UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Chemical data and statistical analyses from a uranium hydrogeochemical survey of the Rio Ojo Caliente drainage basin, New Mexico

Part I: Water

By

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This report is preliminary and has not been edited or reviewed for conformity with U.S. Geological Survey standards.

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INTRODUCTION

This report presents the chemical analyses and statistical evaluation of 62 water samples collected in the north-central part of New Mexico near Ojo Caliente (figure 1 and table 1). Both spring and surface-water samples were taken throughout the Rio Ojo Caliente drainage basin above and a few miles below the town of La Madera.

A high U concentration (15 µg/ℓ) found in the water of the Rio Ojo Caliente near La Madera, Rio Arriba County, New Mexico, during a regional sampling-technique study in August 1975 by the senior author, was investigated further in May 1976 to determine whether stream waters could be effectively used to trace the source of a U anomaly. A detailed study of the tributaries to the Rio Ojo Caliente, involving 29 samples, was conducted during a moderate discharge period, May 1976, so that small tributaries would contain water. This study isolated Cañada de la Cueva as the tributary contributing the anomalous U, so that in May 1977, an extremely low discharge period due to the 1977 drought, an additional 33 samples were taken to further define the anomalous area.

GEOLOGIC BACKGROUND

The pegmatites of the Petaca mining district in northern New Mexico have been sources of commercial mica since the 17th century (Jahns, 1946), but it wasn't until 1930 that their U occurrences were first reported. The rocks in the Petaca-Ojo Caliente area are predominantly Precambrian quartzite and quartz-mica schist with lesser amounts of Precambrian amphibole schist, meta-rhyolite, and a medium-grained granite. These units are

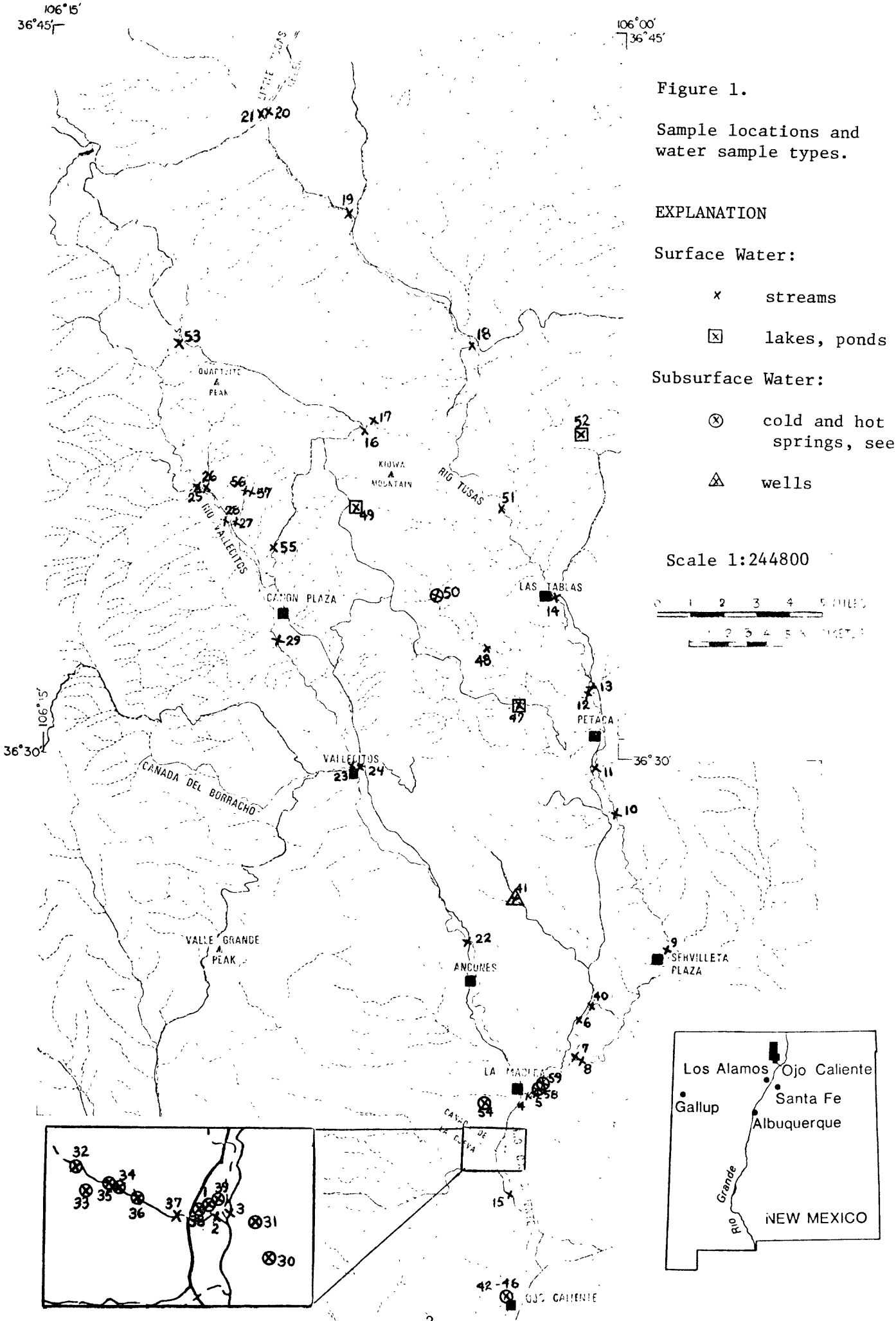

Figure 1.

Sample locations and water sample types.

EXPLANATION

Surface Water:

- × streams
- ⊠ lakes, ponds

Subsurface Water:

- ⊗ cold and hot springs, seeps
- ⚠ wells

Scale 1:244800

Table 1.— Sample collection sites in the Rio Ojo Caliente drainage area.

SAMPLE #	LAT	LONG	LOCATION NAME
13A20775	36.350	106.044	GAGING STATION, RIO OJO CALIENTE AT LA MADERA
*1	36.366	106.049	SPRING NEAR LA MADERA
2	36.364	106.047	CANADA DE LA CUEVA ABOVE JCT WITH OJO CALIENTE
3	36.364	106.046	RIO OJO CALIENTE ABOVE JCT WITH CANADA CUEVA
4	36.383	106.037	RIO VALLECITOS ABOVE JCT WITH TUSAS RIVER
5	36.383	106.356	TUSAS RIVER ABOVE JCT WITH RIO VALLECITOS
6	36.410	106.015	CANON DE LA PALOMA BELOW SALT LICK SPRING
7	36.388	106.006	CANON DE LA PALOMA ABOVE JCT WITH TUSAS RIVER
8	36.388	106.015	TUSAS RIVER ABOVE JCT WITH PETACA CREEK
9	36.434	105.978	TUSAS RIVER NEAR SERVILLETA PLAZA
10	36.480	106.001	TUSAS RIVER SOUTH OF SOUTH PETACA
11	36.497	106.010	TUSAS RIVER AT SOUTH PETACA
12	36.522	106.027	CANADA DE LA JARITA
13	36.523	106.011	TUSAS RIVER ABOVE PETACA
14	36.538	106.028	TUSAS RIVER AT LAS TABLAS
15	36.350	106.044	GAGING STATION, RIO OJO CALIENTE AT LA MADERA
16	36.612	106.114	SPRING CREEK ABOVE JCT WITH CLEVELAND GULCH
17	36.614	106.107	CLEVELAND GULCH
18	36.644	106.059	TUSAS RIVER AT TUSAS
19	36.687	106.120	TUSAS RIVER ABOVE JCT WITH CANADA BISCARA
20	36.720	106.156	LITTLE TUSAS ABOVE JCT WITH TUSAS
21	36.720	106.157	TUSAS RIVER ABOVE JCT WITH LITTLE TUSAS
22	36.436	106.063	RIO VALLECITOS AT BRIDGE ABOVE ANCONES
23	36.495	106.112	CANADA DEL BORRACHO AT VALLECITOS
24	36.495	106.112	RIO VALLECITOS AT VALLECITOS
25	36.592	106.184	VALLECITOS RIVER ABOVE LA JARA CANYON
26	36.591	106.168	LA JARA CANYON ABOVE RIO VALLECITOS
27	36.546	106.169	RITITO CANYON ABOVE JCT WITH VALLECITOS RIVER
28	36.546	106.171	RIO VALLECITOS ABOVE JCT WITH RITITO CANYON
29	36.537	106.148	RIO VALLECITOS BELOW CANON PLAZA
30	36.364	106.042	SPRING ON MESA AT S.W. BASE OF LA MADERA MTN.
*31	36.366	106.042	SPRING AT BOTTOM OF FIRST MESA, W. SIDE LA MADERA MTN.
**32	36.371	106.059	SPRING, UPPER CANADA DE LA CUEVA
33	36.370	106.058	SPRING, SIDE CANYON OF CANADA DE LA CUEVA
34	36.371	106.058	EAST SPRING IN BOX CANYON OF CANADA DE LA CUEVA
35	36.371	106.058	WEST SPRING IN BOX CANYON OF CANADA DE LA CUEVA
36	36.369	106.057	SPRING APPROX 1/2 KM UPSTREAM FROM HWY 111 IN CANADA DE LA CUEVA
37	36.367	106.051	CANADA DE LA CUEVA JUST UPSTREAM FROM HWY 111
*38	36.367	106.050	UPPER HOT SPRING (POOL) 2 KM S. OF LA MADERA
39	36.368	106.049	LOWER HOT SPRING (WINE BREWERY) 2 KM S. OF LA MADERA
*40	36.416	106.017	SERVIELLETA PLAZA ROAD CROSSING OF CANON DE LA PALOMA
*41	36.454	106.042	WELL NEAR TRIPLE E MINE
*42	36.306	106.053	OJO CALIENTE "AS" HOT SPRING
*43	36.306	106.053	OJO CALIENTE "FE" HOT SPRING
*44	36.306	106.053	OJO CALIENTE "NA" HOT SPRING
*45	36.306	106.053	OJO CALIENTE "NA PHOSPHATE" HOT SPRING
*46	36.306	106.053	OJO CALIENTE "LI" HOT SPRING
47	36.519	106.041	POND ABOVE PETACA TO S. OF CANADA DE LA JARITA
48	36.538	106.058	CANADA DE LA JARITA 100 YDS BELOW SPRING DUE S. OF BIG ROCK
49	36.587	106.461	KIAWA LAKE
50	36.557	106.081	ALICE SPRING SOUTH OF POSOS LAKE
51	36.584	106.050	TUSAS RIVER APPROX 5 KM ABOVE LAS TABLAS
52	36.610	106.024	CATTLE POND NEAR SAWMILL CREEK
53	36.641	106.193	ROCK CREEK ABOVE EL VALLECITO RANCH
*54	36.379	106.061	STATUE SPRINGS
55	36.574	106.153	ROAD CROSSING, CANADA DEL OSO
56	36.592	106.161	RITITO CANYON, W. TRIBUTARY ABOVE JCT
57	36.591	106.160	RITITO CANYON, E. TRIBUTARY ABOVE JCT
58	36.390	106.032	SEEP 0.8 KM EAST OF LA MADERA
59	36.383	106.033	SEEP 0.3 KM N.E. JCT OF TUSAS AND OJO CALIENTE RIVERS

*Water sample collected but no sediment.

**32A red precipitate, 32B stream sediment; water sample collected at this site also.

transected by pegmatite bodies and quartz-fluorite veins containing sparsely disseminated crystals of U minerals, notably samarskite. More than 200 pegmatites are present in the district, 69 of which contain accessory minerals. Of these 69, 40 contain samarskite and less than 5% include other U minerals such as uraninite and uranophane (Jahns, 1946). Samples of a radioactive vitreous black mineral taken from the Fridlund deposit by the authors were found to be metamict euxinite. To the knowledge of the authors euxinite has not been reported before in the Petaca mining district. Monazite is present in over 80% of the accessory-mineral-bearing pegmatites, and although the U content has not been completely determined, it appears to be less than 1% in most monazites. The Precambrian meta-rhyolite locally contains fluorite occurrences, several of which have been staked as claims. Neither the fluorite, mica nor U is presently being mined in this area. U-bearing resistate minerals such as samarskite and monazite are not generally amenable to commercial U milling circuits in the U.S.

No Paleozoic or Mesozoic rocks are exposed in the area above La Madera although the Tertiary Carson Conglomerate of Just (1937), and Tertiary and Quaternary Santa Fe Group are present. Quaternary basalt caps many of the mesas and Quaternary alluvium forms flat valley bottoms along some stretches of the Tusas and Vallecitos rivers.

Numerous thermal springs occur in this region of New Mexico. Some of them have been studied by Summers (1976, p. 24-34) who reported a few Rn-222 determinations ranging from 820 to 9400 pCi/ℓ, but no U. U concentrations are frequently low in springs of high Ra, the direct parent of Rn, but because of the different solubilities of Ra, Rn and U, and the loss

of Rn as a gas, the range of U content in the hot springs of the Ojo Caliente area cannot be inferred from Summers' Rn data.

SAMPLING PROCEDURES

Sampling sites were chosen to represent the entire drainage of the Ojo Caliente area. The sampling in 1976 and 1977 concentrated on pinpointing the source of anomalous U in the Rio Ojo Caliente discovered during the sampling of 1975. Samples were taken of each tributary and the main channel just upstream from the junction (far enough so that past flooding of the main channel would not have affected the stream sediment of the tributary). In addition, springs, both cold-water seeps and hot springs, were sampled whenever possible. Although this causes a mix of two populations, surface and subsurface waters, it was necessitated because the source of the U anomaly appeared to be the subsurface water. Figure 1 shows and table 1 describes, the sample locations and sample type, that is, surface or subsurface water. Both water and stream sediments (if present) were taken concurrently at each site. The stream-sediment survey is presented in Wenrich-Verbeek and Suits (1979).

Water was collected in a flint glass bottle from the stream either as a cross-section of the channel width and depth or from the thalweg. The water was then filtered through 0.45 μm membrane filters into polyethylene bottles and acidified with nitric acid (HNO_3) to a pH below 2 (usually less than 1 to assure a low pH, as a little acidification is worse than none at all). These filtered-acidified samples were used for analysis of U, Ra, all other trace metals and major elements except bicarbonate,

alkalinity, V, SiO_2, F, Cl, SO_4, PO_4 and NO_2 + NO_3. For these elements, bicarbonate and alkalinity were determined from a raw sample, V, SiO_2, F, Cl and SO_4 from a filtered-unacidifed sample, and PO_4 and NO_2 + NO_3 from a filtered-unacidified chilled sample. In situ measurements were made to determine conductivity, water and air temperature, pH and Eh. Further details on sampling procedures can be found in Wenrich-Verbeek (1976). Sample site numbers were randomized before submittal to the analytical laboratories to preclude any prejudice in data results.

CHEMICAL ANALYSES

Table 2 is a list of elements determined in the waters of the Rio Ojo Caliente drainage basin showing the analytical method used and corresponding detection limit. All water samples were analyzed by the U.S. Geological Survey (USGS). Some of the detection limits vary between samples 1-29 (1976) and samples 30-58 (1977) due to USGS changes in analytical procedure between 1976 and 1977. Those elements determined by emission spectroscopy were done on dissolved solid residues obtained by evaporation. The detection limits for these elements tend to vary from sample to sample because of their dependence upon the concentration of dissolved solids in the water - the greater the mg/ℓ of dissolved solids, the greater the detection limit. Two methods of fluorimetry were used for U determinations: (1) Direct fluorimetry with a detection limit of 0.4 µg/ℓ and (2) extraction fluorimetry with a detection limit of 0.01 µg/ℓ. The second method was used only on those samples with a U concentration less than 0.4 µg/ℓ.

Table 2.--Abbreviations, analytical procedures and detection limits for data presented in 1976 and 1977 studies.

ABBREV	EXPLANATION	UNITS SYMBOLS	DETECTION LIMIT	ANALYTICAL PROCEDURE
sample	Sample identification number	—		
LATT	Latitude of location	degrees		
LONG	Longitude of location	degrees		
MIN	Minutes of latitude or longitude	decimal degrees		
COND	Conductivity in micromhos per centimeter	µmhos/cm	N/A*	Direct field measurement, Beckman† conductivity probe
U-D	Dissolved uranium (U) in micrograms per liter	µg/ℓ	.01	Direct (for > 0.4 µg/ℓ, see text) and extraction fluorimetry
ALK	Total alkalinity in milligrams per liter as $CaCO_3$	mg/ℓ	1	Direct titration with hydrochloric acid
DISCH	Discharge in cubic feet per second	ft^3/sec	N/A*	WRD gaging station readings
EH	Eh in millivolts	mv	N/A*	Direct field measurement, Orion† specific ion meter
HARD	Total hardness in milligrams per liter as $CaCO_3$	mg/ℓ	1	Calculated from Ca, Mg values
HARD-NC	Total non-carbonate hardness in milligrams per liter	mg/ℓ	.5	Calculated from hardness, carbonate and bicarbonate values
PH	pH in standard units	pH units	N/A*	Direct field measurement, Orion† specific ion meter
SAR	Sodium absorption ratio	--	N/A*	Calculated from Na
H2OTE	Water temperature in degrees centigrade	°C	N/A*	Direct field measurement, thermometer
AG-D	Dissolved silver (Ag) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
AL-D	Dissolved aluminum (Al) in micrograms per liter	µg/ℓ	30	Atomic absorption and chelation extraction
AS-D	Dissolved arsenic (As) in micrograms per liter	µg/ℓ	.5	1976 - Atomic absorption with gaseous hydride aspiration
			1.0	1977 - Flameless atomic absorption
B-D	Dissolved boron (B) in micrograms per liter	µg/ℓ	N/A*	Semi-quantitative emission spectroscopy
BA-D	Dissolved barium (Ba) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
BE-D	Dissolved beryllium (Be) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
BI-D	Dissolved bismuth (Bi) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
BICAR	Bicarbonate ion in milligrams per liter as HCO_3	mg/ℓ	1	Automated titration with sulfuric acid
C-INORG	Dissolved inorganic carbon (C) in milligrams per liter	mg/ℓ	1	Persulfate oxidation and IR gas analyzer
C-ORG	Dissolved organic carbon (C) in milligrams per liter	mg/ℓ	1	Persulfate oxidation and IR gas analyzer
CA-D	Dissolved calcium (Ca) in milligrams per liter	mg/ℓ	.1	Atomic absorption - direct aspiration with lanthanum chloride matrix
CD-D	Dissolved cadmium (Cd) in micrograms per liter	µg/ℓ	1.0	Atomic Absorption - direct aspiration or chelation extraction
CL-D	Dissolved chloride (Cl) in milligrams per liter	mg/ℓ	.1	Technicon Autoanalyzer - ferric thiocyanate colormetric
CO-D	Dissolved cobalt (Co) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
CR-D	Dissolved chromium (Cr) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
CU-D	Dissolved copper (Cu) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
F-D	Dissolved fluoride (F) in milligrams per liter	mg/ℓ	.1	Technicon Autoanalyzer† - specific ion electrode
FE-D	Dissolved iron (Fe) in micrograms per liter	µg/ℓ	10	Technicon Autoanalyzer† - 2-2' bypridine colormetric
GA-D	Dissolved gallium (Ga) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
GE-D	Dissolved germanium (Ge) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
HG-D	Dissolved mercury (Hg) in micrograms per liter	µg/ℓ	.01	Atomic Absorption - $KMnO_4$ digestion and direct aspiration of cold vapor
K-D	Dissolved potassium (K) in milligrams per liter	mg/ℓ	.1	Atomic Absorption - direct aspiration
LI-D	Dissolved lithium (Li) in micrograms per liter	µg/ℓ	10	1976 - Atomic absorption - direct aspiration
			5	1977 - Atomic absorption - air-acetylene flame
MG-D	Dissolved magnesium (Mg) in milligrams per liter	mg/ℓ	.1	Atomic Absorption - direct aspiration with Lanthanum chloride matrix
MN-D	Dissolved manganese (Mn) in micrograms per liter	µg/ℓ	20	1976 - Atomic absorption - direct aspiration
			.5	1977 - Atomic absorption - chelation extraction
MO-D	Dissolved molybdenum (Mo) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
NA-D	Dissolved sodium (Na) in milligrams per liter	mg/ℓ	.1	Atomic absorption - direct aspiration
NA%	Percent sodium of total cations	%	N/A*	Calculated from Na and total cations

*Not applicable; always above detection limit.

**Not applicable; detection limit varies with amount of residue upon evaporation.

†Use of commercial brand names does not imply endorsement by the U.S. Geological Survey, but is for descriptive purposes only.

Note: Dissolved material is that which is measured after passing through a 0.45 µm membrane filter.
Total material = dissolved material + suspended material.

Table 2, continued

ABBREV	EXPLANATION	UNITS SYMBOLS	DETECTION LIMIT	ANALYTICAL PROCEDURE
NI-D	Dissolved nickel (Ni) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
N2N3	Total NO_2 + NO_3 in milligrams per liter as N	mg/ℓ	.005	Technicon Autoanalyzer - Diazo dye-cadmium reduction
P-TL	Total phosphorous (P) in milligrams per liter	mg/ℓ	.005	Technicon Autoanalyzer - persulfate digestion - phosphomolybdate blue reduction
PB-D	Dissolved lead (Pb) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
PO4-TL	Total phosphate (PO_4) in milligrams per liter	mg/ℓ	.005	Technicon Autoanalyzer - persulfate digestion - phosphomolybdate blue reduction
RA-D	Dissolved radium (Ra-226) in picocuries per liter	pCi/ℓ	.01	Radon emanation method
SE-D	Dissolved selenium (Se) in micrograms per liter	µg/ℓ	2	Flameless atomic absorption
SIO2-D	Dissolved silica (SiO_2) in milligrams per liter	mg/ℓ	.1	Technicon Autoanalyzer - molybdate blue reduction
SN-D	Dissolved tin (Sn) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
SO4-D	Dissolved sulfate (SO_4) in milligrams per liter	mg/ℓ	1	Technicon Autoanalyzer - $BaCl_2$ + Methythymol blue colormetric complex
SR-D	Dissolved strontium (Sr) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
TI-D	Dissolved titanium (Ti) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
V-D	Dissolved vanadium (V) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy
ZN-D	Dissolved zinc (Zn) in micrograms per liter	µg/ℓ	10	1976 - Atomic absorption - direct aspiration
			20	1977 - Atomic absorption - air-acetylene flame
ZR-D	Dissolved zirconium (Zr) in micrograms per liter	µg/ℓ	N/A**	Semi-quantitative emission spectroscopy

PRESENTATION OF CHEMICAL DATA

The results of the chemical analysis of the water samples are shown in tables 3 and 4. The values in table 3 are in mg/ℓ (ppm), µg/ℓ (ppb), or pCi/ℓ (picocuries per liter), while in table 4 the units remain the same except that they are normalized by µmhos/cm (conductivity); the appropriate unit is listed with the column header. Because of the vast difference in discharge within the Rio Ojo Caliente drainage basin between the 1976 and 1977 studies, table 4 presents data which has been "normalized". Conductivity is used as the normalizing factor as it is a relative measure of the concentration of all elements in the stream or subsurface water and therefore can be used to minimize the dilution effect of runoff from low to high periods of discharge. Each variable, except discharge and those not affected by changes in discharge (pH and Eh), was divided by its corresponding conductivity and multiplied by 100 (see Wenrich-Verbeek, 1977).

Numerous abbreviations are used in the column headers because of space limitations; these are listed in table 2. Briefly, analysis of an element as dissolved material is denoted by the suffix -D, and as total material (dissolved + suspended) by -TL. Also, all element symbols appear as capital letters in tables 3 and 4 owing to computer limitations. The eight-unit sample identification number indicates the sample locality and the date collected. The first two digits are the sample locality number. (Table 1 lists site descriptions.) The last two digits indicate the year collected, the 5th and 6th digits the month of the year, and the 3rd and 4th digits are field number designators, not significant in this presentation. Note that sample number 13 from the year 1975 (13A20775) is from a separate study and was actually collected at the same site as number 15 in the 1976

and 1977 studies. The symbol "--" indicates the sample was not analyzed for the appropriate variable and "<" indicates the value was less than the adjacent value.

Figures 2-1 through 2-37 are locality maps for water samples and show the normalized data from table 4 for those elements which have a significant variation through the drainage basin. Normalized data were used to minimize the variation due to the discharge differences between the two sampling years. Because of the log-normal distribution of most geochemical data, the data are plotted by semi-logarithmic intervals based on those established and used by the Geological Survey of Canada for their hydrogeochemical surveys. Legends on each map explain the intervals used. Because pH values are logarithmic and thus fall within one class, the pH data are plotted as numeric values. Eh values are also plotted numerically due to their small variation over the area. Where sample collection location was duplicated for comparison between the 1976 and 1977 studies (samples #1, #5 and #15), the 1977 data are plotted and the 1976 data are not. Samples 42-46, all hot springs from Ojo Caliente, occur so closely spaced that their values have been arranged side by side with no geographical significance. Also, samples along Cañada de la Cueva, because they occur so closely spaced, have been plotted on an enlarged blow-up of the area.

STATISTICAL ANALYSIS

Water was collected at sample sites 1, 5 and 15 in both 1976 and 1977 and at site 15 also in 1975 (then called #13). Only the data obtained from the 1977 study were used in the statistical analyses so as not to weight the results towards these certain sites.

Qualified data (such as greater or less than a certain value) or samples where analysis for certain elements was never performed appear in the analytical results (tables 3 and 4) and are tallied in the frequency distribution diagrams (table 5). They are coded in table 5 as follows:

N Not detected

L Detected, but less than lower detection limit

T Trace amount present

G Greater than upper detection limit

H No data because of analytical interference

B No analysis performed

The most common qualified data are those designated by N or L, which actually represents an interval within which the "true" value falls. For instance, a concentration of a certain element which appears as L 10 (less than a detection limit of 10 units) actually represents the range of values from >0 to 10. Since statistical analyses cannot be performed on a range of values, there are two courses of action:

(1) A value within the qualified range may be assigned to each qualified value (e.g., for every L 10 appearing in the chemical analyses the value of 7 may be assigned). The philosophy behind replacement of qualified values is to preserve the lower end of the frequency distribution, which otherwise becomes truncated.

(2) All qualified data may be omitted from the data matrix (i.e., the sample is treated as though analyses for that element were never performed).

The authors have used the second option in this report rather than the first for fear that by assigning one number to a range of values (Method #1) the natural spread of data is reduced and biased statistics may result. The shape of the frequency curve acquires a peak at the assigned value using Method #1 and thus a normal distribution would be distrubed. However, there appears to be no significant difference in the correlation coefficients between the two methods for the Ojo Caliente data tested by the authors. The most significant difference in the correlation coefficients between the two methods occurs when greater than forty percent of the data are qualified; the spread of data is decreased when the qualified data are omitted (Method #2), and a correlation coefficient cannot be properly determined in this case. Thus, if more than forty percent of the data were qualified for a specific element, that element was eliminated from the statistical analysis.

Frequency distributions: Histograms and statistical computations of the frequency distributions for the various parameters determined in the water are illustrated in table 5. Most parameters are log-normally distributed so that their log distributions (shown with a prefix of L- by the element name) have been used. The elimination of qualified data for elements which were analyzed by a method having a nonvariable lower detection limit does not affect the shape of the main distribution curve; the lower extremity is truncated. However, the mean becomes biased at a higher value and must be considered as such in further interpretive work.

The normalized data from table 4 are used in determining the frequency distributions. Note the two populations illustrated in the histogram for

conductivity (p. 75) which resulted from the differences in stream discharge between 1976 and 1977. Dividing the element data by the conductivity value eliminated the dilution effect resulting from the fluctuating discharge between the two years. Nevertheless, the frequency distributions from some elements still exhibit the effects of at least two different populations (e.g., U, Na and K). Interpretation of data is not within the scope of this paper; nevertheless it can be seen that there are different populations, presumably based upon water source within the sample distribution rather than sampling bias.

Correlation coefficients: Table 6 shows a correlation matrix of all elements determined in water samples. The number of pairs used to determine the correlation for each two elements is listed in parentheses next to the respective correlation coefficient. Generally the log data, but occasionally the untransformed data if normally distributed, were used in calculating the correlation matrix. Normalized data were not used because fluctuating discharge does not affect intrasample calculations such as correlation coefficients.

Correlation coefficients must be interpreted very carefully. First, the scatter diagrams should be checked to make sure that one or two extreme samples are not forcing a significant correlation, in that the extreme value minimizes the spread in the remaining data. Then, geochemical controls must be considered; for example, the data should be scanned to make sure that a correlation between two metals is not due to a high organic content adsorbing both elements, but rather a true correlation between those elements.

Scatter diagrams: Scatter diagrams were plotted for the various parameters against U concentration, utilizing a Fortran program written by Jennie L. Ridgley (USGS). The scatter diagrams for water are shown in figures 3-1 through 3-42. On all scatter diagrams the element concentrations are plotted on the ordinate against U on the abscissa, and in most cases on a log-log scale. The units of U concentration appear as ppb, which in these waters is equivalent to μg/ℓ. Points plotted from subsurface, surface and static water are differentiated to help show groupings of populations.

The correlation coefficient (r) appears on each diagram along with the number of data pairs (n). Unless otherwise noted, correlation coefficients were calculated from the log values of both data sets. If the correlation coefficient between U and another parameter is significant, the linear regression line was plotted on the diagram. Significance of correlation at the 99% confidence level is indicated by ** on the diagram next to the value of r and significance at the 95% confidence level is indicated by * next to the value of r.

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Table 3.--Chemical analysis of water samples collected in Rio Ojo Caliente drainage basin, New Mexico

sample	LATT degrees	MIN decimal degrees	LONG degrees	MIN decimal degrees	COND µmhos/cm	U-D µg/ℓ	ALK mg/ℓ	DISCH ft^3/sec	EH mv	HARD mg/ℓ	HARD-NC mg/ℓ	PH
Rio Ojo Caliente Gaging Station, 1975												
13A20775	36	.350	106	.044	715	16.00	--	15.0	105	260	--	7.6
1976 Samples												
01170576	36	.366	106	.049	1,580	60.00	638.0	--	175	590	--	6.3
02170576	36	.364	106	.047	2,450	40.00	417.0	--	200	590	--	7.1
03170576	36	.364	106	.046	140	1.20	54.9	--	160	53	--	7.5
04170576	36	.383	106	.037	95	.50	39.4	--	140	35	--	7.6
05170576	36	.383	106	.037	270	2.80	136.0	--	140	110	--	7.1
06170576	36	.410	106	.015	1,380	2.90	343.0	--	195	93	--	8.2
07170576	36	.388	106	.016	1,680	1.90	445.0	--	200	64	--	8.7
08170576	36	.388	106	.015	220	1.70	121.0	--	210	96	--	7.1
09180576	36	.434	105	.978	210	1.00	109.0	--	60	93	--	7.6
10180576	36	.480	106	.001	165	.60	85.0	--	110	71	--	6.9
11180576	36	.497	106	.010	150	.40	80.0	--	125	67	--	6.9
12180576	36	.523	106	.028	130	.20	67.0	--	120	56	--	7.1
13180576	36	.523	106	.011	120	.20	61.0	--	115	52	--	6.9
14180576	36	.538	106	.028	105	.20	58.0	--	115	49	--	7.1
Rio Ojo Caliente Gaging Station, 1976												
15180576	36	.350	106	.044	235	3.30	84.0	109.0	120	120	--	7.0
1976 Samples, Continued												
16190576	36	.612	106	.114	89	.06	33.0	--	170	33	--	6.1
17190576	36	.614	106	.107	280	.70	148.0	--	165	130	--	6.9
18190576	36	.644	106	.059	95	.10	50.0	--	175	43	--	7.3
19190576	36	.687	106	.120	83	.10	40.0	--	165	35	--	7.0
20190576	36	.720	106	.156	100	.20	52.0	--	180	47	--	7.3
21190576	36	.720	106	.157	55	.06	22.0	--	175	22	--	7.5
22200576	36	.436	106	.063	60	.04	24.0	--	180	22	--	--
23200576	36	.495	106	.113	180	.20	77.0	--	140	--	--	--
24200576	36	.495	106	.112	52	.09	22.0	--	120	18	--	--
25200576	36	.592	106	.184	50	.05	15.0	--	165	14	--	--
26200576	36	.591	106	.168	170	.70	94.0	--	200	84	--	--
27200576	36	.546	106	.169	240	1.60	144.0	--	195	120	--	--
28200576	36	.546	106	.171	50	.08	18.0	--	170	17	--	--
29200576	36	.537	106	.148	55	.06	25.0	--	170	20	--	--

(See table 2 for explanation of abbreviations)

Table 3, continued

sample	LATT degrees	MIN decimal degrees	LONG degrees	MIN decimal degrees	COND µmhos/cm	U-D µg/ℓ	ALK mg/ℓ	DISCH ft^3/sec	EH mv	HARD mg/ℓ	HARD-NC mg/ℓ	PH
						1977 Samples						
01AW0577	36	.367	106	.050	1,700	58.00	561.0	--	220	590	43.0	6.2
					Rio Ojo Caliente, Gaging Station, 1977							
15AW0577	36	.350	106	.044	1,100	30.00	238.0	9.2	175	380	40.0	8.3
					1977 Samples, Continued							
05BW0577	36	.383	106	.356	900	23.00	276.0	--	105	330	<.5	7.3
30AW0577	36	.364	106	.042	1,500	57.00	551.0	--	150	580	35.0	6.3
31AW0577	36	.366	106	.042	1,650	53.00	554.0	--	--	--	--	6.4
32AW0577	36	.371	106	.059	1,200	30.00	427.0	--	50	480	30.0	6.9
33AW0577	36	.370	106	.058	1,600	45.00	540.0	--	85	570	31.0	6.4
34AW0577	36	.371	106	.058	1,350	27.00	256.0	--	160	620	170.0	6.7
35AW0577	36	.371	106	.058	1,300	88.00	197.0	--	100	610	51.0	7.5
36AW0577	36	.369	106	.057	1,200	150.00	279.0	--	140	590	56.0	6.4
37AW0577	36	.367	106	.051	1,400	46.00	132.0	--	130	400	49.0	8.6
38AW0577	36	.367	106	.050	1,700	55.00	247.0	--	140	610	56.0	6.6
39AW0577	36	.368	106	.049	1,700	56.00	112.0	--	120	620	68.0	6.4
40AW0577	36	.416	106	.017	1,600	2.10	88.0	--	120	87	<.5	7.9
41AW0577	36	.454	106	.042	140	.15	24.0	--	160	73	32.0	6.9
42AW0577	36	.306	106	.053	3,850	5.10	1,158.0	--	100	92	<.5	7.0
43AW0577	36	.306	106	.053	3,700	6.40	1,794.0	--	75	93	<.5	7.4
44AW0577	36	.306	106	.053	4,000	3.30	1,541.0	--	100	81	<.5	6.9
45AW0577	36	.306	106	.053	3,800	3.40	1,699.0	--	100	82	<.5	7.1
46AW0577	36	.306	106	.053	3,700	7.00	1,597.0	--	125	100	<.5	7.3
47AW0577	36	.519	106	.041	70	.08	23.0	--	85	26	1.0	8.1
48AW0577	36	.538	106	.058	100	.20	278.0	--	145	37	10.0	6.7
49AW0577	36	.587	106	.461	125	.11	37.2	--	115	44	6.0	8.3
50AW0577	36	.557	106	.081	295	9.00	94.0	--	135	110	<.5	7.9
51AW0577	36	.584	106	.050	210	.93	93.0	--	120	92	<.5	7.4
52AW0577	36	.610	106	.024	110	.09	28.0	--	105	34	<.5	9.8
53AW0577	36	.641	106	.193	175	.60	75.0	--	110	87	<.5	8.1
54AW0577	36	.379	106	.061	1,550	52.00	401.0	--	115	560	47.0	6.3
55AW0577	36	.574	106	.153	200	.57	67.0	--	140	92	2.0	6.9
56AW0577	36	.592	106	.161	230	1.60	82.0	--	125	110	<.5	8.4
57AW0577	36	.591	106	.160	220	1.70	62.8	--	125	--	--	8.2
58BW0577	36	.390	106	.032	1,350	56.00	457.0	--	170	500	46.0	6.3
59BW0577	36	.383	106	.033	1,400	43.00	464.0	--	60	540	84.0	6.2

Table 3, continued

sample	SAR	H2OTE °C	AG-D µg/ℓ	AL-D µg/ℓ	AS-D µg/ℓ	B-D µg/ℓ	BA-D µg/ℓ	BE-D µg/ℓ	BI-D µg/ℓ	BICAR mg/ℓ	C-INORG mg/ℓ	C-ORG mg/ℓ
Rio Ojo Caliente Gaging Station, 1975												
13A20775	--	18.0	<4.00	520	4.3	320.0	50	<4.00	<40.0	--	--	7.2
1976 Samples												
01170576	3.2	27.5	<2.00	50	23.0	400.0	50	<5.00	<20.0	--	--	--
02170576	3.2	26.0	<3.00	220	23.0	--	50	<5.00	<30.0	--	--	--
03170576	.4	11.5	<.20	90	1.0	--	50	<.20	<3.0	--	--	--
04170576	.3	14.0	<.20	90	1.0	30.0	40	<.20	<2.0	--	--	--
05170576	.6	17.0	<.20	50	2.0	30.0	80	<1.00	<4.0	--	--	--
06170576	13.0	22.0	<2.00	80	6.0	250.0	40	<4.00	<17.0	--	--	--
07170576	20.0	22.5	<2.00	270	6.0	--	50	<5.00	<30.0	--	--	--
08170576	.4	21.0	<.20	60	2.0	--	80	<1.00	<5.0	--	--	--
09180576	.3	12.0	<.20	70	1.0	30.0	80	<1.00	<3.0	--	--	--
10180576	.3	13.5	<.20	60	1.0	20.0	60	<1.00	<3.0	--	--	--
11180576	.3	15.5	<.20	50	1.0	--	60	<1.00	<4.0	--	--	--
12180576	.3	17.0	<.20	90	1.0	10.0	50	--	<2.0	--	--	--
13180576	.2	16.5	<.20	120	1.0	20.0	60	<1.00	<2.0	--	--	--
14180576	.2	15.0	<.20	110	1.0	30.0	70	<1.00	<2.0	--	--	--
Rio Ojo Caliente Gaging Station, 1976												
15180576	.3	18.0	<.20	100	2.0	40.0	50	<1.00	<3.0	--	--	--
1976 Samples, Continued												
16190576	1.0	14.5	<.10	1,700	4.0	20.0	80	--	<2.0	--	--	--
17190576	.3	12.5	<.20	30	1.0	20.0	90	<1.00	<4.0	--	--	--
18190576	.2	17.0	<.20	200	1.0	--	60	<.20	<3.0	--	--	--
19190576	.2	13.0	<.10	120	1.0	--	40	<.20	<2.0	--	--	--
20190576	.2	15.0	<.20	120	1.0	--	50	<.20	<2.0	--	--	--
21190576	.2	14.0	<.10	200	<.5	20.0	30	<.10	<1.0	--	--	--
22200576	.2	8.5	<.10	160	1.0	20.0	40	<.10	<1.0	--	--	--
23200576	--	11.5	<.20	50	--	--	90	<1.00	<3.0	--	--	--
24200576	.2	9.0	<.10	170	--	--	40	<.10	<2.0	--	--	--
25200576	.2	7.0	<.10	140	<.5	20.0	40	<.10	<1.0	--	--	--
26200576	.3	9.0	<.20	90	2.0	--	80	<1.00	<4.0	--	--	--
27200576	.3	11.0	<.20	30	2.0	20.0	60	<1.00	<4.0	--	--	--
28200576	.2	10.0	<.10	240	1.0	--	40	<.10	<1.0	--	--	--
29200576	.2	13.0	<.10	120	1.0	20.0	50	<.10	<1.0	--	--	--

Table 3, continued

sample	SAR	H2OTE °C	AG-D µg/ℓ	AL-D µg/ℓ	AS-D µg/ℓ	B-D µg/ℓ	BA-D µg/ℓ	BE-D µg/ℓ	BI-D µg/ℓ	BICAR mg/ℓ	C-INORG mg/ℓ	C-ORG mg/ℓ
					1977 Samples							
01AW0577	3.2	26.9	<.16	<30	24.0	500.0	44	5.70	<3.5	670	171.0	1.5
					Rio Ojo Caliente Gaging Station, 1977							
15AW0577	2.7	12.0	<.10	<30	8.0	220.0	41	<.69	<22.0	420	89.0	1.9
					1977 Samples, Continued							
05BW0577	2.1	13.5	<.09	60	5.0	200.0	100	<.64	<20.0	410	79.0	2.8
30AW0577	3.2	25.5	<16.00	<30	26.0	390.0	34	2.00	<34.0	670	140.0	<.5
31AW0577	--	27.0	--	<30	25.0	--	--	--	--	--	--	--
32AW0577	3.2	22.0	<.13	<30	11.0	330.0	94	<.90	<29.0	550	120.0	2.0
33AW0577	3.3	18.5	<.15	<30	21.0	380.0	47	<1.00	<33.0	660	168.0	<.5
34AW0577	3.0	16.5	<.16	<30	8.0	370.0	110	1.60	<34.0	550	115.0	1.0
35AW0577	3.2	17.5	<.16	<30	24.0	370.0	58	2.60	<35.0	680	140.0	1.2
36AW0577	3.2	14.0	<.15	36	10.0	550.0	26	2.60	<34.0	650	155.0	<.5
37AW0577	4.1	26.5	<.13	<30	16.0	330.0	37	<.89	<29.0	430	95.0	6.4
38AW0577	3.2	23.5	<.16	<30	24.0	310.0	36	2.20	<35.0	680	166.0	.6
39AW0577	3.2	27.0	<.16	<30	21.0	510.0	42	3.20	<35.0	670	171.0	<.5
40AW0577	15.0	16.5	.14	320	5.0	100.0	79	<.87	<28.0	390	100.0	7.0
41AW0577	.3	8.0	<.02	200	2.0	4.5	31	<.11	<3.5	50	13.0	17.0
42AW0577	45.0	40.0	<.39	<30	200.0	620.0	130	36.00	<85.0	2,090	380.0	--
43AW0577	45.0	30.0	<.39	<30	200.0	540.0	110	31.00	<85.0	2,110	395.0	<.5
44AW0577	48.0	24.0	<.40	<30	200.0	590.0	120	36.00	<86.0	2,120	398.0	<.5
45AW0577	48.0	38.5	<.38	<30	200.0	460.0	92	23.00	<84.0	2,090	400.0	<.5
46AW0577	43.0	36.0	<.38	<30	200.0	460.0	130	42.00	<84.0	2,080	410.0	<.5
47AW0577	.1	10.0	<.01	88	2.0	20.0	32	<.06	<2.2	30	6.8	11.0
48AW0577	.3	10.0	<.01	140	<1.0	7.0	32	.27	<2.2	33	75.0	8.7
49AW0577	.2	15.0	<.01	36	2.0	7.0	23	<.09	<2.8	46	12.0	21.0
50AW0577	.9	20.0	<.03	<30	4.0	4.8	60	<.20	<6.6	140	33.0	2.9
51AW0577	.3	10.0	<.02	<30	<1.0	6.3	41	<.16	<5.3	120	29.0	2.3
52AW0577	.2	14.0	<.01	42	5.0	21.0	35	<.09	<3.0	42	11.0	23.0
53AW0577	.2	10.5	<.02	<30	<1.0	2.0	43	<.14	<5.0	110	25.0	2.9
54AW0577	2.9	26.0	<.15	110	24.0	390.0	32	2.60	<32.0	630	149.0	<.5
55AW0577	.3	7.5	<.02	<30	<1.0	29.0	88	<.16	<5.0	110	23.0	1.4
56AW0577	.3	11.5	<.03	<30	2.0	21.0	33	<.17	<6.0	140	32.0	.4
57AW0577	--	13.0	--	<30	2.0	--	--	--	--	--	--	--
58BW0577	2.7	18.0	<.14	70	40.0	270.0	120	3.90	<30.0	550	143.0	3.2
59BW0577	2.6	11.5	<.14	<30	25.0	290.0	37	3.90	<31.0	560	155.0	--

Table 3, continued

sample	CA-D mg/ℓ	CD-D µg/ℓ	CL-D mg/ℓ	CO-D µg/ℓ	CR-D µg/ℓ	CU-D µg/ℓ	F-D mg/ℓ	FE-D µg/ℓ	GA-D µg/ℓ	GE-D µg/ℓ	HG-D µg/ℓ	K-D mg/ℓ
Rio Ojo Caliente Gaging Station, 1975												
13A20775	76.9	<4	--	--	<4.00	<20.00	--	260	<2.00	<4.00	<.500	6.3
1976 Samples												
01170576	140.0	1	--	<20.00	<20.00	<5.00	1.16	50	<10.00	<20.00	.500	16.0
02170576	140.0	<1	--	<20.00	<20.00	5.00	1.18	100	<7.00	<30.00	<.100	18.0
03170576	16.0	<1	--	<2.00	<2.00	2.00	.14	110	<1.00	<3.00	<.100	1.9
04170576	11.0	<1	--	<2.00	<2.00	2.00	.08	130	<1.00	<2.00	.400	1.4
05170576	32.0	<1	--	<4.00	<4.00	2.00	.40	60	<2.00	<4.00	.200	2.9
06170576	33.0	<1	--	<17.00	<17.00	<4.00	11.60	70	<8.00	<20.00	.200	4.5
07170576	20.0	<1	--	<20.00	<20.00	5.00	5.80	170	<7.00	<30.00	<.050	4.5
08170576	29.0	<1	--	<4.00	<4.00	2.00	.36	80	<1.00	<5.00	--	2.8
09180576	28.0	<1	--	<3.00	<3.00	2.00	.19	130	<2.00	<3.00	.200	2.7
10180576	21.0	<1	--	<3.00	<3.00	2.00	.15	80	<1.00	<3.00	.200	2.3
11180576	20.0	<1	--	<3.00	<3.00	2.00	.16	130	<1.00	<4.00	<.050	2.3
12180576	17.0	<1	--	<2.00	<2.00	1.00	.17	80	<1.00	<2.00	1.000	2.0
13180576	16.0	<1	--	<2.00	<2.00	2.00	.14	160	<1.00	<2.00	<.050	2.1
14180576	15.0	<1	--	<2.00	<2.00	2.00	.10	150	<1.00	<2.00	.500	2.0
Rio Ojo Caliente Gaging Station, 1976												
15180576	38.0	<1	--	<3.00	<3.00	2.00	.17	110	<1.00	<4.00	<.050	1.8
1976 Samples, Continued												
16190576	10.0	<1	--	<2.00	<2.00	2.00	.09	1,000	<1.00	<2.00	.500	1.8
17190576	42.0	<1	--	<4.00	<4.00	2.00	.48	20	<1.00	<6.00	<.050	2.1
18190576	13.0	<1	--	<2.00	<2.00	2.00	.14	220	<1.00	<3.00	<.050	1.7
19190576	11.0	<1	--	<2.00	<2.00	4.00	.09	110	<1.00	<2.00	<.050	1.3
20190576	14.0	<1	--	<2.00	<2.00	1.00	.11	180	<1.00	<3.00	--	1.2
21190576	7.5	<1	--	<1.00	<1.00	1.00	.08	240	<1.00	<1.00	.400	1.1
22200576	7.6	<1	--	<1.00	<1.00	2.00	.06	240	<1.00	<1.00	.800	1.3
23200576	--	<1	--	<2.00	<2.00	2.00	.09	100	<1.00	<4.00	--	--
24200576	6.4	<1	--	<1.00	2.00	1.00	.05	200	<.20	<2.00	<.050	1.1
25200576	5.1	<1	--	<1.00	<1.00	2.00	.04	200	<.20	<1.00	.500	.1
26200576	27.0	--	--	<3.00	7.00	1.00	.17	80	<1.00	<4.00	<.050	1.7
27200576	37.0	<1	--	<4.00	7.00	1.00	.21	20	<2.00	<6.00	<.050	1.8
28200576	6.3	<1	--	<1.00	<1.00	1.00	.04	250	<.20	<1.00	<.050	1.0
29200576	6.8	<1	--	<1.00	<1.00	1.00	.05	150	<1.00	<1.00	.200	1.3

Table 3, continued

sample	CA-D mg/ℓ	CD-D µg/ℓ	CL-D mg/ℓ	CO-D µg/ℓ	CR-D µg/ℓ	CU-D µg/ℓ	F-D mg/ℓ	FE-D µg/ℓ	GA-D µg/ℓ	GE-D µg/ℓ	HG-D µg/ℓ	K-D mg/ℓ
						1977 Samples						
01AW0577	140.0	<1	110.0	<1.60	<1.60	<4.60	1.00	10	<3.50	<7.30	.020	16.0
						Rio Ojo Caliente Gaging Station, 1977						
15AW0577	98.0	<1	68.0	2.00	<1.00	4.00	.62	30	<2.00	<4.60	<.010	9.5
						1977 Samples, Continued						
05BW0577	92.0	<1	51.0	2.00	<.94	4.00	.64	20	<2.00	<4.30	<.010	6.4
30AW0577	140.0	<1	110.0	2.80	<1.60	5.00	.98	10	<3.40	<7.00	.100	30.0
31AW0577	--	<1	--	--	--	--	.88	--	--	--	.032	--
32AW0577	130.0	<1	94.0	<1.30	<1.30	3.70	.14	180	<3.00	<6.00	.045	13.0
33AW0577	150.0	<1	100.0	<1.50	6.50	4.40	.50	80	<3.00	<7.00	.058	13.0
34AW0577	160.0	<1	110.0	3.10	<1.60	3.40	1.46	1,700	<3.40	<7.20	<.010	15.0
35AW0577	150.0	<1	110.0	3.10	<1.60	3.50	.90	1,500	<3.50	<7.00	.100	16.0
36AW0577	150.0	<1	110.0	5.00	<1.50	<3.40	.90	90	<3.40	<7.00	.048	15.0
37AW0577	80.0	2	110.0	2.50	1.60	3.30	.56	30	<2.90	<6.00	.048	16.0
38AW0577	150.0	<1	110.0	3.00	3.00	5.00	.92	40	<3.00	<7.00	.078	16.0
39AW0577	150.0	<1	110.0	3.00	3.00	4.00	.88	50	<3.50	<7.00	.048	16.0
40AW0577	30.0	<1	180.0	2.70	4.00	5.00	9.60	200	<3.00	<6.00	<.010	5.1
41AW0577	22.0	6	4.1	<.16	.27	.76	.23	50	<.35	<.74	<.010	1.8
42AW0577	24.0	<1	220.0	<3.90	7.70	<8.50	6.00	60	<9.00	<18.00	.012	34.0
43AW0577	24.0	<1	230.0	6.00	6.00	<9.00	3.80	70	<9.00	<18.00	<.010	34.0
44AW0577	22.0	<1	230.0	<3.90	6.00	11.00	8.80	60	<9.00	<18.00	<.010	36.0
45AW0577	21.0	<1	240.0	6.50	4.60	<8.00	6.80	130	<8.00	<18.00	<.010	33.0
46AW0577	26.0	3	230.0	<3.80	5.00	10.60	7.20	110	<8.00	<17.00	.015	33.0
47AW0577	8.1	2	1.8	.20	.39	1.10	.10	50	<.22	<.46	<.010	6.2
48AW0577	11.0	<1	2.2	.23	.94	1.50	.15	140	<.22	<.47	<.010	1.3
49AW0577	13.0	<1	5.4	.19	<.13	.44	.24	210	<.28	<.59	<.010	6.7
50AW0577	34.0	<1	12.0	.69	.98	1.30	.80	30	<.66	<1.40	<.010	1.6
51AW0577	29.0	<1	2.6	.51	<.24	1.50	.34	30	<.53	<1.10	<.010	3.4
52AW0577	9.8	<1	5.2	.66	.59	2.00	.25	330	<.29	<.60	<.010	11.0
53AW0577	29.0	3	1.1	<.21	1.00	.91	.18	20	<.45	<.95	<.010	1.1
54AW0577	140.0	2	99.0	2.60	<1.40	5.00	1.20	40	<3.00	<7.00	<.010	14.0
55AW0577	29.0	<1	4.8	<.24	<.24	.81	.18	20	<.52	<1.10	<.010	2.2
56AW0577	35.0	<1	1.8	.50	.40	.80	.22	20	<.60	<1.00	<.010	1.5
57AW0577	--	<1	--	--	--	--	.26	--	--	--	<.010	--
58BW0577	130.0	<1	82.0	2.80	<1.40	3.80	.55	10	<3.00	<6.00	<.010	11.0
59BW0577	140.0	<1	89.0	<1.40	<1.40	3.70	.52	30	<3.20	<6.60	<.010	11.0

Table 3, continued

sample	LI-D µg/ℓ	MG-D mg/ℓ	MN-D µg/ℓ	MO-D µg/ℓ	NA-D mg/ℓ	NA%	NI-D µg/ℓ	N2N3 mg/ℓ	P-TL mg/ℓ	PB-D µg/ℓ	PO4-TL mg/ℓ
Rio Ojo Caliente Gaging Station, 1975											
13A20775	160	21.3	39.0	<1.00	67.6	--	<20.00	--	<.400	<4.0	--
1976 Samples											
01170576	510	58.0	<20.0	<10.00	180.0	39	<20.00	--	--	<20.0	--
02170576	500	59.0	<20.0	<10.00	180.0	39	<20.00	--	--	<20.0	--
03170576	20	3.2	20.0	1.00	7.5	23	<2.00	--	--	<2.0	--
04170576	6	1.8	10.0	<1.00	4.5	21	2.00	--	--	<2.0	--
05170576	30	6.5	20.0	3.00	15.0	23	<4.00	--	--	<4.0	--
06170576	1,200	2.5	<20.0	40.00	290.0	87	<17.00	--	--	<17.0	--
07170576	1,600	3.3	<20.0	40.00	360.0	92	<20.00	--	--	<20.0	--
08170576	10	5.7	20.0	2.00	10.0	18	<4.00	--	--	5.0	--
09180576	<10	5.5	50.0	<2.00	7.5	15	4.00	--	--	<3.0	--
10180576	<10	4.5	50.0	2.00	5.8	15	<3.00	--	--	3.0	--
11180576	<10	4.1	40.0	<1.00	5.4	14	<3.00	--	--	2.0	--
12180576	<10	3.4	10.0	1.00	4.4	14	3.00	--	--	<2.0	--
13180576	<10	2.9	20.0	<1.00	4.0	14	3.00	--	--	<2.0	--
14180576	<10	2.8	10.0	<1.00	3.7	14	4.00	--	--	3.0	--
Rio Ojo Caliente Gaging Station, 1976											
15180576	30	5.6	10.0	<2.00	8.5	13	<3.00	--	--	9.0	--
1976 Samples, Continued											
16190576	<10	2.0	8.0	<1.00	13.0	44	4.00	--	--	4.0	--
17190576	<10	5.2	4.0	<2.00	8.5	13	<4.00	--	--	<4.0	--
18190576	<10	2.5	40.0	<1.00	3.5	15	2.00	--	--	2.0	--
19190576	<10	1.8	20.0	<1.00	2.9	15	1.00	--	--	5.0	--
20190576	<10	2.9	40.0	<1.00	3.5	14	2.00	--	--	2.0	--
21190576	<10	.8	120.0	<1.00	1.9	15	2.00	--	--	3.0	--
22200576	<10	.7	10.0	<1.00	1.9	15	3.00	--	--	2.0	--
23200576	<10	--	50.0	<1.00	--	--	<2.00	--	--	3.0	--
24200576	<10	.5	10.0	<.10	1.9	18	1.00	--	--	2.0	--
25200576	<10	.3	7.0	1.00	1.8	22	2.00	--	--	1.0	--
26200576	<10	4.1	20.0	2.00	6.1	13	<3.00	--	--	3.0	--
27200576	<10	5.7	5.0	<2.00	8.5	14	<4.00	--	--	4.0	--
28200576	<10	.3	30.0	<.10	1.9	18	2.00	--	--	4.0	--
29200576	<10	.7	10.0	<1.00	1.9	16	2.00	--	--	2.0	--

Table 3, continued

sample	LI-D µg/ℓ	MG-D mg/ℓ	MN-D µg/ℓ	MO-D µg/ℓ	NA-D mg/ℓ	NA%	NI-D µg/ℓ	N2N3 mg/ℓ	P-TL mg/ℓ	PB-D µg/ℓ	PO4-TL mg/ℓ
					1977 Samples						
01AW0577	430	59.0	10.0	<3.50	180.0	39	8.10	.130	.080	<16.0	.250
					Rio Ojo Caliente Gaging Station, 1977						
15AW0577	240	34.0	150.0	2.30	120.0	40	<4.60	<.005	.040	43.0	.120
					1977 Samples, Continued						
05BW0577	200	25.0	90.0	10.00	88.0	36	5.20	.090	.010	<9.4	.030
30AW0577	420	57.0	20.0	<3.40	180.0	39	<7.00	.140	.070	<16.0	.210
31AW0577	470	--	--	--	--	--	--	--	--	--	--
32AW0577	410	38.0	60.0	<3.00	160.0	41	<6.00	.040	.040	<13.0	.120
33AW0577	460	48.0	40.0	7.00	180.0	40	<7.00	.470	.090	<15.0	.280
34AW0577	380	54.0	130.0	<3.40	170.0	37	<7.20	.010	.030	<16.0	.090
35AW0577	480	57.0	60.0	<3.50	180.0	38	9.50	.010	.030	<16.0	.090
36AW0577	460	52.0	4.0	<3.40	180.0	39	22.00	.010	.070	<15.0	.210
37AW0577	480	49.0	30.0	<2.90	190.0	50	<6.00	.230	.020	<13.0	.060
38AW0577	500	58.0	<.5	<3.00	180.0	38	<7.00	.090	.070	<16.0	.210
39AW0577	500	59.0	4.0	4.80	180.0	38	<7.30	.140	.070	<16.0	.210
40AW0577	1,200	3.0	200.0	44.00	320.0	88	<6.00	1.500	1.500	<13.0	4.600
41AW0577	<5	4.3	1.0	<.35	5.1	13	<.74	.030	<.005	<1.6	<.005
42AW0577	3,400	7.8	40.0	11.00	1,000.0	94	<18.00	.020	<.005	<39.0	<.005
43AW0577	3,400	8.0	8.0	15.00	1,000.0	94	<18.00	.040	.200	<39.0	.610
44AW0577	3,400	6.4	10.0	10.00	1,000.0	94	<18.00	.040	.090	<39.0	.280
45AW0577	3,500	7.1	40.0	8.00	1,000.0	95	<18.00	<.005	.160	<38.0	.490
46AW0577	3,400	9.5	40.0	14.00	1,000.0	94	<17.00	.010	.210	<38.0	.640
47AW0577	<5	1.5	20.0	<.22	1.0	6	.61	.050	<.005	1.1	<.005
48AW0577	<5	2.3	<.5	<.22	4.7	21	.78	.020	.010	<1.0	.030
49AW0577	<5	2.7	20.0	<.28	3.0	11	<.59	.010	<.005	<1.3	<.005
50AW0577	23	6.0	50.0	.77	21.0	29	<1.40	.120	.010	<3.0	.030
51AW0577	<5	4.8	150.0	1.40	7.2	14	<1.10	.010	.060	<2.4	.180
52AW0577	<5	2.4	40.0	.33	3.3	13	1.00	.070	.080	<1.0	.250
53AW0577	<5	3.6	20.0	<.45	5.3	12	<.95	.010	.010	<2.0	.030
54AW0577	440	52.0	20.0	<3.00	160.0	37	<7.00	.110	.090	<15.0	.280
55AW0577	<5	4.8	<.5	.62	6.0	12	<1.00	.100	<.005	<2.0	<.005
56AW0577	<5	4.5	<.5	.74	7.6	13	<1.00	.180	1.200	<3.0	3.700
57AW0577	<5	--	--	--	--	--	--	--	--	--	--
58BW0577	220	42.0	10.0	5.00	130.0	37	<6.00	.390	.040	<14.0	.120
59BW0577	240	47.0	<.5	7.70	140.0	35	<6.60	.260	.040	<14.0	.120

