-07	—	WATSTORE
WARM SPRINGS	381112 1162218	Spring	63	7.2	1,290	76	22	190	24	700	0	99	31	3.0	53	830	0	54-07-23	—	Bliss, 1983
NO4 E50 20C	381120 1162230	Spring	60	7.4	1,280	70	23	190	25	700	0	94	33	3.6	48	830	0	67-08-03	—	WATSTORE
NO4 E51 13D	381215 1161035	Spring	16	7.4	501	28	3.6	68	10	250	0	29	13	0.9	70	340	-2	67-05-11	—	WATSTORE
NO4 E51 13D	381215 1161035	Spring	16	7.4	812	34	4.5	150	15	450	0	35	24	1.7	64	550	1	67-08-02	—	WATSTORE
NO4 E51 13D	381215 1161035	Well	16	7.7	614	44	5.6	83	13	340	0	31	14	0.5	74	430	0	67-08-02	—	WATSTORE
NO4 E51 13D	381215 1161035	Well	17	7.6	494	30	4.0	72	11	250	0	28	13	0.8	68	350	2	67-08-02	—	WATSTORE
NO4 E48 08B	381260 1163810	Spring	16	7.5	282	23	2.5	26	6.7	120	0	20	8.8	0.4	76	220	0	67-05-10	—	WATSTORE
NO4 E48 08B	381260 1163810	Spring	20	7.4	272	25	2.5	27	7.4	120	0	22	8.5	0.5	75	230	3	67-07-27	—	WATSTORE
NO4 E47 10A	381305 1164140	Spring	16	7.4	301	21	1.8	40	6.7	150	0	13	10	1.1	62	230	2	67-07-27	—	WATSTORE
NOT SPECIFIED	381317 1170348	Well	12	7.5	367	36	3.0	29	5.9	140	0	32	14	0.5	57	250	1	67-05-08	—	WATSTORE
NO4 E51 12B	381340 1161060	Well	16	7.5	728	22	4.2	150	19	420	0	27	14	2.3	89	530	4	67-08-02	—	WATSTORE
NO5 E46 33C	381420 1164950	Spring	21	7.8	431	25	3.4	66	3.5	180	0	42	18	1.2	70	320	2	67-07-30	—	WATSTORE
NO4 E49 01B	381425 1162440	Spring	14	7.0	226	15	2.4	26	4.0	62	0	31	15	0.5	55	180	2	67-07-31	—	WATSTORE
NO5 E46 28D	381510 1164930	Spring	30	8.1	296	1.6	0.1	65	2.5	130	0	26	10	1.2	76	250	0	67-07-30	—	WATSTORE
NO5 E47 26C	381520 1164120	Spring	20	7.3	271	25	4.3	26	5.5	130	0	13	9.8	0.6	48	200	3	67-07-27	—	WATSTORE
NO5 E51 19B	381660 1161640	Well	14	7.7	698	60	20	62	3.1	350	0	54	18	0.2	46	440	0	67-05-11	—	WATSTORE
NO5 E47 13C	381710 1163960	Spring	20	8.4	850	3.4	0.3	210	0.9	420	6.0	46	20	13	46	540	4	67-07-28	—	WATSTORE
HALL MINE WELL ANACONDA	381818 1171703	Well	28	8.2	383	15	0.9	57	13	130	0	44	12	0.7	110	310	4	80-05	—	Ghusn, 1981
NO5 E51 07B	381820 1161655	Spring	17	8.3	372	32	11.0	24	4.9	180	2.0	26	8.1	0.1	42	240	-2	68-07-13	—	WATSTORE
NO5 E46 06	381910 1165210	Spring	12	7.9	251	27	4.1	21	2.5	120	0	17	7.0	0.4	52	190	3	67-07-31	—	WATSTORE
NO6 E50 25A	382035 1161835	Well	18	7.9	396	34	14	20	2.1	140	0	61	8.5	0.3	24	230	0	67-05-11	—	WATSTORE
BLUE JAY MAINTENANCE STATION	382205 1161325	Well	16	7.5	378	17	3.3	55	4.6	180	0	21	10	0.8	60	260	-1	67-05-11	238	WATSTORE
NO7 E47 33C	382450 1164260	Spring	21	6.9	152	8.3	1.1	25	1.3	84	0	6.1	3.9	0.2	47	130	0	67-07-27	—	WATSTORE
NO7 E47 32A	382510 1164350	Spring	—	6.9	140	4.8	0.7	27	0.8	74	0	6.3	3.9	0.2	42	120	1	67-07-28	—	WATSTORE
NO7 E50 19D	382645 1162050	Spring	16	7.7	588	67	30	12	2.0	290	0	68	8.6	0.2	17	350	0	67-08-02	—	WATSTORE
NO7 E51 19D	382660 1160940	Spring	13	7.6	273	29	6.8	15	0.9	140	0	12	6.4	0.2	40	180	-1	67-05-11	—	WATSTORE
NO7 E45 05D	382930 1165660	Well	14	7.2	275	30	4.8	15	5.1	130	0	16	6.8	0.4	46	190	0	67-05-07	—	WATSTORE