Table 3, continued

sample	RA-D pC/ℓ	SE-D µg/ℓ	SIO2-D mg/ℓ	SN-D µg/ℓ	SO4-D mg/ℓ	SR-D µg/ℓ	TI-D µg/ℓ	V-D µg/ℓ	ZN-D µg/ℓ	ZR-D µg/ℓ
Rio Ojo Caliente Gaging Station, 1975										
13A20775	.12	<.5	--	<4.00	--	630	<20.0	<4.00	11	<8.00
1976 Samples										
01170576	--	--	--	<20.00	--	1,100	<5.0	<10.00	30	<20.00
02170576	--	--	--	<20.00	--	1,100	20.0	<15.00	20	<30.00
03170576	--	--	--	<2.00	--	90	4.0	2.00	<10	<3.00
04170576	--	--	--	<2.00	--	80	2.0	1.00	<10	<2.00
05170576	--	--	--	<4.00	--	190	2.0	3.00	20	<4.00
06170576	--	--	--	<17.00	--	410	<4.0	<8.00	<10	<20.00
07170576	--	--	--	<20.00	--	500	<20.0	<15.00	<10	<30.00
08170576	--	--	--	<4.00	--	160	4.0	4.00	<10	<5.00
09180576	--	--	--	<3.00	--	140	1.0	2.00	10	<3.00
10180576	--	--	--	<3.00	--	110	1.0	2.00	<10	<3.00
11180576	--	--	--	<3.00	--	80	3.0	2.00	<10	<4.00
12180576	--	--	--	<2.00	--	80	3.0	1.00	<10	<2.00
13180576	--	--	--	<2.00	--	80	2.0	2.00	70	<2.00
14180576	--	--	--	<2.00	--	90	2.0	2.00	<10	<2.00
Rio Ojo Caliente Gaging Station, 1976										
15180576	--	--	--	<3.00	--	150	<3.0	2.00	10	<4.00
1976 Samples, Continued										
16190576	--	--	--	<2.00	--	60	40.0	2.00	10	2.00
17190576	--	--	--	<4.00	--	150	<4.0	<3.00	<10	<6.00
18190576	--	--	--	<2.00	--	70	8.0	2.00	30	<3.00
19190576	--	--	--	<2.00	--	50	4.0	1.00	10	<2.00
20190576	--	--	--	<2.00	--	80	5.0	2.00	<10	<3.00
21190576	--	--	--	<1.00	--	30	6.0	1.00	20	<1.00
22200576	--	--	--	<1.00	--	50	8.0	1.00	<10	<1.00
23200576	--	--	--	<3.00	--	120	3.0	<2.00	<10	<4.00
24200576	--	--	--	<1.00	--	40	5.0	1.00	<10	<2.00
25200576	--	--	--	<1.00	--	40	4.0	1.00	<10	<1.00
26200576	--	--	--	<3.00	--	110	4.0	2.00	70	<4.00
27200576	--	--	--	<4.00	--	160	<4.0	5.00	<10	<6.00
28200576	--	--	--	<1.00	--	40	8.0	1.00	20	<1.00
29200576	--	--	--	<1.00	--	50	3.0	1.00	10	<2.00

Table 3, continued

sample	RA-D pCi/ℓ	SE-D µg/ℓ	SIO2-D mg/ℓ	SN-D µg/ℓ	SO4-D mg/ℓ	SR-D µg/ℓ	TI-D µg/ℓ	V-D µg/ℓ	ZN-D µg/ℓ	ZR-D µg/ℓ
					1977 Samples					
01AW0577	4.20	<2.0	21.0	<11.00	270.0	1,700	120.0	9.20	<20	<7.30
					Rio Ojo Caliente Gaging Station, 1977					
15AW0577	.68	<2.0	22.0	<6.90	180.0	1,000	<69.0	<4.80	<20	<4.60
					1977 Samples, Continued					
05BW0577	.18	<2.0	24.0	<6.40	110.0	1,400	78.0	7.30	<20	<4.30
30AW0577	1.70	<2.0	19.0	<11.00	270.0	1,200	<100.0	5.70	60	<7.00
31AW0577	--	<2.0	--	--	--	--	--	--	<20	--
32AW0577	.24	<2.0	27.0	<9.00	250.0	1,500	<90.0	<4.00	<20	7.00
33AW0577	.28	<2.0	31.0	<10.00	250.0	1,500	<100.0	7.60	<20	<7.00
34AW0577	.53	<2.0	29.0	<11.00	390.0	1,600	<110.0	<5.00	<20	<7.20
35AW0577	.43	<2.0	33.0	<11.00	290.0	1,500	<110.0	6.00	<20	<7.00
36AW0577	.63	<2.0	31.0	<10.00	280.0	1,200	<100.0	15.00	<20	<7.00
37AW0577	.31	<2.0	32.0	<8.90	280.0	770	92.0	<4.20	<20	<6.00
38AW0577	3.10	<2.0	22.0	<11.00	270.0	1,400	<110.0	6.00	<20	<7.00
39AW0577	2.90	<2.0	20.0	<11.00	270.0	1,800	120.0	7.20	<20	<7.00
40AW0577	--	<2.0	19.0	<9.00	150.0	<520	<87.0	<4.00	<20	<6.00
41AW0577	.12	<2.0	17.0	<1.10	31.0	82	<11.0	<.52	<20	<.74
42AW0577	24.00	3.0	52.0	<26.00	160.0	1,800	<260.0	<12.00	<20	<18.00
43AW0577	37.00	<2.0	58.0	<26.00	160.0	<1,700	<260.0	<12.00	<20	<18.00
44AW0577	24.00	4.0	59.0	<27.00	160.0	1,500	300.0	<12.00	<20	<18.00
45AW0577	.19	<2.0	58.0	<6.80	160.0	1,100	<260.0	<12.00	<20	<18.00
46AW0577	51.00	3.0	54.0	<26.00	160.0	1,700	260.0	<12.00	<20	<17.00
47AW0577	.37	<2.0	2.1	<.68	5.2	68	<6.5	1.50	<20	<.46
48AW0577	.51	<2.0	10.0	<.69	13.0	58	8.0	.46	<20	.81
49AW0577	.18	<2.0	1.3	<.87	6.6	23	<8.7	<.41	<20	<.60
50AW0577	.34	3.0	22.0	<2.00	19.0	<120	22.0	6.50	<20	<1.40
51AW0577	.19	<2.0	37.0	<1.60	4.5	170	<16.0	7.70	<20	<1.10
52AW0577	--	<2.0	8.6	<.90	3.1	43	9.0	3.00	<20	.62
53AW0577	.13	<2.0	14.0	<1.40	4.2	140	<14.0	.74	<20	<.95
54AW0577	2.00	<2.0	19.0	<10.00	260.0	1,300	<99.0	7.00	<20	<7.00
55AW0577	.44	<2.0	26.0	<2.00	8.8	<160	<16.0	2.10	<20	<1.00
56AW0577	--	<2.0	33.0	<2.00	4.2	130	<17.0	2.30	<20	<1.00
57AW0577	--	<2.0	--	--	--	--	--	--	<20	--
58BW0577	1.10	<2.0	13.0	<9.20	190.0	1,800	150.0	8.50	<20	8.80
59BW0577	1.30	<2.0	13.0	<6.40	230.0	2,000	140.0	11.00	<20	7.40

Table 4.--Chemical analysis of water samples collected in Rio Ojo Caliente drainage basin, N.M., element data normalized by conductivity

Units divided by μmhos/cm (except for conductivity, discharge, Eh, which are not normalized)

sample	LATT degrees	MIN decimal degrees	LONG degrees	MIN decimal degrees	COND μmhos/cm	U-D μg/ℓ	ALK mg/ℓ	DISCH ft³/sec	EH mv	HARD mg/ℓ
					Rio Ojo Caliente Gaging Station, 1975					
13A20775	36	.350	106	.044	715	2.2378	--	15.0	105	36.3636
					1976 Samples					
01170576	36	.366	106	.049	1,580	3.7975	40.3797	--	175	37.3418
02170576	36	.364	106	.047	2,450	1.6327	17.0204	--	200	24.0816
03170576	36	.364	106	.046	140	.8571	39.2143	--	160	37.8571
04170576	36	.383	106	.037	95	.5263	41.4737	--	140	36.8421
05170576	36	.383	106	.037	270	1.0370	50.3704	--	140	40.7407
06170576	36	.410	106	.015	1,380	.2101	24.0551	--	195	6.7391
07170576	36	.388	106	.016	1,680	.1131	26.4881	--	200	3.8095
08170576	36	.388	106	.015	220	.7727	55.0000	--	210	43.6364
09180576	36	.434	105	.078	210	.4762	51.9048	--	60	44.2857
10180576	36	.480	106	.001	165	.3636	51.5152	--	110	43.0303
11180576	36	.497	106	.010	150	.2667	53.3333	--	125	44.6667
12180576	36	.523	106	.028	130	.1538	51.5385	--	120	43.0769
13180576	36	.523	106	.011	120	.1667	50.8333	--	115	43.3333
14180576	36	.538	106	.028	105	.1905	55.2381	--	115	46.6667
					Rio Ojo Caliente Gaging Station, 1976					
15180576	36	.350	106	.044	235	1.4043	35.7447	109.0	120	51.0638
					1976 Samples, Continued					
16190576	36	.612	106	.114	89	.0674	37.0787	--	170	37.0787
17190576	36	.614	106	.107	280	.2500	52.8571	--	165	46.4286
18190576	36	.644	106	.059	95	.1053	52.6316	--	175	45.2632
19190576	36	.687	106	.120	83	.1205	48.1928	--	165	42.1687
20190576	36	.720	106	.156	100	.2000	52.0000	--	180	47.0000
21190576	36	.720	106	.157	55	.1091	40.0000	--	175	40.0000
22200576	36	.436	106	.063	60	.0667	40.0000	--	180	36.6667
23200576	36	.495	106	.113	180	.1111	42.7778	--	140	--
24200576	36	.495	106	.112	52	.1731	42.3077	--	120	34.6154
25200576	36	.592	106	.184	50	.1000	30.0000	--	165	28.0000
26200576	36	.591	106	.168	170	.4118	55.2941	--	200	49.4118
27200576	36	.546	106	.169	240	.6667	60.0000	--	195	50.0000
28200576	36	.546	106	.171	50	.1600	36.0000	--	170	34.0000
29200576	36	.537	106	.148	55	.1091	45.4545	--	170	36.3636

(See table 2 for explanation of abbreviations)

Table 4, continued

sample	LATT degrees	MIN decimal degrees	LONG degrees	MIN decimal degrees	COND µmhos/cm	U-D µg/ℓ	ALK mg/ℓ	DISCH ft^3/sec	EH mv	HARD mg/ℓ
					1977 Samples					
01AW0577	36	.367	106	.050	1,700	3.4118	33.0000	--	220	34.7059
					Rio Ojo Caliente Gaging Station, 1977					
15AW0577	36	.350	106	.044	1,100	2.7273	21.6364	9.2	175	34.5455
					1977 Samples, Continued					
05BW0577	36	.383	106	.356	900	2.5556	30.6667	--	105	36.6667
30AW0577	36	.364	106	.042	1,500	3.8000	36.7333	--	150	38.6667
31AW0577	36	.366	106	.042	1,650	3.2121	33.5758	--	--	--
32AW0577	36	.371	106	.059	1,200	2.5000	35.5833	--	50	40.0000
33AW0577	36	.370	106	.058	1,600	2.8125	33.7500	--	85	35.6250
34AW0577	36	.371	106	.058	1,350	2.0000	18.9630	--	160	45.9259
35AW0577	36	.371	106	.058	1,300	6.7692	15.1538	--	100	46.9231
36AW0577	36	.369	106	.057	1,200	12.5000	23.2500	--	140	49.1667
37AW0577	36	.367	106	.051	1,400	3.2857	9.4286	--	130	28.5714
38AW0577	36	.367	106	.050	1,700	3.2353	14.5294	--	140	35.8824
39AW0577	36	.368	106	.049	1,700	3.2941	6.5882	--	120	36.4706
40AW0577	36	.416	106	.017	1,600	.1313	5.5000	--	120	5.4375
41AW0577	36	.454	106	.042	140	.1071	17.1429	--	160	52.1429
42AW0577	36	.306	106	.053	3,850	.1325	30.0779	--	100	2.3896
43AW0577	36	.306	106	.053	3,700	.1730	48.4865	--	75	2.5135
44AW0577	36	.306	106	.053	4,000	.0825	38.5250	--	100	2.0250
45AW0577	36	.306	106	.053	3,800	.0895	44.7105	--	100	2.1579
46AW0577	36	.306	106	.053	3,700	.1892	43.1622	--	125	2.7027
47AW0577	36	.519	106	.041	70	.1143	32.8571	--	85	37.1429
48AW0577	36	.538	106	.058	100	.2000	278.0000	--	145	37.0000
49AW0577	36	.587	106	.461	125	.0880	29.7600	--	115	35.2000
50AW0577	36	.557	106	.081	295	3.0508	31.8644	--	135	37.2881
51AW0577	36	.564	106	.050	210	.4429	44.2857	--	120	43.8095
52AW0577	36	.610	106	.024	110	.0818	25.4545	--	105	30.9091
53AW0577	36	.641	106	.193	175	.3429	42.8571	--	110	49.7143
54AW0577	36	.379	106	.061	1,550	3.3548	25.8710	--	115	36.1290
55AW0577	36	.574	106	.153	200	.2850	33.5000	--	140	46.0000
56AW0577	36	.592	106	.161	230	.6957	35.6522	--	125	47.8261
57AW0577	36	.591	106	.160	220	.7727	28.5455	--	125	--
58BW0577	36	.390	106	.032	1,350	4.1481	33.8519	--	170	37.0370
59BW0577	36	.383	106	.033	1,400	3.0714	33.1429	--	60	38.5714

Table 4, continued

sample	HARD-NC mg/ℓ	PH	SAR	H2OTE °C	AG-D µg/ℓ	AL-D µg/ℓ	AS-D µg/ℓ	B-D µg/ℓ	BA-D µg/ℓ	BE-D µg/ℓ
				Rio Ojo Caliente Gaging Station, 1975						
13A20775	--	7.6	--	2.5175	<.5594	72.7273	.6014	44.7552	6.9930	<.5594
				1976 Samples						
01170576	--	6.3	.2025	1.7405	<.1266	3.1646	1.4557	25.3165	3.1646	<.3165
02170576	--	7.1	.1306	1.0612	<.1224	8.9796	.9388	--	2.0408	<.2041
03170576	--	7.5	.2857	8.2143	<.1429	64.2857	.7143	--	35.7143	<.1429
04170576	--	7.6	.3158	14.7368	<.2105	94.7368	1.0526	31.5789	42.1053	<.2105
05170576	--	7.1	.2222	6.2963	<.0741	18.5185	.7407	11.1111	29.6296	<.3704
06170576	--	8.2	.9420	1.5942	<.1449	5.7971	.4348	18.1159	2.8986	<.2899
07170576	--	8.7	1.1905	1.3393	<.1190	16.0714	.3571	--	2.9762	<.2976
08170576	--	7.1	.1818	9.5455	<.0909	27.2727	.9091	--	36.3636	<.4545
09180576	--	7.6	.1429	5.7143	<.0952	33.3333	.4762	14.2857	38.0952	<.4762
10180576	--	6.9	.1818	8.1818	<.1212	36.3636	.6061	12.1212	36.3636	<.6061
11180576	--	6.9	.2000	10.3333	<.1333	33.3333	.6667	--	40.0000	<.6667
12180576	--	7.1	.2308	13.0769	<.1538	69.2308	.7692	7.6923	38.4615	--
13180576	--	6.9	.1667	13.7500	<.1667	100.0000	.8333	16.6667	50.0000	<.8333
14180576	--	7.1	.1905	14.2857	<.1905	104.7619	.9524	28.5714	66.6667	<.9524
				Rio Ojo Caliente Gaging Station, 1976						
15180576	--	7.0	.1277	7.6596	<.0851	42.5532	.8511	17.0213	21.2766	<.4255
				1976 Samples, Continued						
16190576	--	6.1	1.1236	16.2921	<.1124	1,910.1123	4.4944	22.4719	89.8876	--
17190576	--	6.9	.1071	4.4643	<.0714	10.7143	.3571	7.1429	32.1429	<.3571
18190576	--	7.3	.2105	17.8947	<.2105	210.5263	1.0526	--	63.1579	<.2105
19190576	--	7.0	.2410	15.6627	<.1205	144.5783	1.2048	--	48.1928	<.2410
20190576	--	7.3	.2000	15.0000	<.2000	120.0000	1.0000	--	50.0000	<.2000
21190576	--	7.5	.3636	25.4545	<.1818	363.6364	<.9091	36.3636	54.5455	<.1818
22200576	--	--	.3333	14.1667	<.1667	266.6667	1.6667	33.3333	66.6667	<.1667
23200576	--	--	--	6.3889	<.1111	27.7778	--	--	50.0000	<.5556
24200576	--	--	.3846	17.3077	<.1923	326.9231	--	--	76.9231	<.1923
25200576	--	--	.4000	14.0000	<.2000	280.0000	<1.0000	40.0000	80.0000	<.2000
26200576	--	--	.1765	5.2941	<.1176	52.9412	1.1765	--	47.0588	<.5882
27200576	--	--	.1250	4.5833	<.0833	12.5000	.8333	8.3333	25.0000	<.4167
28200576	--	--	.4000	20.0000	<.2000	480.0000	2.0000	--	80.0000	<.2000
29200576	--	--	.3636	23.6364	<.1818	218.1818	1.8182	36.3636	90.9091	<.1818

Table 4, continued

sample	HARD-NC mg/ℓ	PH	SAR	H2OTE °C	AG-D µg/ℓ	AL-D µg/ℓ	AS-D µg/ℓ	B-D µg/ℓ	BA-D µg/ℓ	BE-D µg/ℓ
					1977 Samples					
01AW0577	2.5294	6.2	.1882	1.5824	<.0094	<1.7647	1.4118	29.4118	2.5882	.3353
					Rio Ojo Caliente Gaging Station, 1977					
15AW0577	3.6364	8.3	.2455	1.0909	<.0091	<2.7273	.7273	20.0000	3.7273	<.0627
					1977 Samples, Continued					
05BW0577	<.0556	7.3	.2333	1.5000	<.0100	6.6667	.5556	22.2222	11.1111	<.0711
30AW0577	2.3333	6.3	.2133	1.7000	<1.0667	<2.0000	1.7333	26.0000	2.2667	.1333
31AW0577	--	6.4	--	1.6364	--	<1.8182	1.5152	--	--	--
32AW0577	2.5000	6.9	.2667	1.8333	<.0108	<2.5000	.9167	27.5000	7.8333	<.0750
33AW0577	1.9375	6.4	.2063	1.1562	<.0094	<1.8750	1.3125	23.7500	2.9375	<.0625
34AW0577	12.5926	6.7	.2222	1.2222	<.0119	<2.2222	.5926	27.4074	8.1481	.1185
35AW0577	3.9231	7.5	.2462	1.3462	<.0123	<2.3077	1.8462	28.4615	4.4615	.2000
36AW0577	4.6667	6.4	.2667	1.1667	<.0125	3.0000	.8333	29.1667	2.1667	.2167
37AW0577	3.5000	8.6	.2929	1.8929	<.0093	<2.1429	1.1429	23.5714	2.6429	<.0636
38AW0577	3.2941	6.6	.1882	1.3824	<.0094	<1.7647	1.4118	18.2353	2.1176	.1294
39AW0577	4.0000	6.4	.1882	1.5882	<.0094	<1.7647	1.2353	30.0000	2.4706	.1882
40AW0577	<.0312	7.9	.9375	1.0312	.0088	20.0000	.3125	6.2500	4.9375	<.0544
41AW0577	22.8571	6.9	.2143	5.7143	<.0143	142.8571	1.4286	3.2143	22.1429	<.0786
42AW0577	<.0130	7.0	1.1688	1.0390	<.0101	<.7792	5.1948	16.1039	3.3766	.9351
43AW0577	<.0135	7.4	1.2162	.8108	<.0105	<.8108	5.4054	14.5946	2.9730	.8378
44AW0577	<.0125	6.9	1.2000	.6000	<.0100	<.7500	5.0000	14.7500	3.0000	.9000
45AW0577	<.0132	7.1	1.2632	1.0132	<.0100	<.7895	5.2632	12.1053	2.4211	.6053
46AW0577	<.0135	7.3	1.1622	.9730	<.0103	<.8108	5.4054	12.4324	3.5135	1.1351
47AW0577	1.4286	8.1	.1429	14.2857	<.0143	125.7143	2.8571	28.5714	45.7143	<.0857
48AW0577	10.0000	6.7	.3000	10.0000	<.0100	140.0000	<1.0000	7.0000	32.0000	.2700
49AW0577	4.8000	8.3	.1600	12.0000	<.0080	28.8000	1.6000	5.6000	18.4000	<.0720
50AW0577	<.1695	7.9	.3051	6.7797	<.0102	<10.1695	1.3559	1.6271	20.3390	<.0678
51AW0577	<.2381	7.4	.1429	4.7619	<.0095	<14.2857	<.4762	3.0000	19.5238	<.0762
52AW0577	<.4545	9.8	.1818	12.7273	<.0091	38.1818	4.5455	19.0909	31.8182	<.0818
53AW0577	<.2857	8.1	.1143	6.0000	<.0114	<17.1429	<.5714	1.1429	24.5714	<.0800
54AW0577	3.0323	6.3	.1871	1.6774	<.0097	7.0968	1.5484	25.1613	2.0645	.1677
55AW0577	1.0000	6.9	.1500	3.7500	<.0100	<15.0000	<.5000	14.5000	44.0000	<.0800
56AW0577	<.2174	8.4	.1304	5.0000	<.0130	<13.0435	.8696	9.1304	14.3478	<.0739
57AW0577	--	8.2	--	5.9091	--	<13.6364	.9091	--	--	--
58BW0577	3.4074	6.3	.2000	1.3333	<.0104	5.1852	2.9630	20.0000	8.8889	.2889
59BW0577	6.0000	6.2	.1857	.8214	<.0100	<2.1429	1.7857	20.7143	2.6429	.2786

Table 4, continued

sample	BI-D µg/ℓ	BICAR mg/ℓ	C-INORG mg/ℓ	C-ORG mg/ℓ	CA-D mg/ℓ	CD-D µg/ℓ	CL-D mg/ℓ	CO-D µg/ℓ	CR-D µg/ℓ	CU-D µg/ℓ
				Rio Ojo Caliente Gaging Station, 1975						
13A20775	<5.5944	--	--	1.0070	10.7552	<.5594	--	--	<.5594	<2.7972
				1976 Samples						
01170576	<1.2658	--	--	--	8.8608	.0633	--	<1.2658	<1.2658	<.3165
02170576	<1.2245	--	--	--	5.7143	<.0408	--	<.8163	<.8163	.2041
03170576	<2.1429	--	--	--	11.4286	<.7143	--	<1.4286	<1.4286	1.4286
04170576	<2.1053	--	--	--	11.5789	<1.0526	--	<2.1053	<2.1053	2.1053
05170576	<1.4815	--	--	--	11.8519	<.3704	--	<1.4815	<1.4815	.7407
	<1.2319	--	--	--	2.3913	<.0725	--	<1.2319	<1.2319	<.2899
07170576	<1.7857	--	--	--	1.1905	<.0595	--	<1.1905	<1.1905	.2976
08170576	<2.2727	--	--	--	13.1818	<.4545	--	<1.8182	<1.8182	.9091
09180576	<1.4286	--	--	--	13.3333	<.4762	--	<1.4286	<1.4286	.9524
10180576	<1.8182	--	--	--	12.7273	<.6061	--	<1.8182	<1.8182	1.2121
11180576	<2.6667	--	--	--	13.3333	<.6667	--	<2.0000	<2.0000	1.3333
12180576	<1.5385	--	--	--	13.0769	<.7692	--	<1.5385	<1.5385	.7692
13180576	<1.6667	--	--	--	13.3333	<.8333	--	<1.6667	<1.6667	1.6667
14180576	<1.9048	--	--	--	14.2857	<.9524	--	<1.9048	<1.9048	1.9048
				Rio Ojo Caliente Gaging Station, 1976						
15180576	<1.2766	--	--	--	16.1702	<.4255	--	<1.2766	<1.2766	.8511
				1976 Samples, Continued						
16190576	<2.2472	--	--	--	11.2360	<1.1236	--	<2.2472	<2.2472	2.2472
17190576	<1.4286	--	--	--	15.0000	<.3571	--	<1.4286	<1.4286	.7143
18190576	<3.1579	--	--	--	13.6842	<1.0526	--	<2.1053	<2.1053	2.1053
19190576	<2.4096	--	--	--	13.2530	<1.2048	--	<2.4096	<2.4096	4.8193
20190576	<2.0000	--	--	--	14.0000	<1.0000	--	<2.0000	<2.0000	1.0000
21190576	<1.8182	--	--	--	13.6364	<1.8182	--	<1.8182	<1.8182	1.8182
22201576	<1.6667	--	--	--	12.6667	<1.6667	--	<1.6667	<1.6667	3.3333
23200576	<1.6667	--	--	--	--	<.5556	--	<1.1111	<1.1111	1.1111
24200576	<3.8462	--	--	--	12.3077	<1.9231	--	<1.9231	3.8462	1.9231
25200576	<2.0000	--	--	--	10.2000	<2.0000	--	<2.0000	<2.0000	4.0000
26200576	<2.3529	--	--	--	15.8824	--	--	<1.7647	4.1176	.5882
27200576	<1.6667	--	--	--	15.4167	<.4167	--	<1.6667	2.9167	.4167
28200576	<2.0000	--	--	--	12.6000	<2.0000	--	<2.0000	<2.0000	2.0000
29200576	<1.8182	--	--	--	12.3636	<1.8182	--	<1.8182	<1.8182	1.8182

Table 4, continued

sample	BI-D µg/ℓ	BICAR mg/ℓ	C-INORG mg/ℓ	C-ORG mg/ℓ	CA-D mg/ℓ	CD-D µg/ℓ	CL-D mg/ℓ	CO-D µg/ℓ	CR-D µg/ℓ	CU-D µg/ℓ
					1977 Samples					
01AW0577	<.2059	39.4118	10.0588	.0882	8.2353	<.0588	6.4706	<.0941	<.0941	<.2706
					Rio Ojo Caliente Gaging Station, 1977					
15AW0577	<2.0000	38.1818	8.0909	.1727	8.9091	<.0909	6.1818	.1818	<.0909	.3636
					1977 Samples, Continued					
05BW0577	<2.2222	45.5556	8.7778	.3111	10.2222	<.1111	5.6667	.2222	<.1044	.4444
30AW0577	<2.2667	44.6667	9.3333	<.0333	9.3333	<.0667	7.3333	.1867	<.1067	.3333
31AW0577	--	--	--	--	--	<.0606	--	--	--	--
32AW0577	<2.4167	45.8333	10.0000	.1667	10.8333	<.0833	7.8333	<.1083	<.1083	.3083
33AW0577	<2.0625	41.2500	10.5000	<.0312	9.3750	<.0625	6.2500	<.0937	.4063	.2750
34AW0577	<2.5185	40.7407	8.5185	.0741	11.8519	<.0741	8.1481	.2296	<.1185	.2519
35AW0577	<2.6923	52.3077	10.7692	.0923	11.5385	<.0769	8.4615	.2385	<.1231	.2692
36AW0577	<2.8333	54.1667	12.9167	<.0417	12.5000	<.0833	9.1667	.4167	<.1250	<.2833
37AW0577	<2.0714	30.7143	6.7857	.4571	5.7143	.1429	7.8571	.1786	.1143	.2357
38AW0577	<2.0588	40.0000	9.7647	.0353	8.8235	<.0588	6.4706	.1765	.1765	.2941
39AW0577	<2.0588	39.4118	10.0588	<.0294	8.8235	<.0588	6.4706	.1765	.1765	.2353
40AW0577	<1.7500	24.3750	6.2500	.4375	1.8750	<.0625	11.2500	.1688	.2500	.3125
41AW0577	<2.5000	35.7143	9.2857	12.1429	15.7143	4.2857	2.9286	<.1143	.1929	.5429
42AW0577	<2.2078	54.2857	9.8701	--	.6234	<.0260	5.7143	<.1013	.2000	<.2208
43AW0577	<2.2973	57.0270	10.6757	<.0135	.6486	<.0270	6.2162	.1622	.1622	<.2432
44AW0577	<2.1500	55.0000	9.9500	<.0125	.5500	<.0250	5.7500	<.0975	.1500	.2750
45AW0577	<2.2105	55.0000	10.5263	<.0132	.5526	<.0263	6.3158	.1711	.1211	<.2105
46AW0577	<2.2703	56.2162	11.0611	<.0135	.7027	.0811	6.2162	<.1027	.1351	.2865
47AW0577	<3.1429	42.8571	9.7143	15.7143	11.5714	2.8571	2.5714	.2857	.5571	1.5714
48AW0577	<2.2000	33.0000	75.0000	8.7000	11.0000	<1.0000	2.2000	.2300	.9400	1.5000
49AW0577	<2.2400	36.8000	9.6000	16.8000	10.4000	<.8000	4.3200	.1520	<.1040	.3520
50AW0577	<2.2373	47.4576	11.1864	.9831	11.5254	<.3390	4.0678	.2339	.3322	.4407
51AW0577	<2.5238	57.1429	13.8095	1.0952	13.8095	<.4762	1.2381	.2429	<.1143	.7143
52AW0577	<2.7273	38.1818	10.0000	20.9091	8.9091	<.9091	4.7273	.6000	.5364	1.8182
53AW0577	<2.8571	62.8571	14.2857	1.6571	16.5714	1.7143	.6286	<.1200	.5714	.5200
54AW0577	<2.0645	40.6452	9.6129	<.0323	9.0323	.1290	6.3871	.1677	<.0903	.3226
55AW0577	<2.5000	55.0000	11.5000	.7000	14.5000	<.5000	2.4000	<.1200	<.1200	.4050
56AW0577	<2.6087	60.8696	13.9130	.1739	15.2174	<.4348	.7826	.2174	.1739	.3478
57AW0577	--	--	--	--	--	<.4545	--	--	--	--
58BW0577	<2.2222	40.7407	10.5926	.2370	9.6296	<.0741	6.0741	.2074	<.1037	.2815
59BW0577	<2.2143	40.0000	11.0714	.0571	10.0000	<.0714	6.3571	<.1000	<.1000	.2643

Table 4, continued

sample	F-D mg/ℓ	FE-D µg/ℓ	GA-D µg/ℓ	GE-D µg/ℓ	HG-D µg/ℓ	K-D mg/ℓ	LI-D µg/ℓ	MG-D mg/ℓ	MN-D µg/ℓ
Rio Ojo Caliente Gaging Station, 1975									
13A20775	--	36.3636	<.2797	<.5594	<.0699	.8811	22.3776	2.9790	5.4545
1976 Samples									
01170576	.0734	3.1646	<.6329	<1.2658	.0316	1.0127	32.2785	3.6709	<1.2658
02170576	.0482	4.0816	<.2857	<1.2245	<.0041	.7347	20.4082	2.4082	<.8163
03170576	.1000	78.5714	<.7143	<2.1429	<.0714	1.3571	14.2857	2.2857	14.2857
04170576	.0842	136.8421	<1.0526	<2.1053	.4211	1.4737	6.3158	1.8947	10.5263
05170576	.1481	22.2222	<.7407	<1.4815	.0741	1.0741	11.1111	2.4074	7.4074
06170576	.8406	5.0725	<.5797	<1.4493	.0145	.3261	86.9565	.1812	<1.4493
07170576	.3452	10.1190	<.4167	<1.7857	<.0030	.2679	95.2381	.1964	<1.1905
08170576	.1636	36.3636	<.4545	<2.2727	--	1.2727	4.5455	2.5909	9.0909
09180576	.0905	61.9048	<.9524	<1.4286	.0952	1.2857	<4.7619	2.6190	23.8095
10180576	.0909	48.4848	<.6061	<1.8182	.1212	1.3939	<6.0606	2.7273	30.3030
11180576	.1067	86.6667	<.6667	<2.6667	<.0333	1.5333	<6.6667	2.7333	26.6667
12180576	.1308	61.5385	<.7692	<1.5385	.7692	1.5385	<7.6923	2.6154	7.6923
13180576	.1167	133.3333	<.8333	<1.6667	<.0417	1.7500	<8.3333	2.4167	16.6667
14180576	.0952	142.8571	<.9524	<1.9048	.4762	1.9048	<9.5238	2.6667	9.5238
Rio Ojo Caliente Gaging Station, 1976									
15180576	.0723	46.8085	<.4255	<1.7021	<.0213	.7660	12.7660	2.3830	4.2553
1976 Samples, Continued									
16190576	.1011	1,123.5955	<1.1236	<2.2472	.5618	2.0225	<11.2360	2.2472	8.9888
17190576	.1714	7.1429	<.3571	<2.1429	<.0179	.7500	<3.5714	1.8571	1.4286
18190576	.1474	231.5789	<1.0526	<3.1579	<.0526	1.7895	<10.5263	2.6316	42.1053
19190576	.1064	132.5301	<1.2048	<2.4096	<.0602	1.5663	<12.0482	2.1687	24.0964
20190576	.1100	180.0000	<1.0000	<3.0000	--	1.2000	<10.0000	2.9000	40.0000
21190576	.1455	436.3636	<1.8182	<1.8182	.7273	2.0000	<18.1818	1.4545	218.1818
22200576	.1000	400.0000	<1.6667	<1.6667	1.3333	2.1667	<16.6667	1.1667	16.6667
23200576	.0500	55.5556	<.5556	<2.2222	--	--	<5.5556	--	27.7778
24200576	.0962	384.6154	<.3846	<3.8462	<.0962	2.1154	<19.2308	.9615	19.2308
25200576	.0800	400.0000	<.4000	<2.0000	1.0000	.2000	<20.0000	.6000	14.0000
26200576	.1000	47.0588	<.5882	<2.3529	<.0294	1.0000	<5.8824	2.4118	11.7647
27200576	.0875	8.3333	<.8333	<2.5000	<.0208	.7500	<4.1667	2.3750	2.0833
28200576	.0800	500.0000	<.4000	<2.0000	<.1000	2.0000	<20.0000	.6000	60.0000
29200576	.0909	272.7273	<1.8182	<1.8182	.3636	2.3636	<18.1818	1.2727	18.1818

Table 4, continued

sample	F-D mg/ℓ	FE-D µg/ℓ	GA-D µg/ℓ	GE-D µg/ℓ	HG-D µg/ℓ	K-D mg/ℓ	LI-D µg/ℓ	MG-D mg/ℓ	MN-D µg/ℓ
				1977 Samples					
01AW0577	.0588	.5882	<.2059	<.4294	.0012	.9412	25.2941	3.4706	.5882
				Rio Ojo Caliente Gaging Station, 1977					
15AW0577	.0564	2.7273	<.1818	<.4182	<.0009	.8636	21.8182	3.0909	13.6364
				1977 Samples, Continued					
05BW0577	.0711	2.2222	<.2222	<.4778	<.0011	.7111	22.2222	2.7778	10.0000
30AW0577	.0653	.6667	<.2267	<.4667	.0067	2.0000	28.0000	3.8000	1.3333
31AW0577	.0533	--	--	--	.0019	--	28.4848	--	--
32AW0577	.0117	15.0000	<.2500	<.5000	.0038	1.0833	34.1667	3.1667	5.0000
33AW0577	.0312	5.0000	<.1875	<.4375	.0036	.8125	28.7500	3.0000	2.5000
34AW0577	.1081	125.9259	<.2519	<.5333	<.0007	1.1111	28.1481	4.0000	9.6296
35AW0577	.0692	115.3846	<.2692	<.5385	.0077	1.2308	36.9231	4.3846	4.6154
36AW0577	.0750	7.5000	<.2833	<.5833	.0040	1.2500	38.3333	4.3333	.3333
37AW0577	.0400	2.1429	<.2071	<.4286	.0034	1.1429	34.2857	3.5000	2.1429
38AW0577	.0541	2.3529	<.1765	<.4118	.0046	.9412	29.4118	3.4118	<.0294
39AW0577	.0518	2.9412	<.2059	<.4118	.0028	.9412	29.4118	3.4706	.2353
40AW0577	.6000	12.5000	<.1875	<.3750	<.0006	.3188	75.0000	.1875	12.5000
41AW0577	.1643	35.7143	<.2500	<.5286	<.0071	1.2857	<3.5714	3.0714	.7143
42AW0577	.1558	1.5584	<.2338	<.4675	.0003	.8831	88.3117	.2026	1.0390
43AW0577	.1027	1.8919	<.2432	<.4865	<.0003	.9189	91.8919	.2162	.2162
44AW0577	.2200	1.5000	<.2250	<.4500	<.0002	.9000	85.0000	.1600	.2500
45AW0577	.1789	3.4211	<.2105	<.4737	<.0003	.8684	92.1053	.1868	1.0526
46AW0577	.1946	2.9730	<.2162	<.4595	.0004	.8919	91.8919	.2568	1.0811
47AW0577	.1429	71.4286	<.3143	<.6571	<.0143	8.8571	<7.1429	2.1429	28.5714
48AW0577	.1500	140.0000	<.2200	<.4700	<.0100	1.3000	<5.0000	2.3000	<.5000
49AW0577	.1920	168.0000	<.2240	<.4720	<.0080	5.3600	<4.0000	2.1600	16.0000
50AW0577	.2712	10.1695	<.2237	<.4746	<.0034	.5424	7.7966	2.0339	16.9492
51AW0577	.1619	14.2857	<.2524	<.5238	<.0048	1.6190	<2.3810	2.2857	71.4286
52AW0577	.2273	300.0000	<.2636	<.5455	<.0091	10.0000	<4.5455	2.1818	36.3636
53AW0577	.1029	11.4286	<.2571	<.5429	<.0057	.6286	<2.8571	2.0571	11.4286
54AW0577	.0774	2.5806	<.1935	<.4516	<.0006	.9032	28.3871	3.3548	1.2903
55AW0577	.0900	10.0000	<.2600	<.5500	<.0050	1.1000	<2.5000	2.4000	<.2500
56AW0577	.0957	8.6957	<.2609	<.4348	<.0043	.6522	<2.1739	1.9565	<.2174
57AW0577	.1182	--	--	--	<.0045	--	<2.2727	--	--
58BW0577	.0407	.7407	<.2222	<.4444	<.0007	.8148	16.2963	3.1111	.7407
59BW0577	.0371	2.1429	<.2286	<.4714	<.0007	.7857	17.1429	3.3571	<.0357

Table 4, continued

sample	MO-D µg/ℓ	NA-D mg/ℓ	NA%	NI-D µg/ℓ	N2N3 mg/ℓ	P-TL mg/ℓ	PB-D µg/ℓ	PO4-TL mg/ℓ	RA-D pC/ℓ
				Rio Ojo Caliente Gaging Station, 1975					
13A20775	<.1399	9.4545	--	<2.7972	--	<.0559	<.5594	--	.0168
				1976 Samples					
01170576	<.6329	11.3924	2.4684	<1.2658	--	--	<1.2658	--	--
02170576	<.4082	7.3469	1.5918	<.8163	--	--	<.8163	--	--
03170576	.7143	5.3571	16.4286	<1.4286	--	--	<1.4286	--	--
04170576	<1.0526	4.7368	22.1053	2.1053	--	--	<2.1053	--	--
05170576	1.1111	5.5556	8.5185	<1.4815	--	--	<1.4815	--	--
06170576	2.8986	21.0145	6.3043	<1.2319	--	--	<1.2319	--	--
07170576	2.3810	21.4286	5.4762	<1.1905	--	--	<1.1905	--	--
08170576	.9091	4.5455	8.1818	<1.8182	--	--	2.2727	--	--
09180576	<.9524	3.5714	7.1429	1.9048	--	--	<1.4286	--	--
10180576	1.2121	3.5152	9.0909	<1.8182	--	--	1.8182	--	--
11180576	<.6667	3.6000	9.3333	<2.0000	--	--	1.3333	--	--
12180576	.7692	3.3846	10.7692	2.3077	--	--	<1.5385	--	--
13180576	<.8333	3.3333	11.6667	2.5000	--	--	<1.6667	--	--
14180576	<.9524	3.5238	13.3333	3.8095	--	--	2.8571	--	--
				Rio Ojo Caliente Gaging Station, 1976					
15180576	<.8511	3.6170	5.5319	<1.2766	--	--	3.8298	--	--
				1976 Samples, Continued					
16190576	<1.1236	14.6067	49.4382	4.4944	--	--	4.4944	--	--
17190576	<.7143	3.0357	4.6429	<1.4286	--	--	<1.4286	--	--
18190576	<1.0526	3.6842	15.7895	2.1053	--	--	2.1053	--	--
19190576	<1.2048	3.4940	18.0723	1.2048	--	--	6.0241	--	--
20190576	<1.0000	3.5000	14.0000	2.0000	--	--	2.0000	--	--
21190576	<1.8182	3.4545	27.2727	3.6364	--	--	5.4545	--	--
22200576	<1.6667	3.1667	25.0000	5.0000	--	--	3.3333	--	--
23200576	<.5556	--	--	<1.1111	--	--	1.6667	--	--
24200576	<.1923	3.6538	34.6154	1.9231	--	--	3.8462	--	--
25200576	2.0000	3.6000	44.0000	4.0000	--	--	2.0000	--	--
26200576	1.1765	3.5882	7.6471	<1.7647	--	--	1.7647	--	--
27200576	<.8333	3.5417	5.8333	<1.6667	--	--	1.6667	--	--
28200576	<.2000	3.8000	36.0000	4.0000	--	--	8.0000	--	--
29200576	<1.8182	3.4545	29.0909	3.6364	--	--	3.6364	--	--

Table 4, continued

sample	MO-D µg/ℓ	NA-D mg/ℓ	NAZ	NI-D µg/ℓ	N2N3 mg/ℓ	P-TL mg/ℓ	PB-D µg/ℓ	PO4-TL mg/ℓ	RA-D pCi/ℓ
				1977 Samples					
01AW0577	<.2059	10.5882	2.2941	.4765	.0076	.0047	<.9412	.0147	.2471
				Rio Ojo Caliente Gaging Station, 1977					
15AW0577	.2091	10.9091	3.6364	<.4182	<.0005	.0036	3.9091	.0109	.0618
				1977 Samples, Continued					
05BW0577	1.1111	9.7778	4.0000	.5778	.0100	.0011	<1.0444	.0033	.0200
30AW0577	<.2267	12.0000	2.6000	<.4667	.0093	.0047	<1.0667	.0140	.1133
31AW0577	--	--	--	--	--	--	--	--	--
32AW0577	<.2500	13.3333	3.4167	<.5000	.0033	.0033	<1.0833	.0100	.0200
33AW0577	.4375	11.2500	2.5000	<.4375	.0294	.0056	<.9375	.0175	.0175
34AW0577	<.2519	12.5926	2.7407	<.5333	.0007	.0022	<1.1852	.0067	.0393
35AW0577	<.2692	13.8462	2.9231	.7308	.0008	.0023	<1.2308	.0069	.0331
36AW0577	<.2833	15.0000	3.2500	1.8333	.0008	.0058	<1.2500	.0175	.0525
37AW0577	<.2071	13.5714	3.5714	<.4286	.0164	.0014	<.9286	.0043	.0221
38AW0577	<.1765	10.5882	2.2353	<.4118	.0053	.0041	<.9412	.0124	.1824
39AW0577	.2824	10.5882	2.2353	<.4294	.0082	.0041	<.9412	.0124	.1706
40AW0577	2.7500	20.0000	5.5000	<.3750	.0937	.0937	<.8125	.2875	--
41AW0577	<.2500	3.6429	9.2857	<.5286	.0214	<.0036	<1.1429	<.0036	.0857
42AW0577	.2857	25.9740	2.4416	<.4675	.0005	<.0001	<1.0130	<.0001	.6234
43AW0577	.4054	27.0270	2.5405	<.4865	.0011	.0054	<1.0541	.0165	1.0000
44AW0577	.2500	25.0000	2.3500	<.4500	.0010	.0022	<.9750	.0070	.6000
45AW0577	.2105	26.3158	2.5000	<.4737	<.0001	.0042	<1.0000	.0129	.0050
46AW0577	.3784	27.0270	2.5405	<.4595	.0003	.0057	<1.0270	.0173	1.3784
47AW0577	<.3143	1.4286	8.5714	.8714	.0714	<.0071	1.5714	<.0071	.5286
48AW0577	<.2200	4.7000	21.0000	.7800	.0200	.0100	<1.0000	.0300	.5100
49AW0577	<.2240	2.4000	8.8000	<.4720	.0080	<.0040	<1.0400	<.0040	.1440
50AW0577	.2610	7.1186	9.8305	<.4746	.0407	.0034	<1.0169	.0102	.1153
51AW0577	.6667	3.4286	6.6667	<.5238	.0048	.0286	<1.1429	.0857	.0905
52AW0577	.3000	3.0000	11.8182	.9091	.0636	.0727	<.9091	.2273	--
53AW0577	<.2571	3.0286	6.8571	<.5429	.0057	.0057	<1.1429	.0171	.0743
54AW0577	<.1935	10.3226	2.3871	<.4516	.0071	.0058	<.9677	.0181	.1290
55AW0577	.3100	3.0000	6.0000	<.5000	.0500	<.0025	<1.0000	<.0025	.2200
56AW0577	.3217	3.3043	5.6522	<.4348	.0783	.5217	<1.3043	1.6087	--
57AW0577	--	--	--	--	--	--	--	--	--
58BW0577	.3704	9.6296	2.7407	<.4444	.0289	.0030	<1.0370	.0089	.0815
59BW0577	.5500	10.0000	2.5000	<.4714	.0186	.0029	<1.0000	.0086	.0929

Table 4, continued

sample	SE-D µg/ℓ	SIO2-D mg/ℓ	SN-D µg/ℓ	SO4-D mg/ℓ	SR-D µg/ℓ	TI-D µg/ℓ	V-D µg/ℓ	ZN-D µg/ℓ	ZR-D µg/ℓ
				Rio Ojo Caliente Gaging Station, 1975					
13A20775	<.0699	--	<.5594	--	88.1119	<2.7972	<.5594	1.5385	<1.1189
				1976 Samples					
01170576	--	--	<1.2658	--	69.6203	<.3165	<.6329	1.8987	<1.2658
02170576	--	--	<.8163	--	44.8980	.8163	<.6122	.8163	<1.2245
03170576	--	--	<1.4286	--	64.2857	2.8571	1.4286	<7.1429	<2.1429
04170576	--	--	<2.1053	--	84.2105	2.1053	1.0526	<10.5263	<2.1053
05170576	--	--	<1.4815	--	70.3704	.7407	1.1111	7.4074	<1.4815
06170576	--	--	<1.2319	--	29.7101	<.2899	<.5797	<.7246	<1.4493
07170576	--	--	<1.1905	--	29.7619	<1.1905	<.8929	<.5952	<1.7857
08170576	--	--	<1.8182	--	72.7273	1.8182	1.8182	<4.5455	<2.2727
09180576	--	--	<1.4286	--	66.6667	.4762	.9524	4.7619	<1.4286
10180576	--	--	<1.8182	--	66.6667	.6061	1.2121	<6.0606	<1.8182
11180576	--	--	<2.0000	--	53.3333	2.0000	1.3333	<6.6667	<2.6667
12180576	--	--	<1.5385	--	61.5385	2.3077	.7692	<7.6923	<1.5385
13180576	--	--	<1.6667	--	66.6667	1.6667	1.6667	58.3333	<1.6667
14180576	--	--	<1.9048	--	85.7143	1.9048	1.9048	<9.5238	<1.9048
				Rio Ojo Caliente Gaging Station, 1976					
15180576	--	--	<1.2766	--	63.8298	<1.2766	.8511	4.2553	<1.7021
				1976 Samples, Continued					
16190576	--	--	<2.2472	--	67.4157	44.9438	2.2472	11.2360	2.2472
17190576	--	--	<1.4286	--	53.5714	<1.4286	<1.0714	<3.5714	<2.1429
18190576	--	--	<2.1053	--	73.6842	8.4211	2.1053	31.5789	<3.1579
19190576	--	--	<2.4096	--	60.2410	4.8193	1.2048	12.0482	<2.4096
20190576	--	--	<2.0000	--	80.0000	5.0000	2.0000	<10.0000	<3.0000
21190576	--	--	<1.8182	--	54.5455	10.9091	1.8182	36.3636	<1.8182
22200576	--	--	<1.6667	--	83.3333	13.3333	1.6667	<16.6667	<1.6667
23200576	--	--	<1.6667	--	66.6667	1.6667	<1.1111	<5.5556	<2.2222
24200576	--	--	<1.9231	--	76.9231	9.6154	1.9231	<19.2308	<3.8462
25200576	--	--	<2.0000	--	80.0000	8.0000	2.0000	<20.0000	<2.0000
26200576	--	--	<1.7647	--	64.7059	2.3529	1.1765	41.1765	<2.3529
27200576	--	--	<1.6667	--	66.6667	<1.6667	2.0833	<4.1667	<2.5000
28200576	--	--	<2.0000	--	80.0000	16.0000	2.0000	40.0000	<2.0000
29200576	--	--	<1.8182	--	90.9091	5.4545	1.8182	18.1818	<3.6364

Table 4, continued

sample	SE-D µg/ℓ	SIO2-D mg/ℓ	SN-D µg/ℓ	SO4-D mg/ℓ	SR-D µg/ℓ	TI-D µg/ℓ	V-D µg/ℓ	ZN-D µg/ℓ	ZR-D µg/ℓ
				1977 Samples					
01AW0577	<.1176	1.2353	<.6471	15.8824	100.0000	7.0588	.5412	<1.1765	<.4294
				Rio Ojo Caliente Gaging Station, 1977					
15AW0577	<.1818	2.0000	<.6273	16.3636	90.9091	<6.2727	<.4364	<1.8182	<.4182
				1977 Samples, Continued					
05BW0577	<.2222	2.6667	<.7111	12.2222	155.5556	8.6667	.8111	<2.2222	<.4778
30AW0577	<.1333	1.2667	<.7333	18.0000	80.0000	<6.6667	.3800	4.0000	<.4667
31AW0577	<.1212	--	--	--	--	--	--	<1.2121	--
32AW0577	<.1667	2.2500	<.7500	20.8333	125.0000	<7.5000	<.3333	<1.6667	.5833
33AW0577	<.1250	1.9375	<.6250	15.6250	93.7500	<6.2500	.4750	<1.2500	<.4375
34AW0577	<.1481	2.1481	<.8148	28.8889	118.5185	<8.1481	<.3704	<1.4815	<.5333
35AW0577	<.1538	2.5385	<.8462	22.3077	115.3846	<8.4615	.4615	<1.5385	<.5385
36AW0577	<.1667	2.5833	<.8333	23.3333	100.0000	<8.3333	1.2500	<1.6667	<.5833
37AW0577	<.1429	2.2857	<.6357	20.0000	55.0000	6.5714	<.3000	<1.4286	<.4286
38AW0577	<.1176	1.2941	<.6471	15.8824	82.3529	<6.4706	.3529	<1.1765	<.4118
39AW0577	<.1176	1.1765	<.6471	15.8824	105.8824	7.0588	.4235	<1.1765	<.4118
40AW0577	<.1250	1.1875	<.5625	9.3750	<32.5000	<5.4375	<.2500	<1.2500	<.3750
41AW0577	<1.4286	12.1429	<.7857	22.1429	58.5714	<7.8571	<.3714	<14.2857	<.5286
42AW0577	.0779	1.3506	<.6753	4.1558	46.7532	<6.7532	<.3117	<.5195	<.4675
43AW0577	<.0541	1.5676	<.7027	4.3243	<45.9459	<7.0270	<.3243	<.5405	<.4865
44AW0577	.1000	1.4750	<.6750	4.0000	37.5000	7.5000	<.3000	<.5000	<.4500
45AW0577	<.0526	1.5263	<.1789	4.2105	28.9474	<6.8421	<.3158	<.5263	<.4737
46AW0577	.0811	1.4595	<.7027	4.3243	45.9459	7.0270	<.3243	<.5405	<.4595
47AW0577	<2.8571	3.0000	<.9714	7.4286	97.1429	<9.2857	2.1429	<28.5714	<.6571
48AW0577	<2.0000	10.0000	<.6900	13.0000	58.0000	8.0000	.4600	<20.0000	.8100
49AW0577	<1.6000	1.0400	<.6960	5.2800	18.4000	<6.9600	<.3280	<16.0000	<.4800
50AW0577	1.0169	7.4576	<.6780	6.4407	<40.6780	7.4576	2.2034	<6.7797	<.4746
51AW0577	<.9524	17.6190	<.7619	2.1429	80.9524	<7.6190	3.6667	<9.5238	<.5238
52AW0577	<1.8182	7.8182	<.8182	2.8182	39.0909	8.1818	2.7273	<18.1818	.5636
53AW0577	<1.1429	8.0000	<.8000	2.4000	80.0000	<8.0000	.4229	<11.4286	<.5429
54AW0577	<.1290	1.2258	<.6452	16.7742	83.8710	<6.3871	.4516	<1.2903	<.4516
55AW0577	<1.0000	13.0000	<1.0000	4.4000	<80.0000	<8.0000	1.0500	<10.0000	<.5000
56AW0577	<.8696	14.3478	<.8696	1.8261	56.5217	<7.3913	1.0000	<8.6957	<.4348
57AW0577	<.9091	--	--	--	--	--	--	<9.0909	--
58BW0577	<.1481	.9630	<.6815	14.0741	133.3333	11.1111	.6296	<1.4815	.6519
59BW0577	<.1429	.9286	<.4571	16.4286	142.8571	10.0000	.7857	<1.4286	.5286

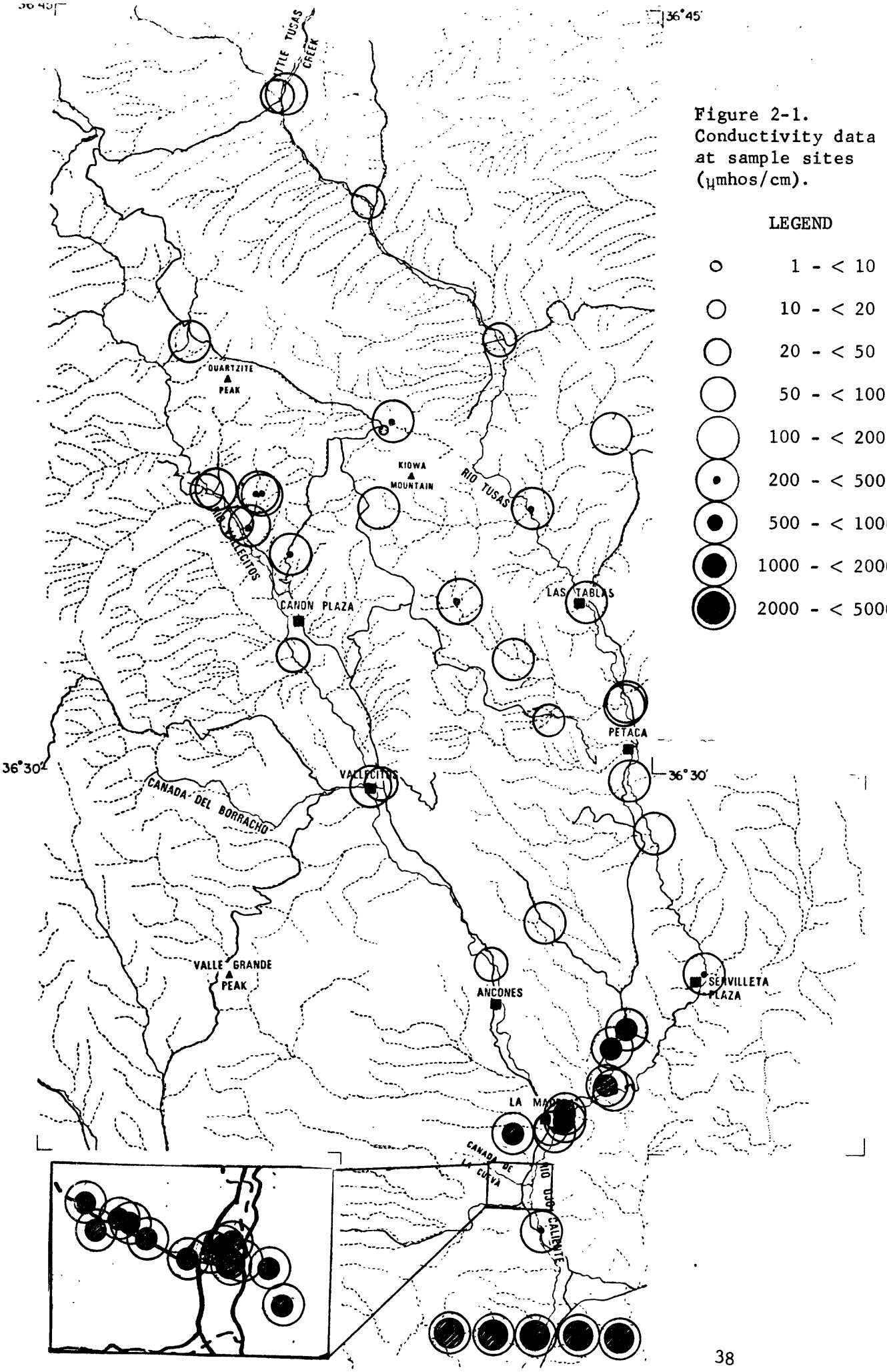

Figure 2-1. Conductivity data at sample sites (μmhos/cm).

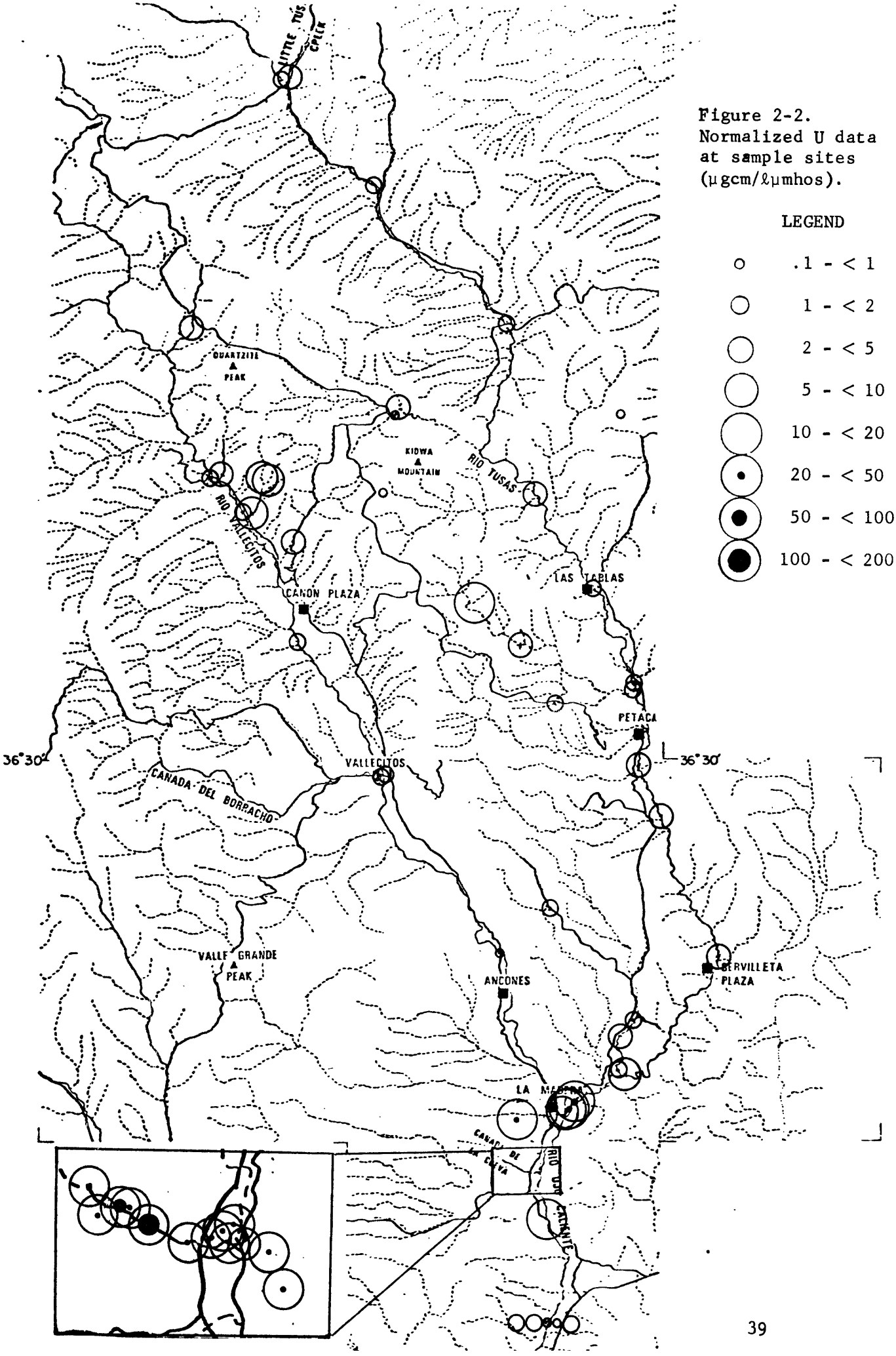

Figure 2-2. Normalized U data at sample sites (µgcm/ℓµmhos).

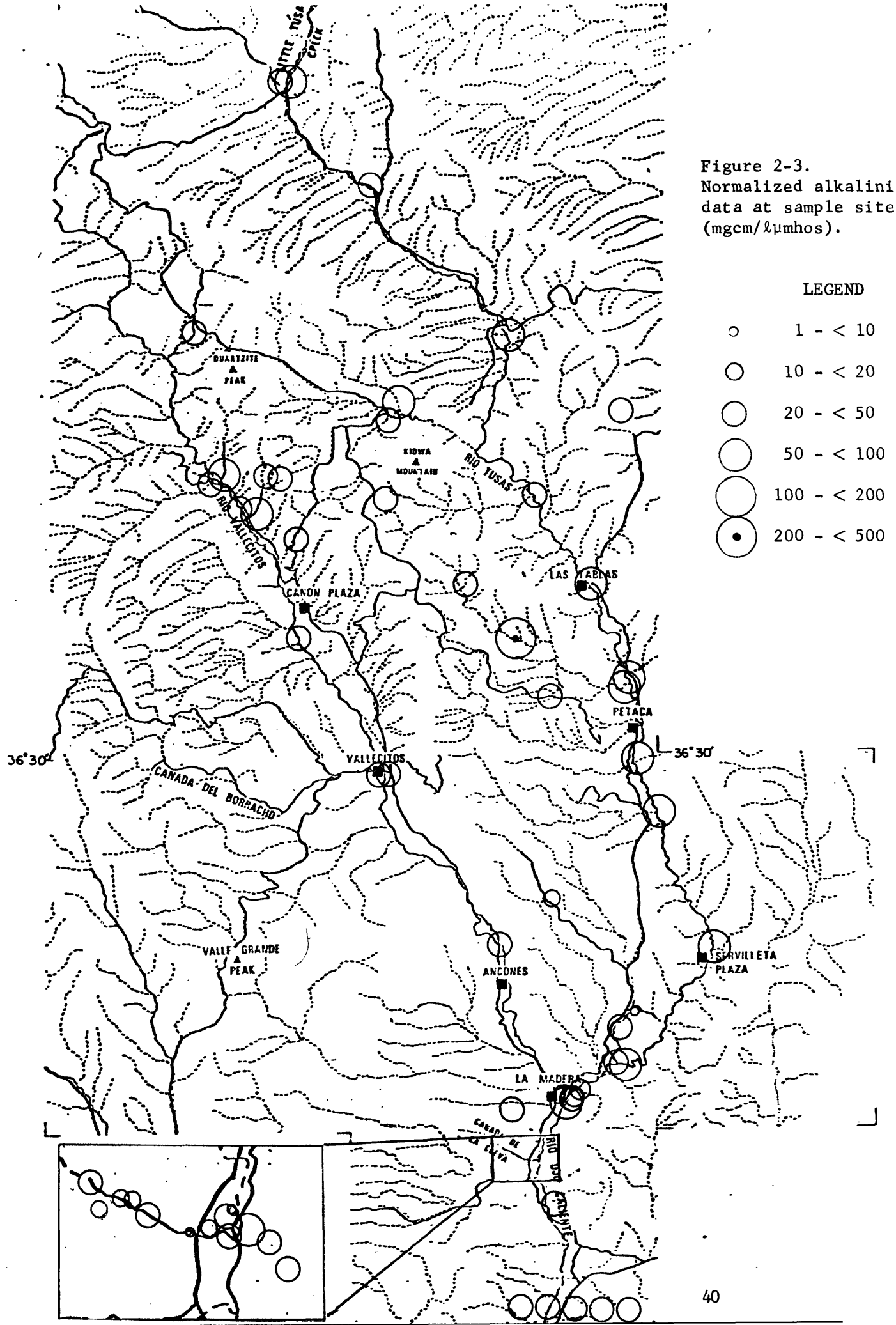

Figure 2-3.
Normalized alkalinity data at sample sites (mgcm/ℓμmhos).

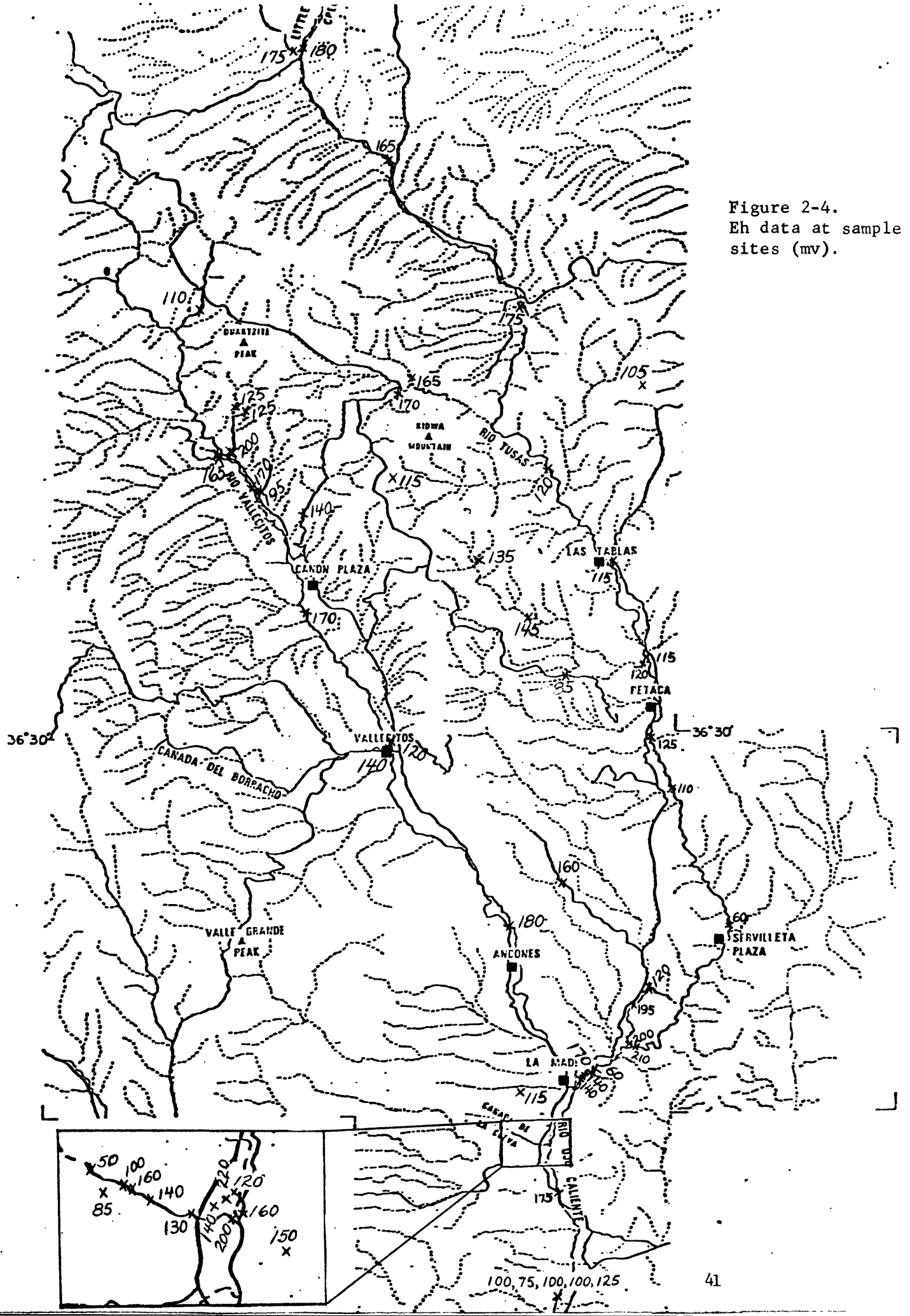

Figure 2-4.
Eh data at sample sites (mv).

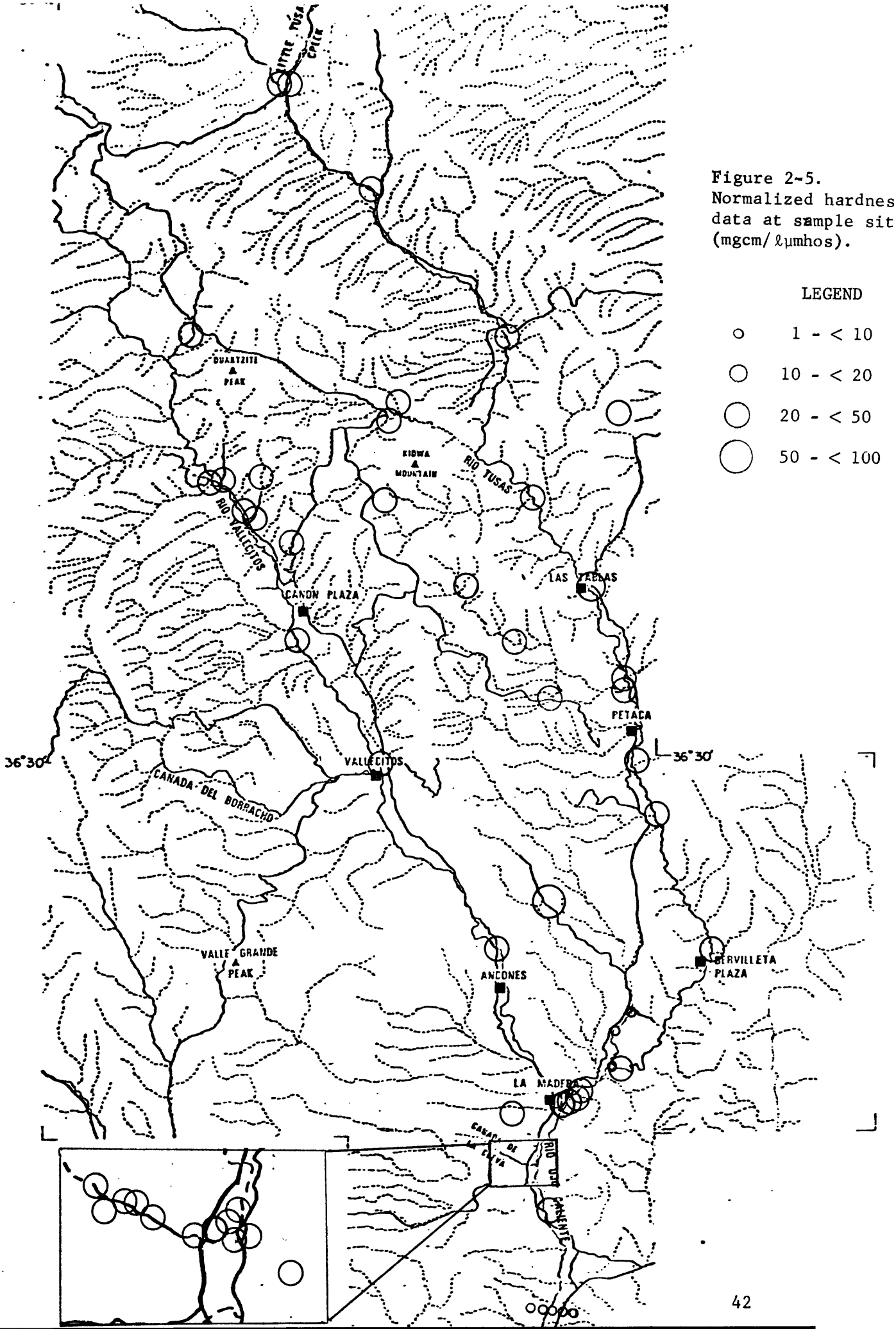

Figure 2-5. Normalized hardness data at sample sites (mgcm/ℓμmhos).

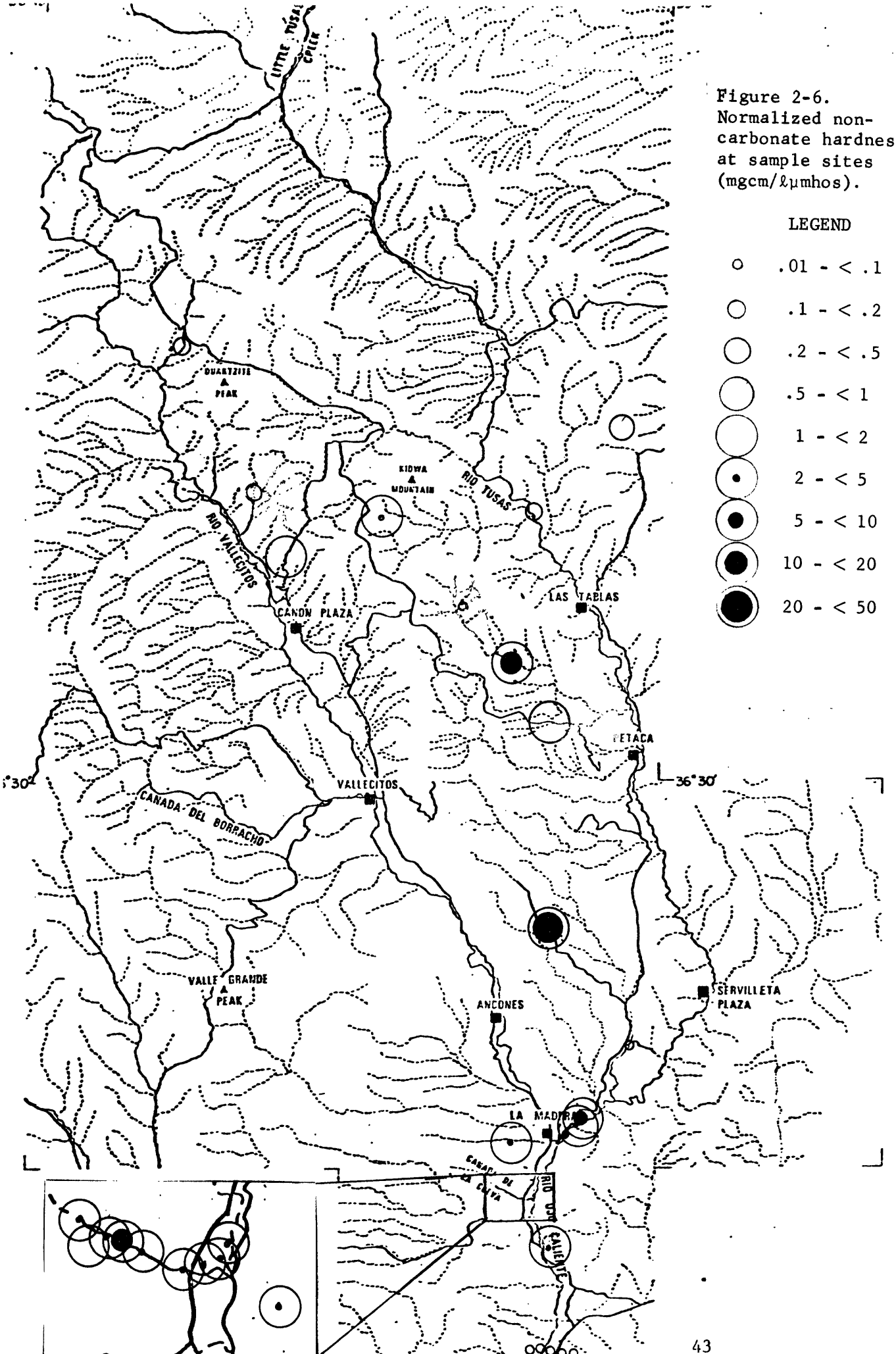

Figure 2-6. Normalized non-carbonate hardness data at sample sites (mgcm/ℓμmhos).

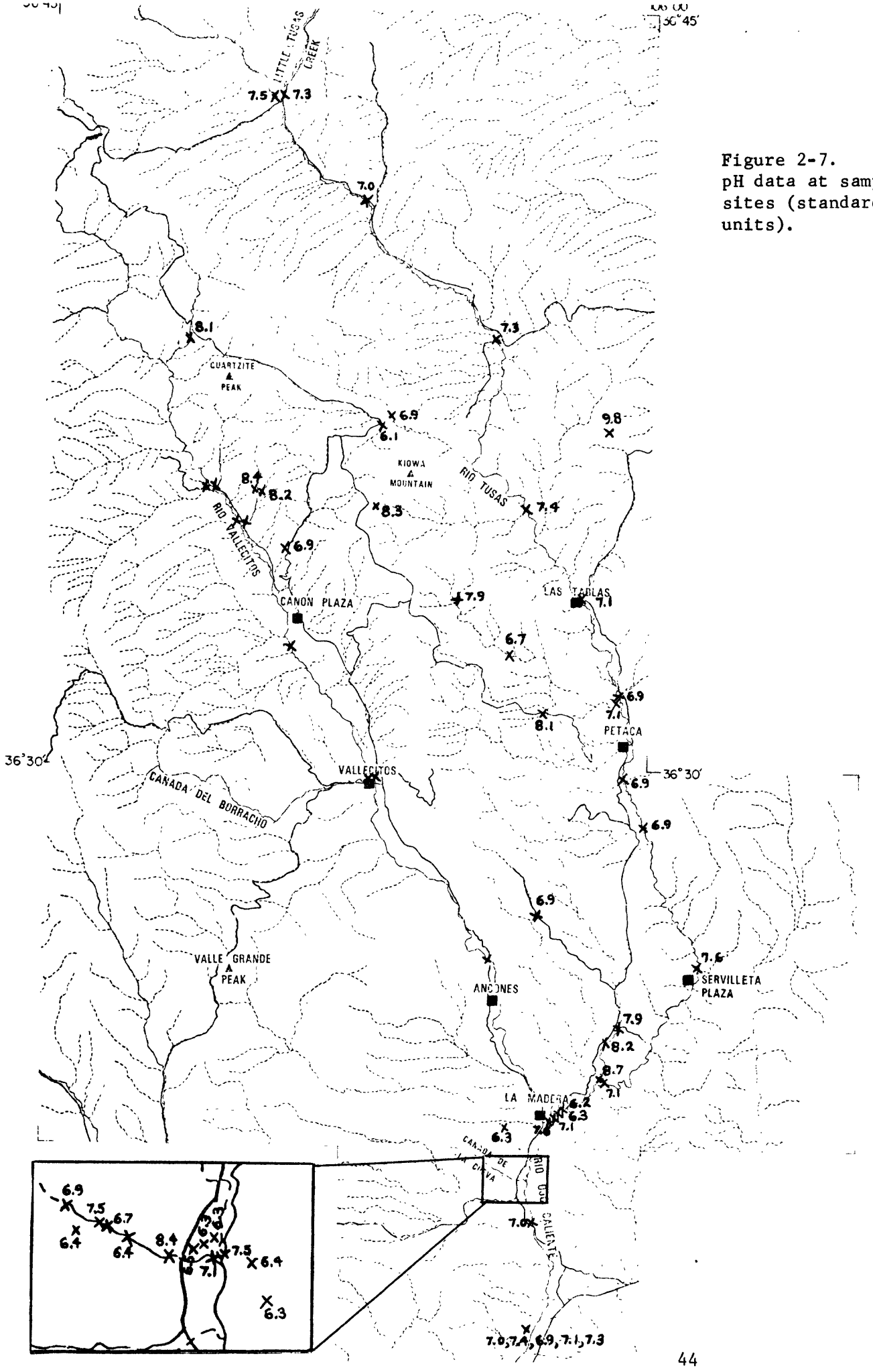

Figure 2-7.
pH data at sample sites (standard units).

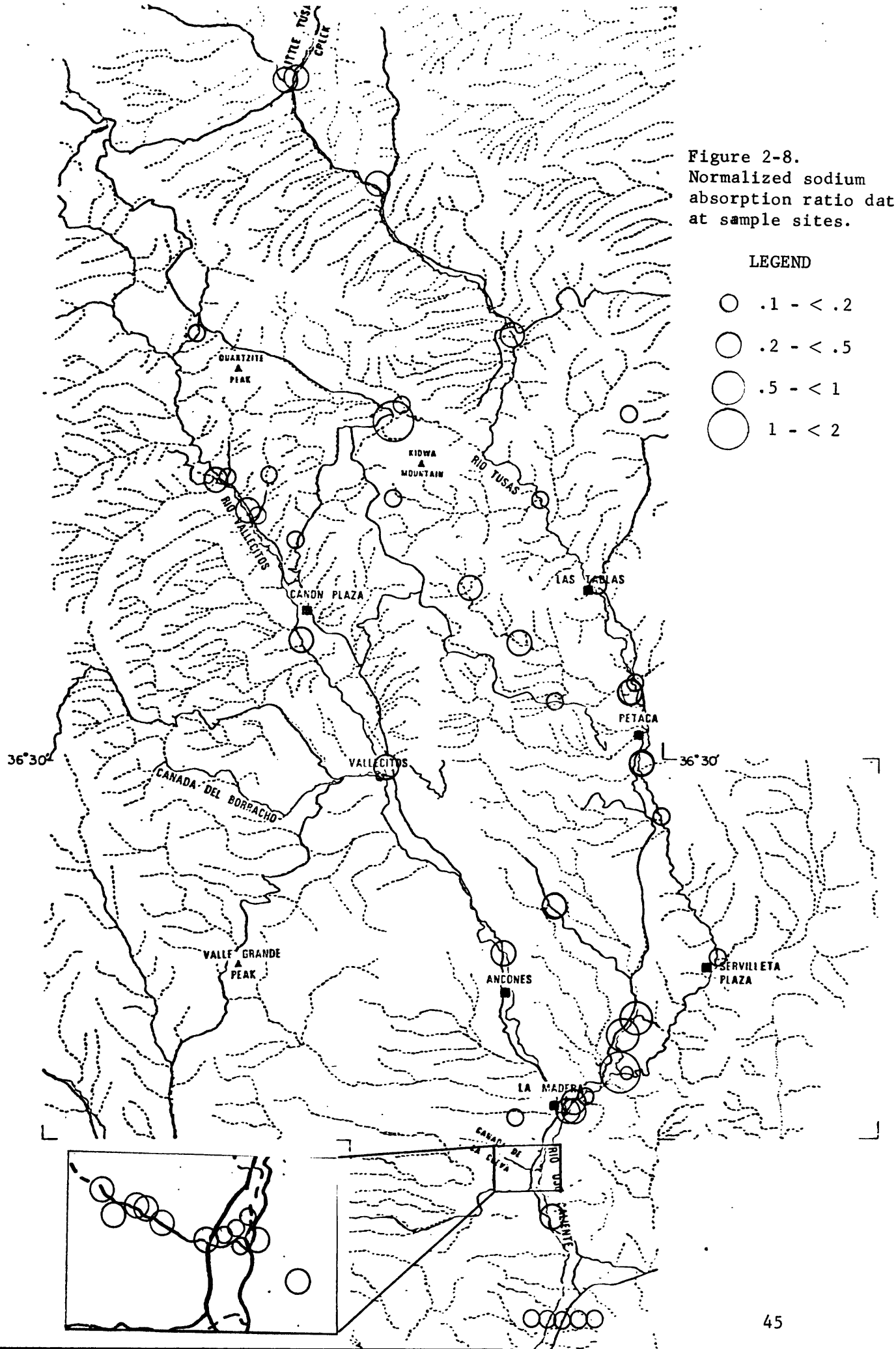

Figure 2-8.
Normalized sodium absorption ratio data at sample sites.

LEGEND

- .1 - < .2
- .2 - < .5
- .5 - < 1
- 1 - < 2

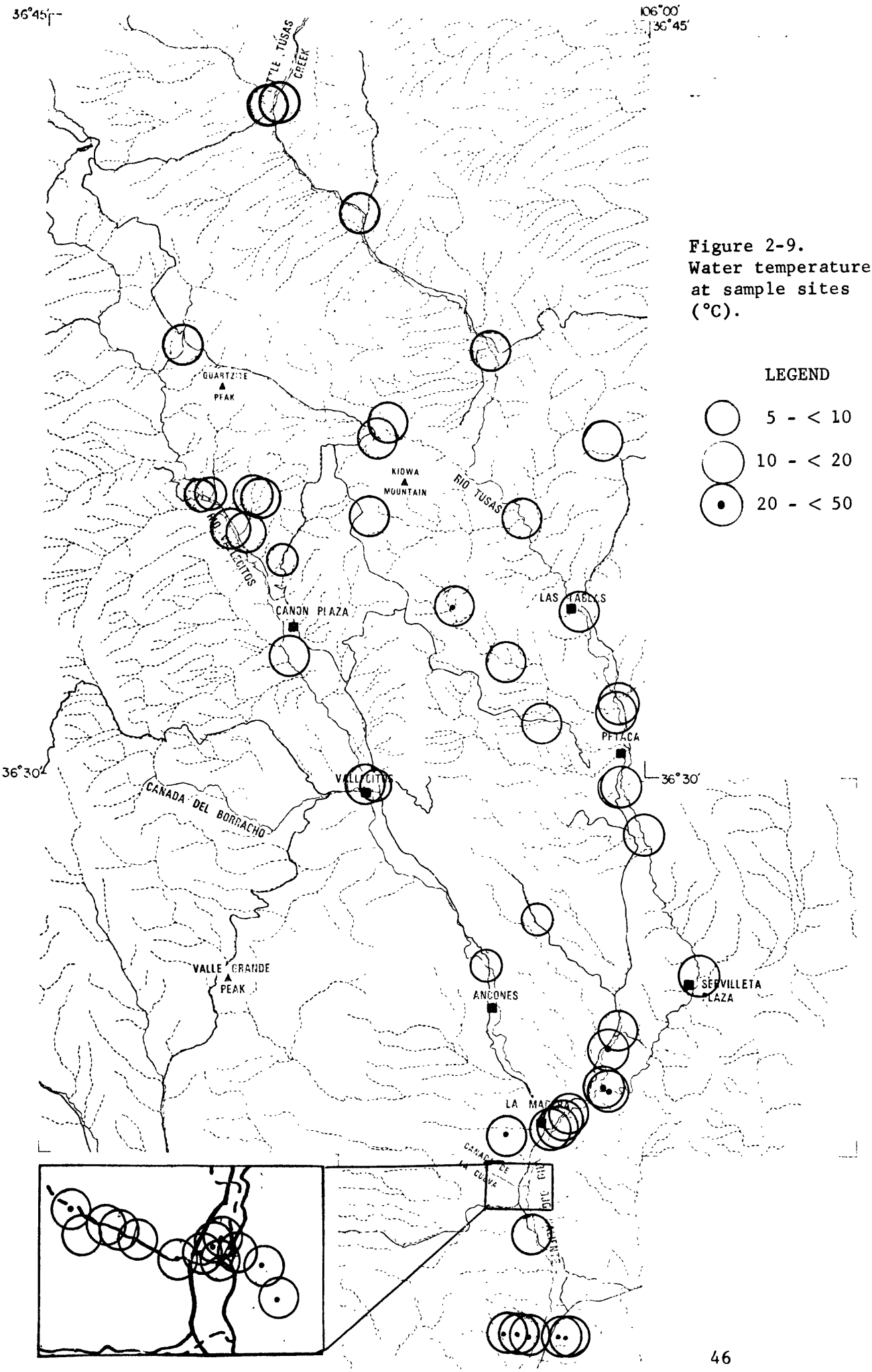

Figure 2-9. Water temperature at sample sites (°C).

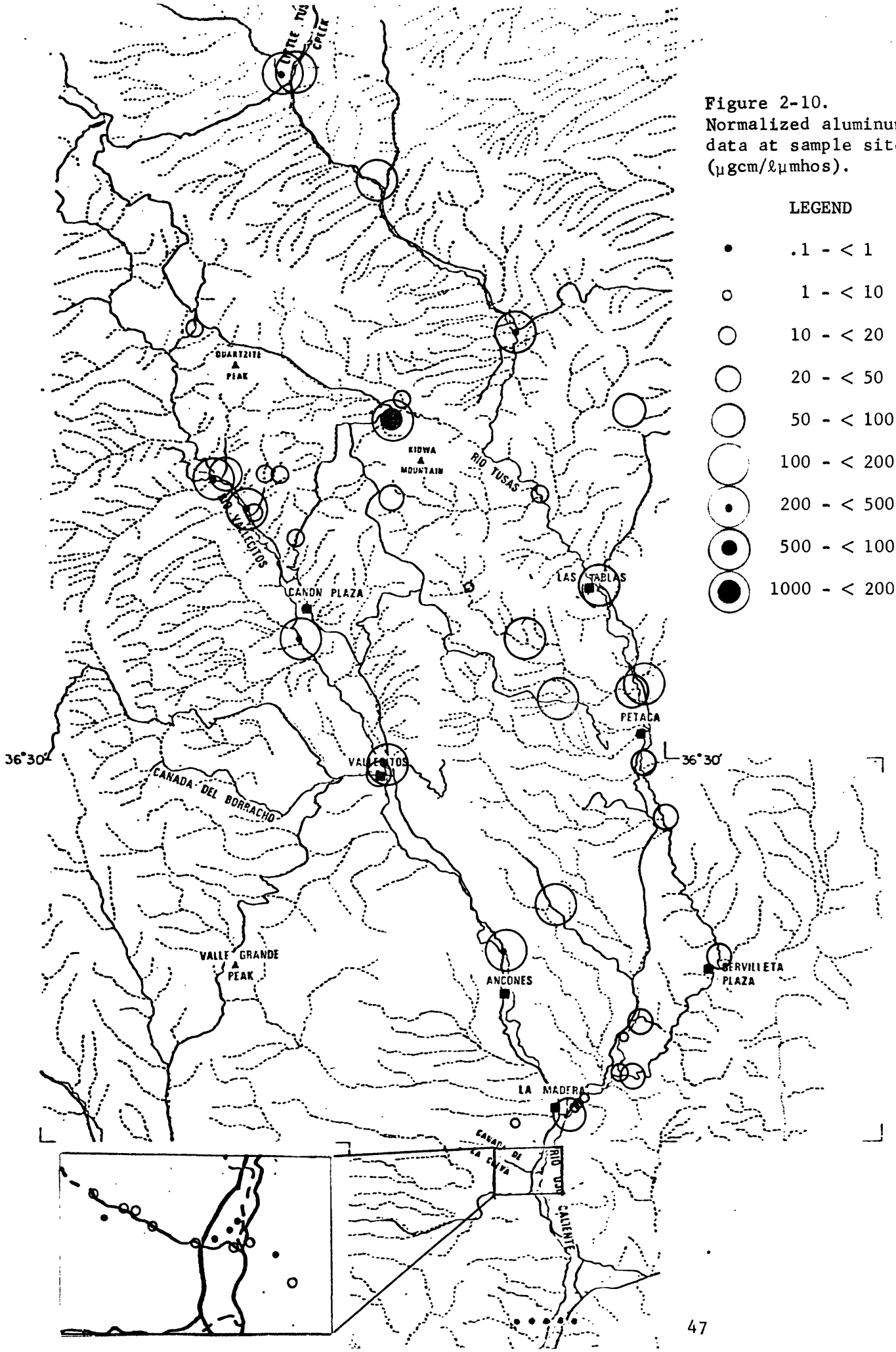

Figure 2-10. Normalized aluminum data at sample sites (μgcm/ℓμmhos).

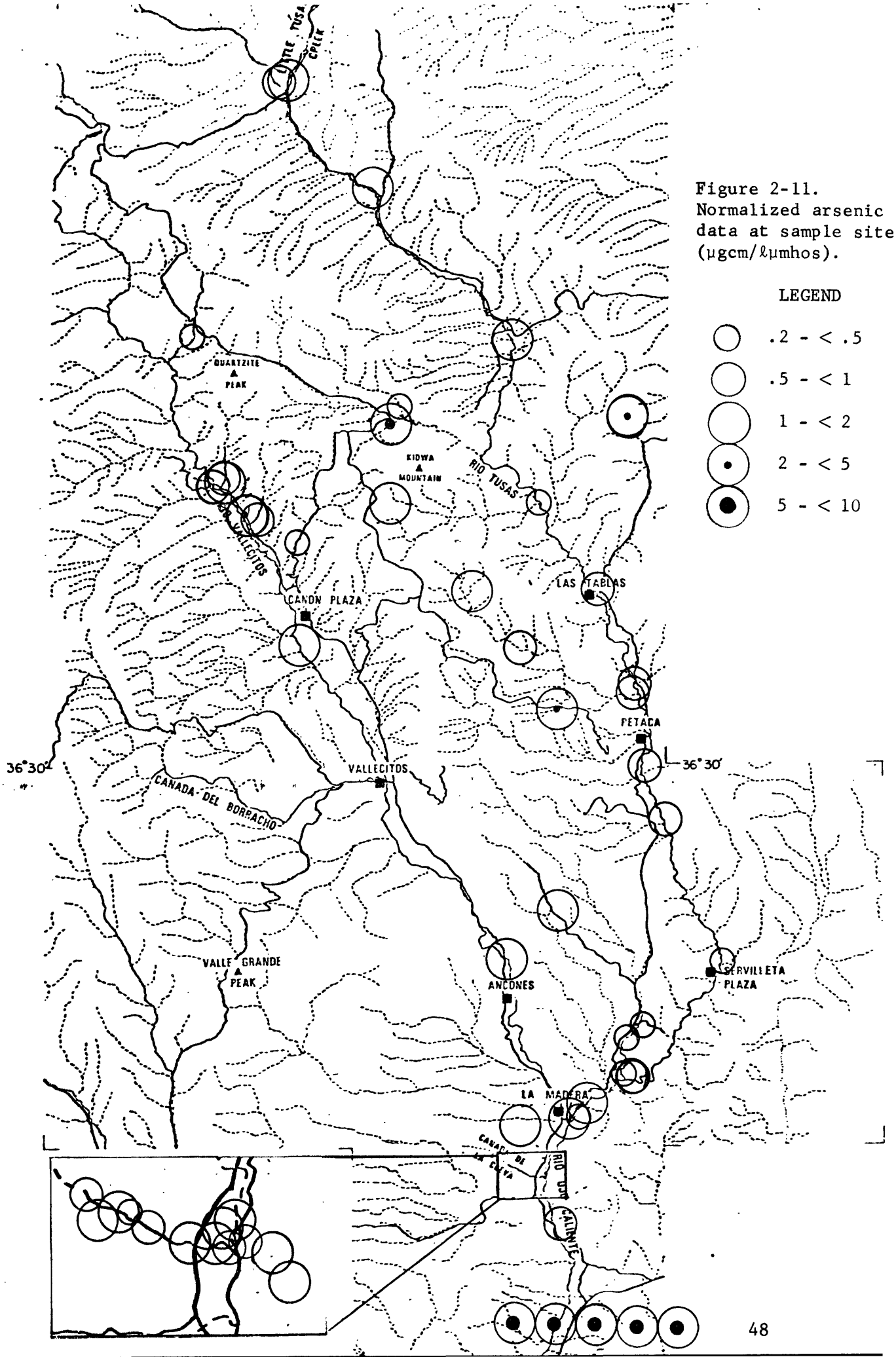

Figure 2-11. Normalized arsenic data at sample sites (µgcm/ℓµmhos).

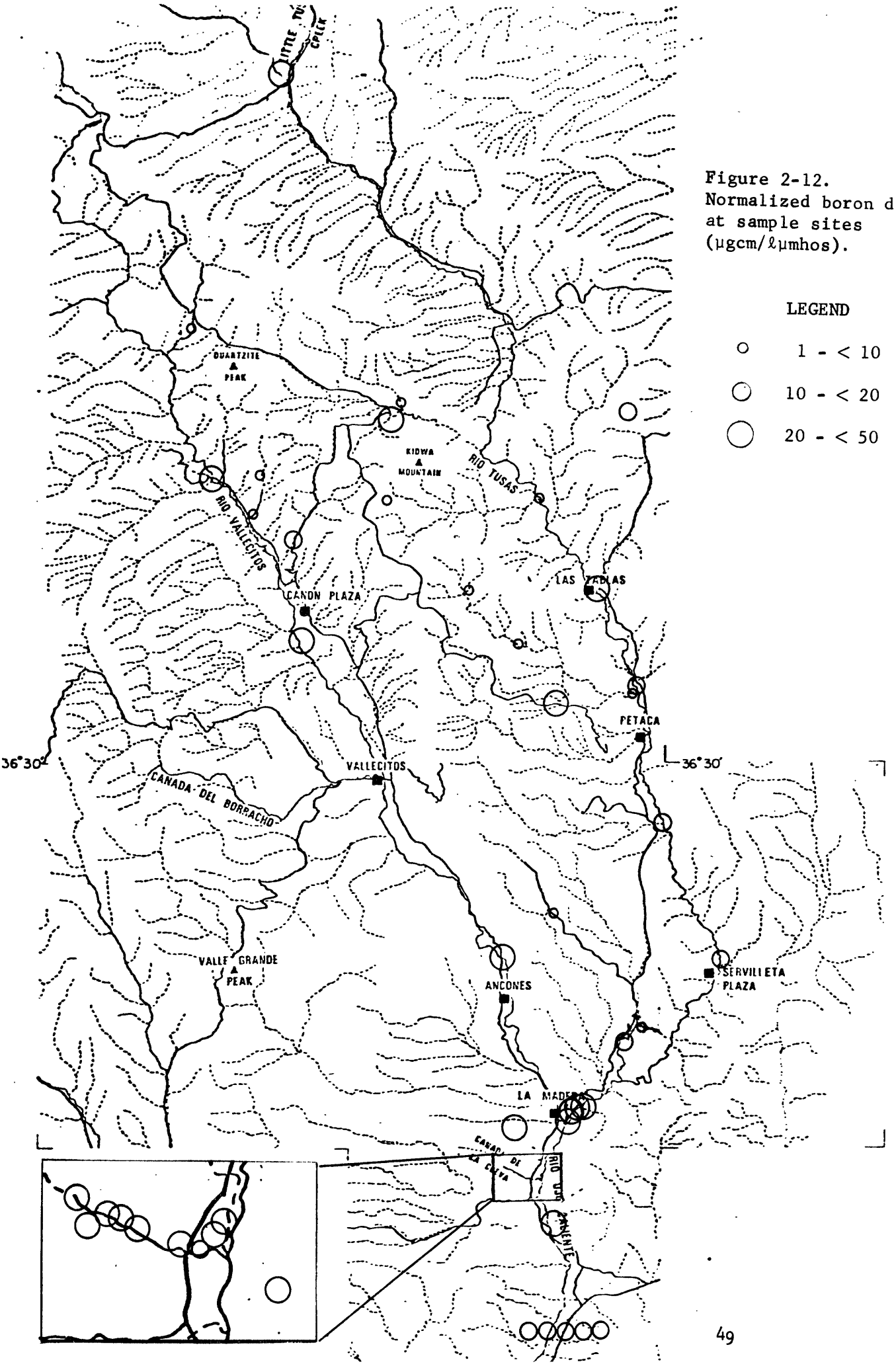

Figure 2-12.
Normalized boron data at sample sites (µgcm/ℓµmhos).

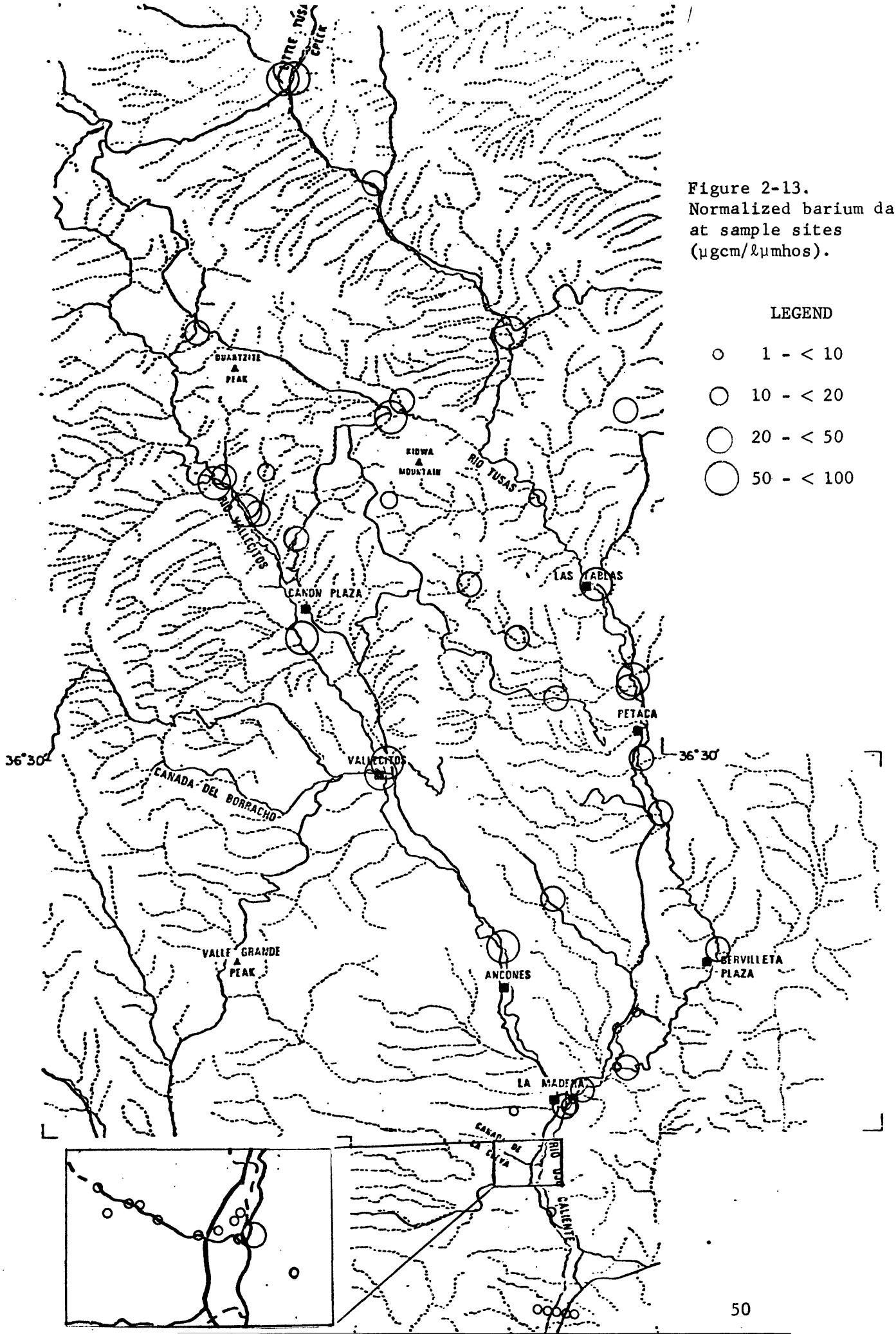

Figure 2-13.
Normalized barium data at sample sites (µgcm/ℓµmhos).

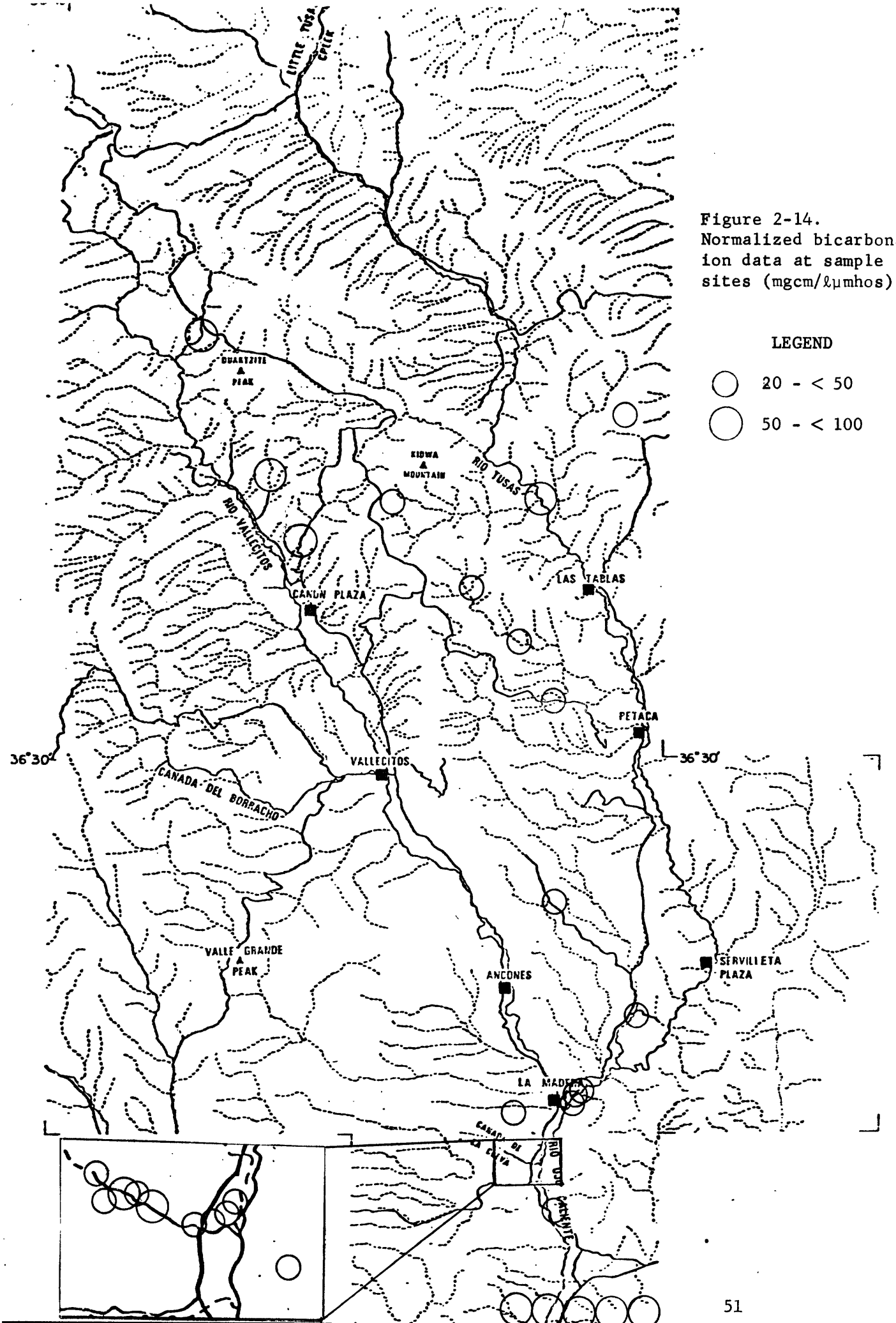

Figure 2-14.
Normalized bicarbonate ion data at sample sites (mgcm/ℓμmhos).

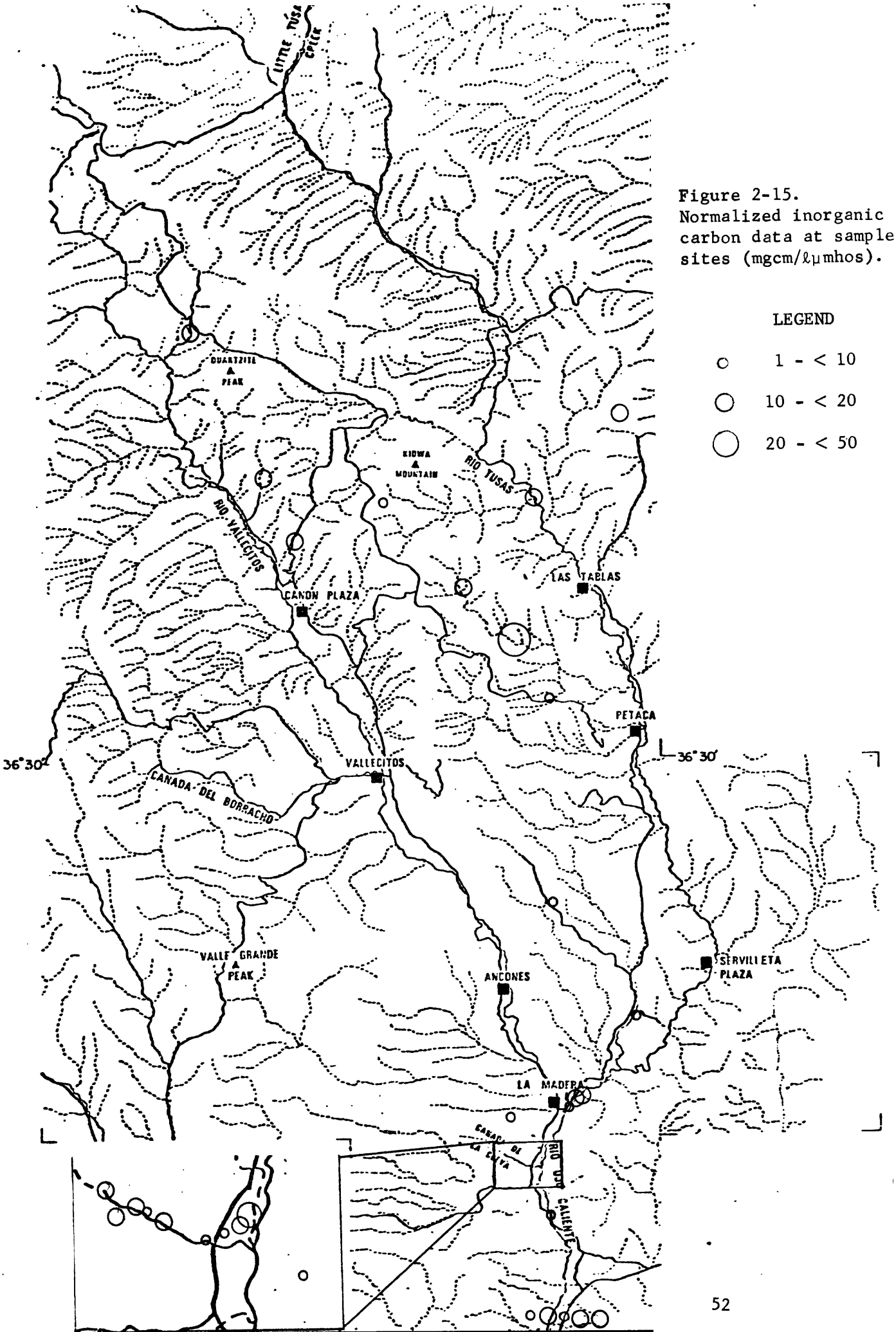

Figure 2-15.
Normalized inorganic carbon data at sample sites (mgcm/ℓμmhos).

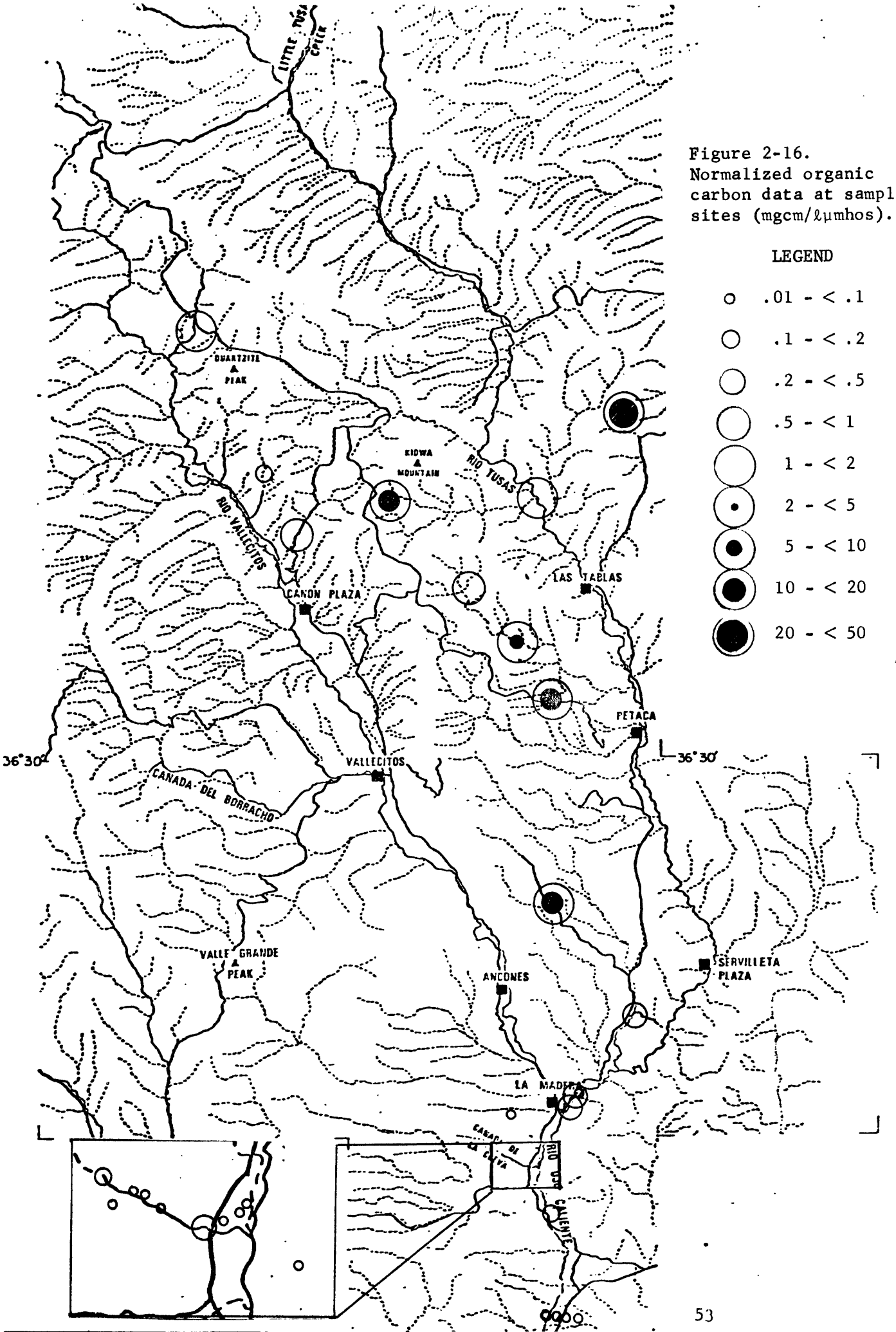

Figure 2-16. Normalized organic carbon data at sample sites (mgcm/ℓμmhos).