6 MILE WELL	383015 1161315	Well	11	7.8	303	34	5.6	14	7.0	130	0	15	5.3	0.6	52	200	6	67-05-11	—	WATSTORE
6 MILE WELL	383015 1161315	Well	—	7.6	294	35	5.4	14	7.0	130	0	16	6.1	0.3	57	210	6	69-02-08	—	WATSTORE
NO8 E50 33B	383050 1162110	Spring	—	7.9	1,020	43	28	150	14	470	0	110	41	5.0	64	680	1	67-08-02	—	WATSTORE
NO8 E50 29D	383105 1162145	Spring	24	7.6	1,110	46	23	180	8.6	520	0	98	50	2.6	40	700	1	67-08-02	—	WATSTORE
NOT SPECIFIED	383110 1162150	Spring	33	8.0	1,050	36	11	190	13	510	0	72	35	7.6	130	750	2	67-05-11	—	WATSTORE
NOT SPECIFIED	383110 1162150	Spring	67	8.1	1,010	33	9.5	190	1.4	500	0	64	37	8.3	160	750	1	67-07-31	—	WATSTORE
HOT CREEK RANCH SPRING	383112 1162136	Spring	63	8.0	1,100	51	15	200	13	550	0	86	42	8.0	140	820	3	73-09-21	—	Bliss, 1983
HOT CREEK SPRINGS	383118 1162154	Spring	88	8.0	1,020	28	5.2	200	16	510	0	63	38	8.0	160	760	1	54-07-23	—	Bliss, 1983
NO8 E50 29C	383120 1162210	Spring	16	7.8	803	66	30	73	8.8	370	0	85	31	1.6	33	510	2	67-07-31	—	WATSTORE
OLD DUGAN PLACE HOT SPRING	383148 1162418	Spring	36	7.7	699	70	22	49	6.8	360	0	55	19	1.0	32	440	0	77-05-11	—	Bliss, 1983
NO8 E49 25AB	383150 1162360	Spring	36	7.7	699	70	22	49	6.8	360	0	55	19	1.0	32	430	0	67-05-11	—	WATSTORE
NO8 E49 25AB	383150 1162360	Spring	36	7.9	689	71	22	49	7.3	360	0	57	21	1.3	39	440	0	67-07-31	—	WATSTORE
NOT SPECIFIED	383210 1162530	Spring	—	8.1	825	66	28	74	8.4	410	0	76	28	1.7	32	520	0	67-07-31	—	WATSTORE
NO8 E49 21CD	383210 1162720	Spring	35	7.6	192	4.7	0.1	38	0.8	80	0	19	7.0	0.4	46	150	0	67-07-31	—	WATSTORE
NO8 E49 21DC	383220 1162710	Spring	23	7.3	223	6.8	0.4	41	3.3	90	0	23	8.8	0.5	64	190	1	67-07-31	—	WATSTORE
NOT SPECIFIED	383220 1170340	Well	9.5	-	-	120	18	26	2.8	260	0	200	13	0.6	21	530	-1	67-05-07	—	WATSTORE
TEST HOLE UCE-18	383510 1161129	Well	34	8.4	1,300	4.2	1.0	320	5.7	660	8.0	47	67	17	54	830	1	67-06-07	6,510	WATSTORE
TEST HOLE UCE-18	383510 1161129	Well	34	8.4	1,350	13	3.1	320	5.9	750	22	34	34	11	58	860	1	68-04-01	6,510	WATSTORE
TEST HOLE UCE-18	383510 1161129	Well	—	8.3	2,590	6.8	0.5	710	6.4	1,670	0	69	51	23	66	1,700	2	73-07-02	6,510	WATSTORE
TEST HOLE UCE-18	383510 1161129	Well	—	8.4	2,660	4.5	0.4	720	6.2	1,250	240	110	35	26	54	1,800	0	73-07-02	6,510	WATSTORE
TEST HOLE UCE-18	383510 1161129	Well	—	8.2	2,730	5.8	0.4	740	6.5	1,780	0	59	50	28	54	1,800	1	73-07-02	6,510	WATSTORE
TEST HOLE UCE-18	383510 1161129	Well	—	8.4	2,760	5.3	0.5	760	6.6	1,260	260	60	48	30	54	1,800	2	73-07-02	6,510	WATSTORE
TEST HOLE UCE-18	383510 1161129	Well	—	8.3	2,770	5.6	0.5	760	6.8	1,790	0	59	52	29	54	1,800	2	73-07-02	6,510	WATSTORE
TEST HOLE UCE-18	383510 1161129	Well	—	8.7	2,780	2.3	0.4	770	6.8	1,350	220	82	60	30	56	1,900	1	73-07-02	6,510	WATSTORE
NO9 E47 25B	383530 1163840	Spring	12	7.3	239	24	2.9	17	6.0	80	0	42	4.8	0.7	47	180	0	67-07-27	—	WATSTORE