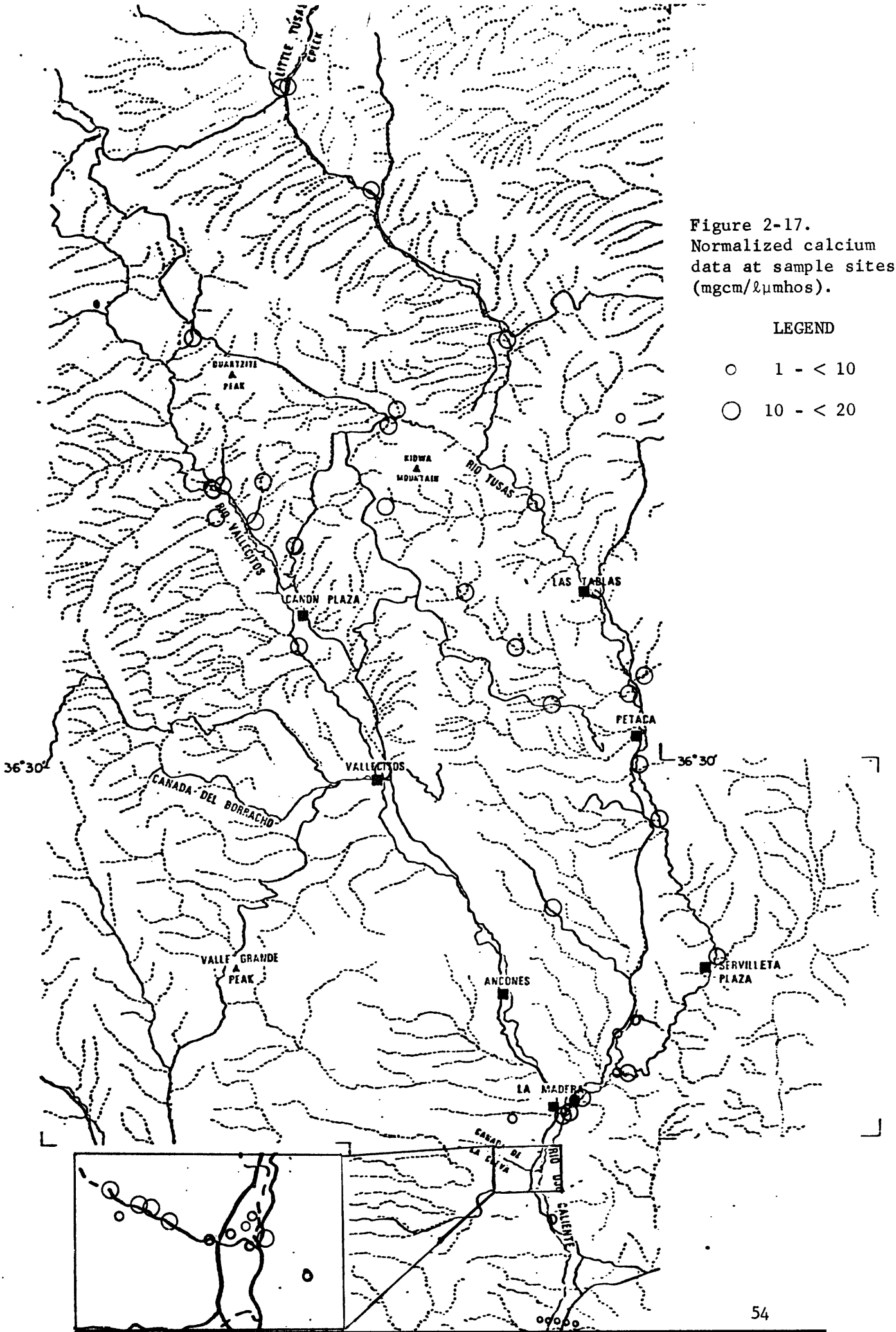

Figure 2-17. Normalized calcium data at sample sites (mgcm/ℓμmhos).

LEGEND

○ 1 - < 10

◯ 10 - < 20

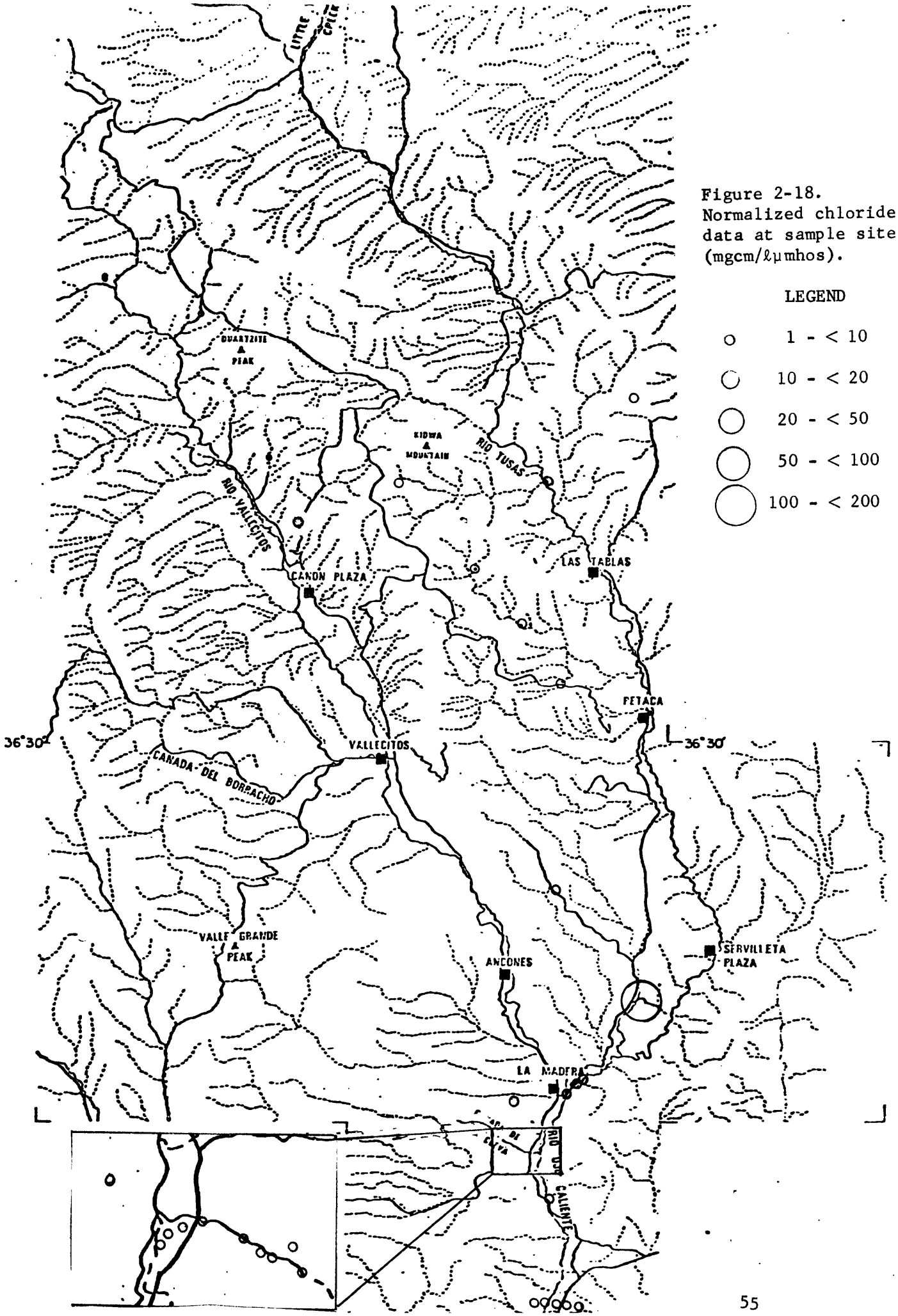

Figure 2-18. Normalized chloride data at sample sites (mgcm/ℓμmhos).

LEGEND

- 1 - < 10
- 10 - < 20
- 20 - < 50
- 50 - < 100
- 100 - < 200

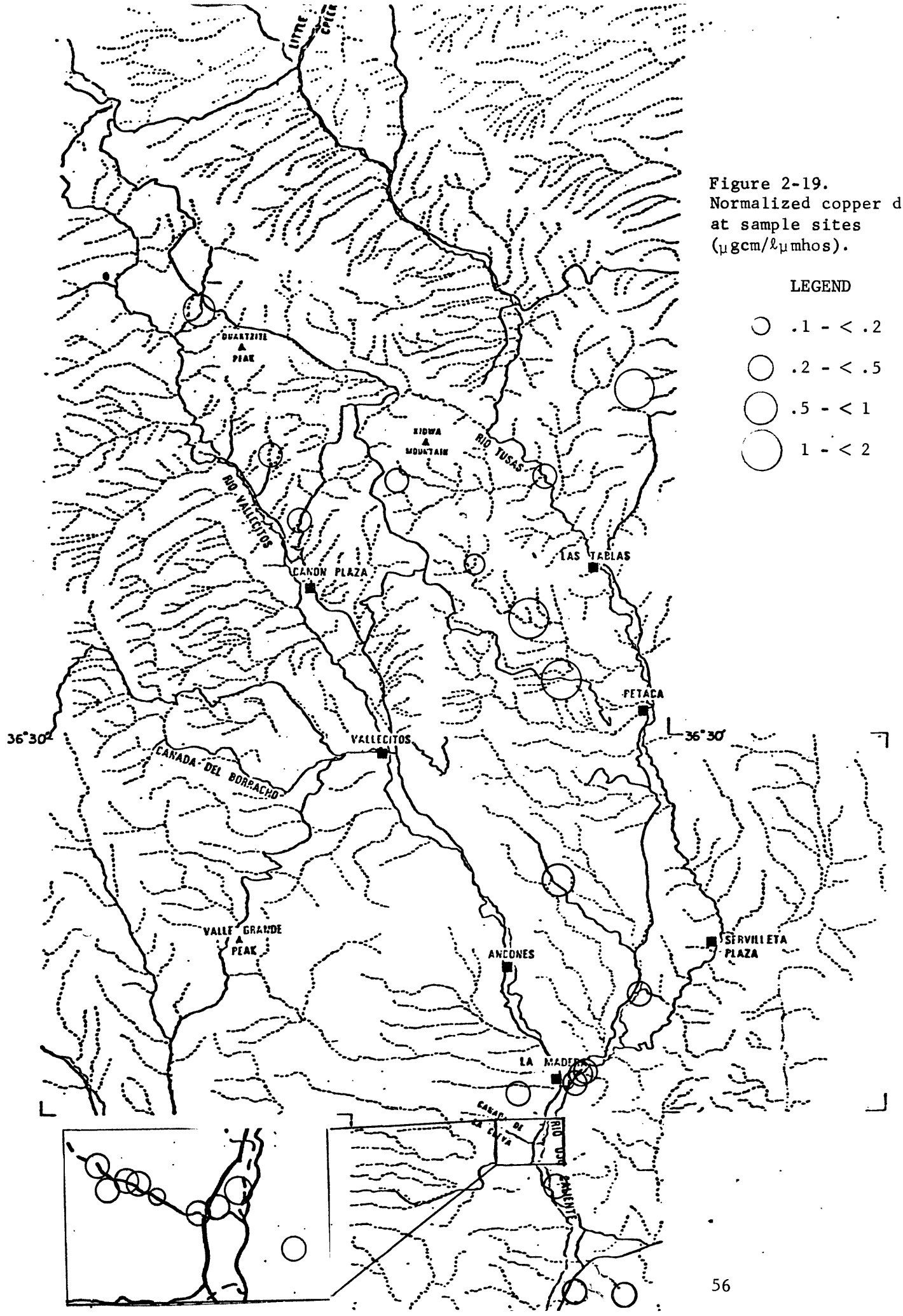

Figure 2-19.
Normalized copper data at sample sites (μgcm/$\ell\mu$mhos).

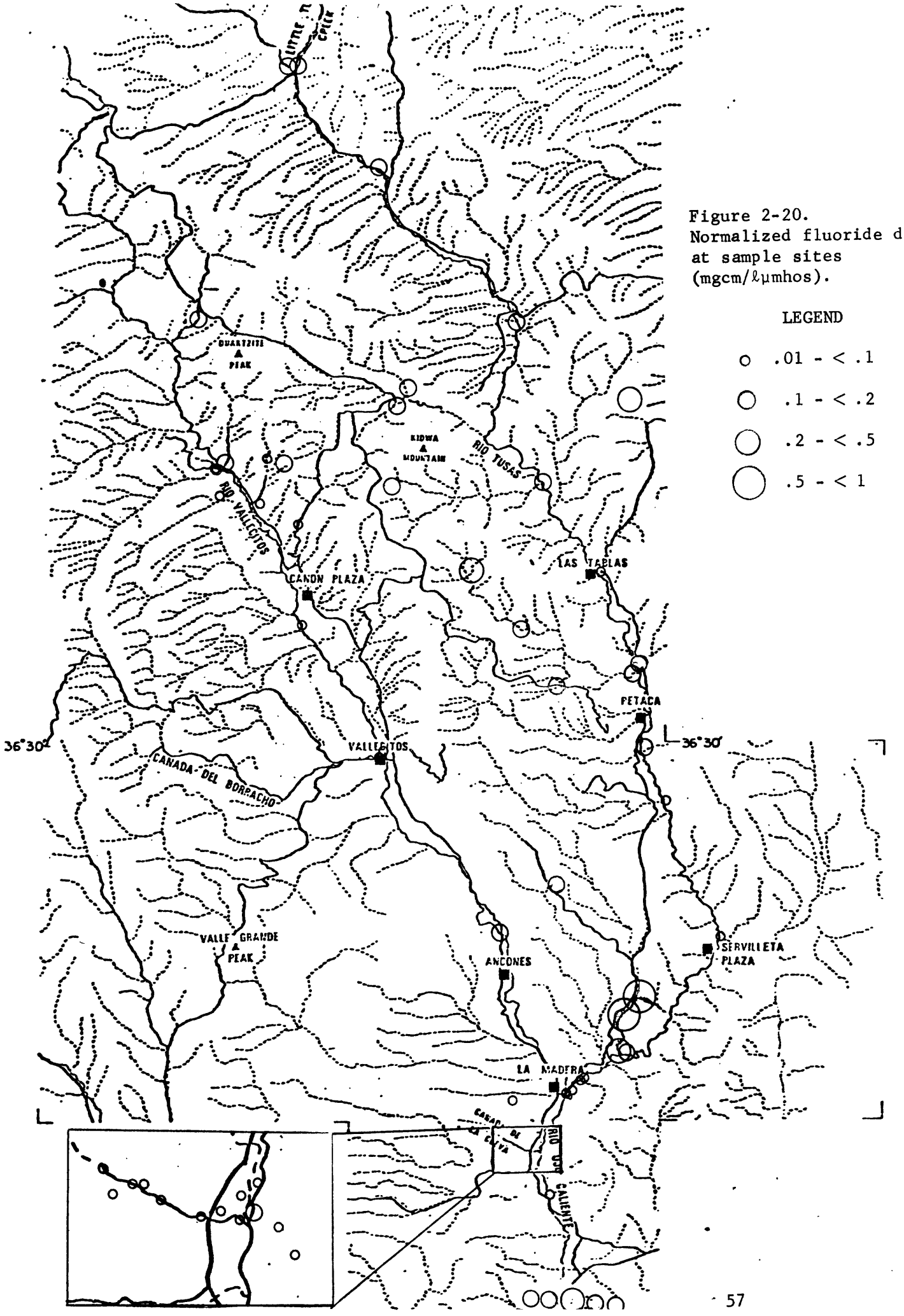

Figure 2-20.
Normalized fluoride data at sample sites (mgcm/ℓμmhos).

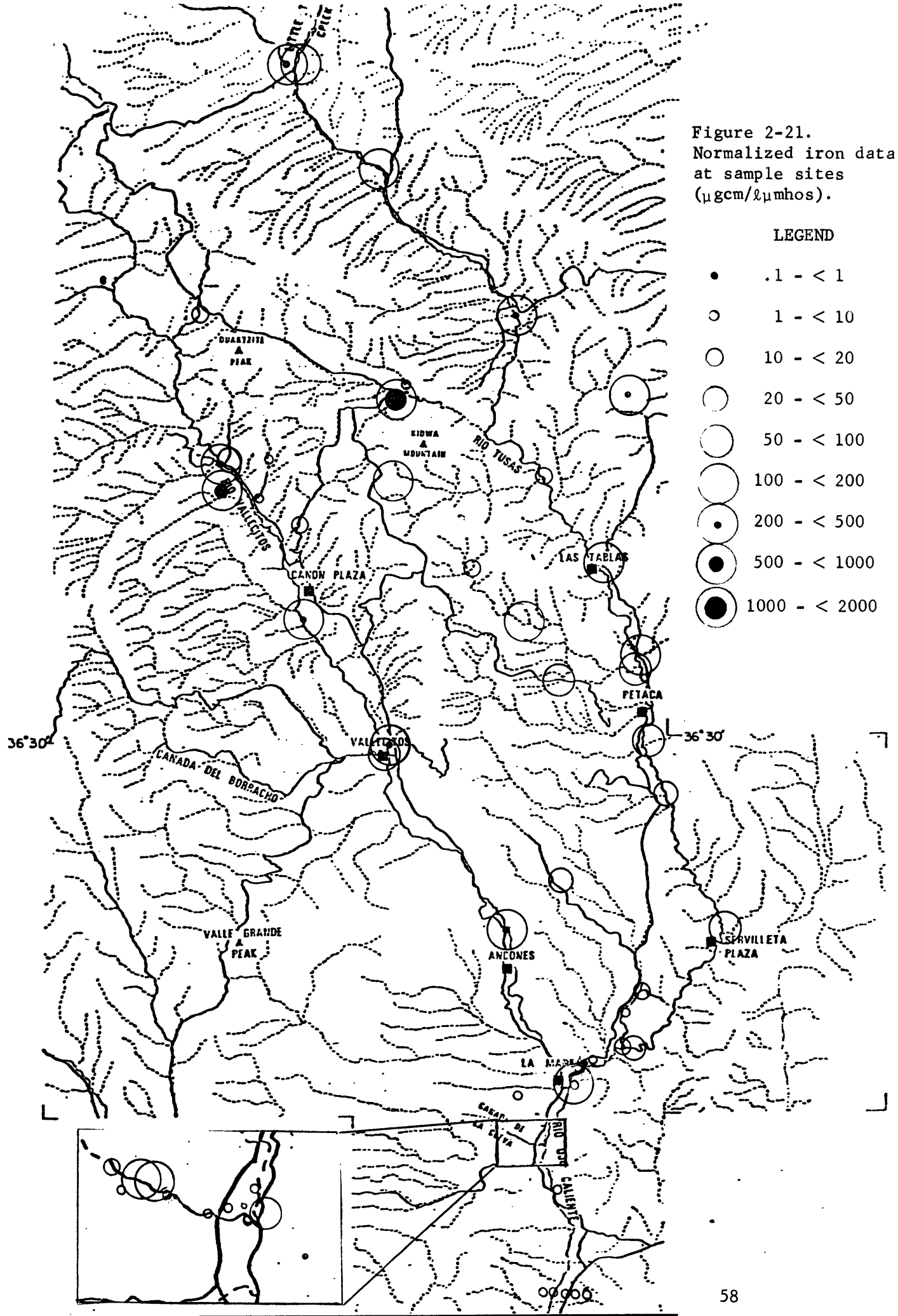

Figure 2-21. Normalized iron data at sample sites (μgcm/ℓμmhos).

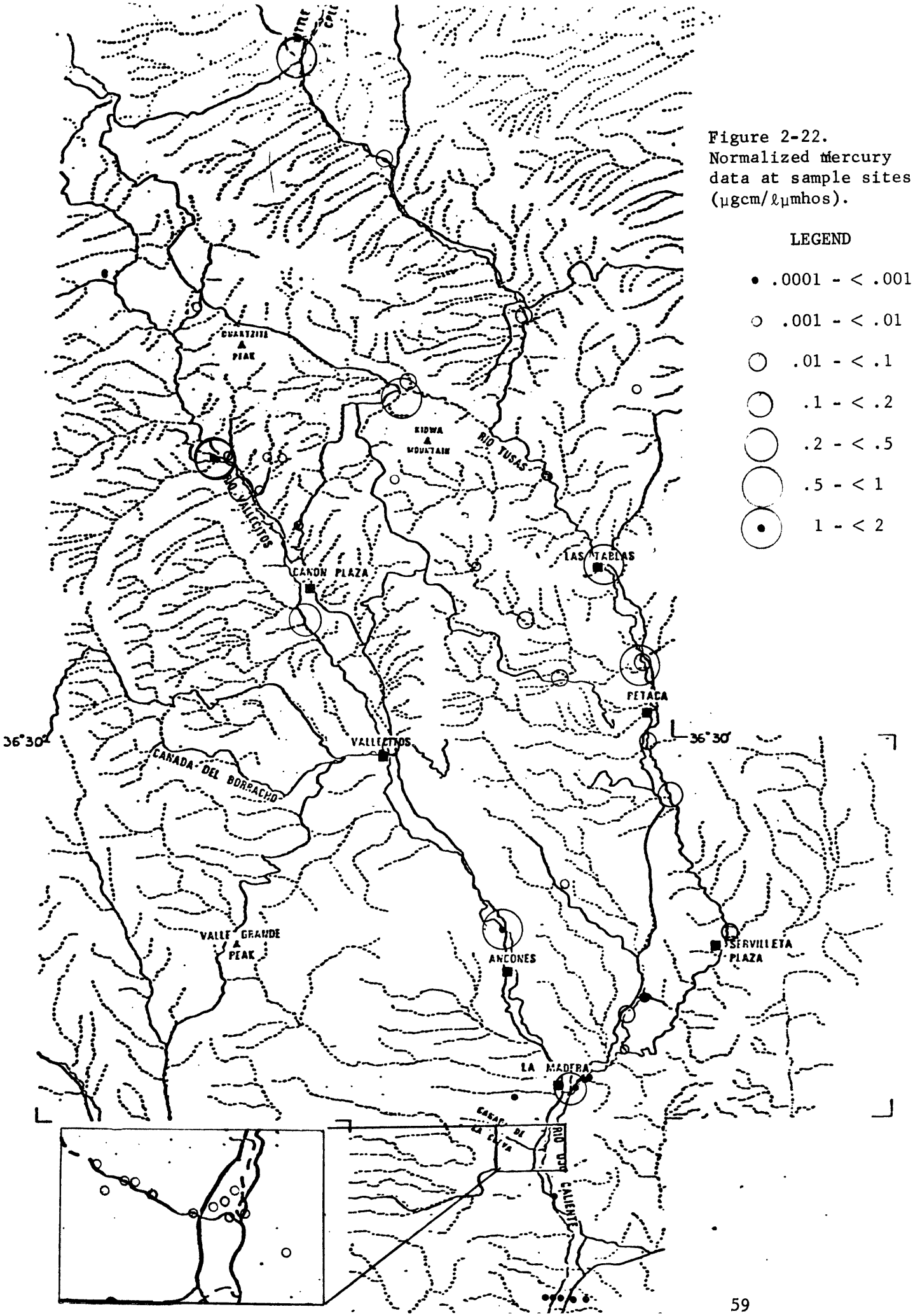

Figure 2-22. Normalized mercury data at sample sites (μgcm/ℓμmhos).

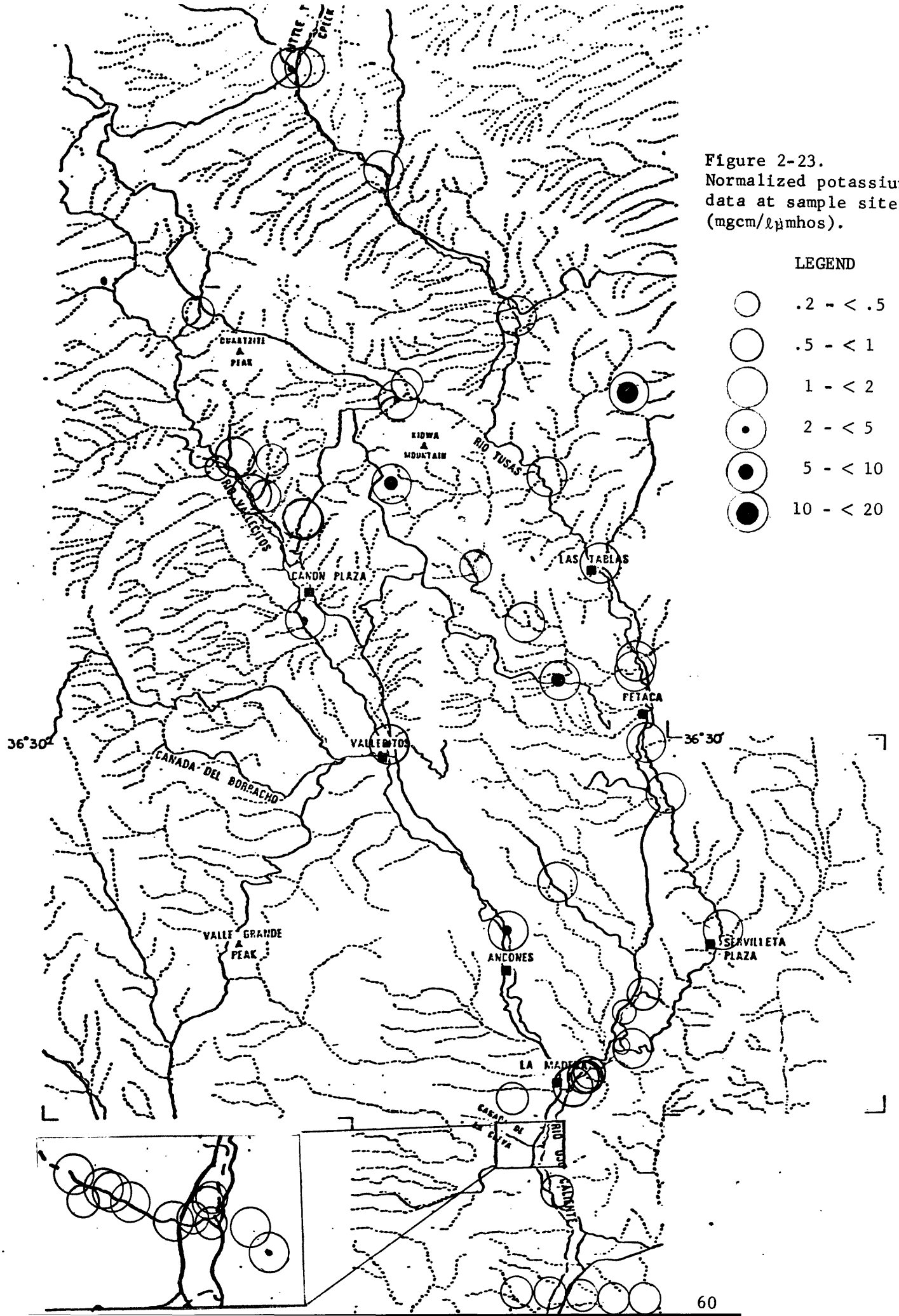

Figure 2-23. Normalized potassium data at sample sites (mgcm/ℓμmhos).

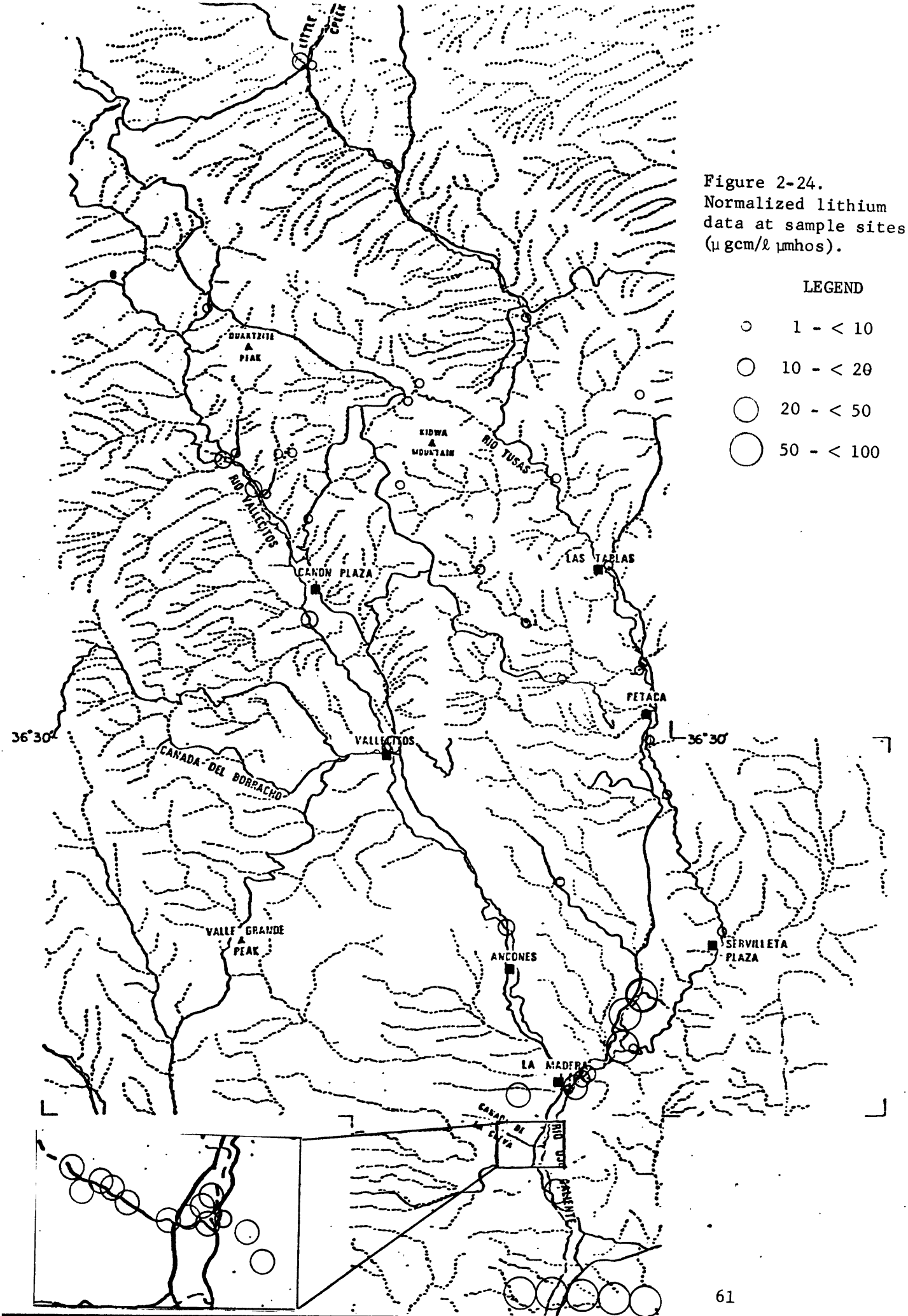

Figure 2-24. Normalized lithium data at sample sites (μ gcm/ℓ μmhos).

LEGEND

- ○ 1 - < 10
- ◯ 10 - < 20
- ◯ 20 - < 50
- ◯ 50 - < 100

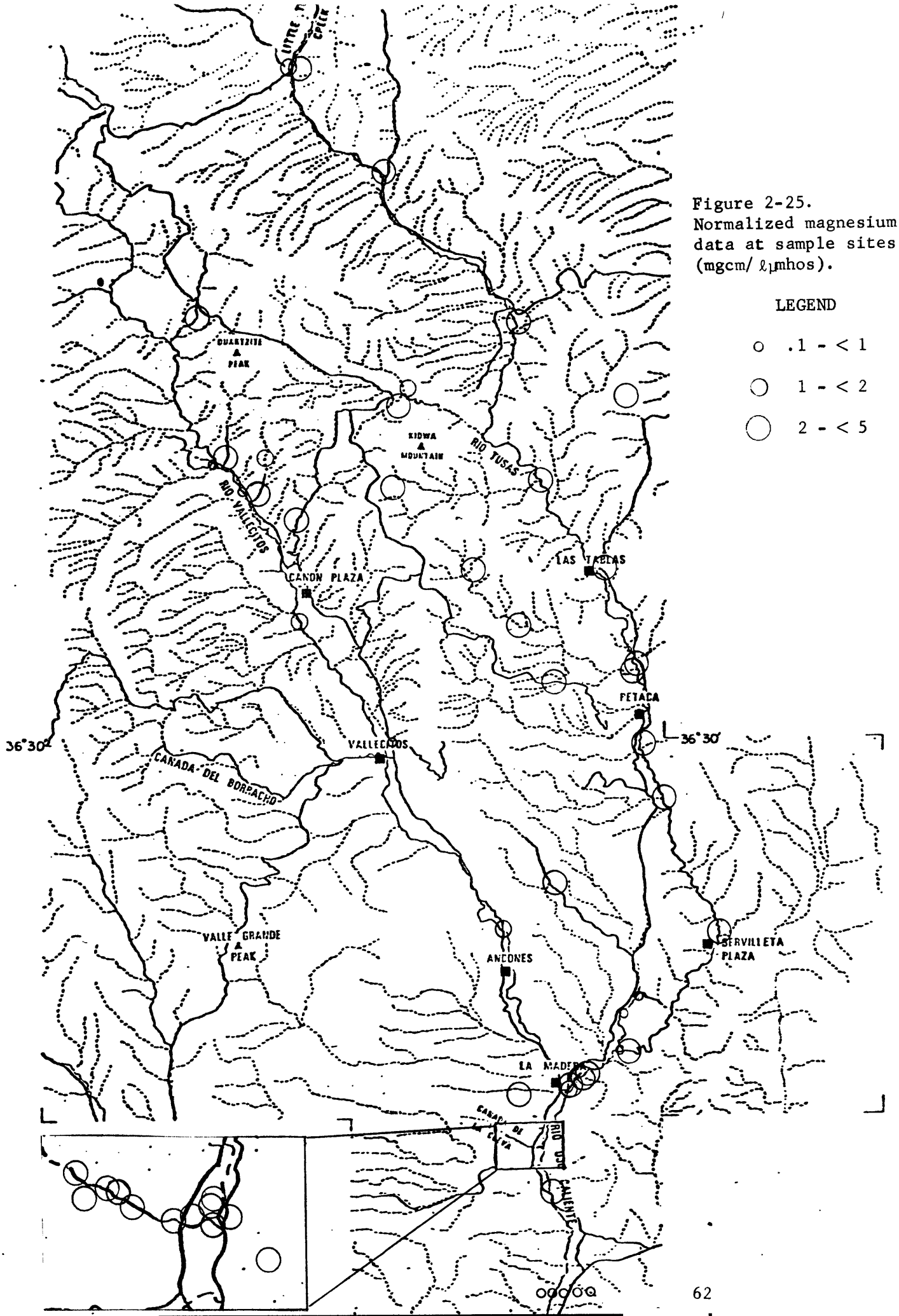

Figure 2-25. Normalized magnesium data at sample sites (mgcm/ $\ell\mu$mhos).

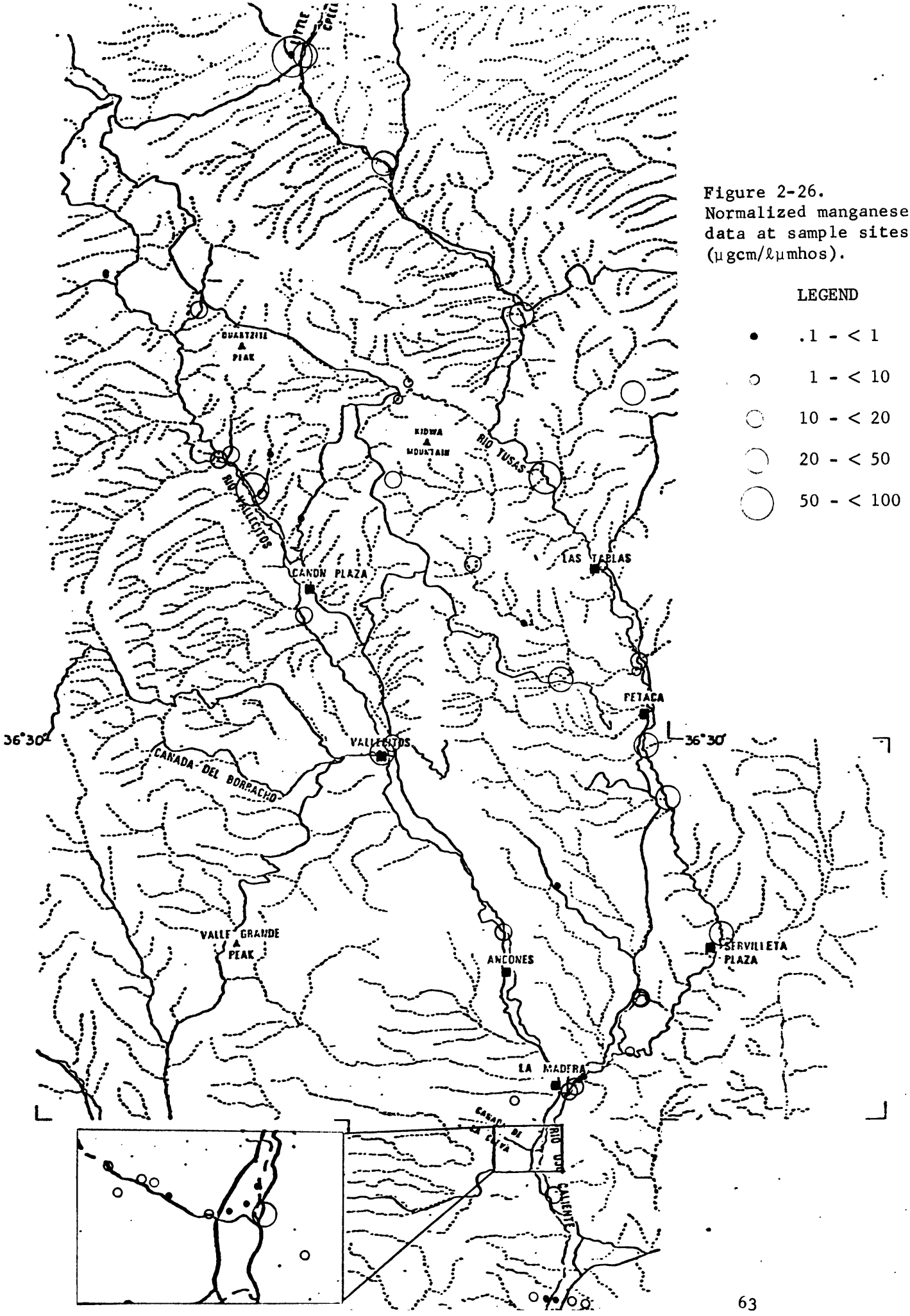

Figure 2-26. Normalized manganese data at sample sites (µgcm/ℓµmhos).

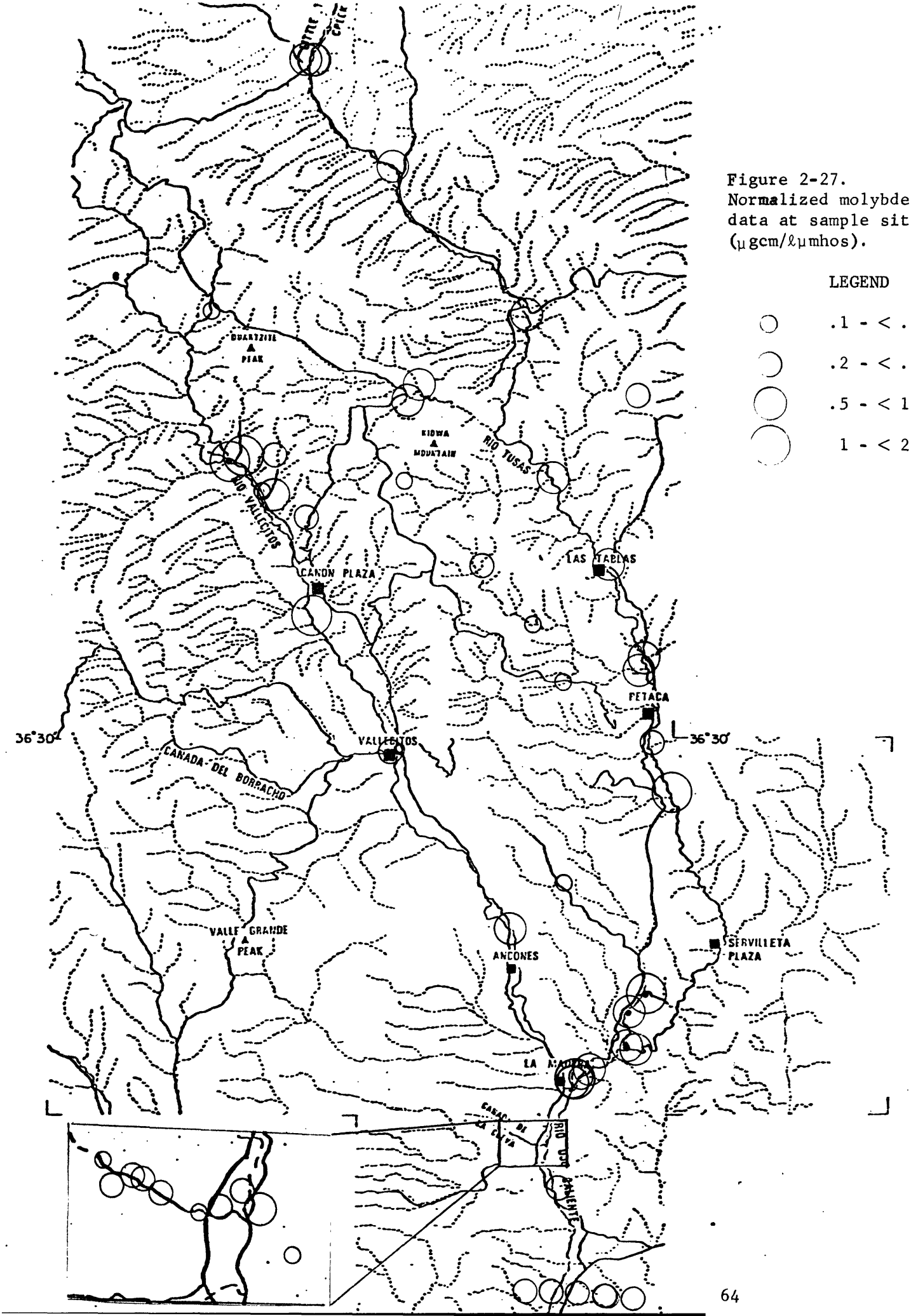

Figure 2-27. Normalized molybdenum data at sample sites ($\mu gcm/\ell\mu mhos$).

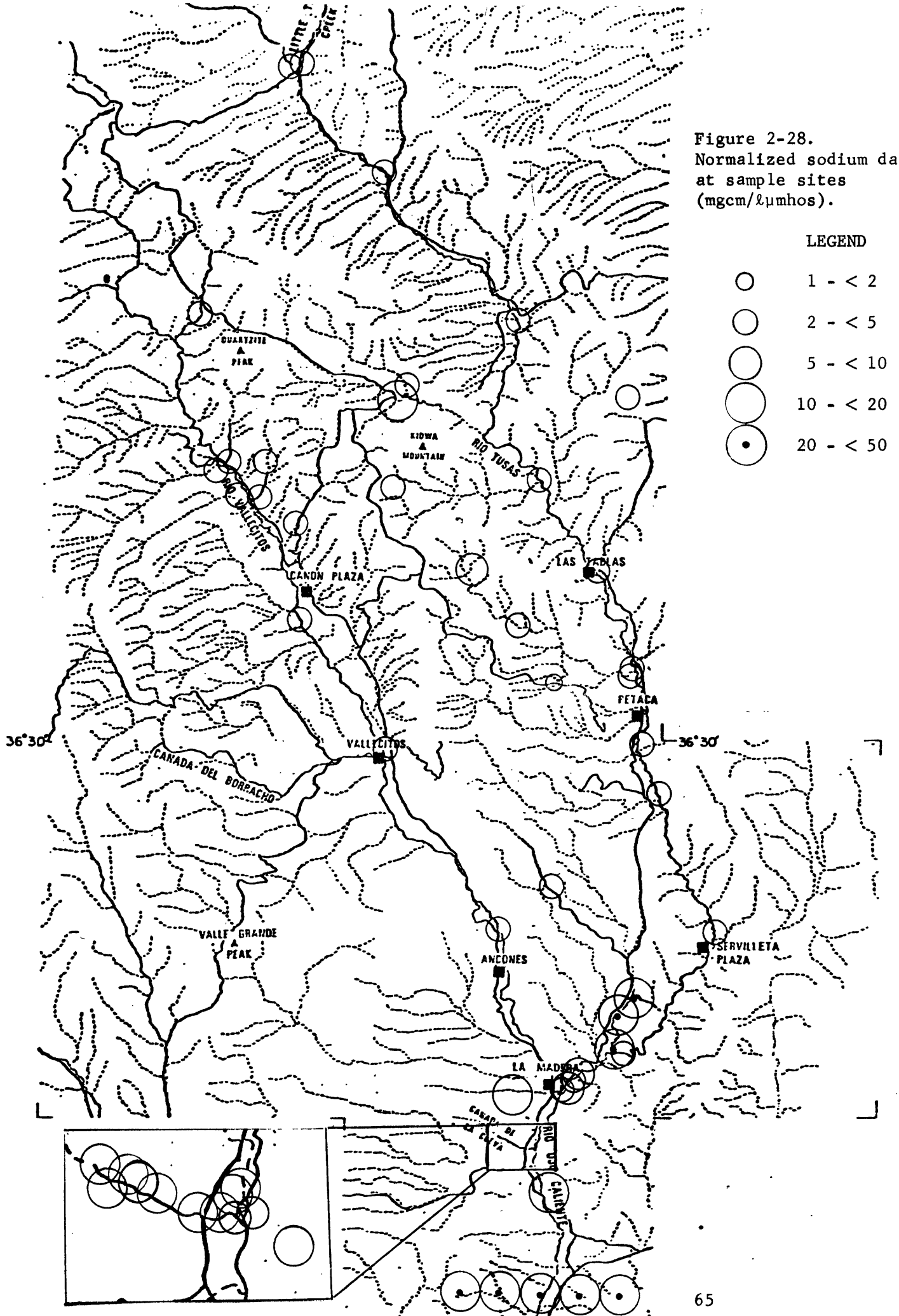

Figure 2-28.
Normalized sodium data at sample sites (mgcm/ℓμmhos).

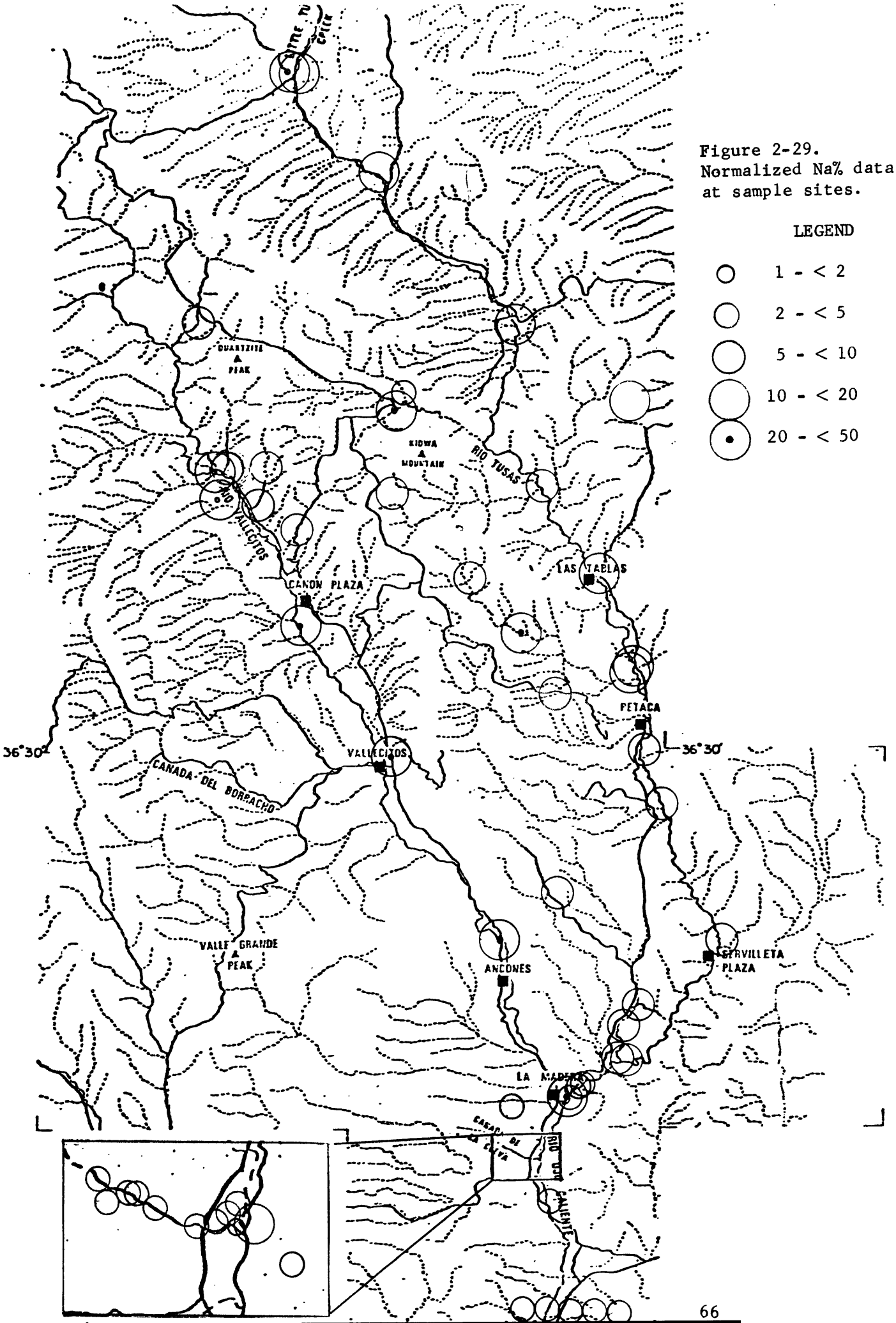

Figure 2-29.
Normalized Na% data
at sample sites.

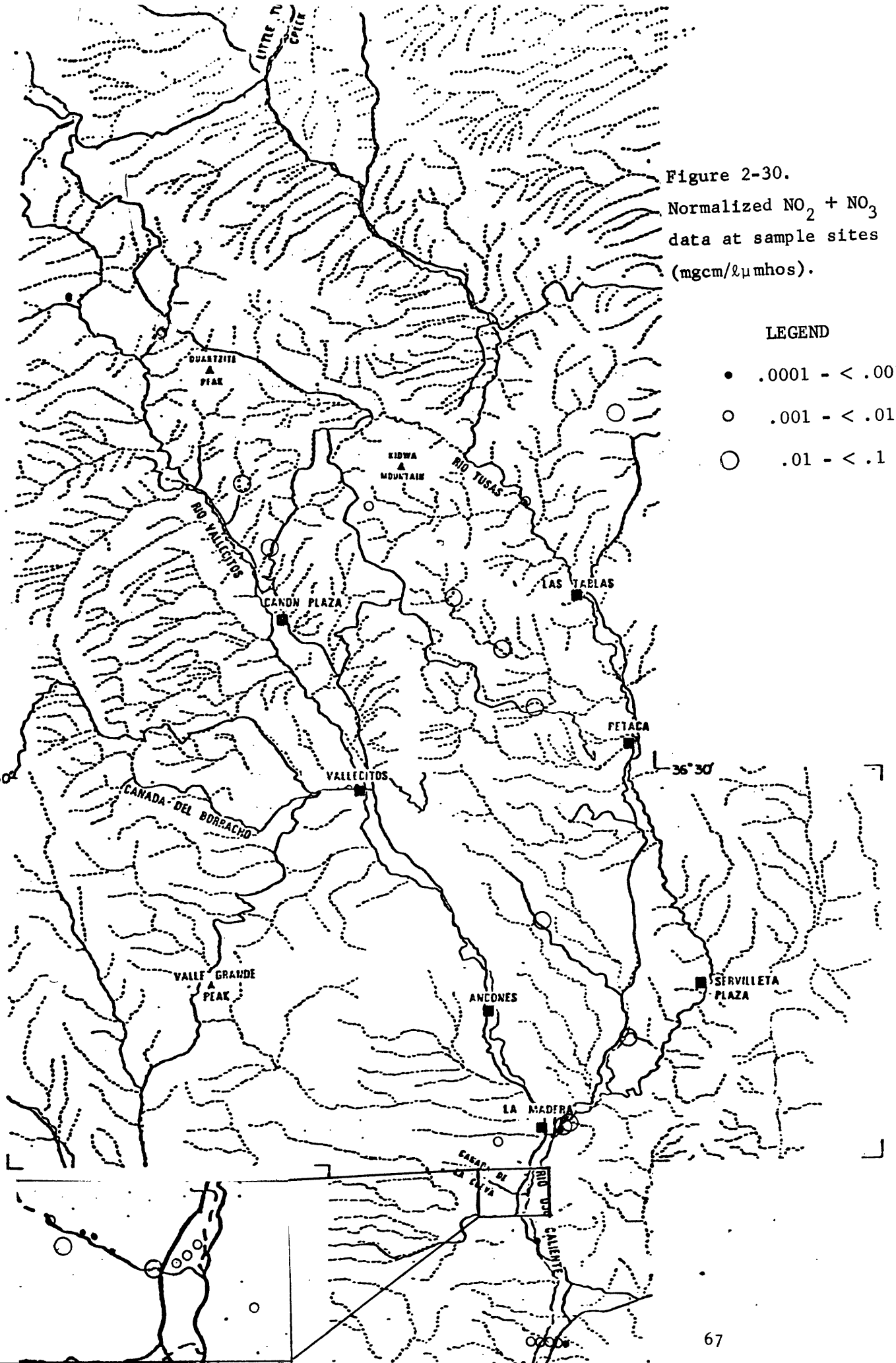

Figure 2-30. Normalized $NO_2 + NO_3$ data at sample sites (mgcm/ℓμmhos).

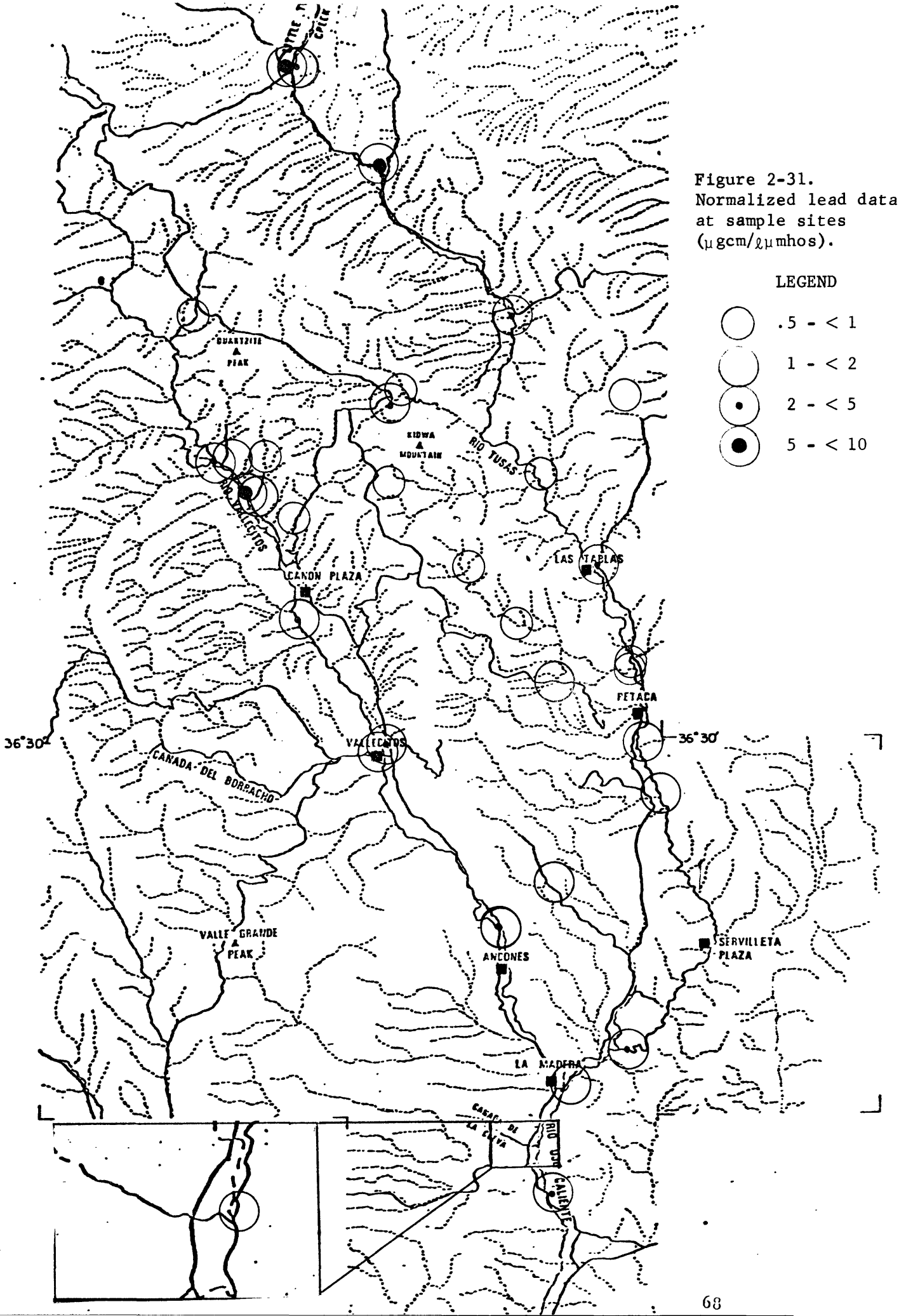

Figure 2-31. Normalized lead data at sample sites (μgcm/$\ell\mu$mhos).

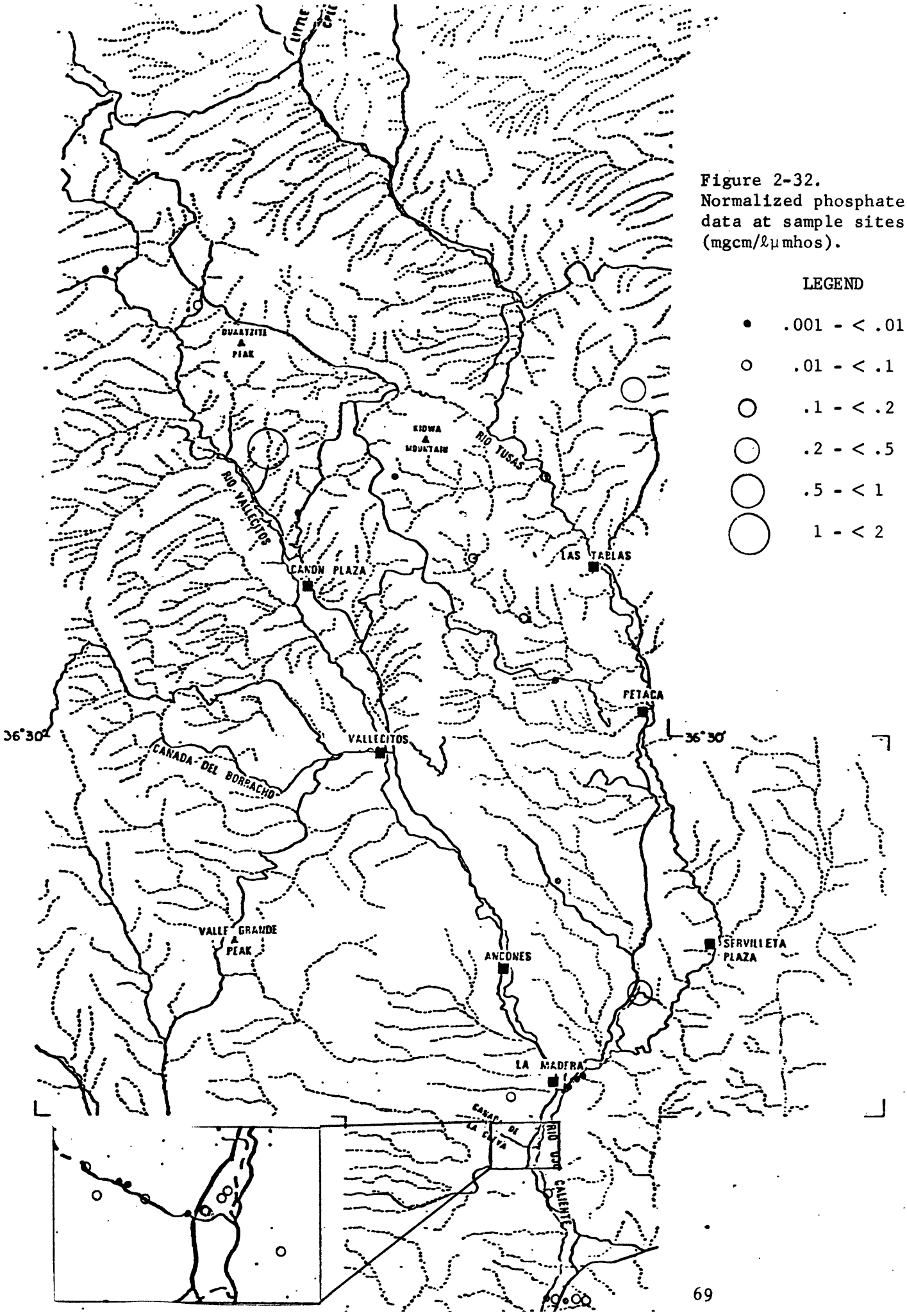

Figure 2-32. Normalized phosphate data at sample sites (mgcm/ℓμmhos).

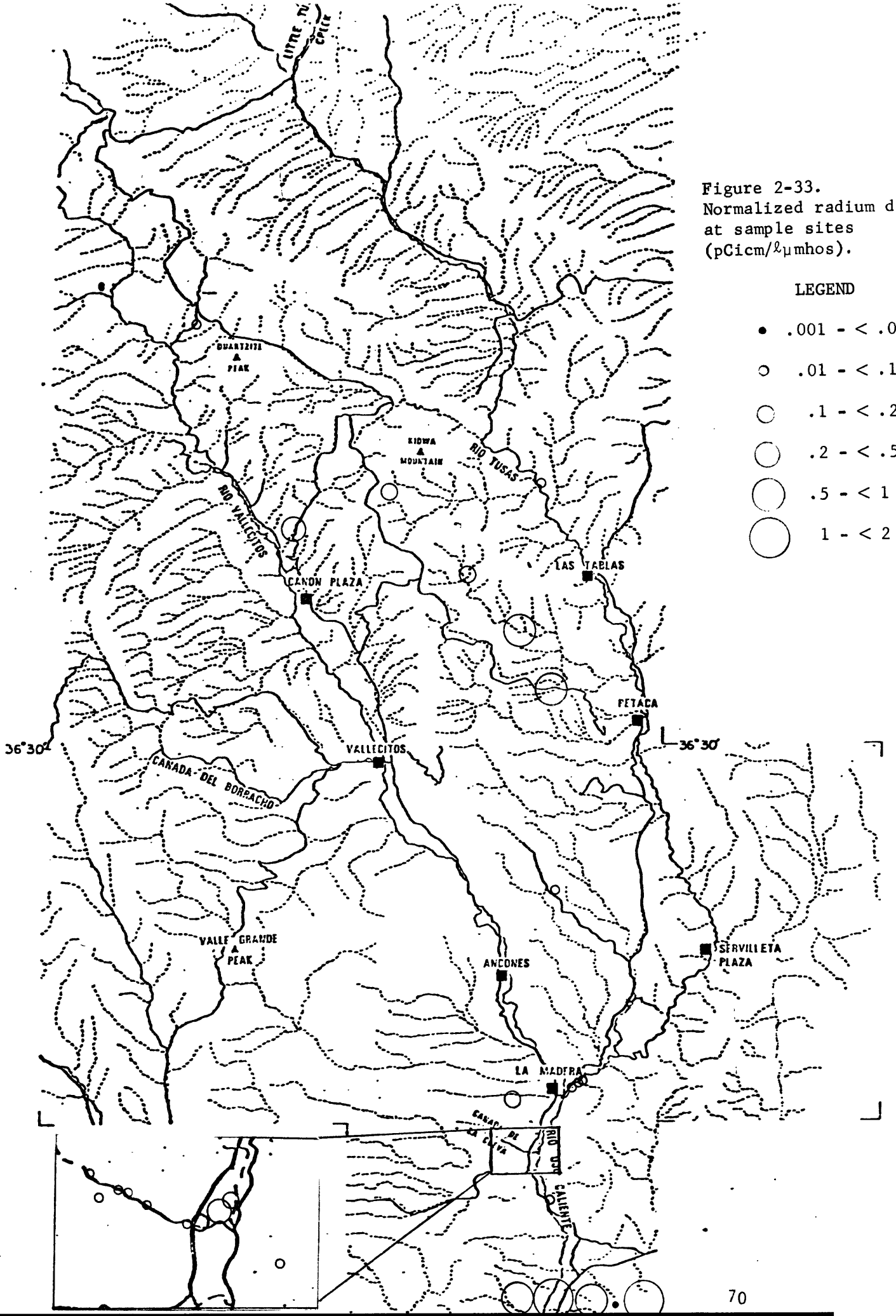

Figure 2-33.
Normalized radium data at sample sites (pCicm/μmhos).

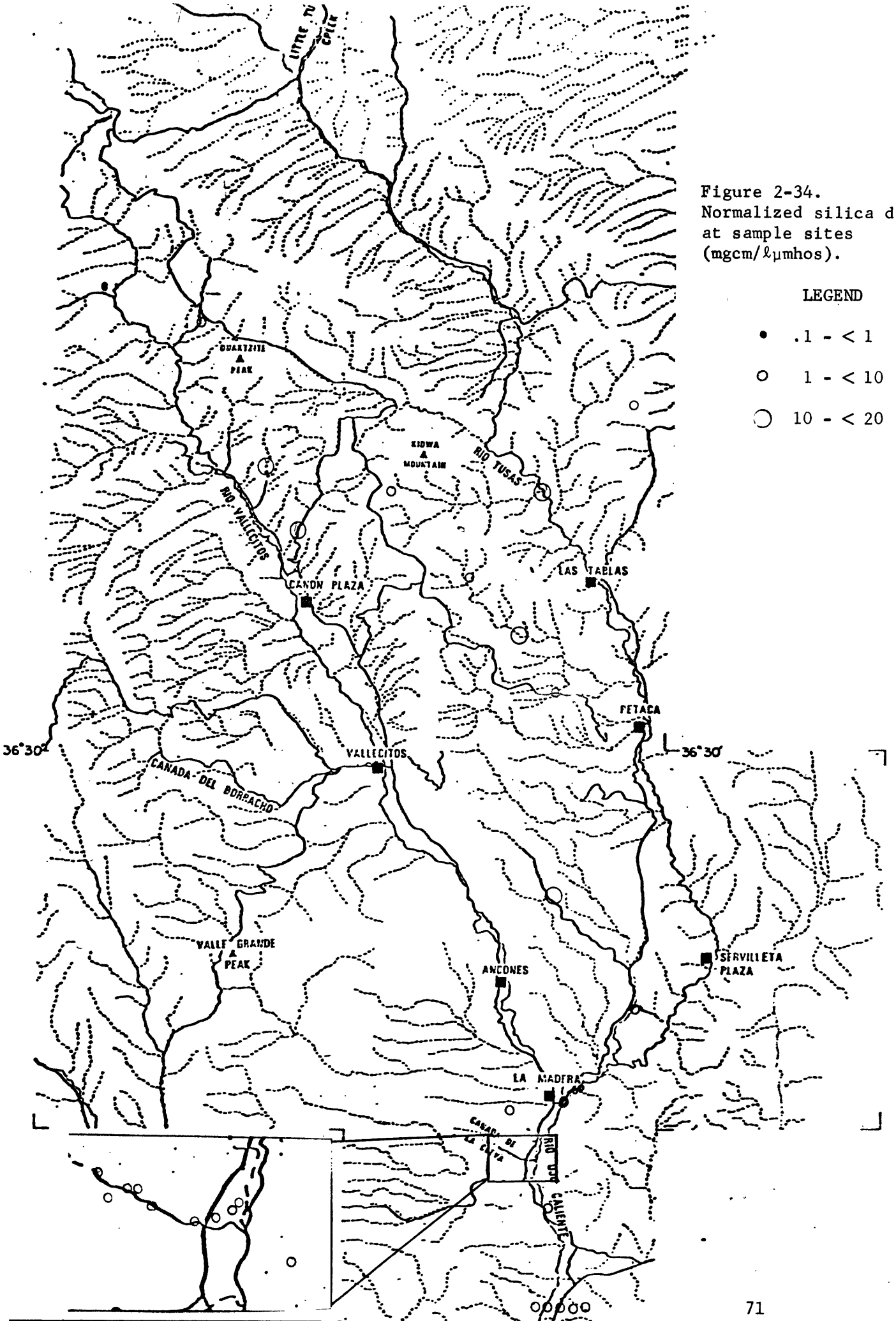

Figure 2-34.
Normalized silica data at sample sites (mgcm/ℓμmhos).

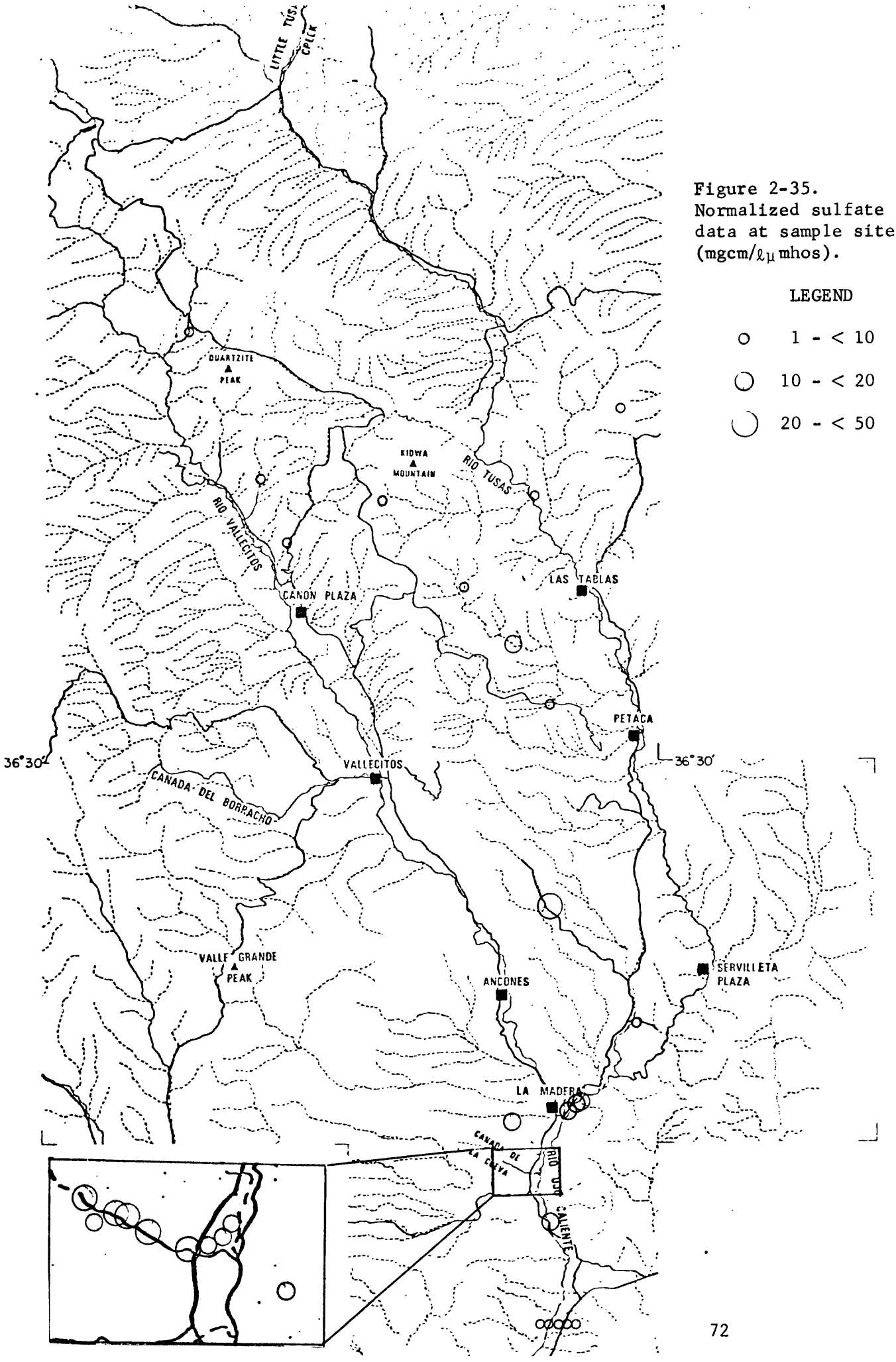

Figure 2-35. Normalized sulfate data at sample sites (mgcm/$\ell\mu$mhos).

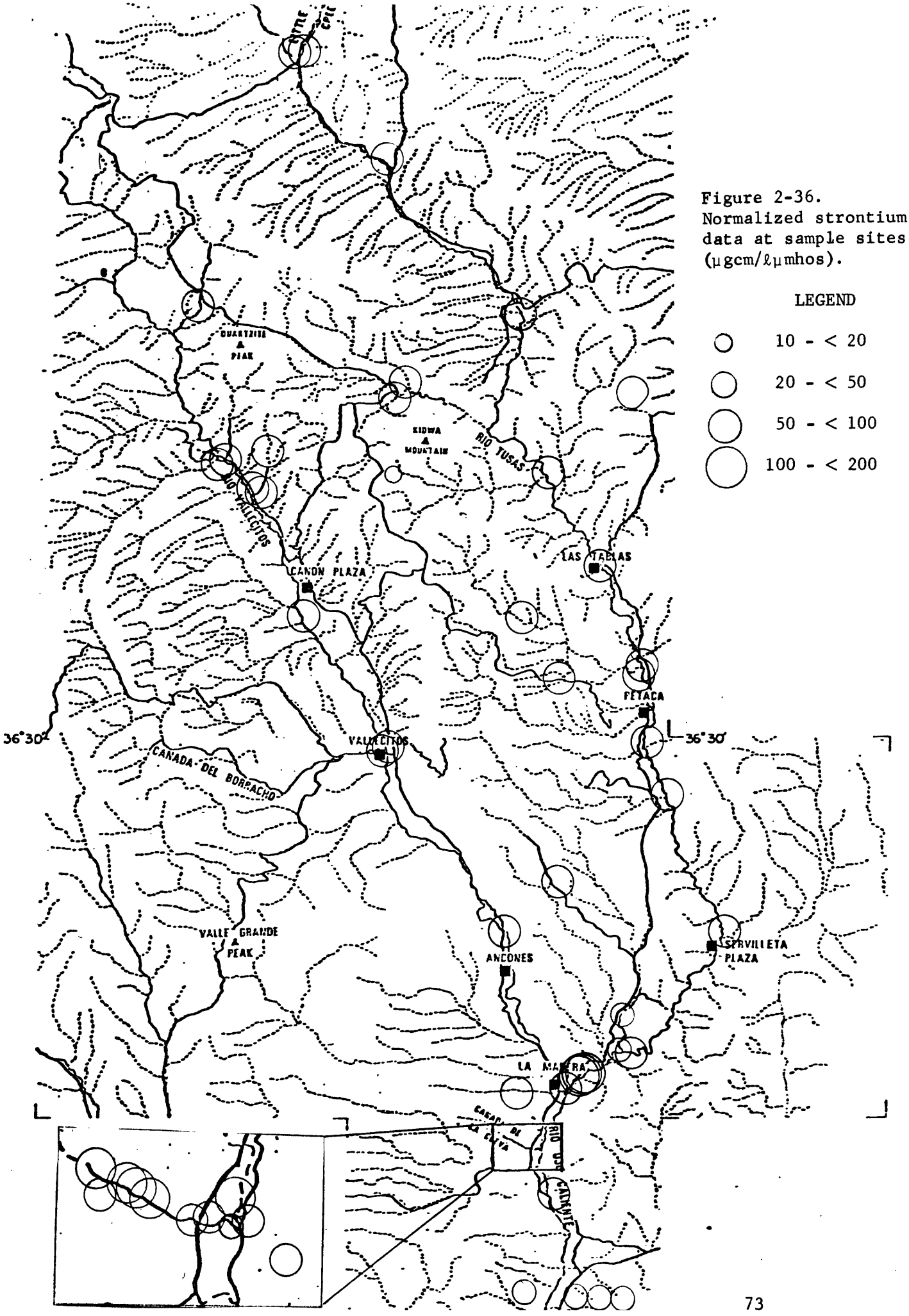

Figure 2-36. Normalized strontium data at sample sites (μgcm/ℓμmhos).

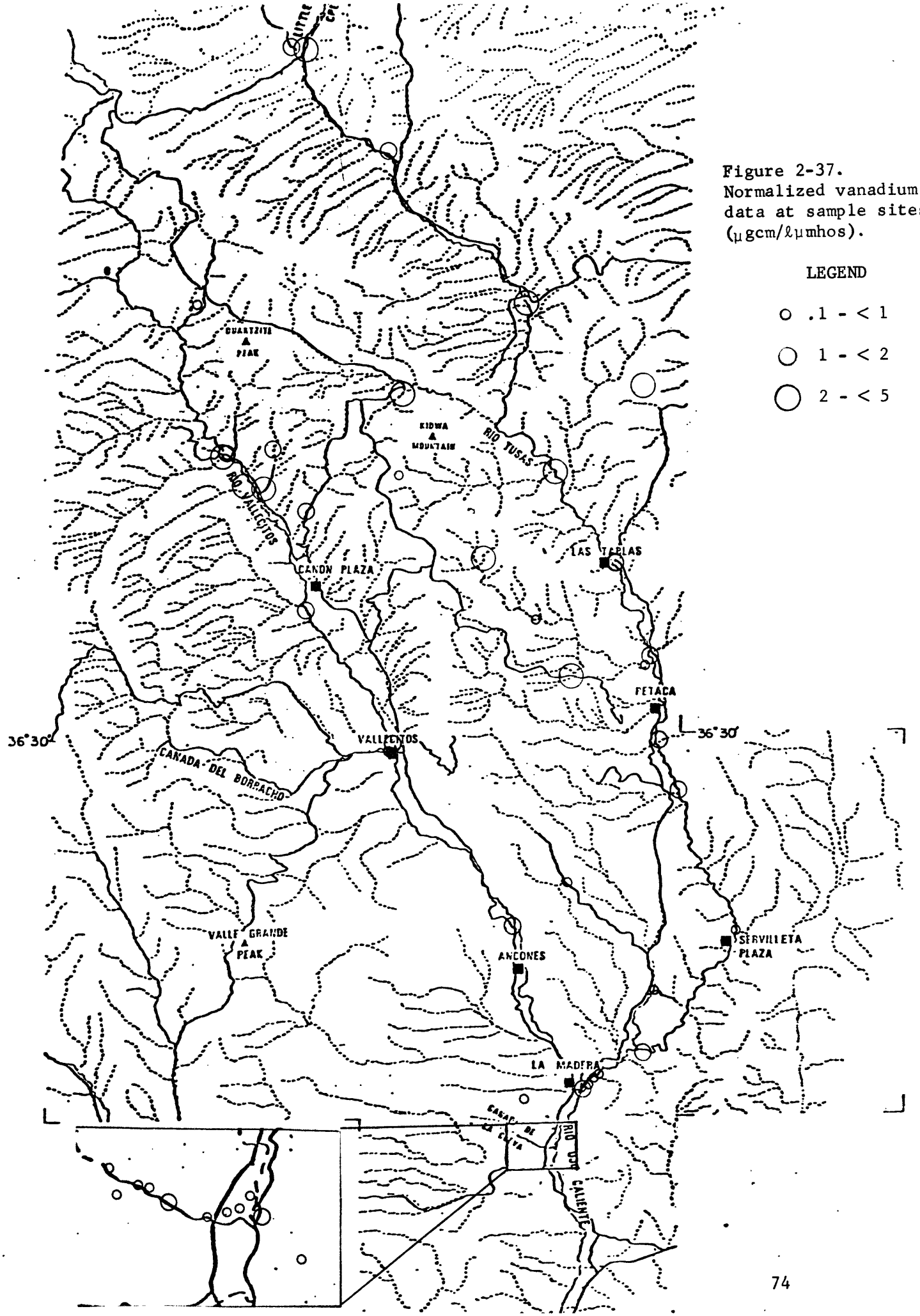

Figure 2-37. Normalized vanadium data at sample sites (μgcm/ℓμmhos).

LEGEND

○ .1 - < 1

○ 1 - < 2

○ 2 - < 5

Table 5.--Frequency distributions of elements found in the waters of the Rio Ojo Caliente drainage basin

N	not detected	T	trace amount present
L	detected, but less than lower detection limit	G	greater than upper detection limit
H	no data because of analytical interference	B	no analysis performed

FREQUENCY TABLE FOR: L-Cond

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
1.699e+00	-	1.939e+00	8	8	13.56	13.56
1.939e+00	-	2.179e+00	13	21	22.03	35.59
2.179e+00	-	2.419e+00	11	32	18.64	54.24
2.419e+00	-	2.659e+00	2	34	3.39	57.63
2.659e+00	-	2.899e+00	0	34	0.00	57.63
2.899e+00	-	3.139e+00	7	41	11.86	69.49
3.139e+00	-	3.379e+00	12	53	20.34	89.83
3.379e+00	-	3.619e+00	6	59	10.17	100.00
G			0	59	0.00	100.00
H			0	59		
B			0	59		
TOTALS LESS H AND B			59			

HISTOGRAM FOR: L-Cond

```
1.819e+00 XXXXXXXXXXXXX
2.059e+00 XXXXXXXXXXXXXXXXXXXXX
2.299e+00 XXXXXXXXXXXXXXXXXX
2.539e+00 XXX
2.779e+00
3.019e+00 XXXXXXXXXXXX
3.259e+00 XXXXXXXXXXXXXXXXXXX
3.499e+00 XXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.69897e+00
MAXIMUM = 3.60206e+00
MEAN = 2.58069e+00
STD DEV = 6.13640e-01
VARIANCE= 3.76554e-01

FREQUENCY TABLE FOR: L-U-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
-1.176e+00	-	-8.961e-01	15	15	25.42	25.42
-8.961e-01	-	-6.161e-01	12	27	20.34	45.76
-6.161e-01	-	-3.361e-01	7	34	11.86	57.63
-3.361e-01	-	-5.609e-02	7	41	11.86	69.49
-5.609e-02	-	2.239e-01	1	42	1.69	71.19
2.239e-01	-	5.039e-01	7	49	11.86	83.05
5.039e-01	-	7.839e-01	8	57	13.56	96.61
7.839e-01	-	1.064e+00	1	58	1.69	98.31
1.064e+00	-	1.344e+00	1	59	1.69	100.00
G			0	59	0.00	100.00
H			0	59		
B			0	59		
TOTALS LESS H AND B			59			

HISTOGRAM FOR: L-U-d
NORMALIZED DATA USED

```
-1.036e+00 XXXXXXXXXXXXXXXXXXXXXXXX
-7.561e-01 XXXXXXXXXXXXXXXXXXX
-4.761e-01 XXXXXXXXXXXX
-1.961e-01 XXXXXXXXXXXX
 8.391e-02 XX
 3.639e-01 XXXXXXXXXXXX
 6.439e-01 XXXXXXXXXXXXX
 9.239e-01 XX
 1.204e+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -1.17609e+00
MAXIMUM = 1.09691e+00
MEAN = -3.32619e-01
STD DEV = 6.38649e-01
VARIANCE= 4.07872e-01

Table 5, continued

FREQUENCY TABLE FOR: L-Alk
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
7.404e-01	-	9.504e-01	2	2	3.39	3.39
9.504e-01	-	1.160e+00	1	3	1.69	5.08
1.160e+00	-	1.370e+00	7	10	11.86	16.95
1.370e+00	-	1.580e+00	22	32	37.29	54.24
1.580e+00	-	1.790e+00	26	58	44.07	98.31
1.790e+00	-	2.000e+00	0	58	0.00	98.31
2.000e+00	-	2.210e+00	0	58	0.00	98.31
2.210e+00	-	2.420e+00	0	58	0.00	98.31
2.420e+00	-	2.630e+00	1	59	1.69	100.00
G			0	59	0.00	100.00
H			0	59		
B			0	59		
TOTALS LESS H AND B			59			

HISTOGRAM FOR: L-Alk
NORMALIZED DATA USED

```
8.454e-01 XXX
1.055e+00 XX
1.265e+00 XXXXXXXXXXX
1.475e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.685e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.895e+00
2.105e+00
2.315e+00
2.525e+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 7.40363e-01
MAXIMUM = 2.44404e+00
MEAN = 1.53084e+00
STD DEV = 2.47384e-01
VARIANCE= 6.11989e-02

FREQUENCY TABLE FOR: EH

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
2.027e+00	-	4.403e+01	25	25	43.10	43.10
4.403e+01	-	8.603e+01	11	36	18.97	62.07
8.603e+01	-	1.280e+02	10	46	17.24	79.31
1.280e+02	-	1.700e+02	2	48	3.45	82.76
1.700e+02	-	2.120e+02	4	52	6.90	89.66
2.120e+02	-	2.540e+02	1	53	1.72	91.38
2.540e+02	-	2.960e+02	0	53	0.00	91.38
2.960e+02	-	3.380e+02	4	57	6.90	98.28
3.380e+02	-	3.800e+02	1	58	1.72	100.00
G			0	58	0.00	100.00
H			0	58		
B			1	59		
TOTALS LESS H AND B			58			

HISTOGRAM FOR: EH

```
2.303e+01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
6.503e+01 XXXXXXXXXXXXXXXXXX
1.070e+02 XXXXXXXXXXXXXXXX
1.490e+02 XXX
1.910e+02 XXXXXXX
2.330e+02 XX
2.750e+02
3.170e+02 XXXXXXX
3.590e+02 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 2.02703e+00
MAXIMUM = 3.40000e+02
MEAN = 8.38107e+01
STD DEV = 9.40322e+01
VARIANCE= 8.84205e+03

Table 5, continued

FREQUENCY TABLE FOR: L-Hard
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
3.064e-01	-	4.864e-01	5	5	8.93	8.93
4.864e-01	-	6.664e-01	1	6	1.79	10.71
6.664e-01	-	8.464e-01	2	8	3.57	14.29
8.464e-01	-	1.026e+00	0	8	0.00	14.29
1.026e+00	-	1.206e+00	0	8	0.00	14.29
1.206e+00	-	1.386e+00	1	9	1.79	16.07
1.386e+00	-	1.566e+00	16	25	28.57	44.64
1.566e+00	-	1.746e+00	31	56	55.36	100.00
G			0	56	0.00	100.00
H			0	56		
B			3	59		
TOTALS LESS H AND B			56			

HISTOGRAM FOR: L-Hard
NORMALIZED DATA USED

```
3.964e-01 XXXXXXXXX
5.764e-01 XX
7.564e-01 XXXX
9.364e-01
1.116e+00
1.296e+00 XX
1.476e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXX
1.656e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 3.06425e-01
MAXIMUM = 1.71719e+00
MEAN = 1.44102e+00
STD DEV = 3.99503e-01
VARIANCE= 1.59603e-01

FREQUENCY TABLE FOR: L-HardNC
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			12	12	38.71	38.71
T			0	12	0.00	38.71
0.000e+00	-	2.300e-01	2	14	6.45	45.16
2.300e-01	-	4.600e-01	4	18	12.90	58.06
4.600e-01	-	6.900e-01	9	27	29.03	87.10
6.900e-01	-	9.200e-01	1	28	3.23	90.32
9.200e-01	-	1.150e+00	2	30	6.45	96.77
1.150e+00	-	1.380e+00	1	31	3.23	100.00
G			0	31	0.00	100.00
H			0	31		
B			28	59		
TOTALS LESS H AND B			31			

HISTOGRAM FOR: L-HardNC
NORMALIZED DATA USED

```
1.150e-01 XXXXXX
3.450e-01 XXXXXXXXXXXX
5.750e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXX
8.050e-01 XXX
1.035e+00 XXXXXX
1.265e+00 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 0.00000e+00
MAXIMUM = 1.35902e+00
MEAN = 5.80577e-01
STD DEV = 3.19860e-01
VARIANCE= 1.02310e-01

Table 5, continued

FREQUENCY TABLE FOR: PH

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
1.725e-01	-	1.872e+00	25	25	49.02	49.02
1.872e+00	-	3.572e+00	5	30	9.80	58.82
3.572e+00	-	5.272e+00	7	37	13.73	72.55
5.272e+00	-	6.972e+00	7	44	13.73	86.27
6.972e+00	-	8.672e+00	4	48	7.84	94.12
8.672e+00	-	1.037e+01	1	49	1.96	96.08
1.037e+01	-	1.207e+01	1	50	1.96	98.04
1.207e+01	-	1.377e+01	1	51	1.96	100.00
	G		0	51	0.00	100.00
	H		0	51		
	B		8	59		
TOTALS LESS H AND B			51			

HISTOGRAM FOR: PH

```
1.022e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.722e+00 XXXXXXXXXX
4.423e+00 XXXXXXXXXXXXXX
6.123e+00 XXXXXXXXXXXXXX
7.822e+00 XXXXXXXX
9.522e+00 XX
1.122e+01 XX
1.292e+01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.72500e-01
MAXIMUM = 1.36364e+01
MEAN = 3.22723e+00
STD DEV = 3.36711e+00
VARIANCE= 1.13375e+01

FREQUENCY TABLE FOR: L-SAR
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-9.700e-01	-	-8.400e-01	8	8	14.29	14.29
-8.400e-01	-	-7.100e-01	13	21	23.21	37.50
-7.100e-01	-	-5.800e-01	13	34	23.21	60.71
-5.800e-01	-	-4.500e-01	8	42	14.29	75.00
-4.500e-01	-	-3.200e-01	5	47	8.93	83.93
-3.200e-01	-	-1.900e-01	0	47	0.00	83.93
-1.900e-01	-	-6.004e-02	0	47	0.00	83.93
-6.004e-02	-	6.996e-02	5	52	8.93	92.86
6.996e-02	-	2.000e-01	4	56	7.14	100.00
	G		0	56	0.00	100.00
	H		0	56		
	B		3	59		
TOTALS LESS H AND B			56			

HISTOGRAM FOR: L-SAR
NORMALIZED DATA USED

```
-9.050e-01 XXXXXXXXXXXXXX
-7.750e-01 XXXXXXXXXXXXXXXXXXXXXXX
-6.450e-01 XXXXXXXXXXXXXXXXXXXXXXX
-5.150e-01 XXXXXXXXXXXXXX
-3.850e-01 XXXXXXXXX
-2.550e-01
-1.250e-01
 4.963e-03 XXXXXXXXX
 1.350e-01 XXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -9.70037e-01
MAXIMUM = 1.01458e-01
MEAN = -5.58300e-01
STD DEV = 3.01766e-01
VARIANCE= 9.10630e-02

Table 5, continued

FREQUENCY TABLE FOR: L-H2Ote

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
8.451e-01	-	9.401e-01	4	4	6.78	6.78
9.401e-01	-	1.035e+00	7	11	11.86	18.64
1.035e+00	-	1.130e+00	11	22	18.64	37.29
1.130e+00	-	1.225e+00	14	36	23.73	61.02
1.225e+00	-	1.320e+00	6	42	10.17	71.19
1.320e+00	-	1.415e+00	9	51	15.25	86.44
1.415e+00	-	1.510e+00	5	56	8.47	94.92
1.510e+00	-	1.605e+00	3	59	5.08	100.00
G			0	59	0.00	100.00
H			0	59		
B			0	59		
TOTALS LESS H AND B			59			

HISTOGRAM FOR: L-H2Ote

```
8.926e-01 XXXXXXX
9.876e-01 XXXXXXXXXXXX
1.083e+00 XXXXXXXXXXXXXXXXXX
1.178e+00 XXXXXXXXXXXXXXXXXXXXXX
1.273e+00 XXXXXXXXXX
1.368e+00 XXXXXXXXXXXXXX
1.463e+00 XXXXXXXX
1.558e+00 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 8.45098e-01
MAXIMUM = 1.60206e+00
MEAN = 1.19580e+00
STD DEV = 1.81736e-01
VARIANCE= 3.30280e-02

FREQUENCY TABLE FOR: L-Al-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			23	23	38.98	38.98
T			0	23	0.00	38.98
4.771e-01	-	8.771e-01	5	28	8.47	47.46
8.771e-01	-	1.277e+00	4	32	6.78	54.24
1.277e+00	-	1.677e+00	8	40	13.56	67.80
1.677e+00	-	2.077e+00	6	46	10.17	77.97
2.077e+00	-	2.477e+00	9	55	15.25	93.22
2.477e+00	-	2.877e+00	3	58	5.08	98.31
2.877e+00	-	3.277e+00	0	58	0.00	98.31
3.277e+00	-	3.677e+00	1	59	1.69	100.00
G			0	59	0.00	100.00
H			0	59		
B			0	59		
TOTALS LESS H AND B			59			

HISTOGRAM FOR: L-Al-d
NORMALIZED DATA USED

```
6.771e-01 XXXXXXXX
1.077e+00 XXXXXXX
1.477e+00 XXXXXXXXXXXXXX
1.877e+00 XXXXXXXXXX
2.277e+00 XXXXXXXXXXXXXX
2.677e+00 XXXXX
3.077e+00
3.477e+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 4.77121e-01
MAXIMUM = 3.28106e+00
MEAN = 1.73127e+00
STD DEV = 6.50936e-01
VARIANCE= 4.23718e-01

Table 5, continued

FREQUENCY TABLE FOR: L-As-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		6	6	10.53	10.53
	T		0	6	0.00	10.53
-5.051e-01	-	-3.551e-01	4	10	7.02	17.54
-3.551e-01	-	-2.051e-01	4	14	7.02	24.56
-2.051e-01	-	-5.515e-02	8	22	14.04	38.60
-5.515e-02	-	9.485e-02	12	34	21.05	59.65
9.485e-02	-	2.449e-01	10	44	17.54	77.19
2.449e-01	-	3.949e-01	4	48	7.02	84.21
3.949e-01	-	5.449e-01	2	50	3.51	87.72
5.449e-01	-	6.949e-01	2	52	3.51	91.23
6.949e-01	-	8.449e-01	5	57	8.77	100.00
	G		0	57	0.00	100.00
	H		0	57		
	B		2	59		
TOTALS LESS H AND B			57			

HISTOGRAM FOR: L-As-d
NORMALIZED DATA USED

```
-4.301e-01 XXXXXXX
-2.801e-01 XXXXXXX
-1.301e-01 XXXXXXXXXXXXX
 1.985e-02 XXXXXXXXXXXXXXXXXXXX
 1.699e-01 XXXXXXXXXXXXXXXXX
 3.199e-01 XXXXXXX
 4.699e-01 XXXX
 6.199e-01 XXXX
 7.699e-01 XXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -5.05150e-01
MAXIMUM = 7.32828e-01
MEAN = 1.01540e-01
STD DEV = 3.21191e-01
VARIANCE= 1.03164e-01

FREQUENCY TABLE FOR: B-D
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
1.143e+00	-	6.743e+00	6	6	13.33	13.33
6.743e+00	-	1.234e+01	7	13	15.56	28.89
1.234e+01	-	1.794e+01	7	20	15.56	44.44
1.794e+01	-	2.354e+01	8	28	17.78	62.22
2.354e+01	-	2.914e+01	9	37	20.00	82.22
2.914e+01	-	3.474e+01	5	42	11.11	93.33
3.474e+01	-	4.034e+01	3	45	6.67	100.00
	G		0	45	0.00	100.00
	H		0	45		
	B		14	59		
TOTALS LESS H AND B			45			

HISTOGRAM FOR: B-D
NORMALIZED DATA USED

```
3.943e+00 XXXXXXXXXXXX
9.543e+00 XXXXXXXXXXXXXXX
1.514e+01 XXXXXXXXXXXXXXX
2.074e+01 XXXXXXXXXXXXXXXXXX
2.634e+01 XXXXXXXXXXXXXXXXXXX
3.194e+01 XXXXXXXXXX
3.754e+01 XXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.14286e+00
MAXIMUM = 4.00000e+01
MEAN = 1.89724e+01
STD DEV = 1.02676e+01
VARIANCE= 1.05424e+02

Table 5, continued

FREQUENCY TABLE FOR: L-Ba-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
3.098e-01	-	5.198e-01	15	15	26.32	26.32
5.198e-01	-	7.298e-01	5	20	8.77	35.09
7.298e-01	-	9.398e-01	2	22	3.51	38.60
9.398e-01	-	1.150e+00	2	24	3.51	42.11
1.150e+00	-	1.360e+00	5	29	8.77	50.88
1.360e+00	-	1.570e+00	8	37	14.04	64.91
1.570e+00	-	1.780e+00	12	49	21.05	85.96
1.780e+00	-	1.990e+00	8	57	14.04	100.00
G			0	57	0.00	100.00
H			0	57		
B			2	59		
TOTALS LESS H AND B			57			

HISTOGRAM FOR: L-Ba-d
NORMALIZED DATA USED

```
4.148e-01 XXXXXXXXXXXXXXXXXXXXXXXXX
6.248e-01 XXXXXXXXX
8.348e-01 XXXX
1.045e+00 XXXX
1.255e+00 XXXXXXXXX
1.465e+00 XXXXXXXXXXXXXX
1.675e+00 XXXXXXXXXXXXXXXXXXXX
1.885e+00 XXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 3.09804e-01
MAXIMUM = 1.95861e+00
MEAN = 1.15963e+00
STD DEV = 5.77466e-01
VARIANCE= 3.33467e-01

FREQUENCY TABLE FOR: L-Bicar
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
1.387e+00	-	1.446e+00	1	1	3.23	3.23
1.446e+00	-	1.505e+00	1	2	3.23	6.45
1.505e+00	-	1.564e+00	2	4	6.45	12.90
1.564e+00	-	1.623e+00	11	15	35.48	48.39
1.623e+00	-	1.682e+00	5	20	16.13	64.52
1.682e+00	-	1.741e+00	6	26	19.35	83.87
1.741e+00	-	1.800e+00	5	31	16.13	100.00
G			0	31	0.00	100.00
H			0	31		
B			28	59		
TOTALS LESS H AND B			31			

HISTOGRAM FOR: L-Bicar
NORMALIZED DATA USED

```
1.416e+00 XXX
1.475e+00 XXX
1.534e+00 XXXXXX
1.593e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.652e+00 XXXXXXXXXXXXXXXX
1.711e+00 XXXXXXXXXXXXXXXXXXX
1.770e+00 XXXXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.38694e+00
MAXIMUM = 1.79835e+00
MEAN = 1.64615e+00
STD DEV = 9.47908e-02
VARIANCE= 8.98530e-03

Table 5, continued

FREQUENCY TABLE FOR: L-InorgC
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
7.959e-01	-	9.459e-01	5	5	16.13	16.13
9.459e-01	-	1.096e+00	21	26	67.74	83.87
1.096e+00	-	1.246e+00	4	30	12.90	96.77
1.246e+00	-	1.396e+00	0	30	0.00	96.77
1.396e+00	-	1.546e+00	0	30	0.00	96.77
1.546e+00	-	1.696e+00	0	30	0.00	96.77
1.696e+00	-	1.846e+00	0	30	0.00	96.77
1.846e+00	-	1.996e+00	1	31	3.23	100.00
	G		0	31	0.00	100.00
	H		0	31		
	B		28	59		
TOTALS LESS H AND B			31			

HISTOGRAM FOR: L-InorgC
NORMALIZED DATA USED

```
8.709e-01 XXXXXXXXXXXXXXX
1.021e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.171e+00 XXXXXXXXXXXX
1.321e+00
1.471e+00
1.621e+00
1.771e+00
1.921e+00 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 7.95880e-01
MAXIMUM = 1.87506e+00
MEAN = 1.03350e+00
STD DEV = 1.74196e-01
VARIANCE = 3.03442e-02

Table 5, continued

FREQUENCY TABLE FOR: L-Org C
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		9	9	30.00	30.00
	T		0	9	0.00	30.00
-1.452e+00	-	-9.923e-01	5	14	16.67	46.67
-9.923e-01	-	-5.323e-01	4	18	13.33	60.00
-5.323e-01	-	-7.230e-02	4	22	13.33	73.33
-7.230e-02	-	3.877e-01	3	25	10.00	83.33
3.877e-01	-	8.477e-01	0	25	0.00	83.33
8.477e-01	-	1.308e+00	4	29	13.33	96.67
1.308e+00	-	1.768e+00	1	30	3.33	100.00
	G		0	30	0.00	100.00
	H		0	30		
	B		29	59		
TOTALS LESS H AND B			30			

HISTOGRAM FOR: L-Org C
NORMALIZED DATA USED

```
-1.222e+00 XXXXXXXXXXXXXXXX
-7.623e-01 XXXXXXXXXXXX
-3.023e-01 XXXXXXXXXXXX
 1.577e-01 XXXXXXXXXX
 6.177e-01
 1.078e+00 XXXXXXXXXXXX
 1.538e+00 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -1.45230e+00
MAXIMUM = 1.32034e+00
MEAN = -1.99246e-01
STD DEV = 8.87281e-01
VARIANCE= 7.87267e-01

FREQUENCY TABLE FOR: L-Ca-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-2.596e-01	-	-7.964e-02	5	5	8.93	8.93
-7.964e-02	-	1.004e-01	1	6	1.79	10.71
1.004e-01	-	2.804e-01	1	7	1.79	12.50
2.804e-01	-	4.604e-01	1	8	1.79	14.29
4.604e-01	-	6.404e-01	0	8	0.00	14.29
6.404e-01	-	8.204e-01	2	10	3.57	17.86
8.204e-01	-	1.000e+00	10	20	17.86	35.71
1.000e+00	-	1.180e+00	31	51	55.36	91.07
1.180e+00	-	1.360e+00	5	56	8.93	100.00
	G		0	56	0.00	100.00
	H		0	56		
	B		3	59		
TOTALS LESS H AND B			56			

HISTOGRAM FOR: L-Ca-d
NORMALIZED DATA USED

```
-1.696e-01 XXXXXXXXX
 1.036e-02 XX
 1.904e-01 XX
 3.704e-01 XX
 5.504e-01
 7.304e-01 XXXX
 9.104e-01 XXXXXXXXXXXXXXXXXX
 1.090e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 1.270e+00 XXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -2.59637e-01
MAXIMUM = 1.21936e+00
MEAN = 9.04774e-01
STD DEV = 4.11105e-01
VARIANCE= 1.69008e-01

Table 5, continued

FREQUENCY TABLE FOR: L-Cl-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-2.016e-01	-	-2.165e-02	2	2	6.45	6.45
-2.165e-02	-	1.584e-01	1	3	3.23	9.68
1.584e-01	-	3.384e-01	0	3	0.00	9.68
3.384e-01	-	5.184e-01	4	7	12.90	22.58
5.184e-01	-	6.984e-01	3	10	9.68	32.26
6.984e-01	-	8.784e-01	15	25	48.39	80.65
8.784e-01	-	1.058e+00	6	31	19.35	100.00
	G		0	31	0.00	100.00
	H		0	31		
	B		28	59		
TOTALS LESS H AND B			31			

HISTOGRAM FOR: L-Cl-d
NORMALIZED DATA USED

```
-1.116e-01 XXXXXX
 6.835e-02 XXX
 2.484e-01
 4.284e-01 XXXXXXXXXXXX
 6.084e-01 XXXXXXXXXX
 7.884e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 9.684e-01 XXXXXXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -2.01645e-01
MAXIMUM = 1.05115e+00
MEAN = 6.73525e-01
STD DEV = 3.00207e-01
VARIANCE= 9.01244e-02

FREQUENCY TABLE FOR: L-Co-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		36	36	63.16	63.16
	T		0	36	0.00	63.16
-8.182e-01	-	-7.192e-01	10	46	17.54	80.70
-7.192e-01	-	-6.202e-01	7	53	12.28	92.98
-6.202e-01	-	-5.212e-01	2	55	3.51	96.49
-5.212e-01	-	-4.222e-01	0	55	0.00	96.49
-4.222e-01	-	-3.232e-01	1	56	1.75	98.25
-3.232e-01	-	-2.242e-01	0	56	0.00	98.25
-2.242e-01	-	-1.252e-01	1	57	1.75	100.00
	G		0	57	0.00	100.00
	H		0	57		
	B		2	59		
TOTALS LESS H AND B			57			

HISTOGRAM FOR: L-Co-d
NORMALIZED DATA USED

```
-7.687e-01 XXXXXXXXXXXXXXXXXX
-6.697e-01 XXXXXXXXXXXX
-5.707e-01 XXXX
-4.717e-01
-3.727e-01 XX
-2.737e-01
-1.747e-01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -8.18156e-01
MAXIMUM = -2.21849e-01
MEAN = -6.63717e-01
STD DEV = 1.42301e-01
VARIANCE= 2.02495e-02

Table 5, continued

FREQUENCY TABLE FOR: L-Cr-d
NORMALIZED DATA USED

LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N		0	0	0.00	0.00
L		37	37	64.91	64.91
T		0	37	0.00	64.91
-9.420e-01	- -6.820e-01	10	47	17.54	82.46
-6.820e-01	- -4.220e-01	2	49	3.51	85.96
-4.220e-01	- -1.620e-01	4	53	7.02	92.98
-1.620e-01	- 9.799e-02	1	54	1.75	94.74
9.799e-02	- 3.580e-01	0	54	0.00	94.74
3.580e-01	- 6.180e-01	3	57	5.26	100.00
G		0	57	0.00	100.00
H		0	57		
B		2	59		
TOTALS LESS H AND B		57			

HISTOGRAM FOR: L-Cr-d
NORMALIZED DATA USED

```
-8.120e-01 XXXXXXXXXXXXXXXXXX
-5.520e-01 XXXX
-2.920e-01 XXXXXXX
-3.201e-02 XX
 2.280e-01
 4.880e-01 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM = -9.42008e-01
MAXIMUM =  6.14649e-01
MEAN    = -4.31203e-01
STD DEV =  4.95132e-01
VARIANCE=  2.45156e-01
```


FREQUENCY TABLE FOR: L-Cu-d
NORMALIZED DATA USED

LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N		0	0	0.00	0.00
L		6	6	10.53	10.53
T		0	6	0.00	10.53
-6.902e-01	- -5.202e-01	12	18	21.05	31.58
-5.202e-01	- -3.502e-01	11	29	19.30	50.88
-3.502e-01	- -1.802e-01	3	32	5.26	56.14
-1.802e-01	- -1.020e-02	5	37	8.77	64.91
-1.020e-02	- 1.598e-01	5	42	8.77	73.68
1.598e-01	- 3.298e-01	11	53	19.30	92.98
3.298e-01	- 4.998e-01	1	54	1.75	94.74
4.998e-01	- 6.698e-01	2	56	3.51	98.25
6.698e-01	- 8.398e-01	1	57	1.75	100.00
G		0	57	0.00	100.00
H		0	57		
B		2	59		
TOTALS LESS H AND B		57			

HISTOGRAM FOR: L-Cu-d
NORMALIZED DATA USED

```
-6.052e-01 XXXXXXXXXXXXXXXXXXXX
-4.352e-01 XXXXXXXXXXXXXXXXXXX
-2.652e-01 XXXXX
-9.520e-02 XXXXXXXXX
 7.480e-02 XXXXXXXXX
 2.448e-01 XXXXXXXXXXXXXXXXXXX
 4.148e-01 XX
 5.848e-01 XXXX
 7.548e-01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM = -6.90196e-01
MAXIMUM =  6.82982e-01
MEAN    = -1.48579e-01
STD DEV =  3.84778e-01
VARIANCE=  1.48054e-01
```

FREQUENCY TABLE FOR: L-F-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-1.933e+00	-	-1.703e+00	1	1	1.69	1.69
-1.703e+00	-	-1.473e+00	1	2	1.69	3.39
-1.473e+00	-	-1.243e+00	9	11	15.25	18.64
-1.243e+00	-	-1.013e+00	17	28	28.81	47.46
-1.013e+00	-	-7.831e-01	21	49	35.59	83.05
-7.831e-01	-	-5.531e-01	7	56	11.86	94.92
-5.531e-01	-	-3.231e-01	1	57	1.69	96.61
-3.231e-01	-	-9.305e-02	1	58	1.69	98.31
-9.305e-02	-	1.369e-01	1	59	1.69	100.00
	G		0	59	0.00	100.00
	H		0	59		
	B		0	59		
TOTALS LESS H AND B			59			

HISTOGRAM FOR: L-F-d
NORMALIZED DATA USED

```
-1.818e+00 XX
-1.588e+00 XX
-1.358e+00 XXXXXXXXXXXXXX
-1.128e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXX
-8.981e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
-6.681e-01 XXXXXXXXXXX
-4.381e-01 XX
-2.081e-01 XX
 2.195e-02 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -1.93305e+00
MAXIMUM = -7.54211e-02
MEAN = -9.91783e-01
STD DEV = 2.95743e-01
VARIANCE= 8.74638e-02

FREQUENCY TABLE FOR: L-Fe-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-2.304e-01	-	1.796e-01	4	4	7.02	7.02
1.796e-01	-	5.896e-01	11	15	19.30	26.32
5.896e-01	-	9.996e-01	7	22	12.28	38.60
9.996e-01	-	1.410e+00	7	29	12.28	50.88
1.410e+00	-	1.820e+00	7	36	12.28	63.16
1.820e+00	-	2.230e+00	11	47	19.30	82.46
2.230e+00	-	2.640e+00	7	54	12.28	94.74
2.640e+00	-	3.050e+00	2	56	3.51	98.25
3.050e+00	-	3.460e+00	1	57	1.75	100.00
	G		0	57	0.00	100.00
	H		0	57		
	B		2	59		
TOTALS LESS H AND B			57			

HISTOGRAM FOR: L-Fe-d
NORMALIZED DATA USED

```
-2.545e-02 XXXXXXX
 3.846e-01 XXXXXXXXXXXXXXXXXX
 7.946e-01 XXXXXXXXXXXX
 1.205e+00 XXXXXXXXXXXX
 1.615e+00 XXXXXXXXXXXX
 2.025e+00 XXXXXXXXXXXXXXXXXX
 2.435e+00 XXXXXXXXXXXX
 2.845e+00 XXXX
 3.255e+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -2.30449e-01
MAXIMUM = 3.05061e+00
MEAN = 1.35408e+00
STD DEV = 8.82886e-01
VARIANCE= 7.79489e-01

Table 5, continued

FREQUENCY TABLE FOR: L-Hg-d
NORMALIZED DATA USED

LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N		0	0	0.00	0.00
L		33	33	58.93	58.93
T		0	33	0.00	58.93
-3.506e+00	- -2.986e+00	2	35	3.57	62.50
-2.986e+00	- -2.466e+00	3	38	5.36	67.86
-2.466e+00	- -1.946e+00	7	45	12.50	80.36
-1.946e+00	- -1.426e+00	1	46	1.79	82.14
-1.426e+00	- -9.063e-01	2	48	3.57	85.71
-9.063e-01	- -3.863e-01	1	49	1.79	87.50
-3.863e-01	- 1.337e-01	7	56	12.50	100.00
G		0	56	0.00	100.00
H		0	56		
B		3	59		
TOTALS LESS H AND B		56			

HISTOGRAM FOR: L-Hg-d
NORMALIZED DATA USED

```
-3.246e+00 XXXX
-2.726e+00 XXXXX
-2.206e+00 XXXXXXXXXXXXX
-1.686e+00 XX
-1.166e+00 XXXX
-6.463e-01 XX
-1.263e-01 XXXXXXXXXXXXX
```

THE FOLLUWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -3.50628e+00
MAXIMUM = 1.24939e-01
MEAN = -1.59733e+00
STD DEV = 1.20049e+00
VARIANCE= 1.44117e+00

FREQUENCY TABLE FOR: L-K-d
NORMALIZED DATA USED

LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N		0	0	0.00	0.00
L		0	0	0.00	0.00
T		0	0	0.00	0.00
-6.990e-01	- -4.890e-01	3	3	5.36	5.36
-4.890e-01	- -2.790e-01	1	4	1.79	7.14
-2.790e-01	- -6.897e-02	10	14	17.86	25.00
-6.897e-02	- 1.410e-01	23	37	41.07	66.07
1.410e-01	- 3.510e-01	15	52	26.79	92.86
3.510e-01	- 5.610e-01	1	53	1.79	94.64
5.610e-01	- 7.710e-01	1	54	1.79	96.43
7.710e-01	- 9.810e-01	1	55	1.79	98.21
9.810e-01	- 1.191e+00	1	56	1.79	100.00
G		0	56	0.00	100.00
H		0	56		
B		3	59		
TOTALS LESS H AND B		56			

HISTOGRAM FOR: L-K-d
NORMALIZED DATA USED

```
-5.940e-01 XXXXX
-3.840e-01 XX
-1.740e-01 XXXXXXXXXXXXXXXXXX
 3.603e-02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 2.460e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXX
 4.560e-01 XX
 6.660e-01 XX
 8.760e-01 XX
 1.086e+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -6.98970e-01
MAXIMUM = 1.00000e+00
MEAN = 6.50683e-02
STD DEV = 3.00862e-01
VARIANCE= 9.05177e-02

Table 5, continued

FREQUENCY TABLE FOR: L-Li-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		30	30	50.85	50.85
	T		0	30	0.00	50.85
6.576e-01	-	8.476e-01	2	32	3.39	54.24
8.476e-01	-	1.038e+00	1	33	1.69	55.93
1.038e+00	-	1.228e+00	2	35	3.39	59.32
1.228e+00	-	1.418e+00	5	40	8.47	67.80
1.418e+00	-	1.608e+00	11	51	18.64	86.44
1.608e+00	-	1.798e+00	0	51	0.00	86.44
1.798e+00	-	1.988e+00	8	59	13.56	100.00
	G		0	59	0.00	100.00
	H		0	59		
	B		0	59		

TOTALS LESS H AND B 59

HISTOGRAM FOR: L-Li-d
NORMALIZED DATA USED

```
7.526e-01 XXX
9.426e-01 XX
1.133e+00 XXX
1.323e+00 XXXXXXXX
1.513e+00 XXXXXXXXXXXXXXXXXXX
1.703e+00
1.893e+00 XXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 6.57577e-01
MAXIMUM = 1.97881e+00
MEAN = 1.49409e+00
STD DEV = 3.56261e-01
VARIANCE= 1.26922e-01

FREQUENCY TABLE FOR: L-Mg-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-7.959e-01	-	-6.159e-01	7	7	12.50	12.50
-6.159e-01	-	-4.359e-01	1	8	1.79	14.29
-4.359e-01	-	-2.559e-01	0	8	0.00	14.29
-2.559e-01	-	-7.588e-02	2	10	3.57	17.86
-7.588e-02	-	1.041e-01	2	12	3.57	21.43
1.041e-01	-	2.841e-01	4	16	7.14	28.57
2.841e-01	-	4.641e-01	25	41	44.64	73.21
4.641e-01	-	6.441e-01	15	56	26.79	100.00
	G		0	56	0.00	100.00
	H		0	56		
	B		3	59		

TOTALS LESS H AND B 56

HISTOGRAM FOR: L-Mg-d
NORMALIZED DATA USED

```
-7.059e-01 XXXXXXXXXXXXX
-5.259e-01 XX
-3.459e-01
-1.659e-01 XXXX
 1.412e-02 XXXX
 1.941e-01 XXXXXXX
 3.741e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 5.541e-01 XXXXXXXXXXXXXXXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -7.95880e-01
MAXIMUM = 6.41932e-01
MEAN = 2.20554e-01
STD DEV = 4.18790e-01
VARIANCE= 1.75385e-01

Table 5, continued

FREQUENCY TABLE FOR: L-Mn-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		8	8	14.04	14.04
	T		0	8	0.00	14.04
-6.651e-01	-	-2.851e-01	4	12	7.02	21.05
-2.851e-01	-	9.489e-02	6	18	10.53	31.58
9.489e-02	-	4.749e-01	6	24	10.53	42.11
4.749e-01	-	8.549e-01	2	26	3.51	45.61
8.549e-01	-	1.235e+00	17	43	29.82	75.44
1.235e+00	-	1.615e+00	10	53	17.54	92.98
1.615e+00	-	1.995e+00	3	56	5.26	98.25
1.995e+00	-	2.375e+00	1	57	1.75	100.00
	G		0	57	0.00	100.00
	H		0	57		
	B		2	59		
TOTALS LESS H AND B			57			

HISTOGRAM FOR: L-Mn-d
NORMALIZED DATA USED

```
-4.751e-01 XXXXXXX
-9.511e-02 XXXXXXXXXXX
 2.849e-01 XXXXXXXXXXX
 6.649e-01 XXXX
 1.045e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
 1.425e+00 XXXXXXXXXXXXXXXXX
 1.805e+00 XXXXX
 2.185e+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM = -6.65112e-01
MAXIMUM =  2.33882e+00
MEAN    =  8.20064e-01
STD DEV =  7.22204e-01
VARIANCE=  5.21578e-01
```


FREQUENCY TABLE FOR: L-Mo-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		32	32	56.14	56.14
	T		0	32	0.00	56.14
-6.797e-01	-	-5.197e-01	7	39	12.28	68.42
-5.197e-01	-	-3.597e-01	5	44	8.77	77.19
-3.597e-01	-	-1.997e-01	2	46	3.51	80.70
-1.997e-01	-	-3.966e-02	4	50	7.02	87.72
-3.966e-02	-	1.203e-01	3	53	5.26	92.98
1.203e-01	-	2.803e-01	0	53	0.00	92.98
2.803e-01	-	4.403e-01	3	56	5.26	98.25
4.403e-01	-	6.003e-01	1	57	1.75	100.00
	G		0	57	0.00	100.00
	H		0	57		
	B		2	59		
TOTALS LESS H AND B			57			