NO9 E45 26A	383540 1165220	Spring	13	7.6	358	52	9.4	6.1	1.4	200	0	16	2.9	0.3	30	220	0	67-05-07	—	WATSTORE
NO9 E51 22D	383735 1161245	Well	24	7.7	218	8.7	0.6	39	3.9	120	0	11	4.4	0.9	25	150	-1	67-08-05	—	WATSTORE
NO9 E51 22D	383735 1161245	Well	22	7.9	285	5.9	0.9	58	6.7	140	0	18	7.5	1.4	18	180	3	67-08-05	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	32	9.2	300	8.0	0.2	68	1.7	140	0	30	8.9	1.3	26	210	4	75-08-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	37	9.3	275	2.0	0.2	68	1.1	150	0	30	7.2	1.4	24	210	-3	75-08-13	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	61	9.6	265	1.8	0.8	62	0.9	120	0	32	6.3	1.6	34	200	1	75-08-13	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.9	270	2.5	0.2	57	1.4	81	25	24	4.4	1.1	20	170	-2	76-02-10	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.5	300	4.2	0.1	66	1.2	110	17	31	5.7	1.3	21	200	-1	76-02-10	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.5	288	5.0	< 0.1	61	1.2	110	15	28	5.7	1.3	20	190	-2	76-02-10	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.3	288	8.1	< 0.1	62	1.1	140	4.0	29	5.6	1.4	20	200	-1	76-02-11	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.2	305	2.1	0.3	69	1.2	130	12	31	5.8	1.5	21	200	-3	76-02-11	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.2	318	2.0	0.2	70	1.3	140	7.0	31	6.0	1.5	22	210	-2	76-02-11	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.3	305	2.9	0.6	68	0.9	120	14	32	5.8	1.5	22	210	-1	76-02-11	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.2	307	3.0	0.2	68	1.0	120	14	32	5.8	1.5	21	200	-2	76-02-11	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.3	303	2.3	0.1	69	1.0	120	16	31	5.9	1.5	22	200	-3	76-02-11	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.6	339	7.5	0.4	70	1.2	85	28	44	9.2	1.8	40	240	0	76-02-11	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.5	352	3.7	0.7	76	1.2	65	38	48	10	1.9	48	260	0	76-02-11	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.7	354	10	0.7	72	1.2	70	36	49	11	2.0	50	260	1	76-02-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.7	357	1.7	0.3	77	1.4	77	33	49	11	1.9	55	270	-3	76-02-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.7	362	2.0	0.2	79	1.3	85	28	48	11	2.0	51	260	-1	76-02-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	33	10.1	268	2.5	0.1	54	1.3	110	0	21	6.2	1.0	19	160	2	76-08-31	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	34	8.7	328	2.5	0.1	70	0.9	120	12	31	7.0	1.6	26	210	0	76-08-31	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	35	8.6	328	2.9	< 0.1	70	1.0	110	19	32	7.2	1.6	26	210	-1	76-09-01	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	38	8.6	450	1.9	0.4	94	1.4	89	28	75	17	2.3	58	320	-2	76-09-01	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	53	9.0	472	2.1	0.1	98	1.6	93	26	82	19	2.2	64	340	-2	76-09-01	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	