HISTOGRAM FOR: L-Mo-d
NORMALIZED DATA USED

```
-5.997e-01 XXXXXXXXXXXX
-4.397e-01 XXXXXXXXX
-2.797e-01 XXXX
-1.197e-01 XXXXXXX
 4.034e-02 XXXXX
 2.003e-01
 3.603e-01 XXXXX
 5.203e-01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM = -6.79665e-01
MAXIMUM =  4.62181e-01
MEAN    = -2.28865e-01
STD DEV =  3.60556e-01
VARIANCE=  1.30001e-01
```

Table 5, continued

FREQUENCY TABLE FOR: L-Na-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
1.549e-01	-	3.149e-01	1	1	1.79	1.79
3.149e-01	-	4.749e-01	1	2	1.79	3.57
4.749e-01	-	6.349e-01	24	26	42.86	46.43
6.349e-01	-	7.949e-01	4	30	7.14	53.57
7.949e-01	-	9.549e-01	2	32	3.57	57.14
9.549e-01	-	1.115e+00	11	43	19.64	76.79
1.115e+00	-	1.275e+00	5	48	8.93	85.71
1.275e+00	-	1.435e+00	8	56	14.29	100.00
G			0	56	0.00	100.00
H			0	56		
B			3	59		

TOTALS LESS H AND B 56

HISTOGRAM FOR: L-Na-d
NORMALIZED DATA USED

```
2.349e-01 XX
3.949e-01 XX
5.549e-01 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
7.149e-01 XXXXXXX
8.749e-01 XXXX
1.035e+00 XXXXXXXXXXXXXXXXXXX
1.195e+00 XXXXXXXXX
1.355e+00 XXXXXXXXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.54902e-01
MAXIMUM = 1.43180e+00
MEAN = 8.20165e-01
STD DEV = 3.37793e-01
VARIANCE= 1.14104e-01

FREQUENCY TABLE FOR: L-Na%
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
2.019e-01	-	3.919e-01	7	7	12.50	12.50
3.919e-01	-	5.819e-01	13	20	23.21	35.71
5.819e-01	-	7.719e-01	6	26	10.71	46.43
7.719e-01	-	9.619e-01	10	36	17.86	64.29
9.619e-01	-	1.152e+00	8	44	14.29	78.57
1.152e+00	-	1.342e+00	4	48	7.14	85.71
1.342e+00	-	1.532e+00	4	52	7.14	92.86
1.532e+00	-	1.722e+00	4	56	7.14	100.00
G			0	56	0.00	100.00
H			0	56		
B			3	59		

TOTALS LESS H AND B 56

HISTOGRAM FOR: L-Na%
NORMALIZED DATA USED

```
2.969e-01 XXXXXXXXXXXXX
4.869e-01 XXXXXXXXXXXXXXXXXXXXXX
6.769e-01 XXXXXXXXXXX
8.669e-01 XXXXXXXXXXXXXXXXX
1.057e+00 XXXXXXXXXXXXXX
1.247e+00 XXXXXXX
1.437e+00 XXXXXXX
1.627e+00 XXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 2.01899e-01
MAXIMUM = 1.69406e+00
MEAN = 8.34793e-01
STD DEV = 3.96105e-01
VARIANCE= 1.56899e-01

Table 5, continued

FREQUENCY TABLE FOR: L-Ni-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		35	35	61.40	61.40
	T		0	35	0.00	61.40
-3.220e-01	-	-1.520e-01	2	37	3.51	64.91
-1.520e-01	-	1.804e-02	4	41	7.02	71.93
1.804e-02	-	1.880e-01	1	42	1.75	73.68
1.880e-01	-	3.580e-01	6	48	10.53	84.21
3.580e-01	-	5.280e-01	2	50	3.51	87.72
5.280e-01	-	6.980e-01	6	56	10.53	98.25
6.980e-01	-	8.680e-01	1	57	1.75	100.00
	G		0	57	0.00	100.00
	H		0	57		
	B		2	59		
TOTALS LESS H AND B			57			

HISTOGRAM FOR: L-Ni-d
NORMALIZED DATA USED

```
-2.370e-01 XXXX
-6.696e-02 XXXXXXX
 1.030e-01 XX
 2.730e-01 XXXXXXXXXXX
 4.430e-01 XXXX
 6.130e-01 XXXXXXXXXXX
 7.830e-01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -3.21964e-01
MAXIMUM = 6.98970e-01
MEAN = 2.71329e-01
STD DEV = 3.09116e-01
VARIANCE= 9.55528e-02

FREQUENCY TABLE FOR: L-N2N3
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		2	2	6.45	6.45
	T		0	2	0.00	6.45
-3.568e+00	-	-3.208e+00	2	4	6.45	12.90
-3.208e+00	-	-2.848e+00	5	9	16.13	29.03
-2.848e+00	-	-2.488e+00	0	9	0.00	29.03
-2.488e+00	-	-2.128e+00	5	14	16.13	45.16
-2.128e+00	-	-1.768e+00	6	20	19.35	64.52
-1.768e+00	-	-1.408e+00	5	25	16.13	80.65
-1.408e+00	-	-1.048e+00	5	30	16.13	96.77
-1.048e+00	-	-6.882e-01	1	31	3.23	100.00
	G		0	31	0.00	100.00
	H		0	31		
	B		28	59		
TOTALS LESS H AND B			31			

HISTOGRAM FOR: L-N2N3
NORMALIZED DATA USED

```
-3.388e+00 XXXXXX
-3.028e+00 XXXXXXXXXXXXXXXX
-2.668e+00
-2.308e+00 XXXXXXXXXXXXXXXX
-1.948e+00 XXXXXXXXXXXXXXXXXXX
-1.588e+00 XXXXXXXXXXXXXXXX
-1.228e+00 XXXXXXXXXXXXXXXX
-8.682e-01 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -3.56820e+00
MAXIMUM = -1.02803e+00
MEAN = -2.10555e+00
STD DEV = 7.23355e-01
VARIANCE= 5.23243e-01

Table 5, continued

FREQUENCY TABLE FOR: L-P-tl
NORMALIZED DATA USED

LIMITS LOWER - UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N	0	0	0.00	0.00
L	5	5	16.13	16.13
T	0	5	0.00	16.13
-2.954e+00 - -2.574e+00	5	10	16.13	32.26
-2.574e+00 - -2.194e+00	16	26	51.61	83.87
-2.194e+00 - -1.814e+00	1	27	3.23	87.10
-1.814e+00 - -1.434e+00	1	28	3.23	90.32
-1.434e+00 - -1.054e+00	1	29	3.23	93.55
-1.054e+00 - -6.742e-01	1	30	3.23	96.77
-6.742e-01 - -2.942e-01	0	30	0.00	96.77
-2.942e-01 - 8.576e-02	1	31	3.23	100.00
G	0	31	0.00	100.00
H	0	31		
B	28	59		
TOTALS LESS H AND B	31			

HISTOGRAM FOR: L-P-tl
NORMALIZED DATA USED

```
-2.764e+00 XXXXXXXXXXXXXXX
-2.384e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
-2.004e+00 XXX
-1.624e+00 XXX
-1.244e+00 XXX
-8.642e-01 XXX
-4.842e-01
-1.042e-01 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -2.95424e+00
MAXIMUM = -2.82547e-01
MEAN = -2.21037e+00
STD DEV = 5.93498e-01
VARIANCE= 3.52239e-01

FREQUENCY TABLE FOR: L-Pb-d
NORMALIZED DATA USED

LIMITS LOWER - UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N	0	0	0.00	0.00
L	38	38	66.67	66.67
T	0	38	0.00	66.67
1.249e-01 - 2.549e-01	5	43	8.77	75.44
2.549e-01 - 3.849e-01	5	48	8.77	84.21
3.849e-01 - 5.149e-01	1	49	1.75	85.96
5.149e-01 - 6.449e-01	4	53	7.02	92.98
6.449e-01 - 7.749e-01	2	55	3.51	96.49
7.749e-01 - 9.049e-01	2	57	3.51	100.00
G	0	57	0.00	100.00
H	0	57		
B	2	59		
TOTALS LESS H AND B	57			

HISTOGRAM FOR: L-Pb-d
NORMALIZED DATA USED

```
1.899e-01 XXXXXXXXX
3.199e-01 XXXXXXXXX
4.499e-01 XX
5.799e-01 XXXXXXX
7.099e-01 XXXX
8.399e-01 XXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.24939e-01
MAXIMUM = 9.03090e-01
MEAN = 4.39060e-01
STD DEV = 2.25099e-01
VARIANCE= 5.06694e-02

Table 5, continued

FREQUENCY TABLE FOR: LP04-t1
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		5	5	16.13	16.13
	T		0	5	0.00	16.13
-2.477e+00	-	-2.097e+00	5	10	16.13	32.26
-2.097e+00	-	-1.717e+00	16	26	51.61	83.87
-1.717e+00	-	-1.337e+00	1	27	3.23	87.10
-1.337e+00	-	-9.571e-01	1	28	3.23	90.32
-9.571e-01	-	-5.771e-01	1	29	3.23	93.55
-5.771e-01	-	-1.971e-01	1	30	3.23	96.77
-1.971e-01	-	1.829e-01	0	30	0.00	96.77
1.829e-01	-	5.629e-01	1	31	3.23	100.00
	G		0	31	0.00	100.00
	H		0	31		
	B		28	59		

TOTALS LESS H AND B 31

HISTOGRAM FOR: LP04-t1
NORMALIZED DATA USED

```
-2.287e+00 XXXXXXXXXXXXXXX
-1.907e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
-1.527e+00 XXX
-1.147e+00 XXX
-7.671e-01 XXX
-3.871e-01 XXX
-7.121e-03
 3.729e-01 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -2.47712e+00
MAXIMUM = 2.06474e-01
MEAN = -1.72836e+00
STD DEV = 5.96299e-01
VARIANCE= 3.55573e-01

FREQUENCY TABLE FOR: L-Ra-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		0	0	0.00	0.00
	T		0	0	0.00	0.00
-2.301e+00	-	-1.951e+00	1	1	3.57	3.57
-1.951e+00	-	-1.601e+00	4	5	14.29	17.86
-1.601e+00	-	-1.251e+00	3	8	10.71	28.57
-1.251e+00	-	-9.010e-01	8	16	28.57	57.14
-9.010e-01	-	-5.510e-01	6	22	21.43	78.57
-5.510e-01	-	-2.010e-01	4	26	14.29	92.86
-2.010e-01	-	1.490e-01	2	28	7.14	100.00
	G		0	28	0.00	100.00
	H		0	28		
	B		31	59		

TOTALS LESS H AND B 28

HISTOGRAM FOR: L-Ra-d
NORMALIZED DATA USED

```
-2.126e+00 XXXX
-1.776e+00 XXXXXXXXXXXXX
-1.426e+00 XXXXXXXXXX
-1.076e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXX
-7.260e-01 XXXXXXXXXXXXXXXXXXX
-3.760e-01 XXXXXXXXXXXXX
-2.603e-02 XXXXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -2.30103e+00
MAXIMUM = 1.39368e-01
MEAN = -9.67517e-01
STD DEV = 5.83349e-01
VARIANCE= 3.40296e-01

Table 5, continued

FREQUENCY TABLE FOR: L-Se-d
NORMALIZED DATA USED

LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N		0	0	0.00	0.00
L		29	29	87.88	87.88
T		0	29	0.00	87.88
-1.108e+00	- -8.283e-01	3	32	9.09	96.97
-8.283e-01	- -5.483e-01	0	32	0.00	96.97
-5.483e-01	- -2.683e-01	0	32	0.00	96.97
-2.683e-01	- 1.166e-02	1	33	3.03	100.00
G		0	33	0.00	100.00
H		0	33		
B		26	59		
TOTALS LESS H AND B		33			

HISTOGRAM FOR: L-Se-d
NORMALIZED DATA USED

```
-9.683e-01 XXXXXXXXX
-6.883e-01
-4.083e-01
-1.283e-01 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -1.10834e+00
MAXIMUM = 7.29924e-03
MEAN = -7.98030e-01
STD DEV = 5.38986e-01
VARIANCE= 2.90506e-01

FREQUENCY TABLE FOR: L-Si02
NORMALIZED DATA USED

LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N		0	0	0.00	0.00
L		0	0	0.00	0.00
T		0	0	0.00	0.00
-3.218e-02	- 1.478e-01	10	10	32.26	32.26
1.478e-01	- 3.278e-01	6	16	19.35	51.61
3.278e-01	- 5.078e-01	7	23	22.58	74.19
5.078e-01	- 6.878e-01	0	23	0.00	74.19
6.878e-01	- 8.678e-01	0	23	0.00	74.19
8.678e-01	- 1.048e+00	4	27	12.90	87.10
1.048e+00	- 1.228e+00	3	30	9.68	96.77
1.228e+00	- 1.408e+00	1	31	3.23	100.00
G		0	31	0.00	100.00
H		0	31		
B		28	59		
TOTALS LESS H AND B		31			

HISTOGRAM FOR: L-Si02
NORMALIZED DATA USED

```
5.782e-02 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.378e-01 XXXXXXXXXXXXXXXXXX
4.178e-01 XXXXXXXXXXXXXXXXXXXXXX
5.978e-01
7.778e-01
9.578e-01 XXXXXXXXXXXX
1.138e+00 XXXXXXXXXX
1.318e+00 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -3.21847e-02
MAXIMUM = 1.24598e+00
MEAN = 4.18455e-01
STD DEV = 3.97006e-01
VARIANCE= 1.57614e-01

Table 5, continued

FREQUENCY TABLE FOR: L-S04-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			0	0	0.00	0.00
T			0	0	0.00	0.00
2.615e-01	-	4.315e-01	3	3	9.68	9.68
4.315e-01	-	6.015e-01	1	4	3.23	12.90
6.015e-01	-	7.715e-01	7	11	22.58	35.48
7.715e-01	-	9.415e-01	2	13	6.45	41.94
9.415e-01	-	1.112e+00	2	15	6.45	48.39
1.112e+00	-	1.282e+00	10	25	32.26	80.65
1.282e+00	-	1.452e+00	5	30	16.13	96.77
1.452e+00	-	1.622e+00	1	31	3.23	100.00
G			0	31	0.00	100.00
H			0	31		
B			28	59		
TOTALS LESS H AND B			31			

HISTOGRAM FOR: L-S04-d
NORMALIZED DATA USED

```
3.465e-01 XXXXXXXXXX
5.165e-01 XXX
6.865e-01 XXXXXXXXXXXXXXXXXXXXX
8.565e-01 XXXXXX
1.027e+00 XXXXXX
1.197e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
1.367e+00 XXXXXXXXXXXXXXX
1.537e+00 XXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 2.61521e-01
MAXIMUM = 1.46073e+00
MEAN = 9.59843e-01
STD DEV = 3.55306e-01
VARIANCE= 1.26242e-01

FREQUENCY TABLE FOR: L-Sr-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N			0	0	0.00	0.00
L			4	4	7.02	7.02
T			0	4	0.00	7.02
1.265e+00	-	1.385e+00	1	5	1.75	8.77
1.385e+00	-	1.505e+00	3	8	5.26	14.04
1.505e+00	-	1.625e+00	2	10	3.51	17.54
1.625e+00	-	1.745e+00	7	17	12.28	29.82
1.745e+00	-	1.865e+00	14	31	24.56	54.39
1.865e+00	-	1.985e+00	16	47	28.07	82.46
1.985e+00	-	2.105e+00	7	54	12.28	94.74
2.105e+00	-	2.225e+00	3	57	5.26	100.00
G			0	57	0.00	100.00
H			0	57		
B			2	59		
TOTALS LESS H AND B			57			

HISTOGRAM FOR: L-Sr-d
NORMALIZED DATA USED

```
1.325e+00 XX
1.445e+00 XXXXX
1.565e+00 XXXX
1.685e+00 XXXXXXXXXXXX
1.805e+00 XXXXXXXXXXXXXXXXXXXXXXXXX
1.925e+00 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
2.045e+00 XXXXXXXXXXXX
2.165e+00 XXXXX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = 1.26482e+00
MAXIMUM = 2.19189e+00
MEAN = 1.83848e+00
STD DEV = 1.82650e-01
VARIANCE= 3.33610e-02

Table 5, continued

FREQUENCY TABLE FOR: L-Ti-d
NORMALIZED DATA USED

LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N		0	0	0.00	0.00
L		24	24	42.11	42.11
T		0	24	0.00	42.11
-3.222e-01	- -4.222e-02	3	27	5.26	47.37
-4.222e-02	- 2.378e-01	2	29	3.51	50.88
2.378e-01	- 5.178e-01	7	36	12.28	63.16
5.178e-01	- 7.978e-01	3	39	5.26	68.42
7.978e-01	- 1.078e+00	15	54	26.32	94.74
1.078e+00	- 1.358e+00	2	56	3.51	98.25
1.358e+00	- 1.638e+00	0	56	0.00	98.25
1.638e+00	- 1.918e+00	1	57	1.75	100.00
G		0	57	0.00	100.00
H		0	57		
B		2	59		
TOTALS LESS H AND B		57			

HISTOGRAM FOR: L-Ti-d
NORMALIZED DATA USED

```
-1.822e-01 XXXXX
 9.778e-02 XXXX
 3.778e-01 XXXXXXXXXXX
 6.578e-01 XXXXX
 9.378e-01 XXXXXXXXXXXXXXXXXXXXXXXXX
 1.218e+00 XXXX
 1.498e+00
 1.778e+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM = -3.22219e-01
MAXIMUM =  1.65267e+00
MEAN    =  6.67550e-01
STD DEV =  4.33216e-01
VARIANCE=  1.87676e-01
```


FREQUENCY TABLE FOR: L-V-d
NORMALIZED DATA USED

LIMITS LOWER	- UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
N		0	0	0.00	0.00
L		17	17	29.82	29.82
T		0	17	0.00	29.82
-4.523e-01	- -3.023e-01	8	25	14.04	43.86
-3.023e-01	- -1.523e-01	2	27	3.51	47.37
-1.523e-01	- -2.298e-03	4	31	7.02	54.39
-2.298e-03	- 1.477e-01	8	39	14.04	68.42
1.477e-01	- 2.977e-01	8	47	14.04	82.46
2.977e-01	- 4.477e-01	9	56	15.79	98.25
4.477e-01	- 5.977e-01	1	57	1.75	100.00
G		0	57	0.00	100.00
H		0	57		
B		2	59		
TOTALS LESS H AND B		57			

HISTOGRAM FOR: L-V-d
NORMALIZED DATA USED

```
-3.773e-01 XXXXXXXXXXXXXX
-2.273e-01 XXXX
-7.730e-02 XXXXXXX
 7.270e-02 XXXXXXXXXXXXXX
 2.227e-01 XXXXXXXXXXXXXX
 3.727e-01 XXXXXXXXXXXXXXXX
 5.227e-01 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

```
MINIMUM = -4.52298e-01
MAXIMUM =  5.64271e-01
MEAN    =  5.63304e-02
STD DEV =  2.77016e-01
VARIANCE=  7.67379e-02
```

Table 5, continued

FREQUENCY TABLE FOR: L-Zn-d
NORMALIZED DATA USED

LIMITS LOWER	-	UPPER	OBS FREQ	CUM FREQ	PERCENT FREQ	PERCENT CUM FREQ
	N		0	0	0.00	0.00
	L		48	48	81.36	81.36
	T		0	48	0.00	81.36
-8.814e-02	-	2.819e-01	1	49	1.69	83.05
2.819e-01	-	6.519e-01	1	50	1.69	84.75
6.519e-01	-	1.022e+00	1	51	1.69	86.44
1.022e+00	-	1.392e+00	3	54	5.08	91.53
1.392e+00	-	1.762e+00	4	58	6.78	98.31
1.762e+00	-	2.132e+00	1	59	1.69	100.00
	G		0	59	0.00	100.00
	H		0	59		
	B		0	59		

TOTALS LESS H AND B 59

HISTOGRAM FOR: L-Zn-d
NORMALIZED DATA USED

```
 9.686e-02 XX
 4.669e-01 XX
 8.369e-01 XX
 1.207e+00 XXXXX
 1.577e+00 XXXXXXX
 1.947e+00 XX
```

THE FOLLOWING STATISTICS ARE COMPUTED
FOR THE UNQUALIFIED VALUES ONLY

MINIMUM = -8.81361e-02
MAXIMUM = 1.76592e+00
MEAN = 1.14778e+00
STD DEV = 5.63306e-01
VARIANCE= 3.17316e-01

Table 6.--Correlation coefficients, r, and numbers of pairs, (n), of elements found in waters of the Rio Ujo Caliente drainage basin

	Eh	Ph	B-D	L-Cond	L-U-d	L-Alk	L-Hard	L-HardNC	L-SAR	L-H2Ute
Eh		-0.03(50)	-0.19(44)	-0.21(57)	-0.16(57)	-0.21(57)	-0.14(55)	0.17(19)	-0.18(55)	-0.12(57)
Ph			-0.37(41)	-0.23(51)	-0.33(51)	-0.33(51)	-0.40(46)	-0.40(19)	-0.13(48)	-0.17(51)
B-D				0.91(44)	0.75(44)	0.84(44)	0.63(44)	0.74(19)	0.88(44)	0.80(44)
L-Cond					0.86(58)	0.92(58)	0.77(55)	0.82(19)	0.93(55)	0.77(58)
L-U-d						0.76(58)	0.95(55)	0.79(19)	0.68(55)	0.59(58)
L-Alk							0.65(55)	0.61(19)	0.86(55)	0.74(58)
L-Hard								0.84(19)	0.52(55)	0.46(55)
L-HardNC									0.85(19)	0.54(19)
L-SAR										0.78(55)
L-H2Ute										
L-Al-d										
L-As-d										
L-Ba-d										
L-Bicar										
L-InorgC										
L-OrgC										
L-Ca-d										
L-Cl-d										
L-Co-d										
L-Cr-d										
L-Cu-d										
L-F-d										
L-Fe-d										
L-Hg-d										
L-K-d										
L-Li-d										
L-Mg-d										
L-Mn-d										
L-Mo-d										
L-Na-d										
L-Na%										
L-Ni-d										
L-N2A3										
L-P-tl										
LPO4-tl										
L-Pb-d										
L-SiO2										
L-SO4-d										
L-Sr-d										
L-Ti-d										
L-V-d										

Table 6, continued

	L-Al-d	L-As-d	L-Ba-d	L-Bicar	L-InorgC	L-Org C	L-Ca-d	L-Cl-d	L-Co-d	L-Cr-d
Eh	0.24(35)	-0.28(50)	-0.13(56)	-0.12(31)	-0.07(31)	-0.05(21)	-0.12(55)	-0.06(31)	0.09(21)	0.01(20)
Ph	-0.19(27)	-0.25(45)	-0.21(48)	-0.46(31)	-0.56(31)	0.44(21)	-0.39(48)	-0.44(31)	-0.45(21)	-0.50(16)
B-D	-0.18(23)	0.92(39)	0.35(44)	0.92(31)	0.89(31)	-0.48(21)	0.59(44)	0.88(31)	0.68(21)	0.75(17)
L-Cond	-0.12(35)	0.90(51)	0.36(56)	0.99(31)	0.95(31)	-0.55(21)	0.75(55)	0.96(31)	0.97(21)	0.68(20)
L-U-d	-0.28(35)	0.69(51)	0.15(56)	0.72(31)	0.70(31)	-0.66(21)	0.95(55)	0.75(31)	0.80(21)	0.53(20)
L-Alk	-0.25(35)	0.87(51)	0.45(56)	0.88(31)	0.93(31)	-0.61(21)	0.63(55)	0.76(31)	0.73(21)	0.71(20)
L-Hard	-0.32(34)	0.55(48)	0.11(55)	0.53(31)	0.50(31)	-0.68(21)	1.00(55)	0.59(31)	0.70(21)	0.35(20)
L-HardnC	0.02(6)	0.64(16)	0.16(19)	0.78(19)	0.79(19)	-0.51(13)	0.83(19)	0.83(19)	0.89(13)	0.57(6)
L-SAR	0.18(34)	0.90(48)	0.44(55)	0.94(31)	0.92(31)	-0.39(21)	0.50(55)	0.91(31)	0.91(21)	0.67(20)
L-H2ute	0.02(35)	0.77(51)	0.32(56)	0.79(31)	0.76(31)	-0.18(21)	0.43(55)	0.78(31)	0.70(21)	0.56(20)
L-Al-d	.....	0.08(31)	-0.01(35)	0.01(10)	0.14(10)	-0.14(8)	-0.32(34)	0.07(10)	0.09(8)	-0.15(8)
L-As-d	.....	.....	0.34(48)	0.89(27)	0.88(27)	-0.48(16)	0.51(48)	0.80(27)	0.81(19)	0.60(16)
L-Ba-d	.....	.....	.....	0.59(31)	0.53(31)	-0.32(21)	0.10(55)	0.49(31)	0.52(21)	0.77(20)
L-Bicar	.....	.....	.....	.....	0.94(31)	-0.67(21)	0.50(31)	0.92(31)	0.96(21)	0.91(16)
L-InorgC	.....	.....	.....	.....	.....	-0.60(21)	0.47(31)	0.88(31)	0.88(21)	0.93(16)
L-Org C	.....	.....	.....	.....	.....	.....	-0.71(21)	-0.34(21)	-0.49(14)	-0.25(10)
L-Ca-d	.....	.....	.....	.....	.....	.....	.....	0.55(31)	0.69(21)	0.34(20)
L-Cl-d	.....	.....	.....	.....	.....	.....	.....	.....	0.95(21)	0.90(16)
L-Co-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.91(10)
L-Cr-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Cu-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-F-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Fe-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Hg-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-K-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Li-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Mg-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Mn-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Mo-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Na-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Na%	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Ni-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-N2N3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-P-tl	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
LPO4-tl	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Pb-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-SiO2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-SO4-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Sr-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Ti-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-V-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Table 6, continued

	L-Cu-d	L-F-d	L-Fe-d	L-Hg-d	L-K-d	L-Li-d	L-Mg-d	L-Mn-d	L-Mo-d	L-Na-d
Eh	-0.15(51)	-0.10(57)	-0.03(56)	0.22(21)	-0.34(55)	-0.29(27)	-0.18(55)	-0.23(48)	-0.07(25)	-0.19(55)
Ph	-0.27(42)	0.01(51)	0.13(48)	0.20(20)	-0.16(48)	-0.03(28)	-0.41(48)	0.37(41)	-0.16(22)	-0.21(48)
δ-D	0.83(39)	0.74(44)	-0.10(44)	-0.92(21)	0.86(44)	0.77(23)	0.68(44)	0.05(39)	0.66(21)	0.91(44)
L-Cond	0.80(51)	0.89(56)	-0.27(56)	-0.89(22)	0.88(55)	0.96(28)	0.78(55)	0.16(48)	0.82(25)	0.98(55)
L-U-d	0.65(51)	0.63(58)	-0.37(56)	-0.79(22)	0.75(55)	0.17(28)	0.94(55)	0.15(48)	0.48(25)	0.82(55)
L-Alk	0.74(51)	0.81(58)	-0.31(56)	-0.86(22)	0.80(55)	0.79(28)	0.69(55)	0.13(48)	0.70(25)	0.90(55)
L-Hard	0.56(50)	0.50(55)	-0.37(55)	-0.69(21)	0.70(55)	0.08(27)	0.98(55)	0.12(47)	0.27(25)	0.70(55)
L-HardNC	0.72(16)	0.80(19)	0.15(19)	0.01(8)	0.58(19)	-0.09(13)	0.84(19)	0.07(14)	0.90(5)	0.85(19)
L-SAR	0.84(50)	0.91(55)	-0.09(55)	-0.84(21)	0.79(55)	0.95(27)	0.54(55)	0.16(47)	0.85(25)	0.97(55)
L-H2Ote	0.67(51)	0.73(58)	-0.07(56)	-0.80(22)	0.76(55)	0.59(28)	0.53(55)	0.14(48)	0.59(25)	0.77(55)
L-Al-d	0.17(33)	-0.05(35)	0.59(35)	0.50(11)	-0.25(34)	0.43(10)	-0.32(34)	0.05(32)	0.60(11)	0.04(34)
L-As-d	0.76(42)	0.78(51)	-0.20(48)	-0.88(21)	0.92(48)	0.81(28)	0.61(48)	0.08(42)	0.51(21)	0.90(48)
L-Ba-d	0.37(51)	0.34(56)	0.05(56)	-0.50(21)	0.27(55)	0.30(27)	0.14(55)	0.19(48)	0.38(25)	0.40(55)
L-bicar	0.88(26)	0.80(31)	0.01(31)	-0.73(10)	0.80(31)	0.93(21)	0.59(31)	0.04(26)	0.81(16)	0.98(31)
L-InorgC	0.89(26)	0.76(31)	0.04(31)	-0.75(10)	0.73(31)	0.91(21)	0.57(31)	0.02(26)	0.83(16)	0.96(31)
L-Org C	-0.34(20)	-0.22(21)	0.18(21)	-0.31(5)	-0.15(21)	0.02(11)	-0.60(21)	-0.44(16)	0.03(10)	-0.50(21)
L-Ca-d	0.55(50)	0.49(55)	-0.38(55)	-0.67(21)	0.66(55)	0.05(27)	0.97(55)	0.13(47)	0.27(25)	0.68(55)
L-Cl-d	0.89(26)	0.78(31)	0.15(31)	-0.76(10)	0.85(31)	0.96(21)	0.66(31)	0.07(26)	0.88(16)	0.96(31)
L-Co-d	0.91(17)	0.80(21)	0.02(21)	-0.28(5)	0.75(21)	0.90(14)	0.72(21)	-0.16(17)	0.80(10)	0.96(21)
L-Cr-d	0.58(16)	0.58(20)	0.13(20)	-0.56(5)	0.51(20)	0.84(10)	0.36(20)	0.24(16)	0.80(11)	0.69(20)
L-Cu-d	.....	0.70(51)	-0.02(51)	-0.83(17)	0.68(50)	0.90(21)	0.59(50)	0.24(43)	0.79(21)	0.83(50)
L-F-d	.....	.....	-0.18(56)	-0.72(22)	0.75(55)	0.80(28)	0.52(55)	0.18(48)	0.84(25)	0.90(55)
L-Fe-d	.....	.....	.....	0.44(21)	-0.17(55)	0.09(27)	-0.34(55)	0.22(48)	0.13(25)	-0.18(55)
L-Hg-d	.....	.....	.....	.....	-0.84(21)	-0.71(13)	-0.72(21)	-0.22(20)	-0.63(8)	-0.87(21)
L-K-d	.....	.....	.....	.....	.....	0.80(27)	0.76(55)	0.17(47)	0.53(25)	0.85(55)
L-Li-d	.....	.....	.....	.....	.....	.....	0.12(27)	0.06(22)	0.78(16)	0.99(27)
L-Mg-d	.....	.....	.....	.....	.....	.....	.....	0.12(47)	0.24(25)	0.72(55)
L-Mn-d	.....	.....	.....	.....	.....	.....	.....	.....	0.13(20)	0.17(47)
L-Mo-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.85(25)
L-Na-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Na%	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Ni-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-N2+3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-P-tl	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
LPO4-tl	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Ra-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-SiO2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-SO4-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Sr-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-Ti-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