30	9.7	225	.2.3	0.2	50	1.5	57	20	21	14	0.8	17	150	-2	77-03-01	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	30	10.0	229	2.1	< 0.1	49	1.4	31	41	20	4.3	0.9	19	150	-3	77-03-01	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	32	9.5	285	2.1	< 0.1	65	1.1	95	21	28	5.8	1.3	24	190	-1	77-03-01	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	33	9.4	291	2.4	0.1	66	1.1	100	20	28	5.8	1.4	25	200	0	77-03-01	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	33	9.4	305	2.3	< 0.1	67	1.0	110	17	29	6.0	1.4	26	200	-1	77-03-01	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	34	9.4	305	2.5	< 0.1	68	1.0	100	18	30	6.2	1.5	27	200	1	77-03-01	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	36	9.0	303	2.5	0.1	68	1.0	110	19	30	6.1	1.5	26	210	-2	77-03-01	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	36	9.4	303	2.5	0.1	70	1.0	110	18	30	6.1	1.5	26	210	0	77-03-02	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	27	9.8	220	2.1	< 0.1	50	1.4	100	1.0	24	<0.1	0.8	16	140	3	78-12-11	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	28	10.0	245	2.2	0.1	49	1.4	100	1.0	19	4.5	0.8	19	150	2	78-12-11	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	28	9.8	235	2.2	0.1	48	1.4	110	0	19	4.6	0.8	16	150	-2	78-12-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	28	9.9	225	2.2	< 0.1	49	1.4	100	0	19	4.6	0.8	16	140	3	78-12-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	29	9.7	230	2.2	0.1	51	1.4	53	26	19	4.6	0.8	16	150	2	78-12-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	31	9.6	280	2.5	0.1	62	1.2	21	53	26	5.8	1.2	22	180	1	78-12-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	33	9.5	280	2.6	0.1	63	1.2	73	30	27	5.8	1.3	23	190	0	78-12-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	33	9.1	305	2.7	0.1	65	1.2	100	16	29	6.1	1.4	25	190	1	78-12-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	39	9.1	310	2.7	0.1	68	1.1	94	19	31	6.7	1.6	27	200	2	78-12-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	35	9.3	310	3.0	0.1	68	1.1	130	5.0	32	6.9	1.6	27	210	0	78-12-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	36	9.3	310	2.6	0.1	70	1.1	120	12	32	6.6	1.6	28	210	0	78-12-12	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	38	9.4	300	3.2	0.1	70	1.3	150	1.0	33	6.8	1.6	32	220	-2	78-12-13	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	39	9.4	320	2.7	0.1	69	1.2	120	14	32	7.0	1.6	29	210	-2	78-12-13	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	42	9.3	300	2.7	0.1	70	1.2	120	12	32	6.8	1.6	29	210	0	78-12-13	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	55	9.0	300	2.7	0.1	71	1.2	110	14	32	6.6	1.6	30	210	2	78-12-13	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.5	-	5.5	< 0.1	52	2.0	89	4.0	24	10	0.9	13	150	4	79-05-23	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.7	245	23	< 0.1	52	1.4	100	20	22	5.6	0.9	14	190	8	79-05-23	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	—	9.8	255	1.8	< 0.1	50	2.0	88	5.0	18	12	1.0	13	150	0	79-05-24	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	30	9.8	245	11	< 0.1	51	1.9	83	7.0	18	15	0.9	12	160	8	79-05-24	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	34	9.4	280	2.9	< 0.1	62	1.8	110	3.0	24	10	1.2	20	180	4	79-05-24	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	34	9.4	295	7.4	< 0.1	68	1.5	130	11	26	9.5	1.3	22	210	1	79-05-25	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	36	9.4	300	5.5	< 0.1	68	1.4	130	6.0	28	9.2	1.4	23	210	2	79-05-25	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	36	9.3	310	7.6	< 0.1	69	1.4	130	11	28	8.8	1.4	23	210	1	79-05-25	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	36	9.2	315	6.8	0.1	77	1.4	140	4.0	31	10	1.6	26	230	5	79-05-31	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	38	10.0	235	6.0	0.1	50	2.6	81	16	17	19	0.9	10	160	-4	79-05-31	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	39	9.2	315	2.8	0.1	74	1.3	140	4.0	32	13	1.7	26	220	-1	79-05-31	—	WATSTORE
UC-1-P-2SR FAULTLESS RE	383806 1161259	Well	42	9.2	315	5.2	< 0.1	75	0.8	140	9.0	32	12	1.6	26	230	-1	79-05-31	—	WATSTORE
NO9 E51 07B	383945 1161656	Spring	12	7.6	260	40	4.8	7.3	1.0	140	0	20	2.6	0.3	25	170	-1	67-08-01	—	WATSTORE
NOT SPECIFIED	384040 1161810	Spring	7.5	7.6	393	43	24	6.9	1.1	240	0	7.3	2.2	0.2	22	230	3	67-08-01	—	WATSTORE
NOT SPEFIFIED	384040 1162930	Spring	—	7.4	215	25	5.8	10	2.2	110	0	14	3.1	0.3	37	150	1	67-08-03	—	WATSTORE
TEST HOLE UCE-10	384116 1162745	Well	46	8.0	397	43	11	18	5.9	160	0	64	5.0	0.4	30	260	-1	67-05-10	2,960	WATSTORE
TEST HOLE UCE-10	384116 1162745	Well	48	7.8	391	45	11	17	5.8	160	0	64	4.8	0.4	31	260	-1	67-08-03	2,960	WATSTORE
N10 E49 20A ·	384120 1162930	Spring	16	8.0	566	87	16	13	1.2	340	0	32	6.1	0.3	30	350	-1	67-08-03	—	WATSTORE
N10 E51 36A	384130 1161050	Spring	14	7.3	350	40	6.7	22	5.4	190	0	17	7.0	0.6	57	250	0	67-05-11	—	WATSTORE
N10 E49 14D	384150 1162610	Spring	40	7.9	354	37	12	13	4.2	170	0	36	3.7	0.6	28	220	-2	67-05-10	—	WATSTORE
N10 E49 14D	384150 1162610	Spring	41	8.1	342	40	12	12	4.2	170	0	38	3.7	0.4	27	220	-1	67-08-03	—	WATSTORE
N10 E49 10D	384260 1162710	Well	9.5	7.6	682	69	31	24	3.3	270	0	95	28	0.4	52	430	-1	67-05-10	—	WATSTORE
ORDRICH NO. 1	384303 1171003	Well	—	8.0	216	26	6.7	8.6	1.0	90	0	26	8.0	0.1	20	140	0	52-05-20	—	Rush and Schroer, 1970
N10 E52 23A	384305 1160455	Spring	13	8.0	597	61	27	50	1.6	250	0	120	35	0.6	27	450	-1	67-08-08	—	WATSTORE
N11 E52 19A	384650 1161010	Spring	14	7.2	223	24	3.8	16	4.5	110	0	9.7	6.4	0.4	64	180	3	67-08-01	—	WATSTORE
NO8 E44 20A	384710 1171020	Well	14	-	-	24	1.7	11	0.9	97	0	9.2	1.8	<0.1	19	120	0	67-05-07	—	WATSTORE
N11 E52 19AA	384730 1164810	Well	6.5	7.1	98	12	1.6	5.5	0.8	51	0	5.2	1.8	<0.1	25	77	0	67-05-07	—	WATSTORE
JAKE'S WELL	384738 1170538	Well	10	7.8	175	20	1.8	15	1.4	86	0	7.4	3.8	0.3	36	130	6	—	—	Trexler and others, 1980
N11 E50 07AB	384840 1162350	Spring	18	7.6	282	29	2.2	20	7.8	130	0	22	7.0	0.4	60	210	-2	67-08-03	—	WATSTORE
DARROUGH SOUTH SPRING	384855 1171054	Spring	68	8.7	440	1.4	0.0	91	2.2	130	11	49	12	13	110	340	3	—	—	Trexler and others, 1980
DARROUGH STEAM WELL	384909 1171058	Well	94	8.3	499	1.4	0.1	110	2.9	170	3.0	55	12	15	110	370	6	65-05-28	—	WATSTORE
NOT SPECIFIED	384910 1163030	Spring	12	8.2	383	60	11	6.9	1.9	210	0	22	2.6	0.1	23	230	3	67-05-10	—	WATSTORE
DARROUGH NORTH SPRING	384917 1171047	Spring	71	8.7	444	1.4	0.0	94	2.7	130	17	53	12	14	110	350	1	—	—	Trexler and others, 1980
DARROUGH'S WELL	384920 1171058	Well	90	8.8	432	1.1	0.0	99	3.3	120	21	47	12	14	120	360	5	—	—	Trexler and others, 1980
MOSQUITO RANCH AREA SP.	384922 1164305	Spring	32	9.1	229	7.2	0.5	43	1.9	83	9.3	18	7.7	0.9	68	200	1	80-05	—	Ghusn, 1981
NOT SPECIFIED	384930 1164260	Spring	35	7.5	250	6.4	0.1	49	1.9	110	0	20	7.9	1.9	56	200	1	67-05-07	—	WATSTORE
N12 E51 29A	385030 1161560	Spring	12	7.3	189	21	3.1	14	1.9	99	0	7.9	6.4	0.3	44	150	0	67-08-01	—	WATSTORE
N12 E51 29A	385207 1164244	Well	48	8.0	650	59	6.3	100	19	340	0	86	12	2.4	52	500	4	67-03-26	—	WATSTORE
N12 E51 29A	385207 1164244	Well	54	8.0	835	21	5.8	110	33	410	0	67	11	2.6	63	520	-8	68-06-27	—	WATSTORE
N12 E51 29A	385207 1164244	Well	50	7.9	746	52	5.9	120	33	340	0	78	10	2.6	64	530	10	68-06-28	—	WATSTORE
TEST HOLE UCE-16	385220 1164355	Well	—	8.5	615	8.6	5.0	110	29	310	11	21	13	2.3	33	380	1	67-07-25	4,350	WATSTORE
N13 E49 31B	385530 1163050	Spring	10	7.7	391	54	7.2	17	2.5	200	0	33	5.0	0.3	32	250	0	67-08-03	—	WATSTORE
N13 E49 31B	385560 1164257	Well	8.5	7.6	1430	52	43	190	6.3	260	0	310	120	0.2	23	880	2	67-05-09	—	WATSTORE
McLEOD 88 SPRING	385631 1170803	Spring	88	8.6	2320	10	2.5	530	38	1,380	40	65	48	12	110	1,500	-4	—	—	Trexler and others, 1980
McLEOD 63 SPRING	385631 1170803	Spring	63	8.2	2470	18	9.0	540	40	1,420	0	64	48	13	160	1,600	0	—	—	Trexler and others, 1980

[1] Sample-site designations having format NO2 E50 21C indicate township, range, and section, respectively; letter following section number indicates quarter section, as follows: A, northeast; B, northwest; C, southwest; D, southeast. Townships and ranges are referenced to Mount Diablo base line and meridian.

[2] Data are listed in order of increasing latitude and, for identical latitudes, increasing longitude.

[3] Computed sum (with bicarbonate multiplied by 0.492 to make results comparable with residue-on-evaporation values).

[4] Computed as described in introductory text. Negative value indicates that anions exceed cations.

[5] WATSTORE is U.S. Geological Survey's National Water Data Storage and Retrieval System. Citations for other sources are listed under "References Cited."