L-V-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Table 6, continued

	L-Na%	L-Ni-d	L-N2N3	L-P-tl	LPO4-tl	L-Ra-d	L-SiO2	L-SO4-d	L-Sr-d	L-Ti-d	L-V-d
Eh	-0.09(55)	0.05(21)	0.04(28)	-0.07(26)	-0.07(26)	0.01(27)	-0.02(31)	0.06(31)	-0.20(53)	-0.04(33)	-0.14(40)
Ph	-0.13(48)	-0.48(16)	-0.09(28)	0.08(26)	0.08(26)	-0.29(27)	-0.26(31)	-0.60(31)	-0.37(44)	-0.22(26)	-0.36(33)
δ-D	0.81(44)	0.74(16)	0.02(28)	0.18(26)	0.18(26)	0.72(27)	0.58(31)	0.82(31)	0.90(41)	0.64(21)	0.73(31)
L-Cond	0.85(55)	0.78(21)	0.20(28)	0.32(26)	0.32(26)	0.65(27)	0.68(31)	0.88(31)	0.96(53)	0.81(33)	0.87(40)
L-U-d	0.62(55)	0.78(21)	0.26(28)	-0.11(26)	-0.11(26)	0.25(27)	0.48(31)	0.86(31)	0.94(53)	0.70(33)	0.86(40)
L-Alk	0.77(55)	0.60(21)	0.00(28)	0.13(26)	0.13(26)	0.67(27)	0.65(31)	0.68(31)	0.87(53)	0.69(33)	0.73(40)
L-Hard	0.44(55)	0.79(21)	0.26(28)	-0.17(26)	-0.17(26)	0.04(27)	0.32(31)	0.77(31)	0.88(52)	0.63(32)	0.86(40)
L-HardnC	0.86(19)	0.89(5)	0.10(17)	0.31(14)	0.30(14)	0.38(19)	0.63(19)	0.90(19)	0.76(17)	0.94(5)	0.74(13)
L-SAR	0.96(55)	0.82(21)	0.13(28)	0.39(26)	0.39(26)	0.71(27)	0.69(31)	0.77(31)	0.85(52)	0.88(32)	0.81(40)
L-H2Ute	0.73(55)	0.48(21)	0.10(28)	0.26(26)	0.26(26)	0.62(27)	0.45(31)	0.63(31)	0.67(53)	0.57(33)	0.55(40)
L-Al-d	0.36(34)	-0.13(20)	0.54(10)	0.50(6)	0.50(6)	-0.02(8)	0.28(10)	0.21(10)	-0.19(34)	0.30(26)	-0.46(27)
L-As-d	0.82(48)	0.60(17)	-0.12(25)	0.10(22)	0.10(22)	0.76(23)	0.65(27)	0.59(27)	0.85(45)	0.91(27)	0.86(33)
L-Ba-d	0.39(55)	0.30(21)	0.00(28)	0.09(26)	0.09(26)	0.43(27)	0.56(31)	0.34(31)	0.54(53)	0.25(33)	0.11(40)
L-Bicar	0.91(31)	0.97(6)	0.11(28)	0.31(26)	0.31(26)	0.66(27)	0.73(31)	0.82(31)	0.92(27)	0.99(10)	0.79(19)
L-InorgC	0.93(31)	0.61(6)	0.10(28)	0.24(26)	0.24(26)	0.68(27)	0.70(31)	0.83(31)	0.86(27)	0.86(10)	0.59(19)
L-Org C	-0.33(21)	-0.93(5)	-0.11(20)	-0.19(16)	-0.18(16)	-0.58(17)	-0.64(21)	-0.39(21)	-0.70(17)	-0.76(8)	-0.40(13)
L-Ca-d	0.42(55)	0.80(21)	0.27(28)	-0.16(26)	-0.16(26)	0.00(27)	0.31(31)	0.74(31)	0.87(52)	0.62(32)	0.86(40)
L-Cl-d	0.92(31)	0.97(6)	0.24(28)	0.25(26)	0.24(26)	0.59(27)	0.55(31)	0.93(31)	0.90(27)	0.98(10)	0.80(19)
L-Co-d	0.88(21)	0.97(5)	0.23(19)	0.18(19)	0.18(19)	0.46(17)	0.73(21)	0.89(21)	0.93(17)	0.95(6)	0.80(15)
L-Cr-d	0.67(20)	0.65(4)	0.10(16)	0.26(13)	0.26(13)	0.67(13)	0.70(16)	0.82(16)	0.66(16)	0.40(8)	0.43(11)
L-Cu-d	0.83(50)	0.41(20)	0.26(25)	0.21(21)	0.21(21)	0.74(22)	0.57(26)	0.82(26)	0.79(47)	0.69(32)	0.59(36)
L-F-d	0.83(55)	0.67(21)	0.09(28)	0.49(26)	0.49(26)	0.72(27)	0.60(31)	0.58(31)	0.77(53)	0.76(33)	0.87(40)
L-Fe-d	0.01(55)	-0.07(21)	-0.42(28)	0.06(26)	0.06(26)	-0.07(27)	-0.02(31)	0.10(31)	-0.33(53)	-0.51(33)	-0.44(40)
L-Hg-d	-0.75(21)	-0.73(11)	0.28(10)	-0.53(10)	-0.54(10)	-0.71(10)	-0.61(10)	0.80(10)	-0.88(21)	-0.74(13)	-0.90(16)
L-K-d	0.66(55)	0.47(21)	0.01(28)	0.25(26)	0.25(26)	0.64(27)	0.36(31)	0.73(31)	0.84(52)	0.74(32)	0.77(40)
L-Li-d	0.91(27)	0.87(5)	-0.30(20)	0.71(21)	0.71(21)	0.63(21)	0.74(21)	0.33(21)	0.71(25)	0.90(13)	0.77(14)
L-Mg-d	0.45(55)	0.73(21)	0.20(28)	-0.20(26)	-0.20(26)	0.13(27)	0.33(31)	0.82(31)	0.88(52)	0.63(32)	0.85(40)
L-Mn-d	0.17(47)	-0.16(21)	0.06(23)	-0.01(21)	-0.02(21)	-0.19(23)	0.11(26)	-0.03(26)	0.16(45)	-0.16(29)	0.03(34)
L-Mo-d	0.88(25)	0.93(4)	0.13(14)	0.26(14)	0.26(14)	0.56(13)	0.38(16)	0.83(16)	0.74(21)	0.76(13)	0.64(16)
L-Na-d	0.92(55)	0.82(21)	0.17(28)	0.31(26)	0.31(26)	0.64(27)	0.70(31)	0.88(31)	0.94(52)	0.87(32)	0.65(40)
L-Na%	.....	0.71(21)	0.18(28)	0.32(26)	0.32(26)	0.65(27)	0.69(31)	0.80(31)	0.77(52)	0.88(32)	0.63(40)
L-Ni-d	.....	.....	-0.30(6)	0.34(5)	0.33(5)	0.27(5)	0.87(6)	0.94(6)	0.78(21)	0.37(19)	0.78(21)
L-N2N3	.....	.....	.....	0.36(23)	0.36(23)	0.01(26)	0.01(28)	0.23(28)	0.30(25)	0.14(10)	0.32(14)
L-P-tl	.....	.....	.....	.....	1.00(26)	0.64(22)	0.34(26)	0.05(26)	0.04(22)	0.52(10)	0.24(16)
LPO4-tl	.....	.....	.....	.....	.....	0.64(22)	0.34(26)	0.05(26)	0.04(22)	0.52(10)	0.24(16)
L-Ra-d	.....	.....	.....	.....	.....	.....	0.41(27)	0.43(27)	0.50(25)	0.66(10)	0.36(16)
L-SiO2	.....	.....	.....	.....	.....	.....	.....	0.48(31)	0.67(27)	0.70(10)	0.47(19)
L-SO4-d	.....	.....	.....	.....	.....	.....	.....	.....	0.92(27)	0.90(10)	0.70(19)
L-Sr-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.81(32)	0.67(36)
L-Ti-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.71(27)
L-V-d	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

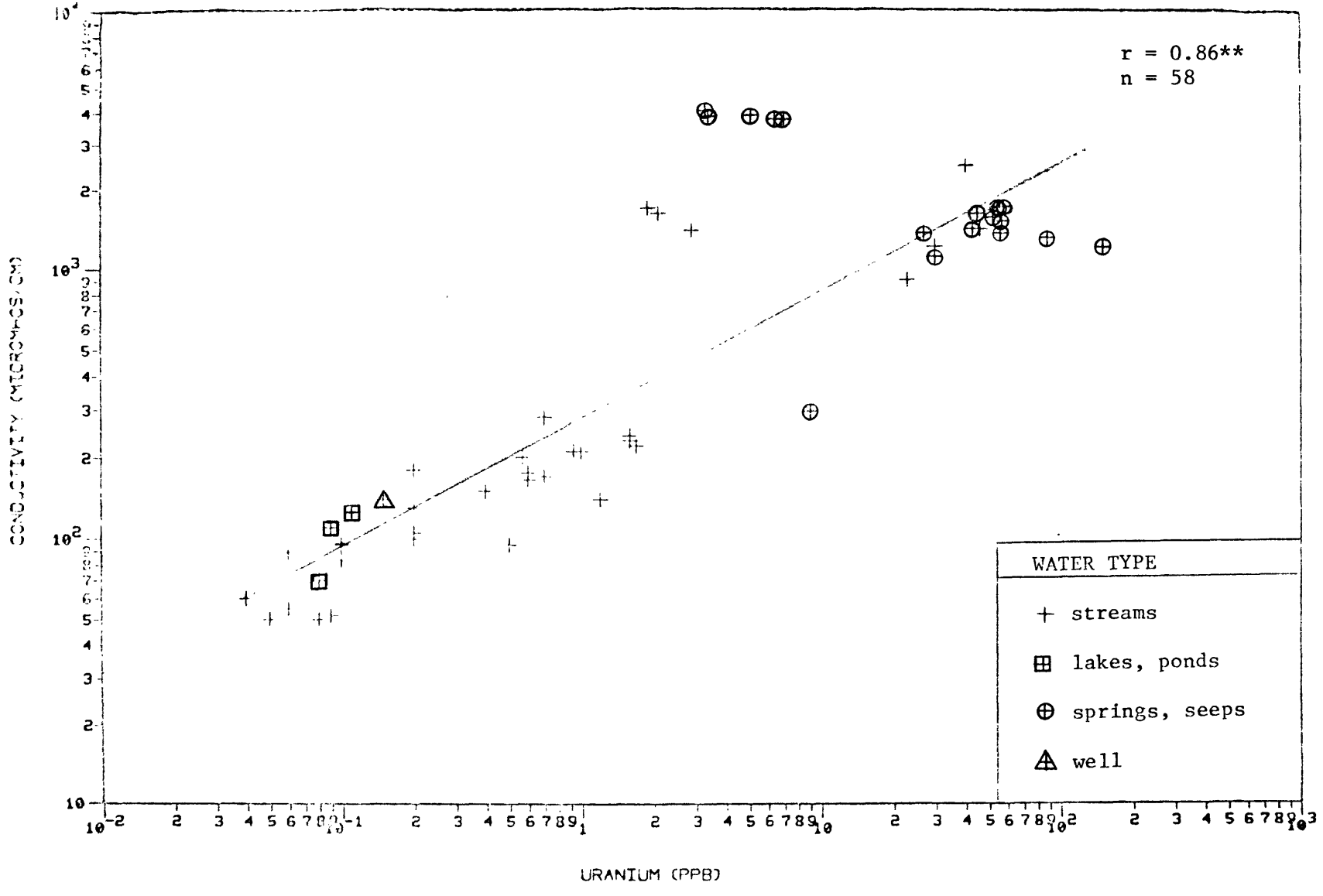

Figure 3-1.--Scatter diagram of conductivity versus uranium.

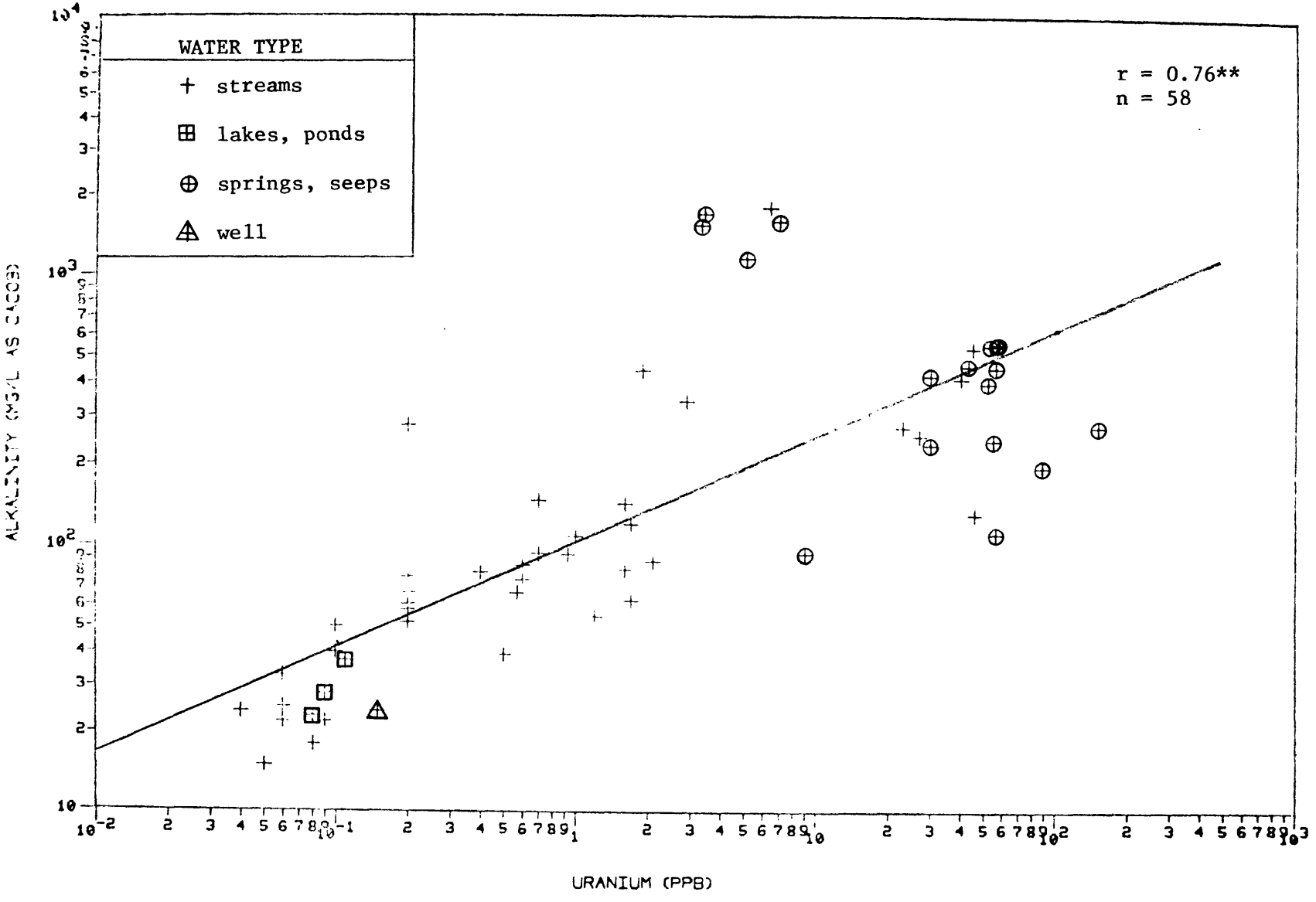

Figure 3-2.--Scatter diagram of alkalinity versus uranium.

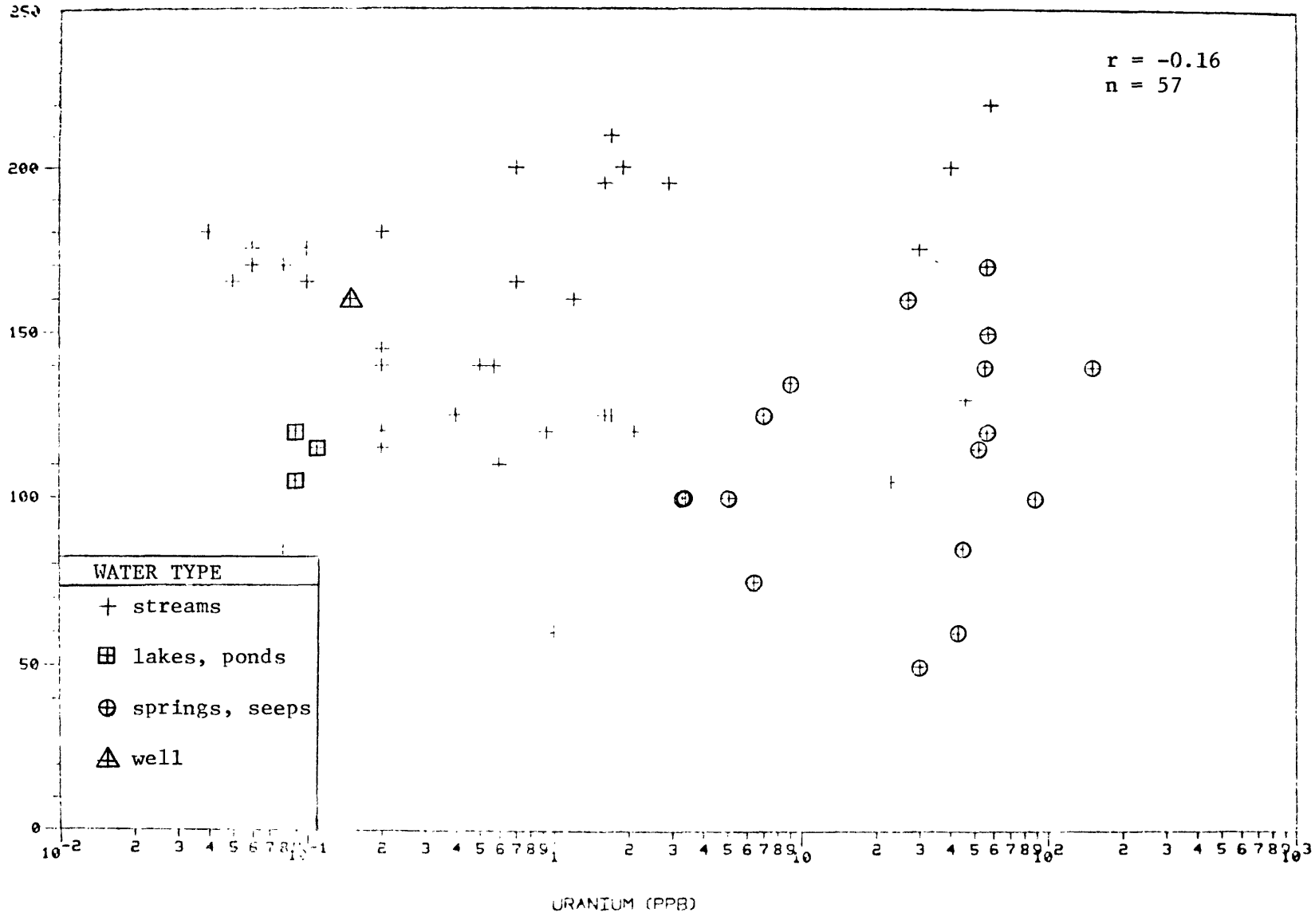

Figure 3-3.--Scatter diagram of Eh versus uranium. Raw data used to calculate r.

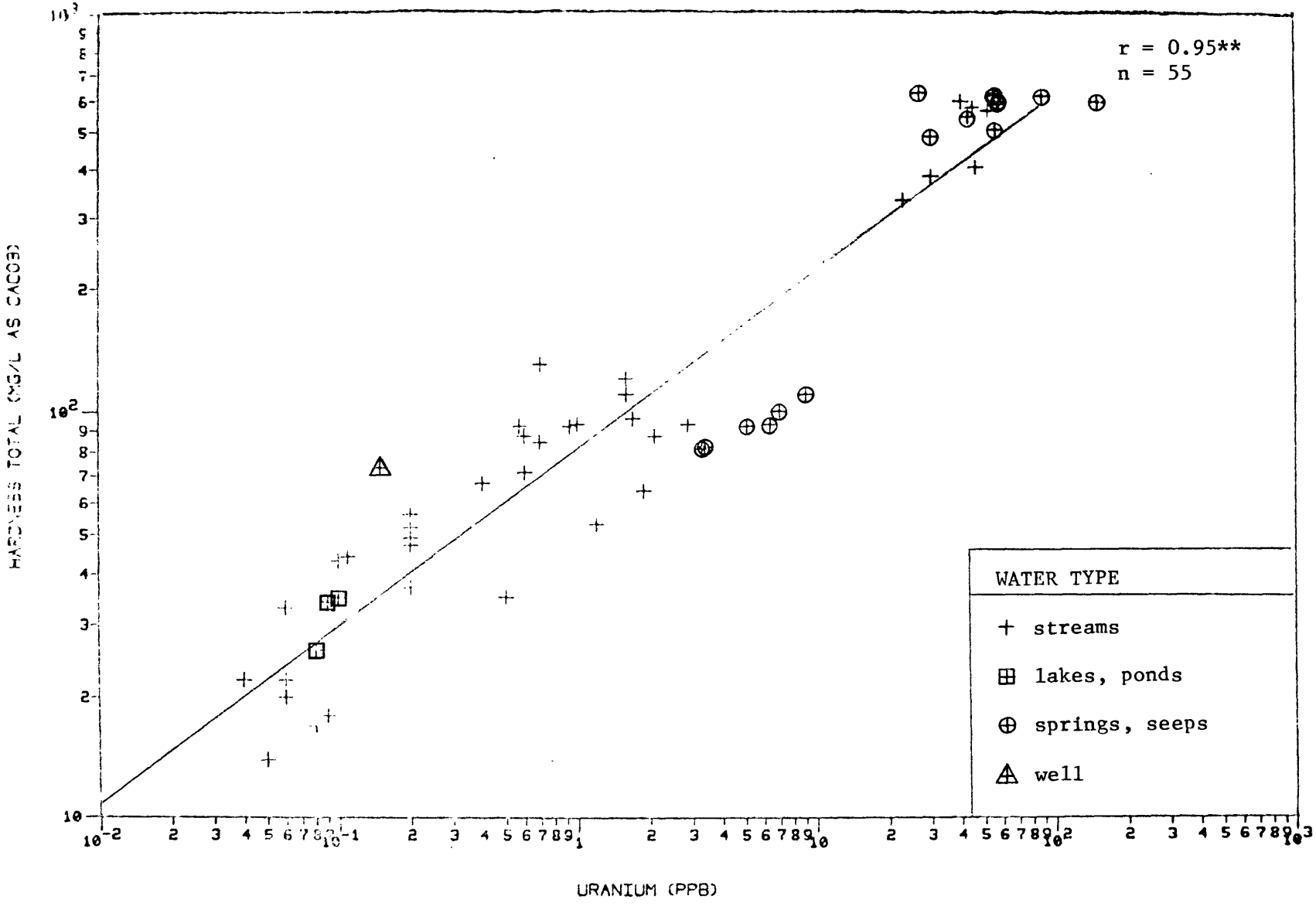

Figure 3-4.--Scatter diagram of hardness versus uranium.

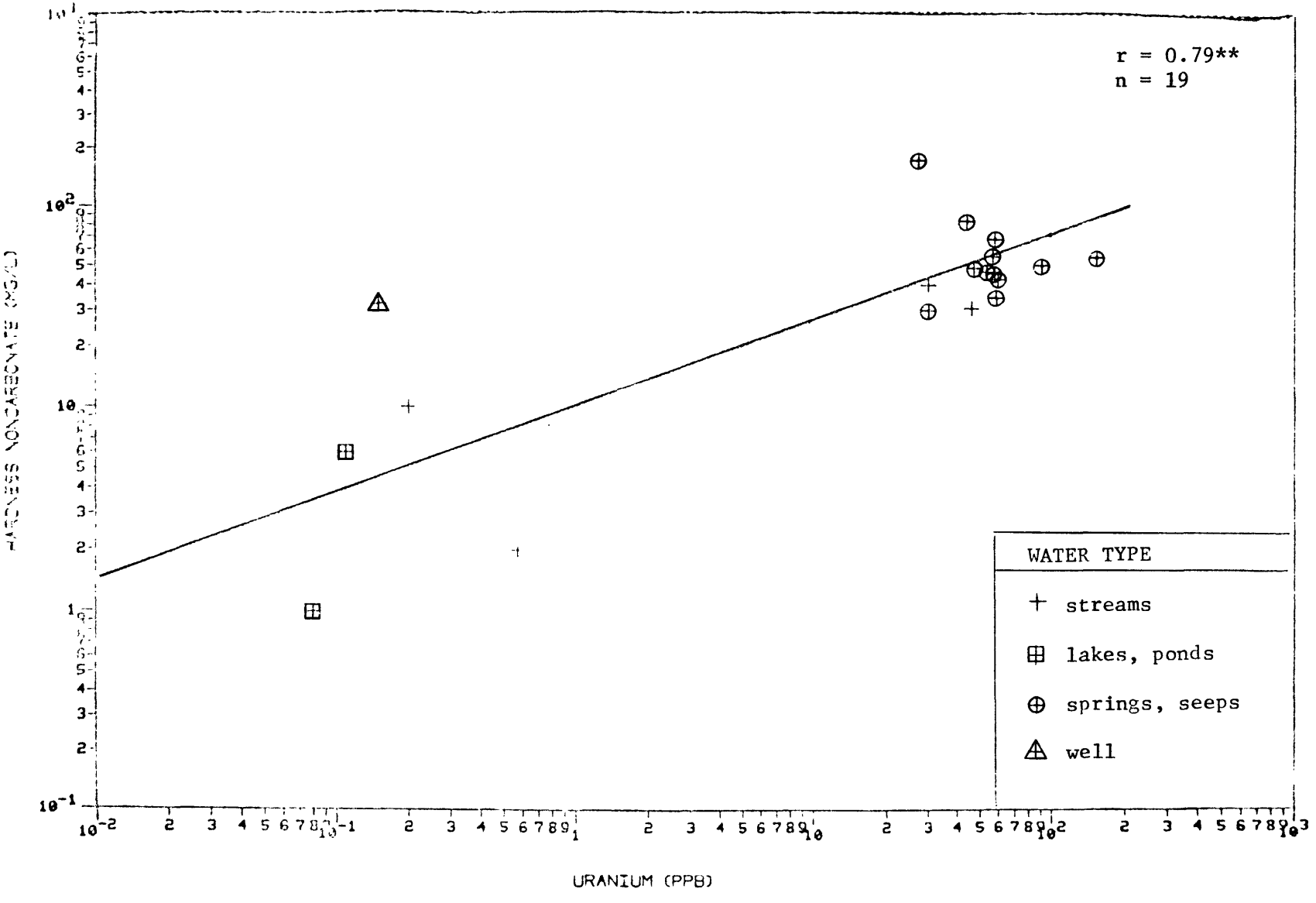

Figure 3-5.--Scatter diagram of noncarbonate hardness versus uranium.

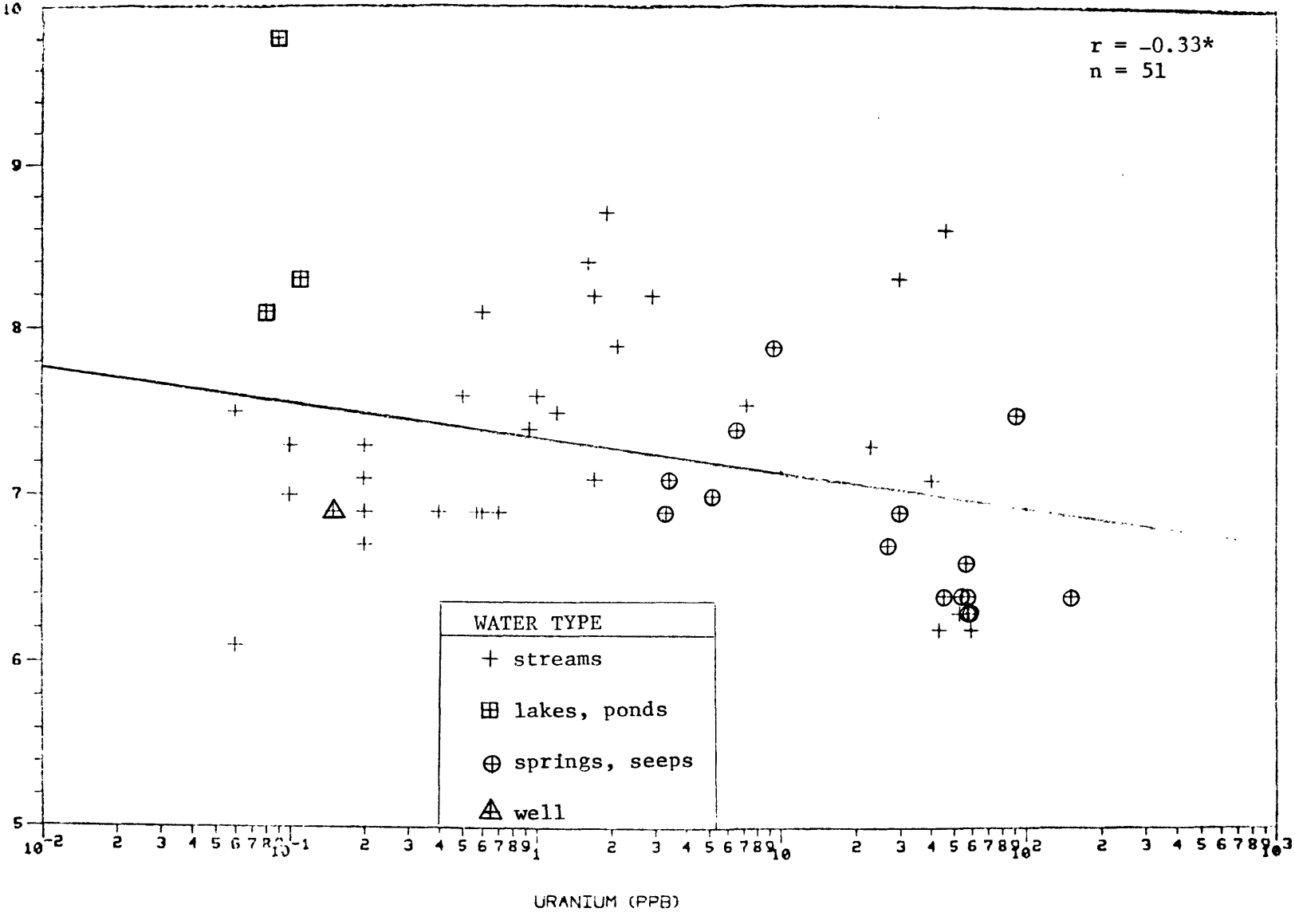

Figure 3-6.--Scatter diagram of pH versus uranium.

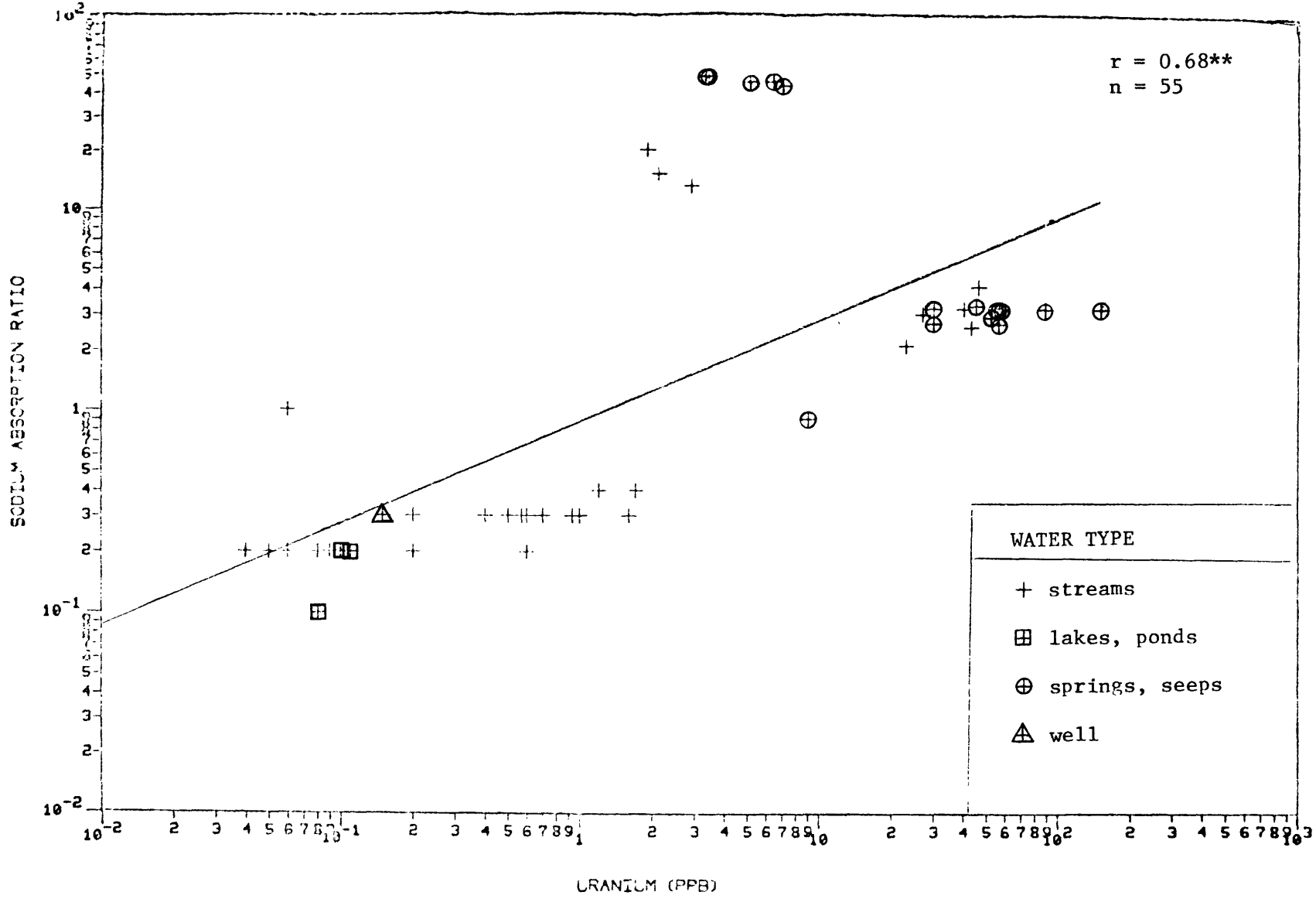

Figure 3-7.--Scatter diagram of sodium absorption ratio versus uranium.

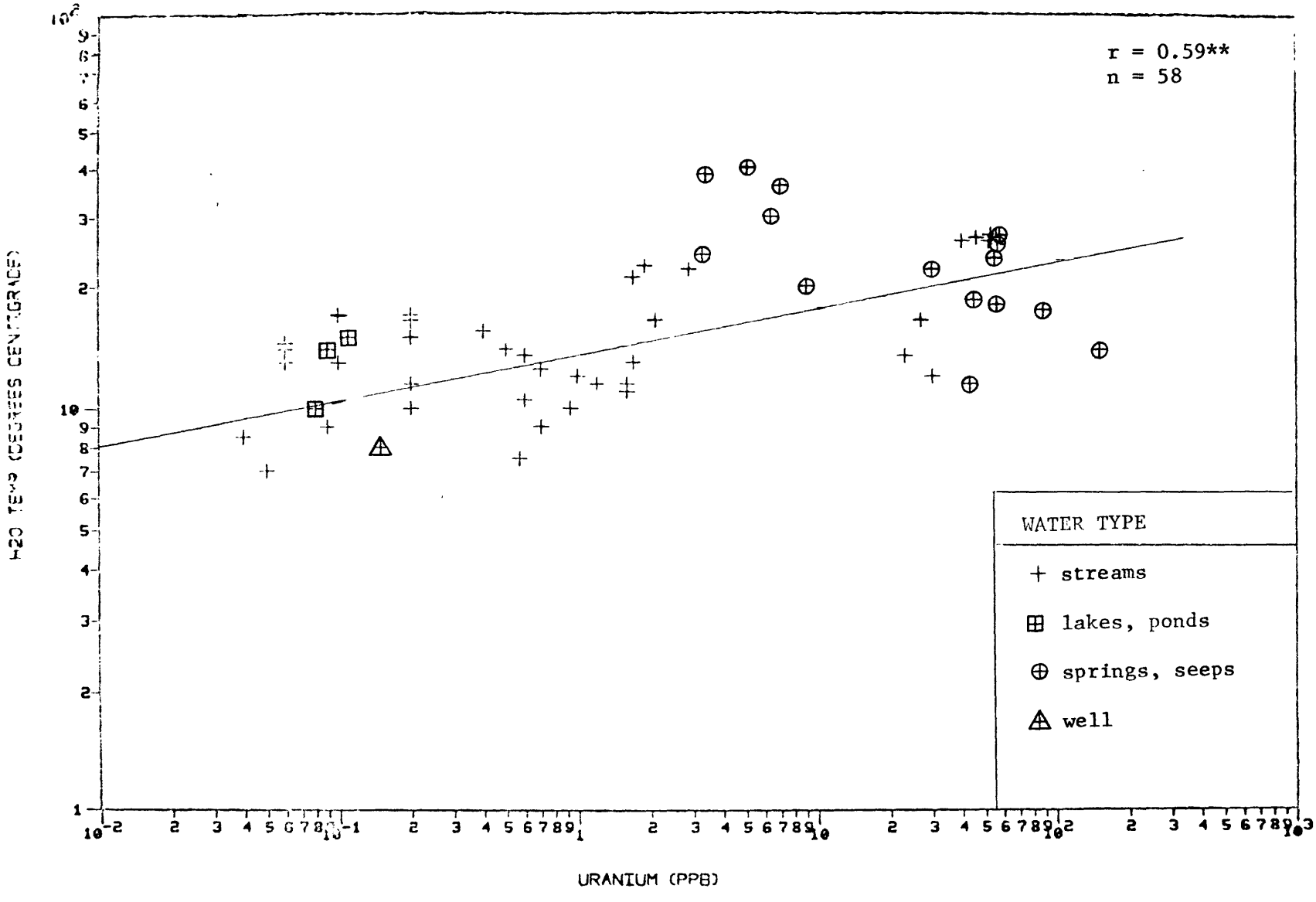

Figure 3-8.--Scatter diagram of water temperature versus uranium.

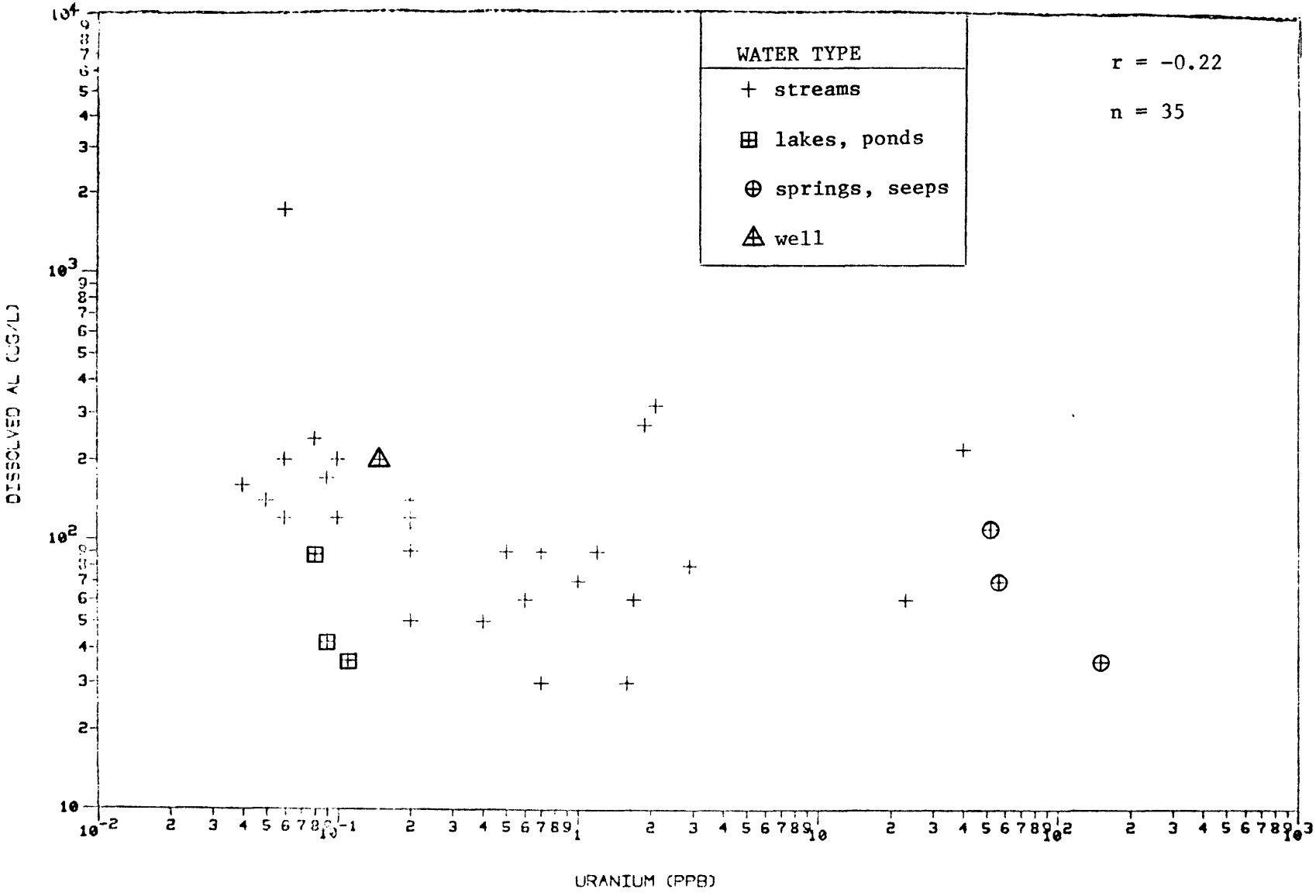

Figure 3-9.-- Scatter diagram of Al versus uranium. Values of sample #16 plotted but not used to calculate r.

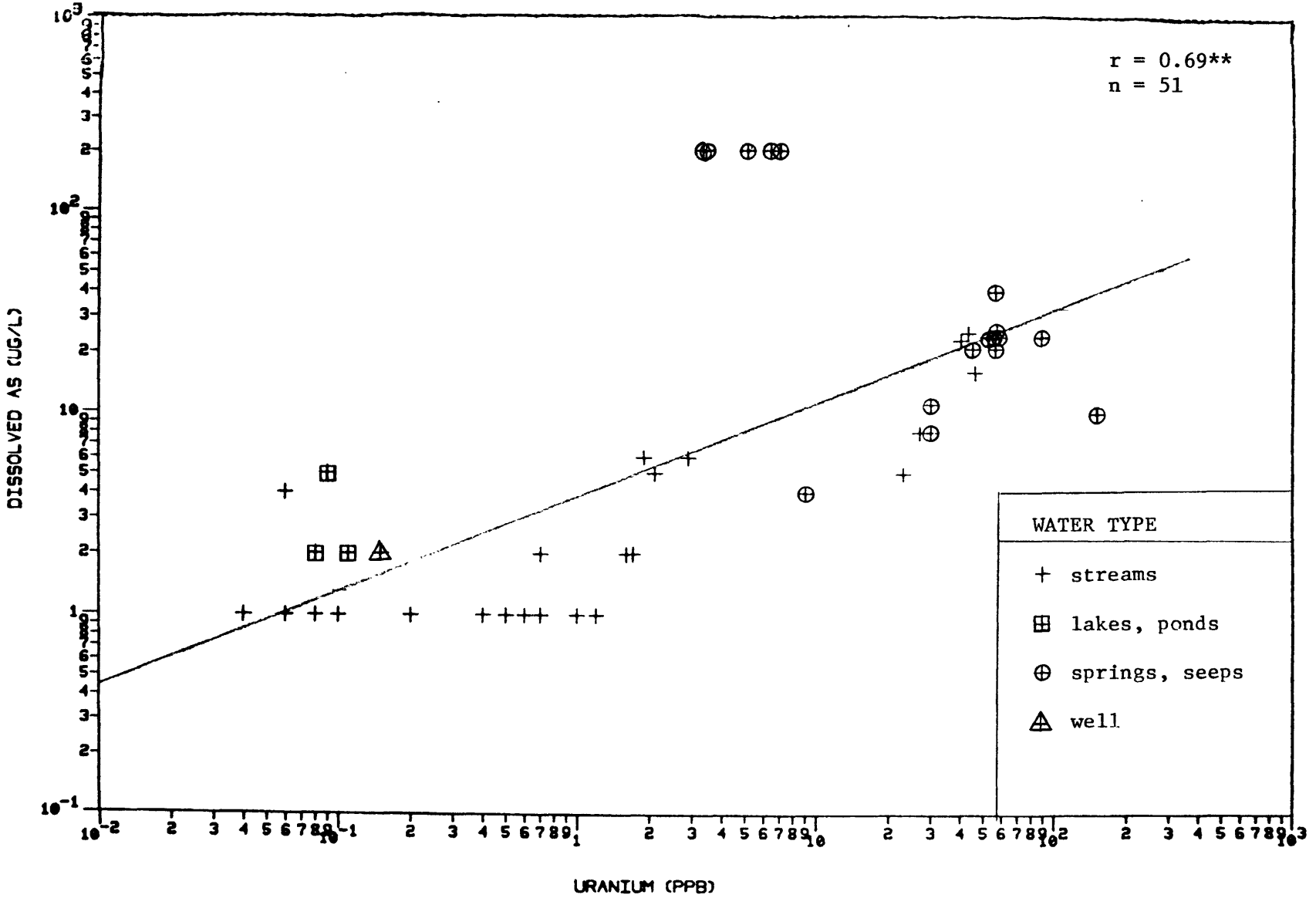

Figure 3-10.--Scatter diagram of As versus uranium.

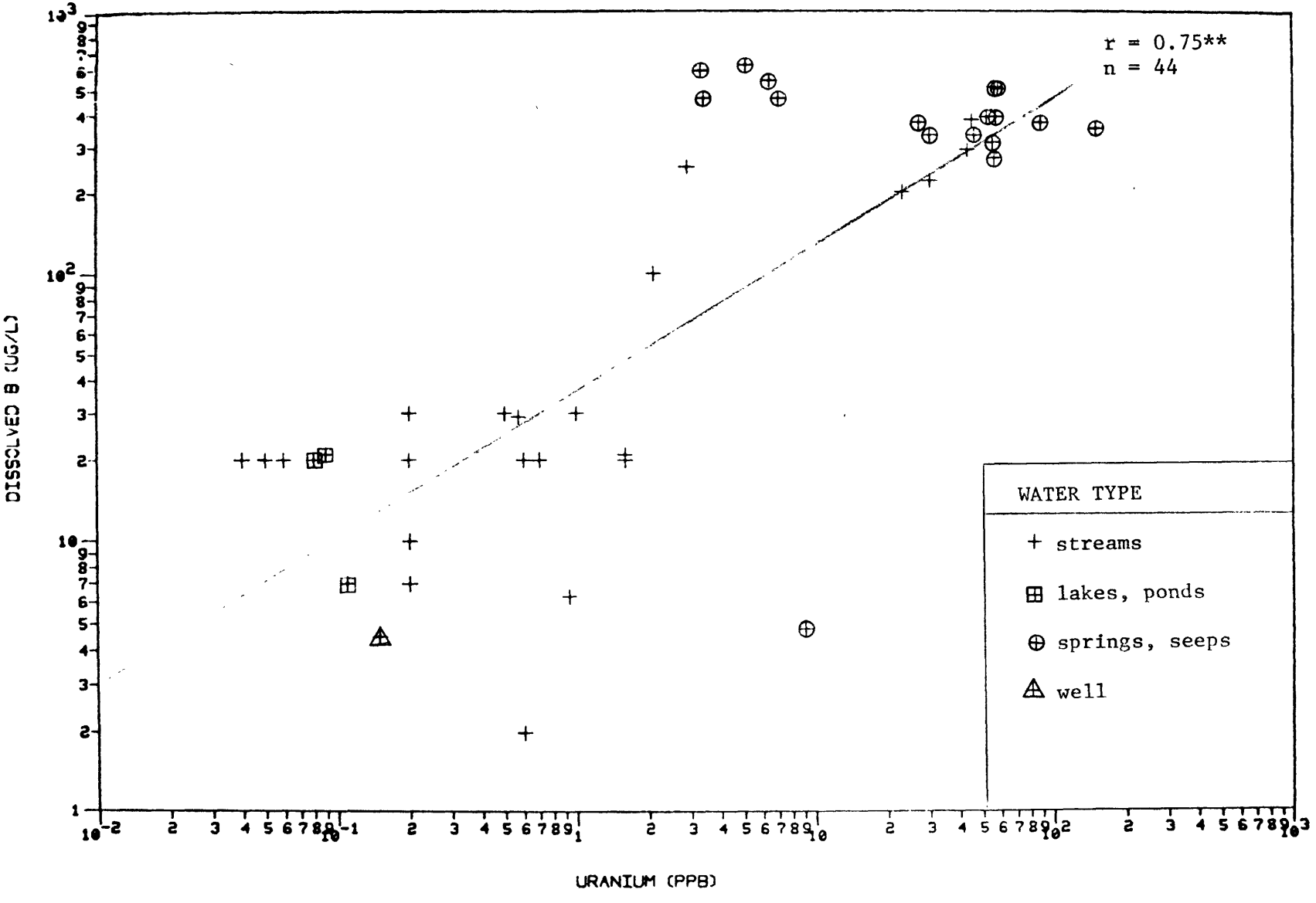

Figure 3-11.--Scatter diagram of B versus uranium. Raw data used to calculate r.

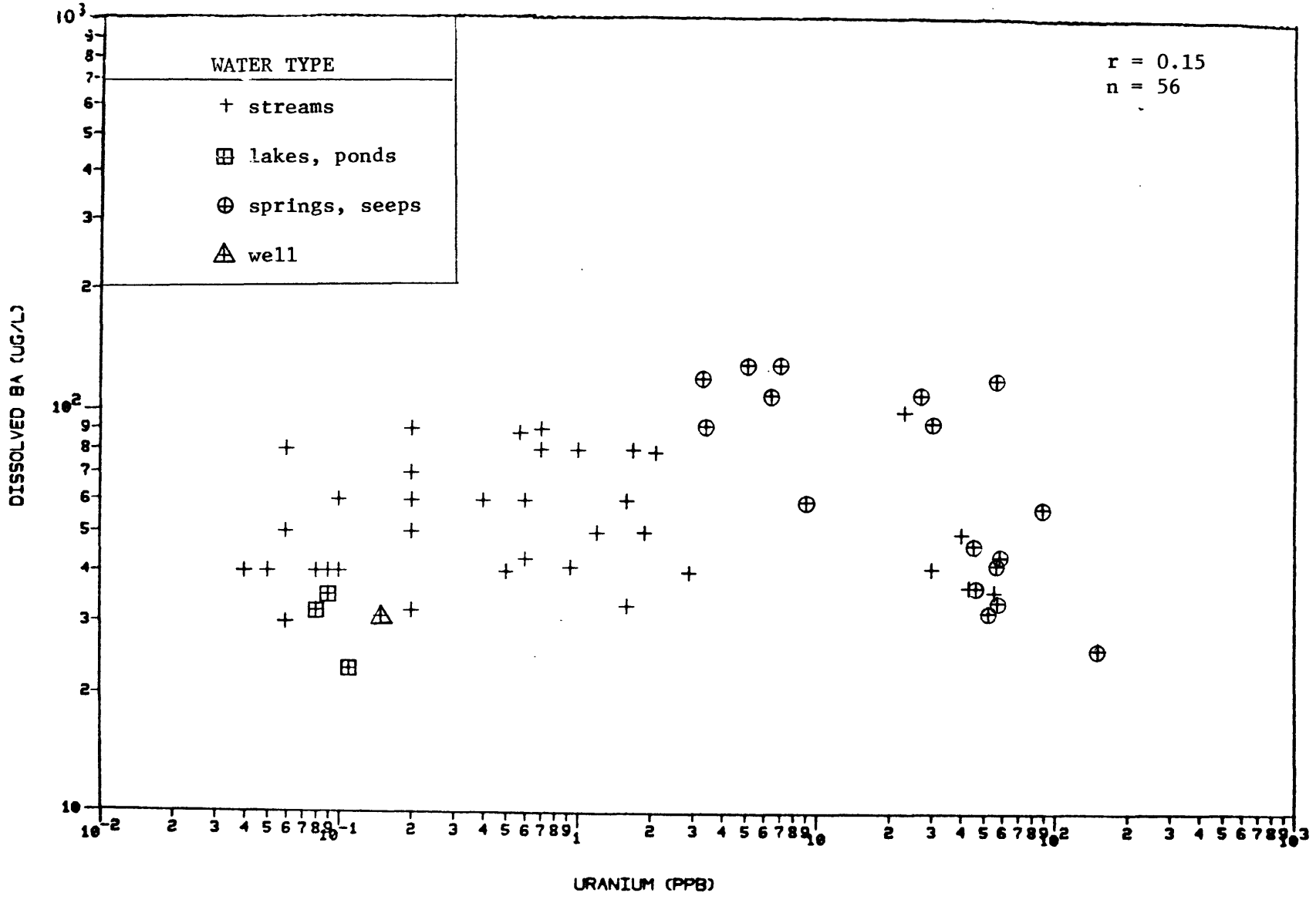

Figure 3-12.--Scatter diagram of Ba versus uranium.

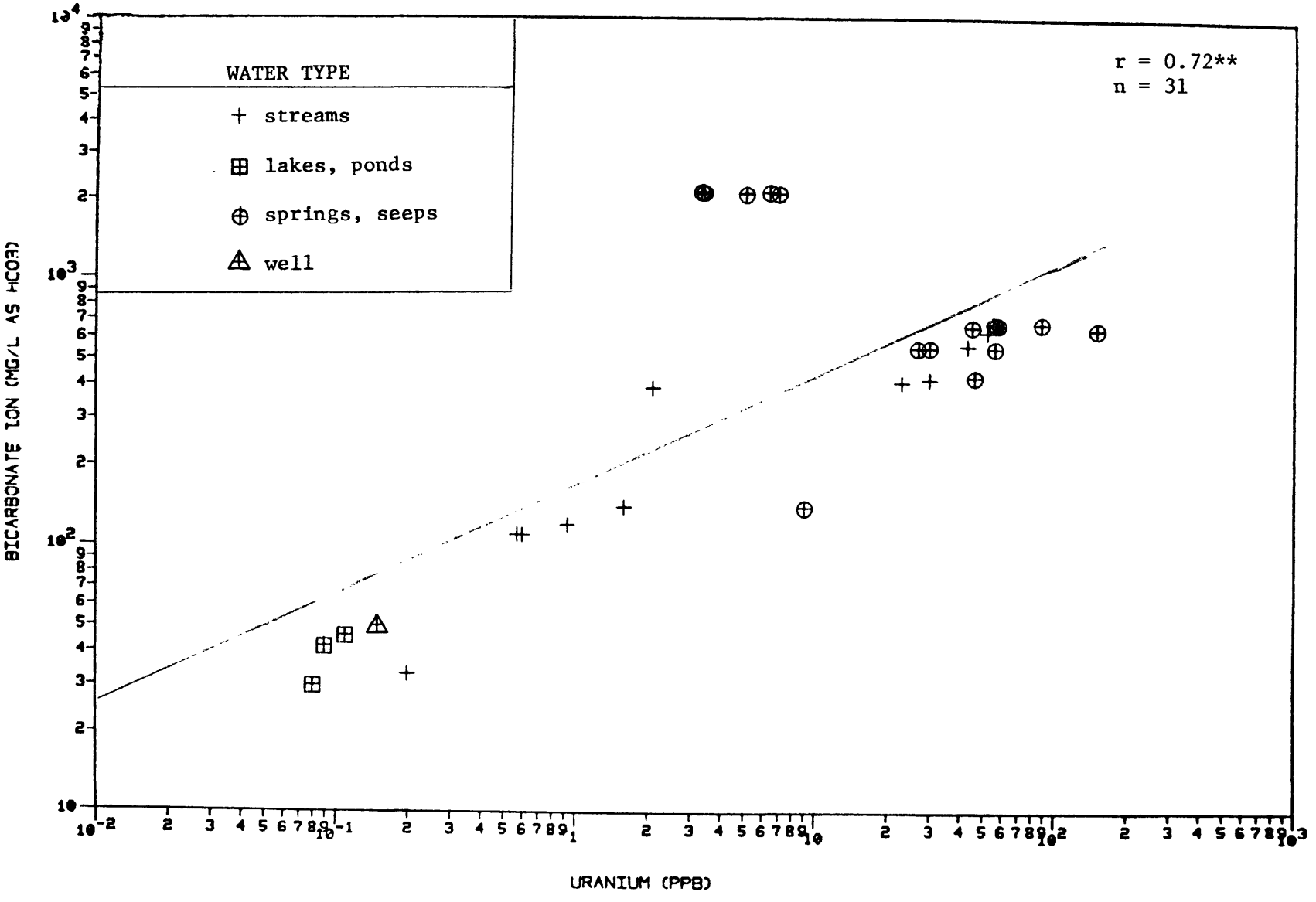

Figure 3-13.-- Scatter diagram of bicarbonate versus uranium.

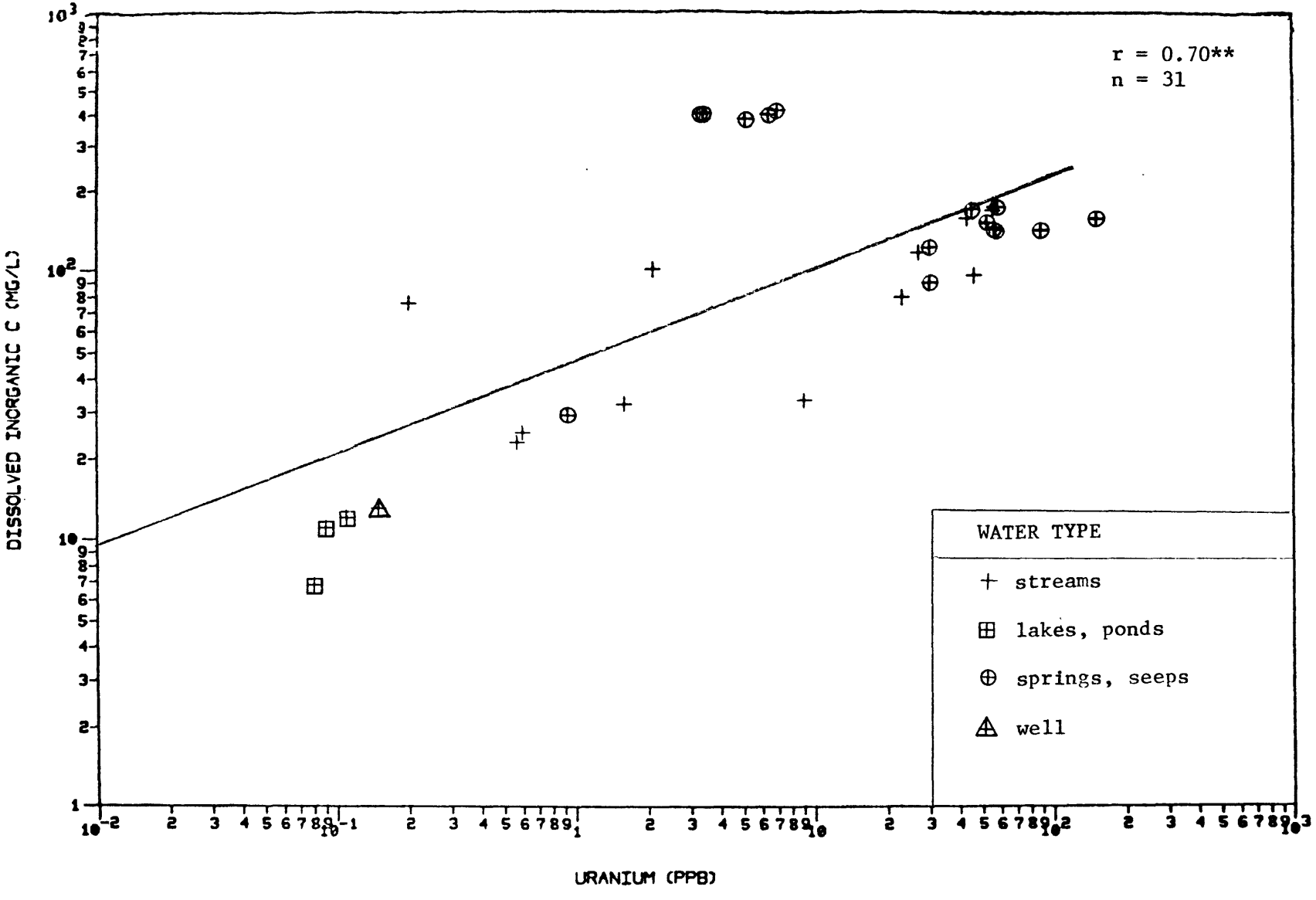

Figure 3-14.--Scatter diagram of inorganic C versus uranium.

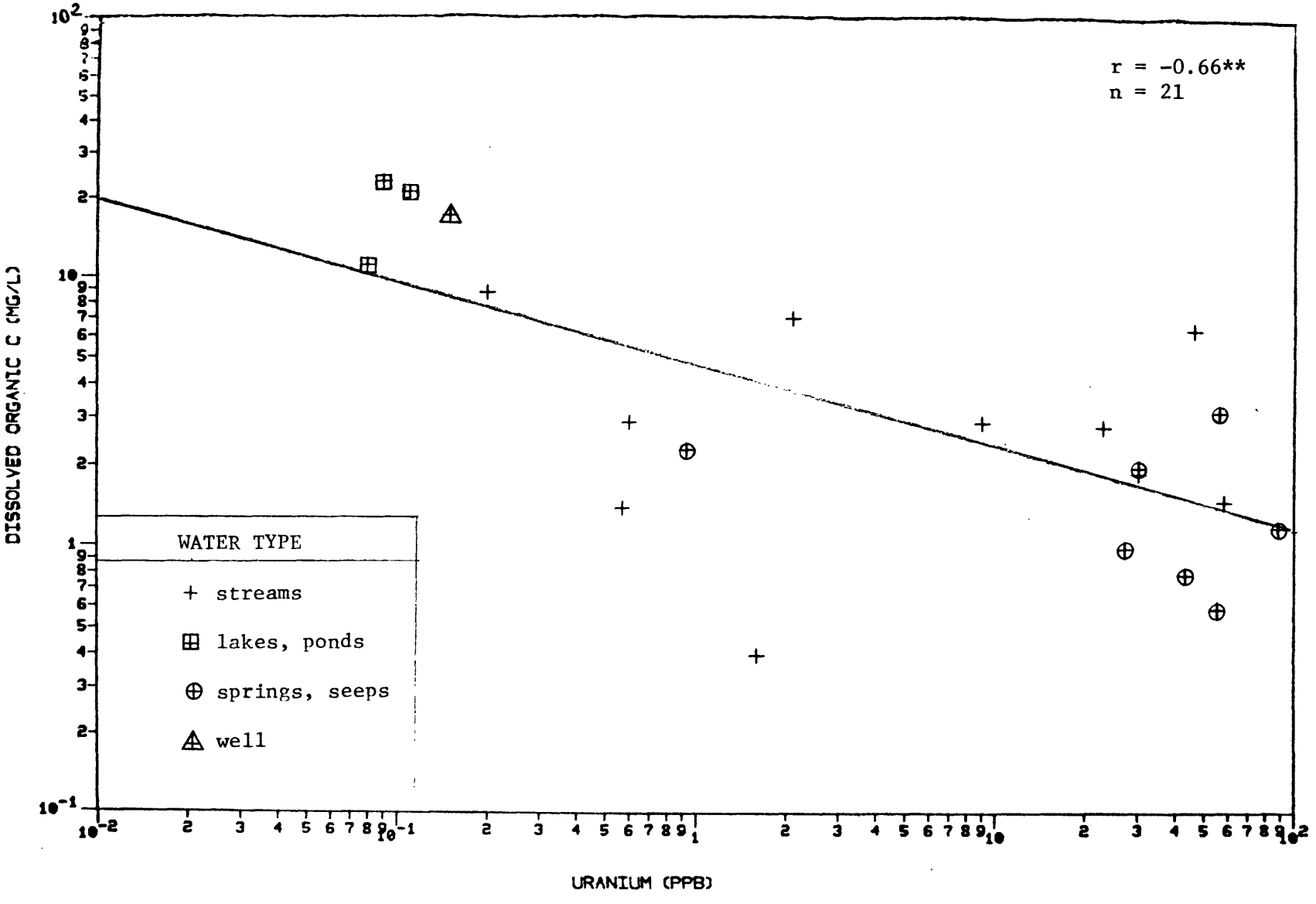

Figure 3-15.--Scatter diagram of organic C versus uranium.

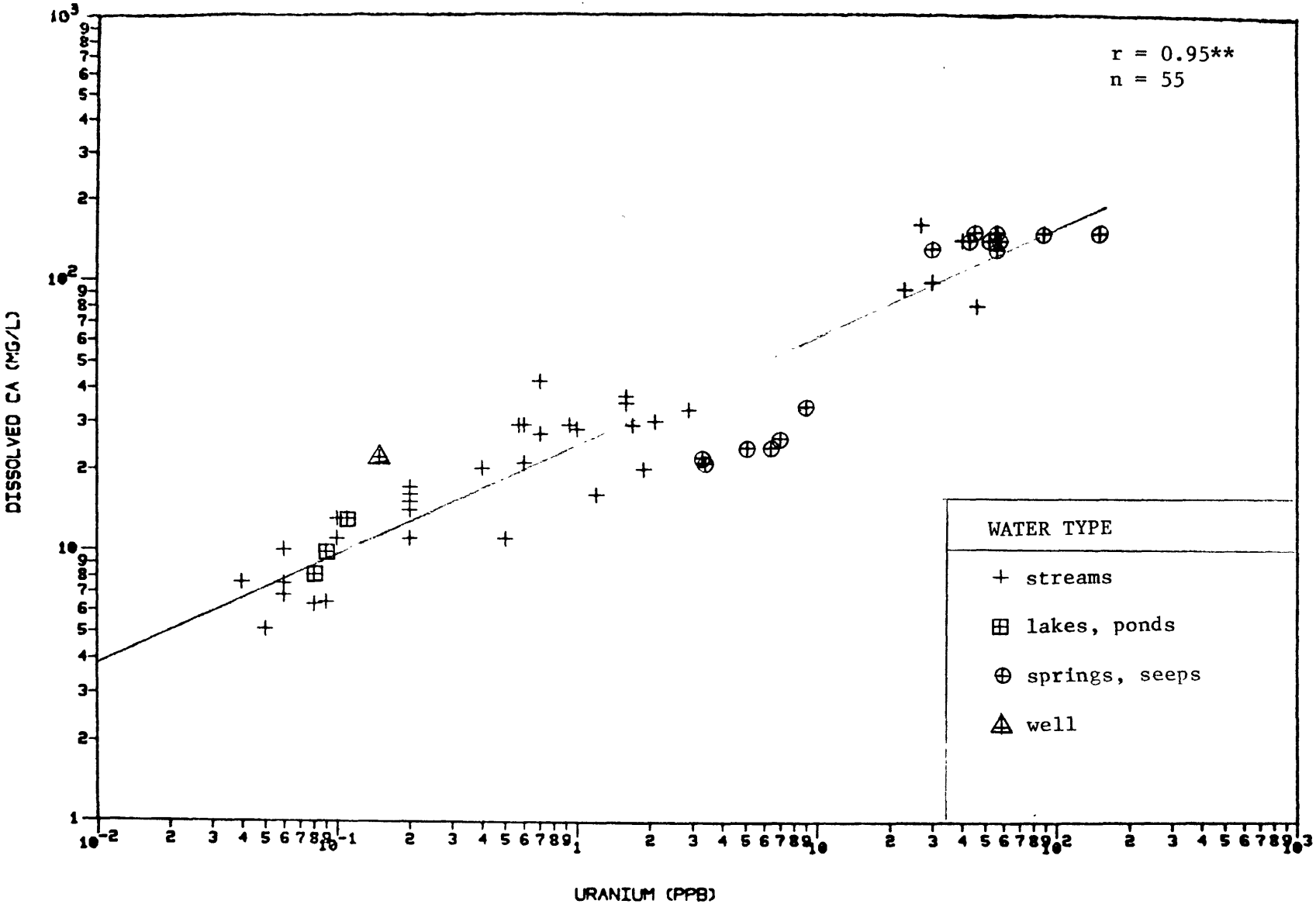

Figure 3-16.--Scatter diagram of Ca versus uranium.

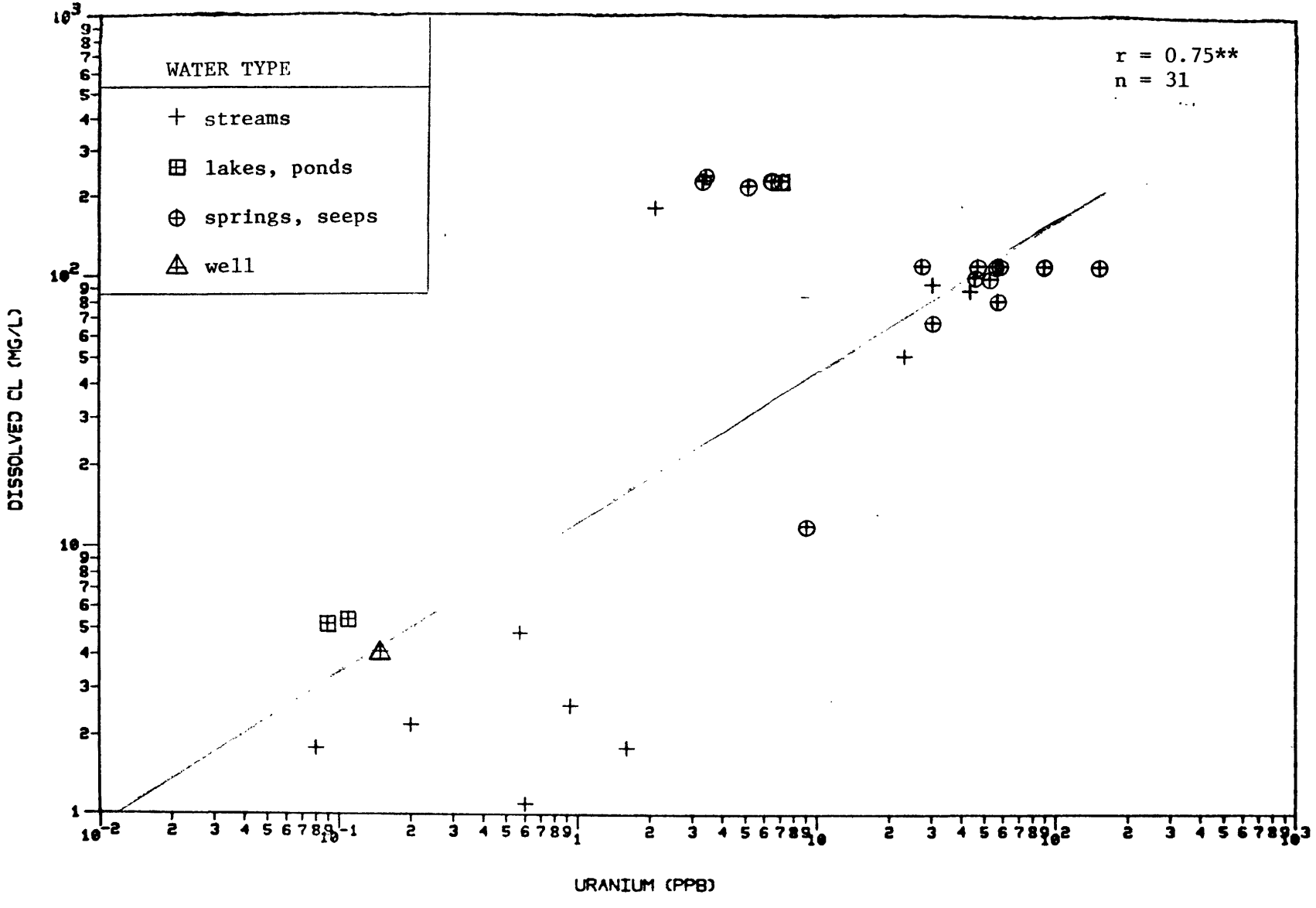

Figure 3-17.--Scatter diagram of Cl versus uranium.

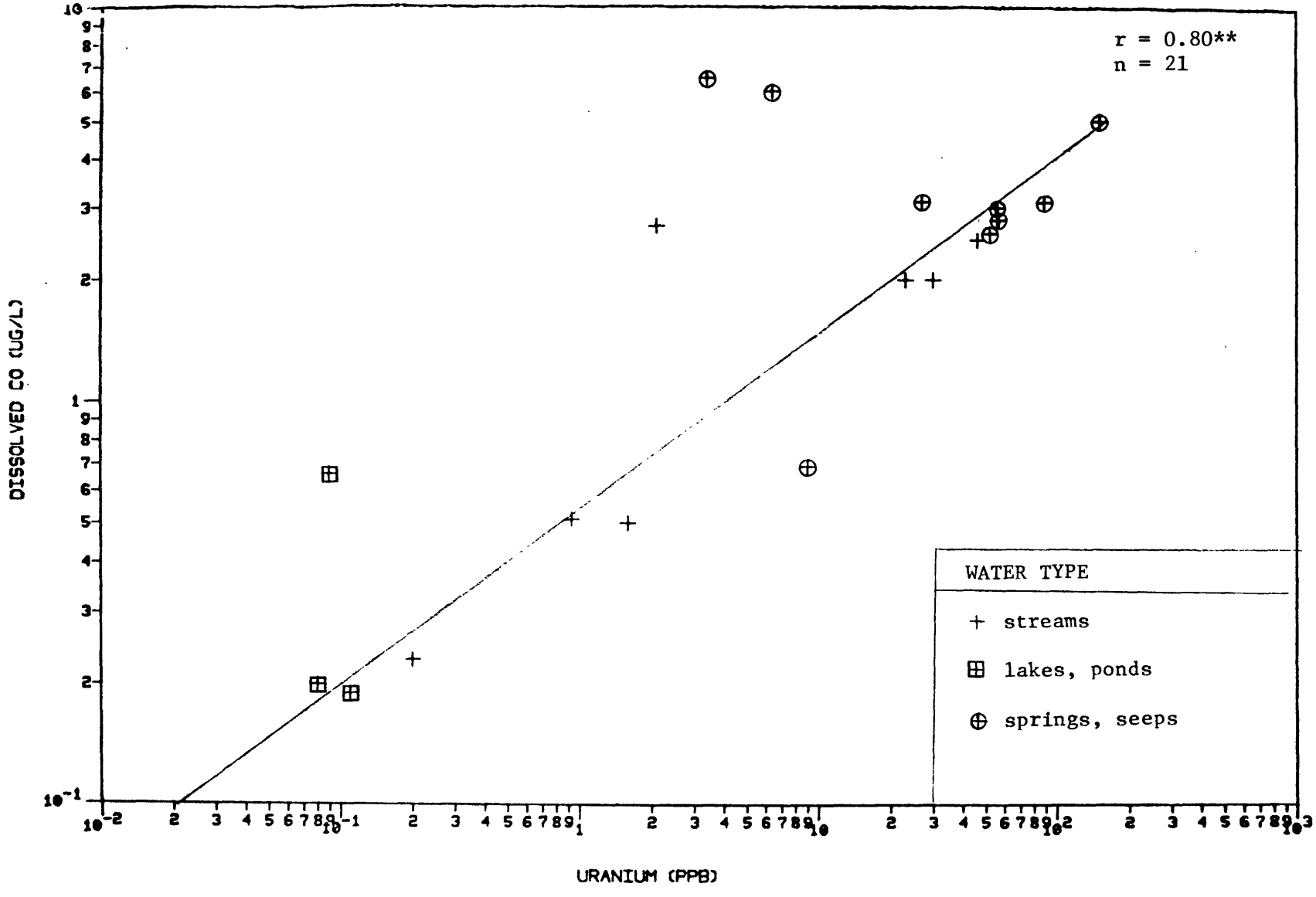

Figure 3-18.--Scatter diagram of Co versus uranium.

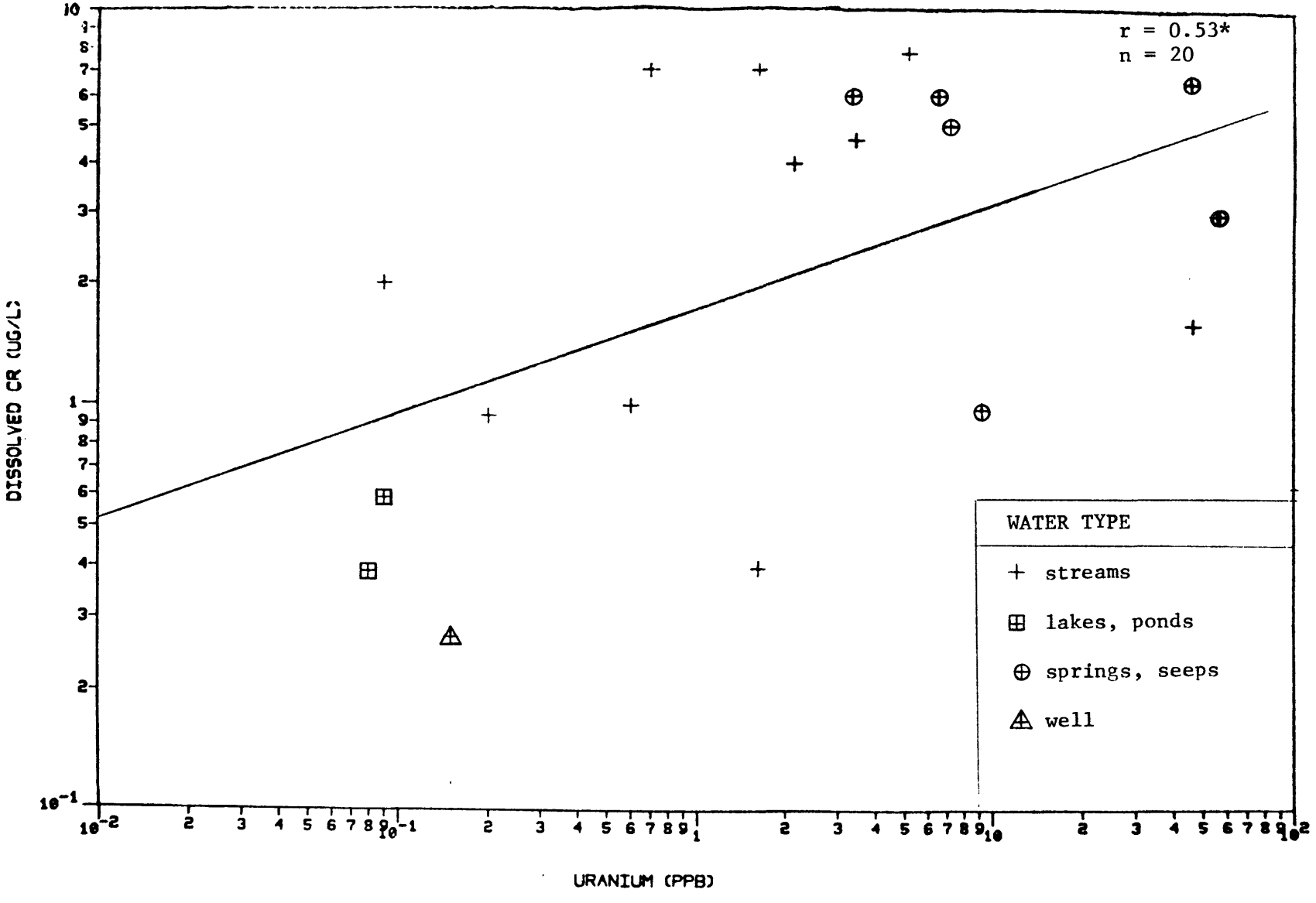

Figure 3-19.--Scatter diagram of Cr versus uranium.

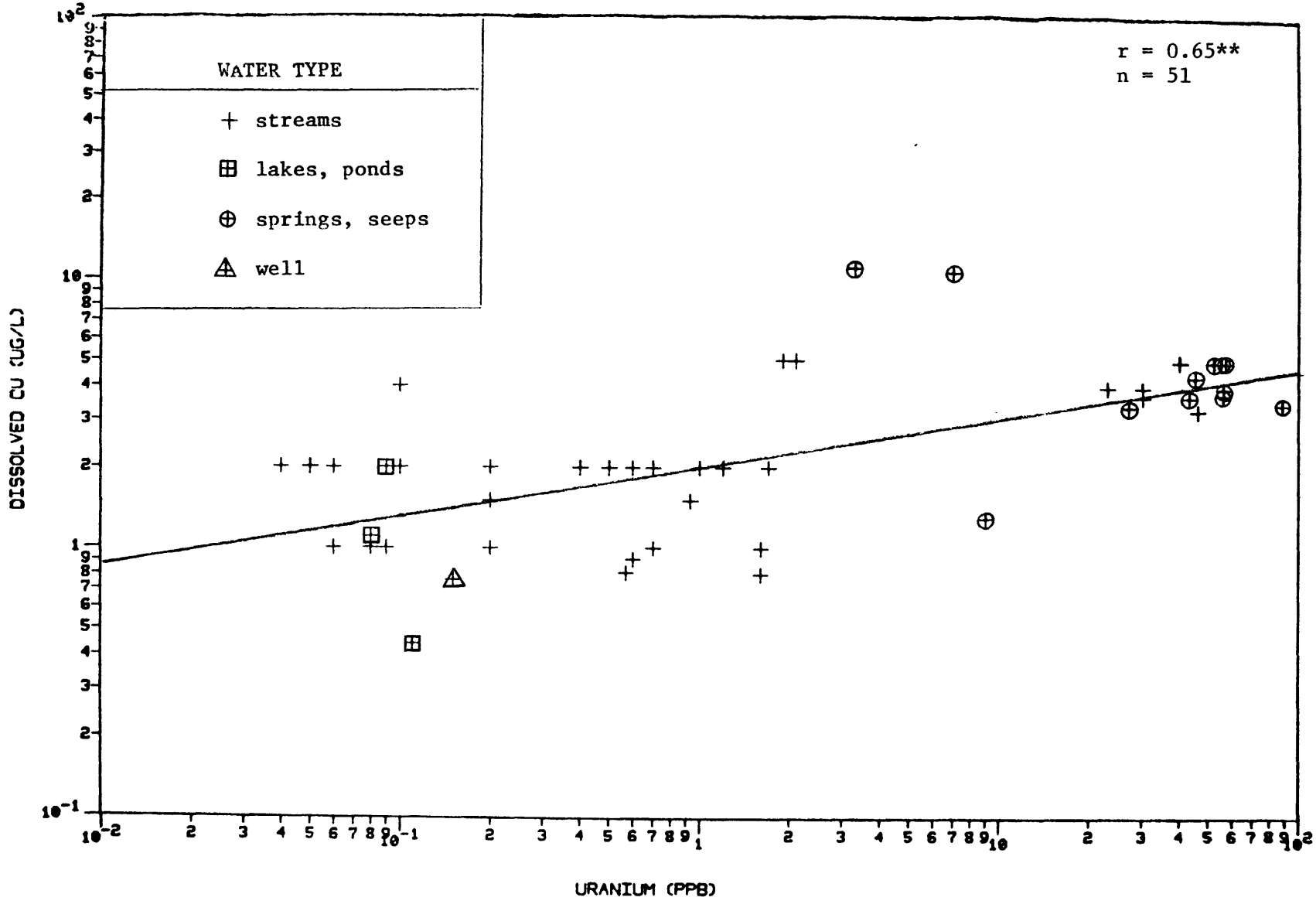

Figure 3-20.--Scatter diagram of Cu versus uranium.

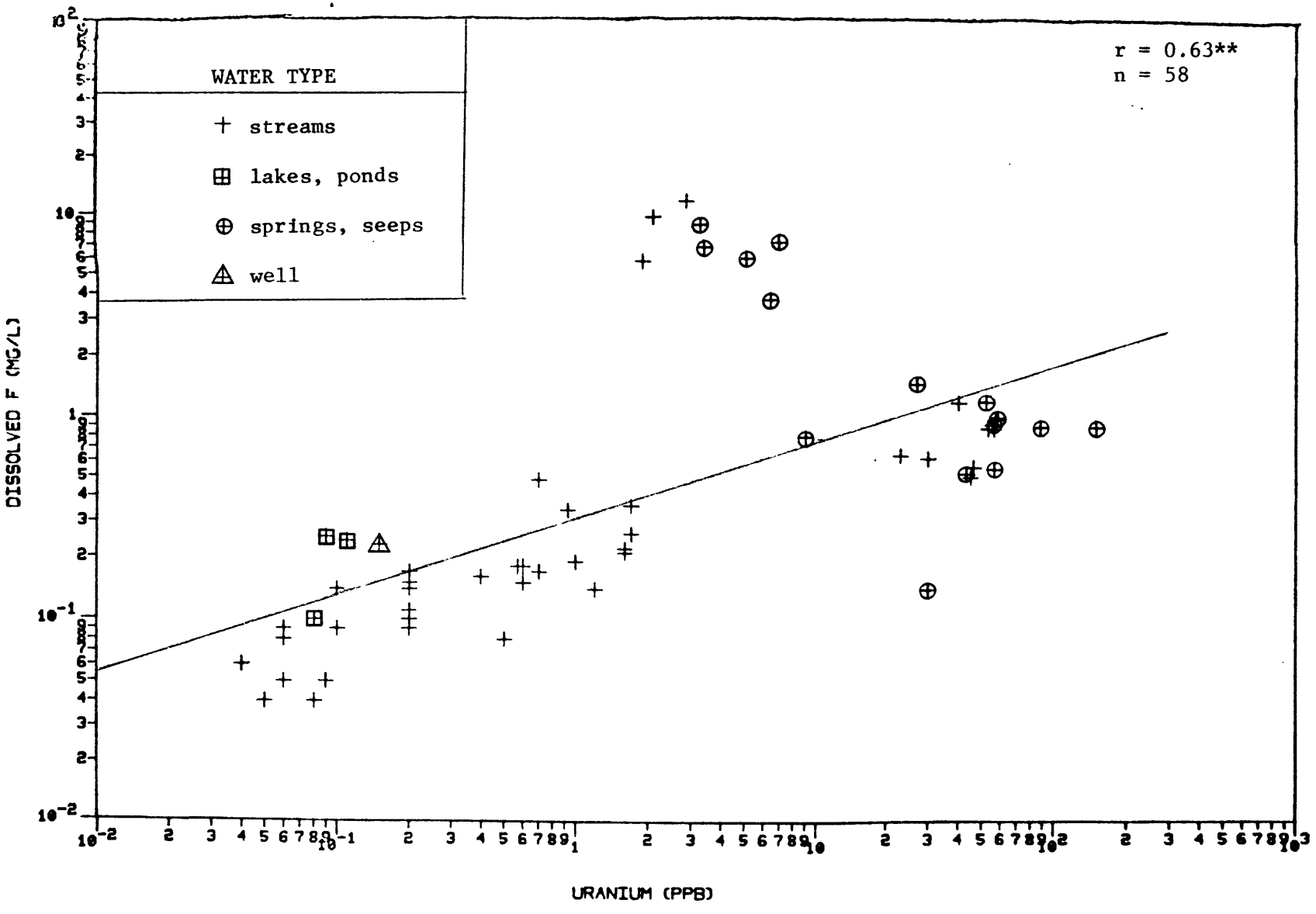

Figure 3-21.--Scatter diagram of F versus uranium.

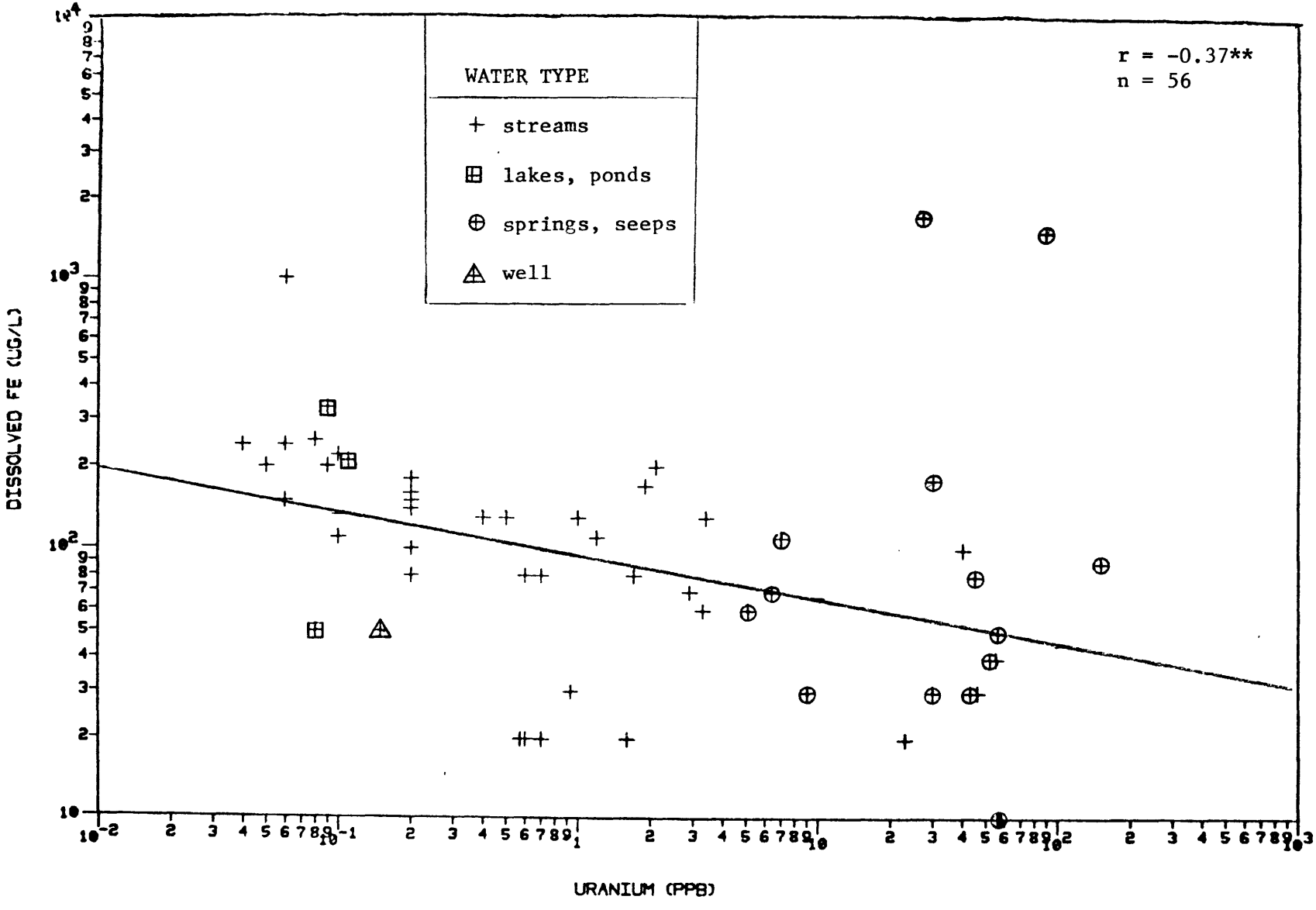

Figure 3-22.--Scatter diagram of Fe versus uranium.

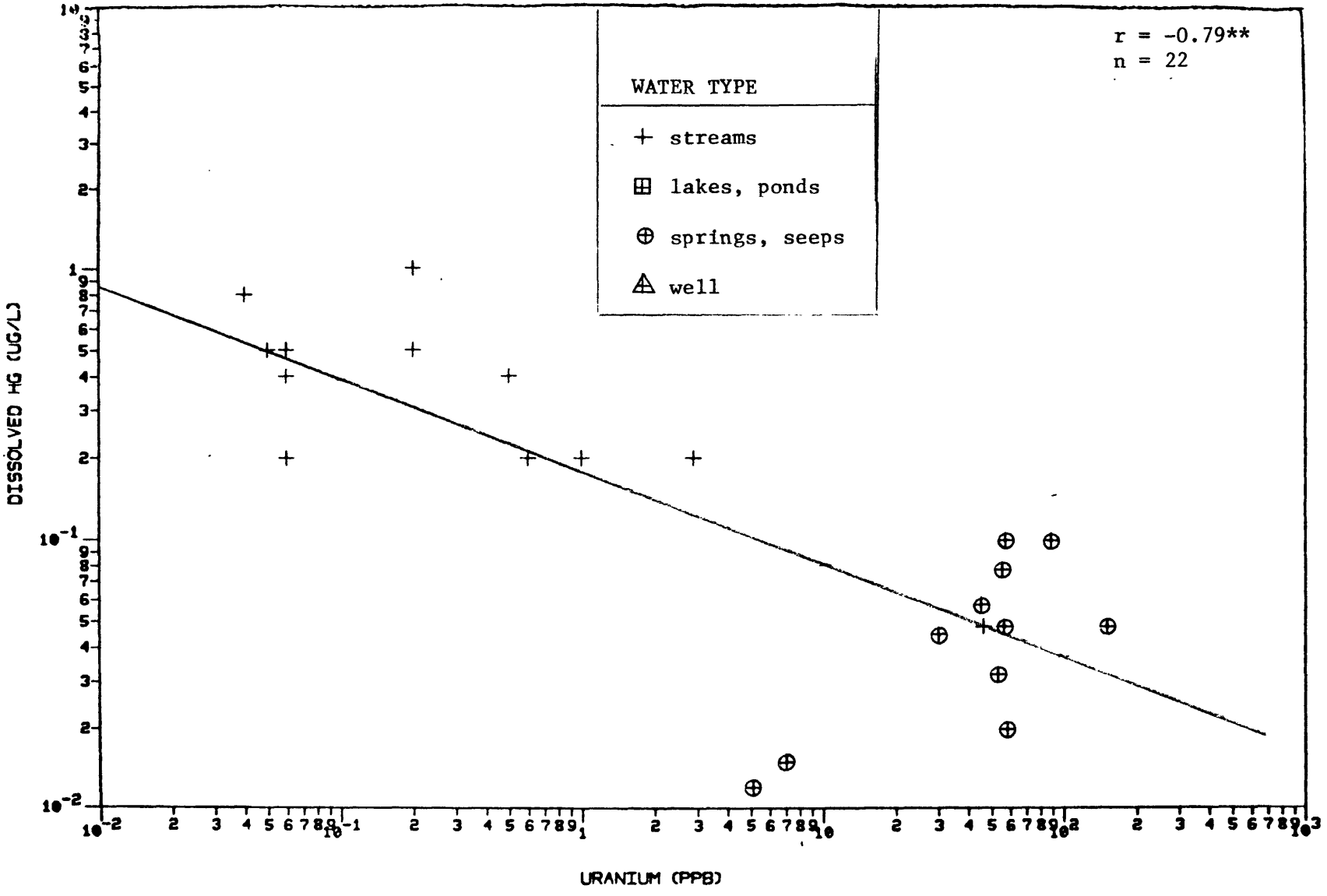

Figure 3-23.--Scatter diagram of Hg versus uranium.

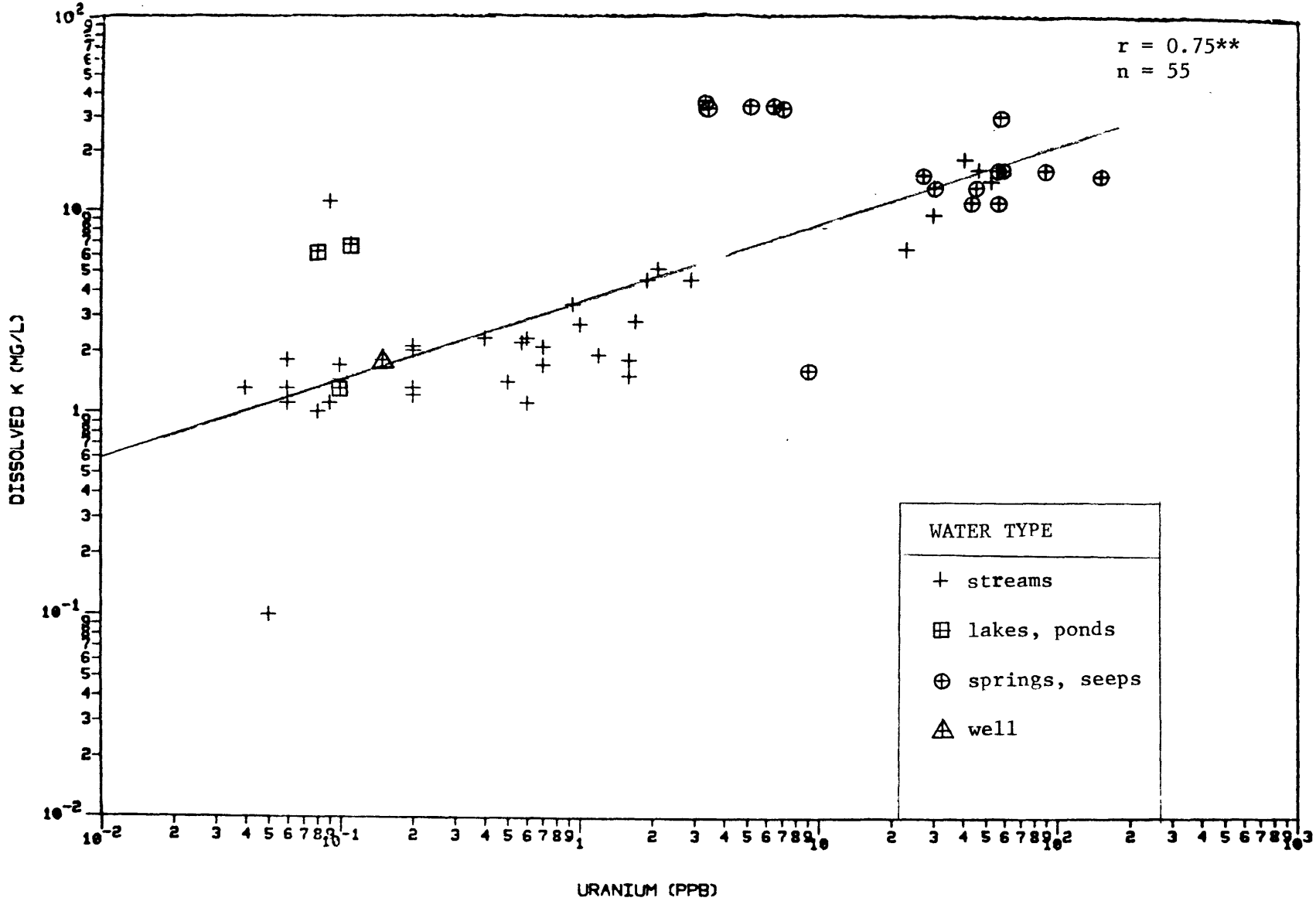

Figure 3-24.-- Scatter diagram of K versus uranium.

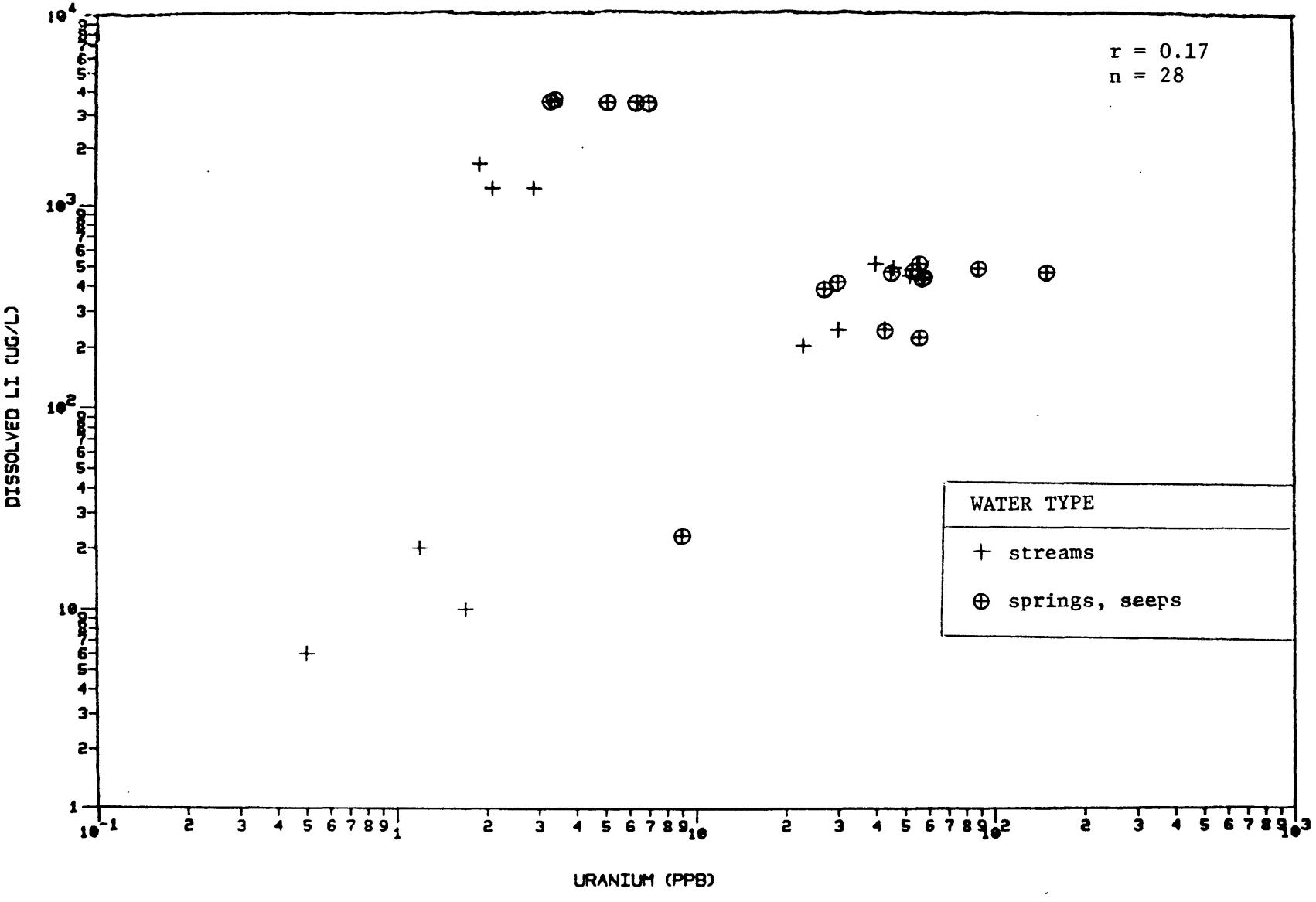

Figure 3-25.--Scatter diagram of Li versus uranium.

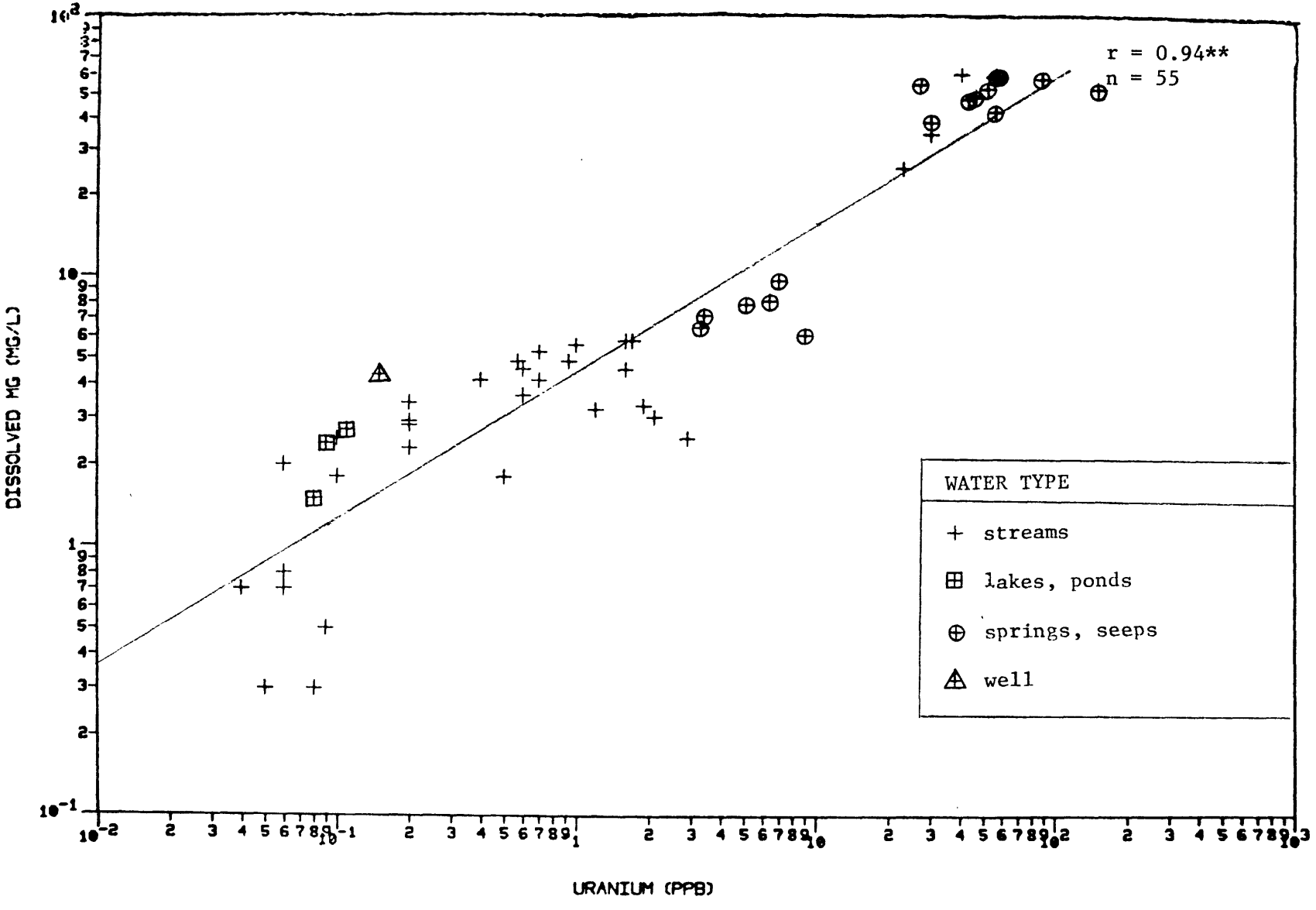

Figure 3-26.--Scatter diagram of Mg versus uranium.

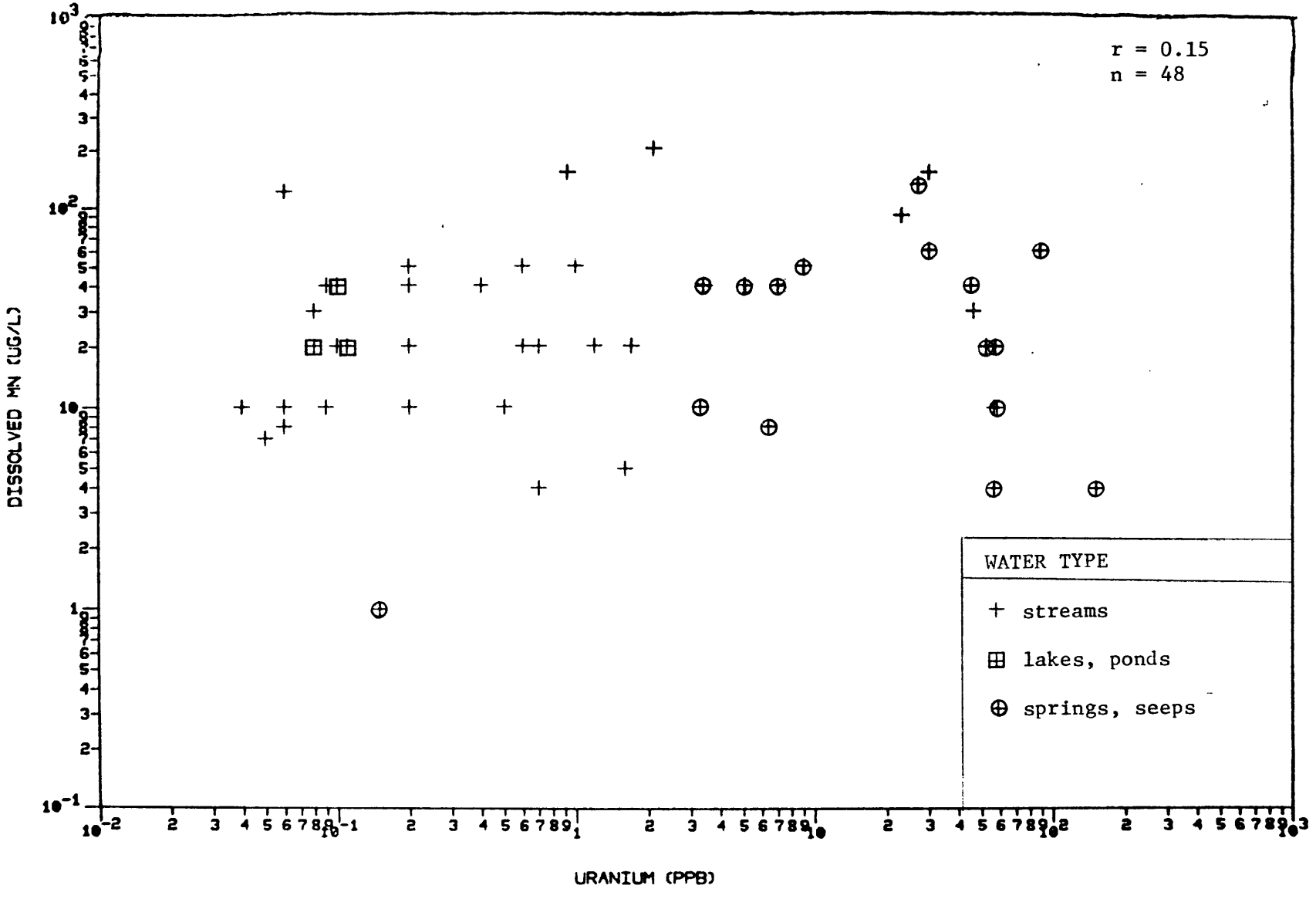

Figure 3-27.--Scatter diagram of Mn versus uranium.

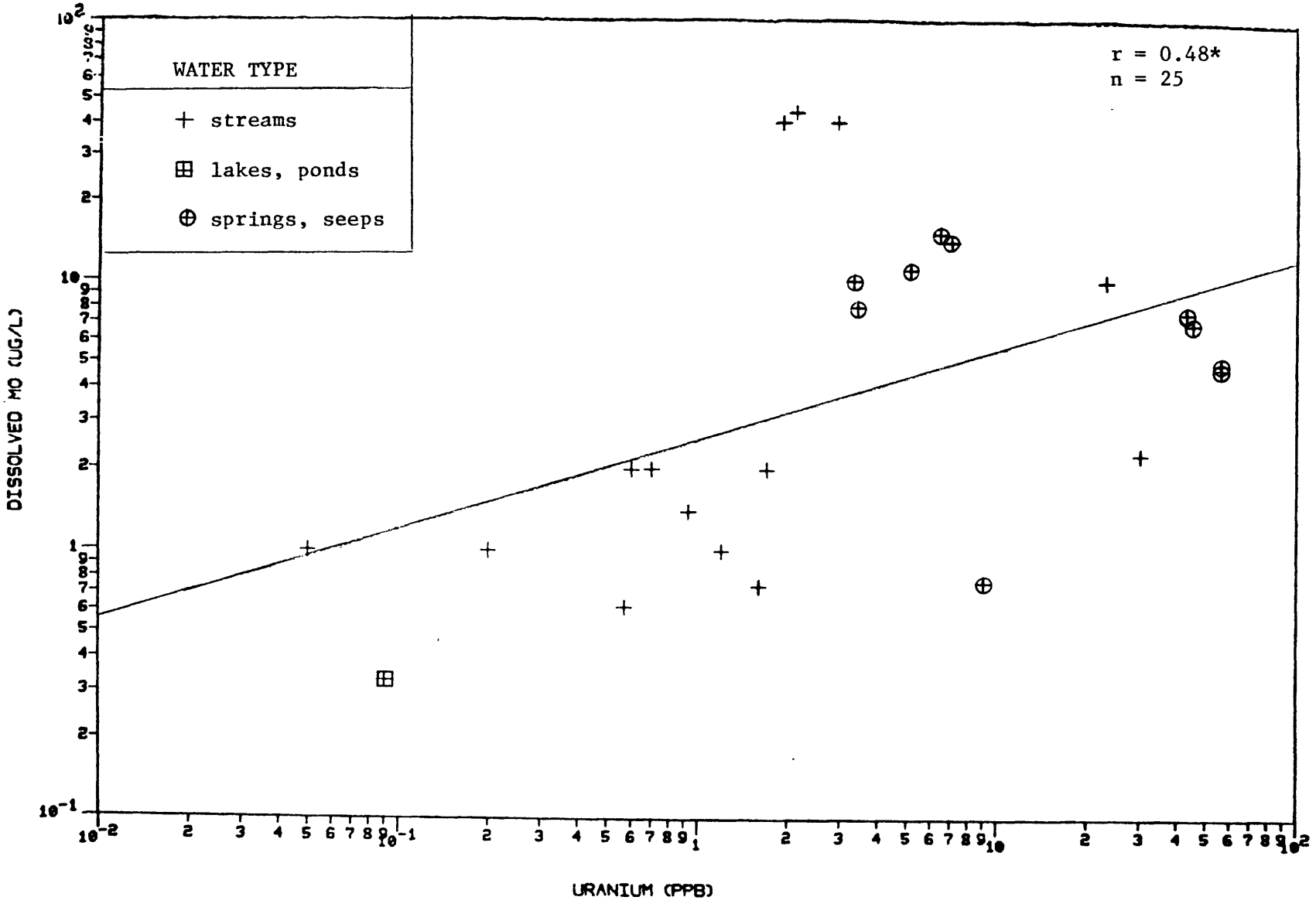

Figure 3-28.--Scatter diagram of Mo versus uranium.

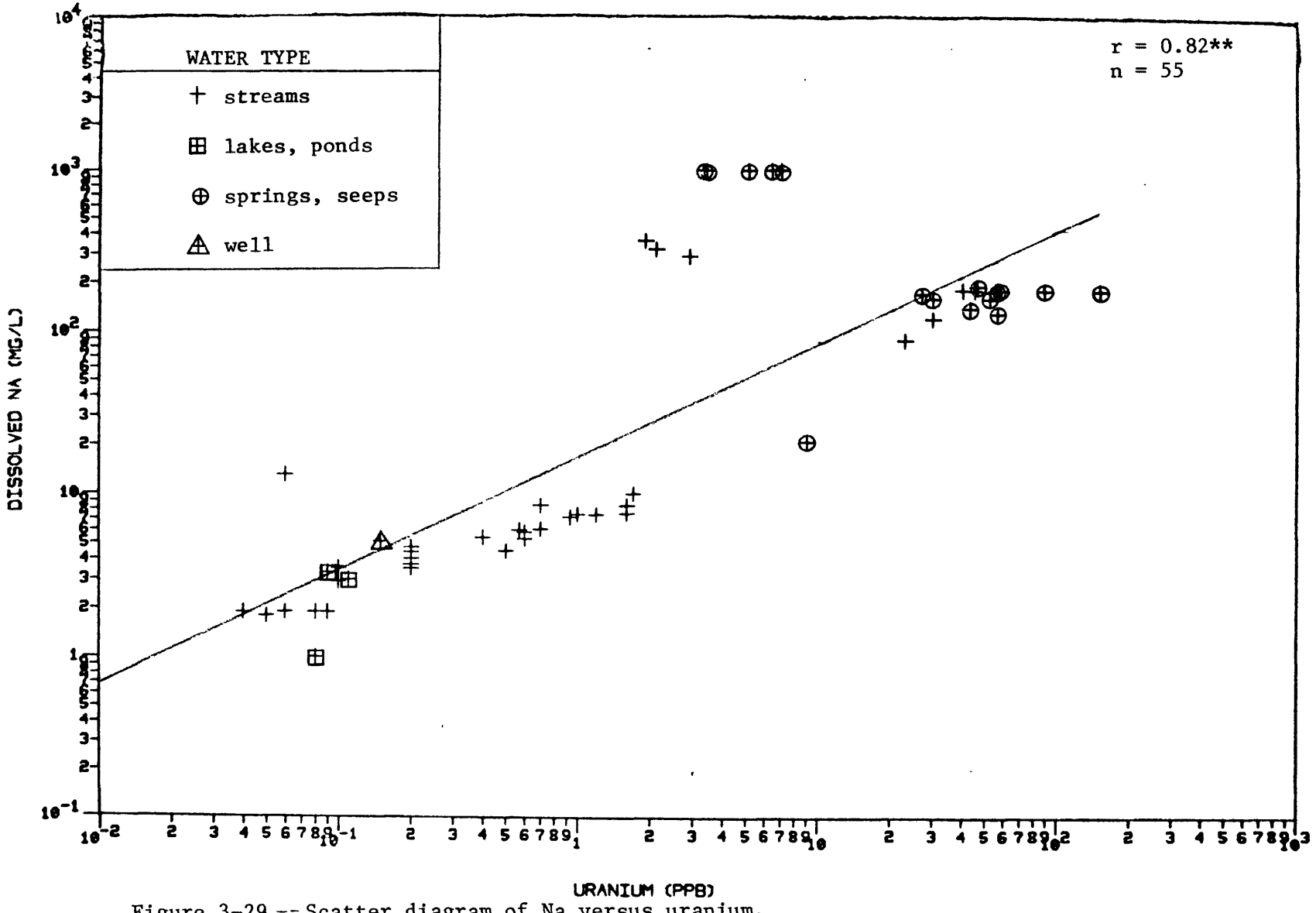

Figure 3-29.-- Scatter diagram of Na versus uranium.

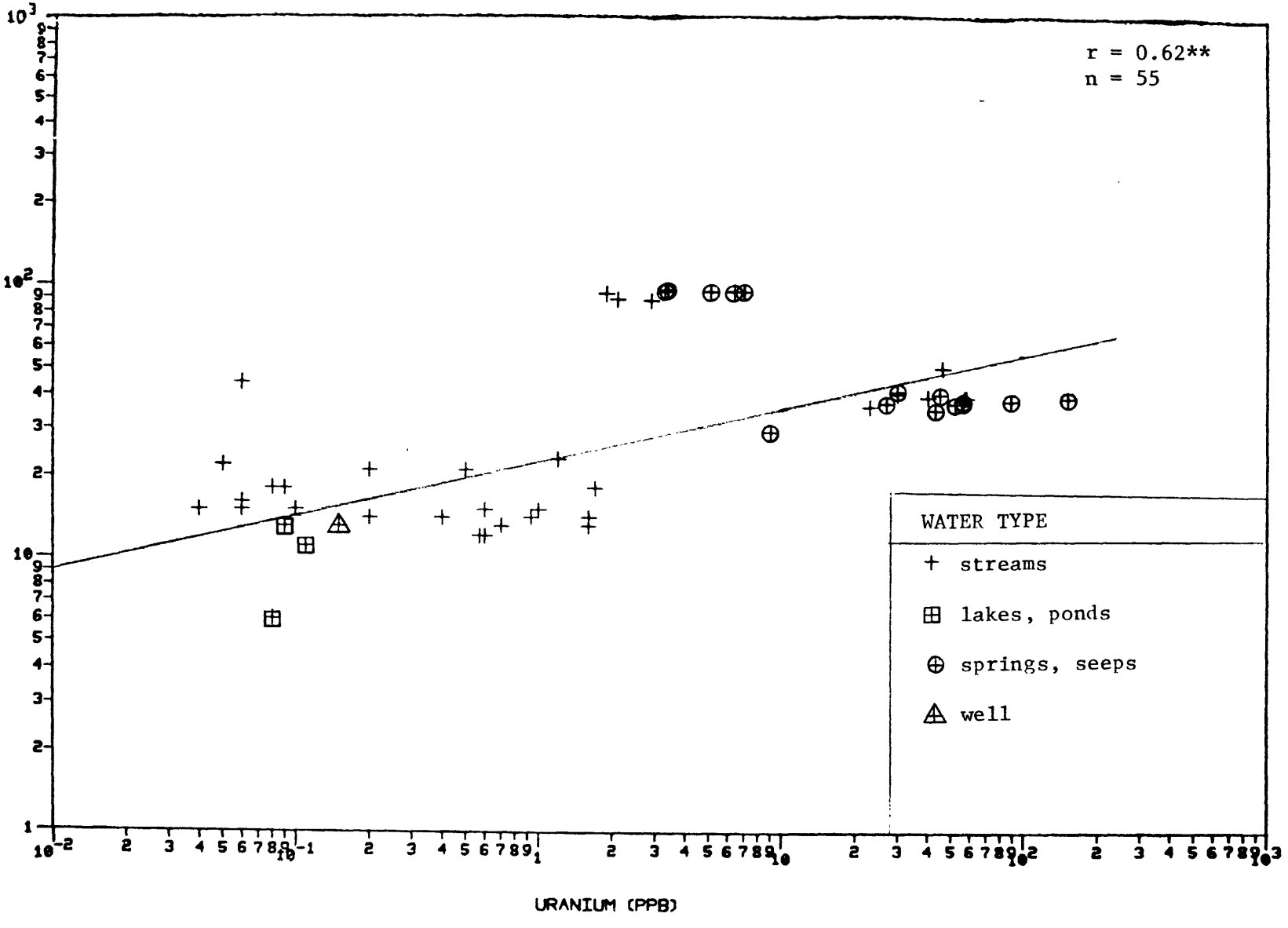

Figure 3-30.--Scatter diagram of Na% versus uranium.

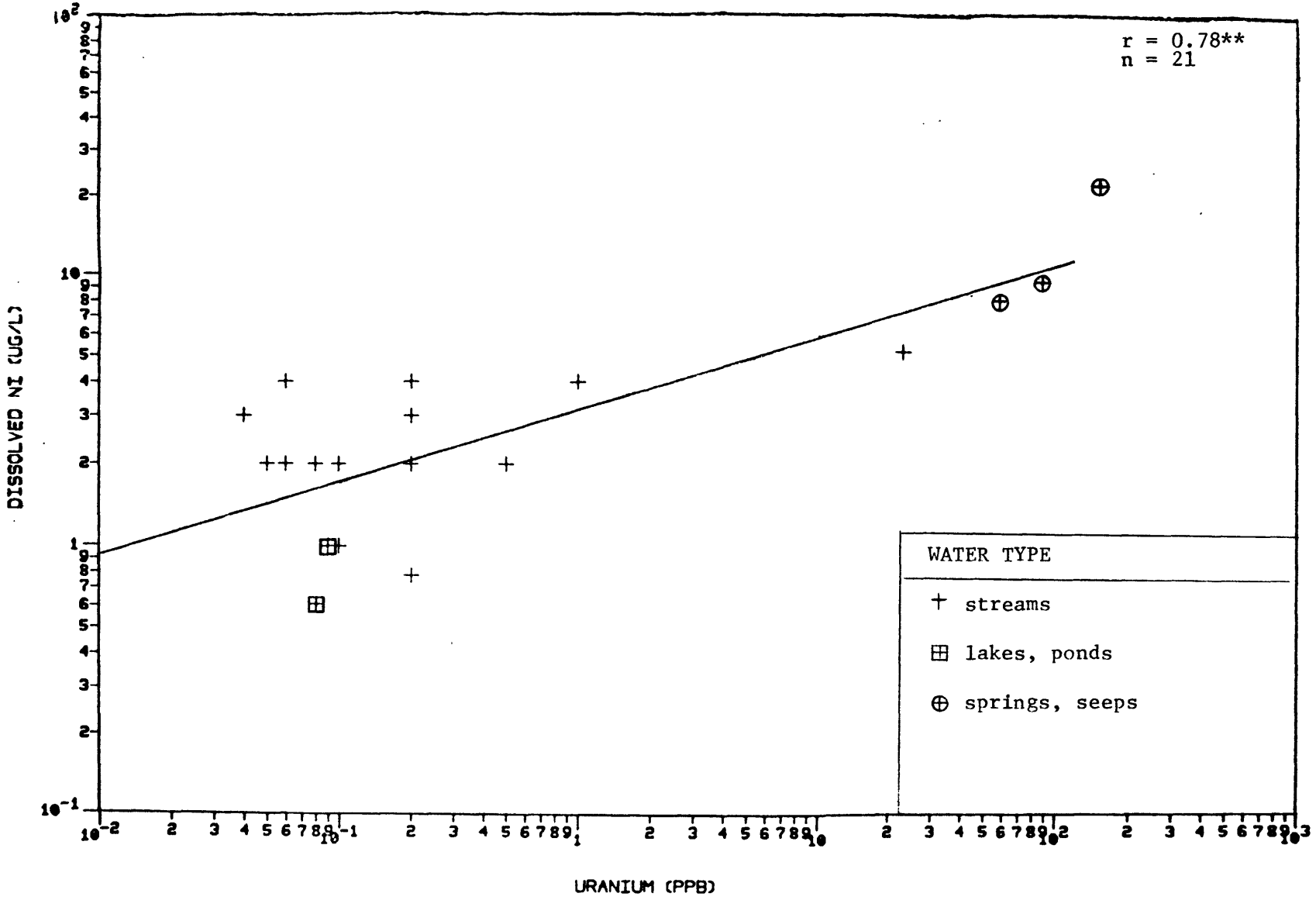

Figure 3-31.--Scatter diagram of Ni versus uranium.

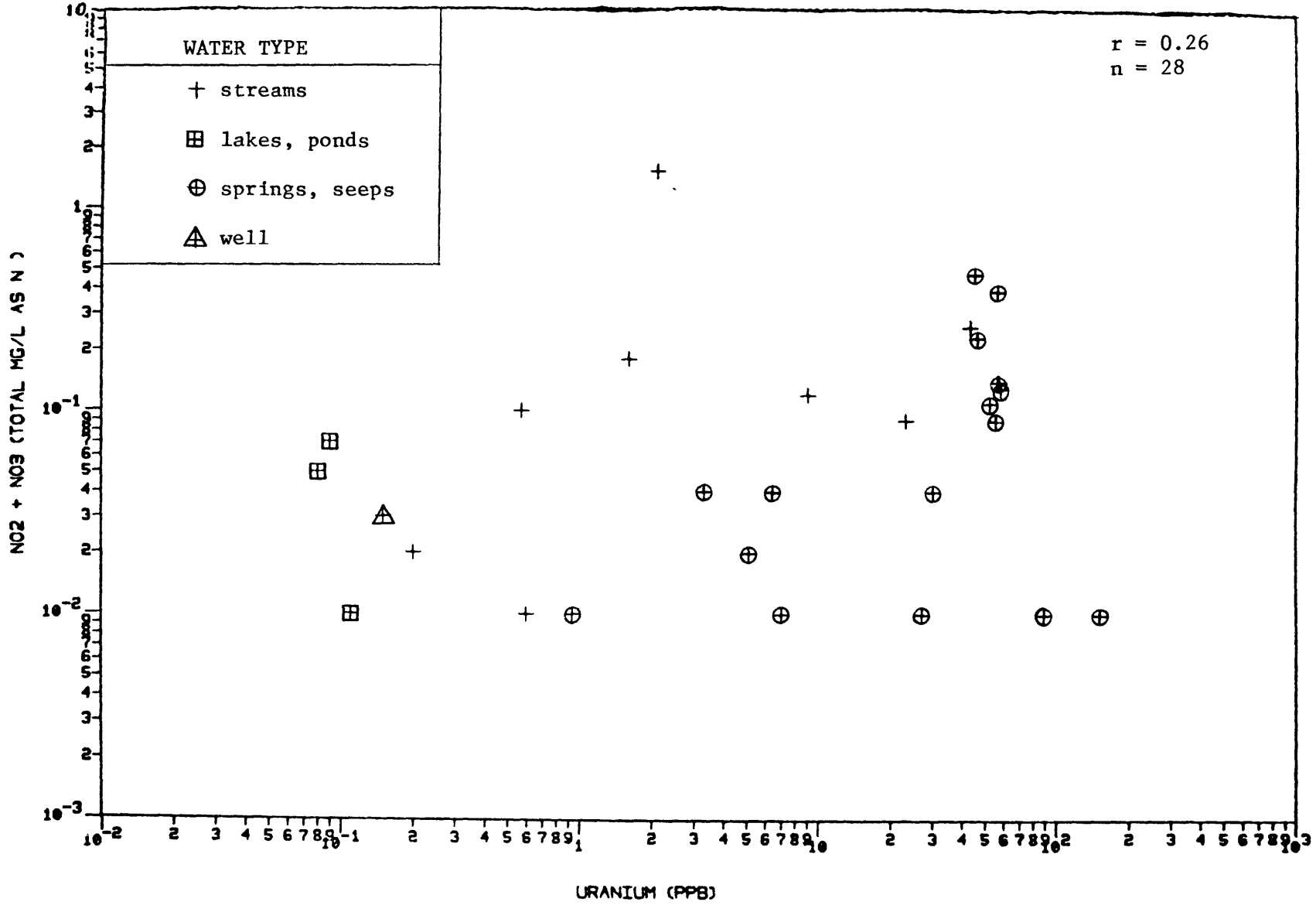

Figure 3-32.--Scatter diagram of NO_2 + NO_3 versus uranium.

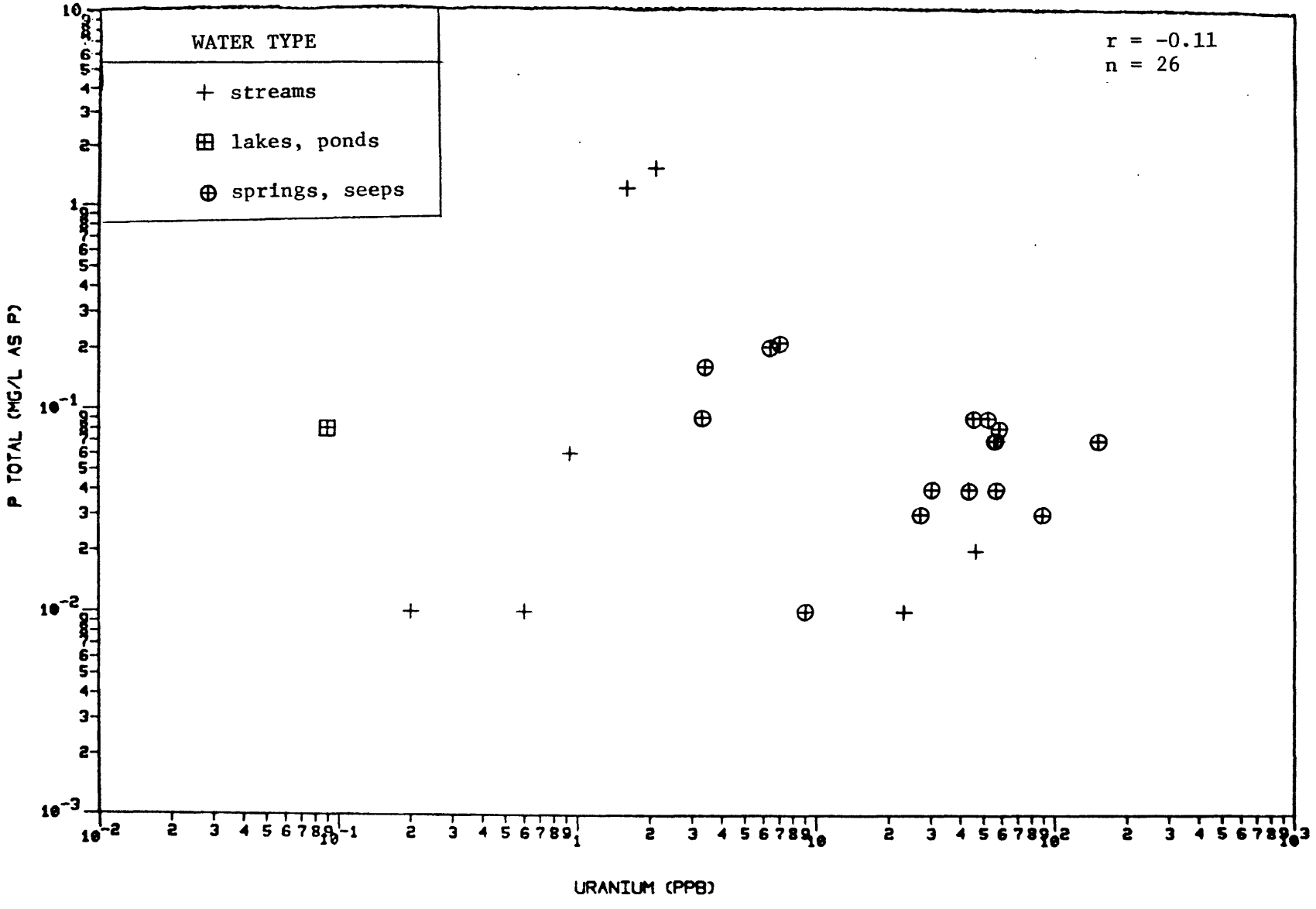

Figure 3-33.--Scatter diagram of P versus uranium.

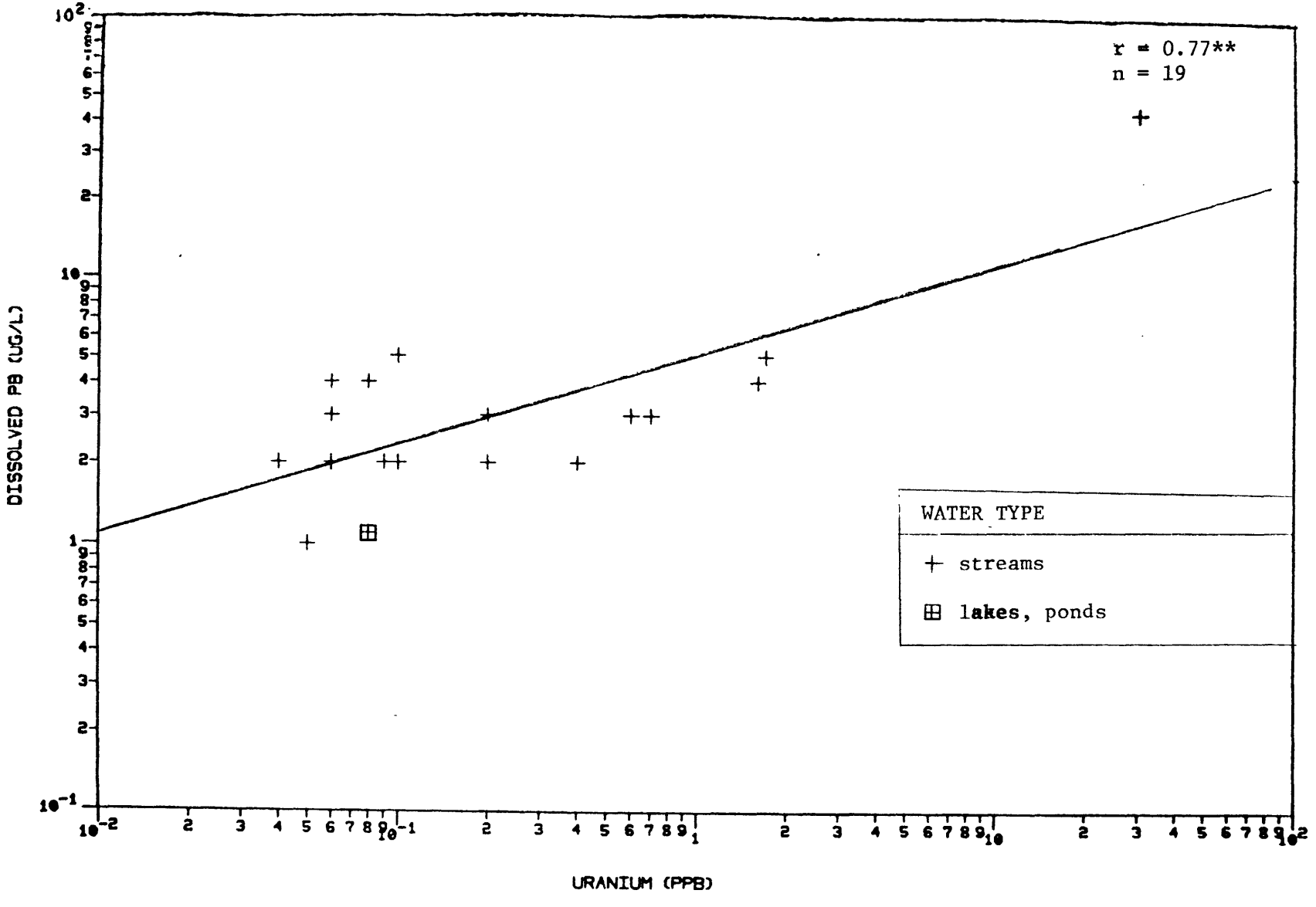

Figure 3-34.--Scatter diagram of Pb versus uranium.

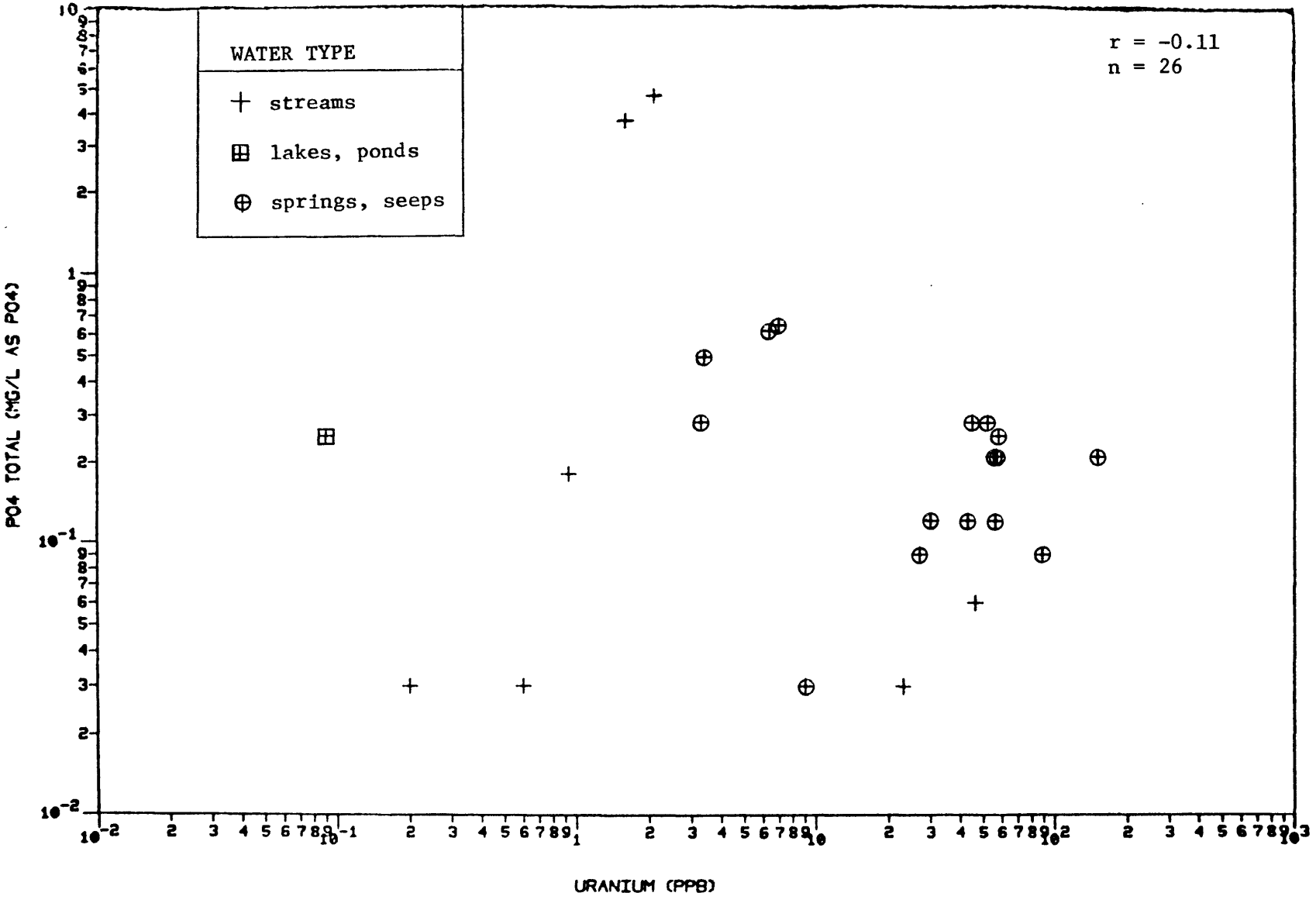

Figure 3-35.--Scatter diagram of PO_4 versus uranium.

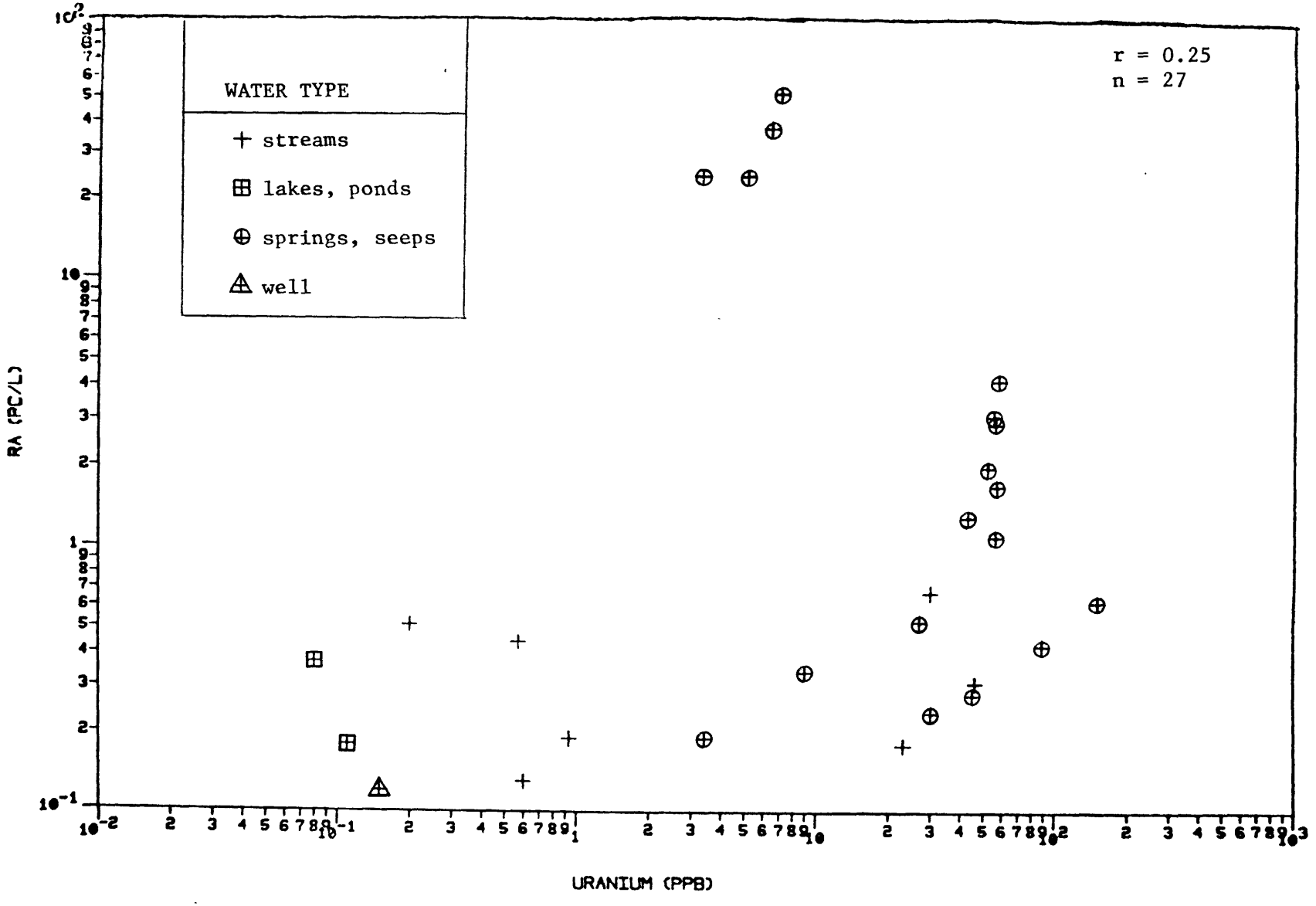

Figure 3-36.--Scatter diagram of Ra versus uranium.

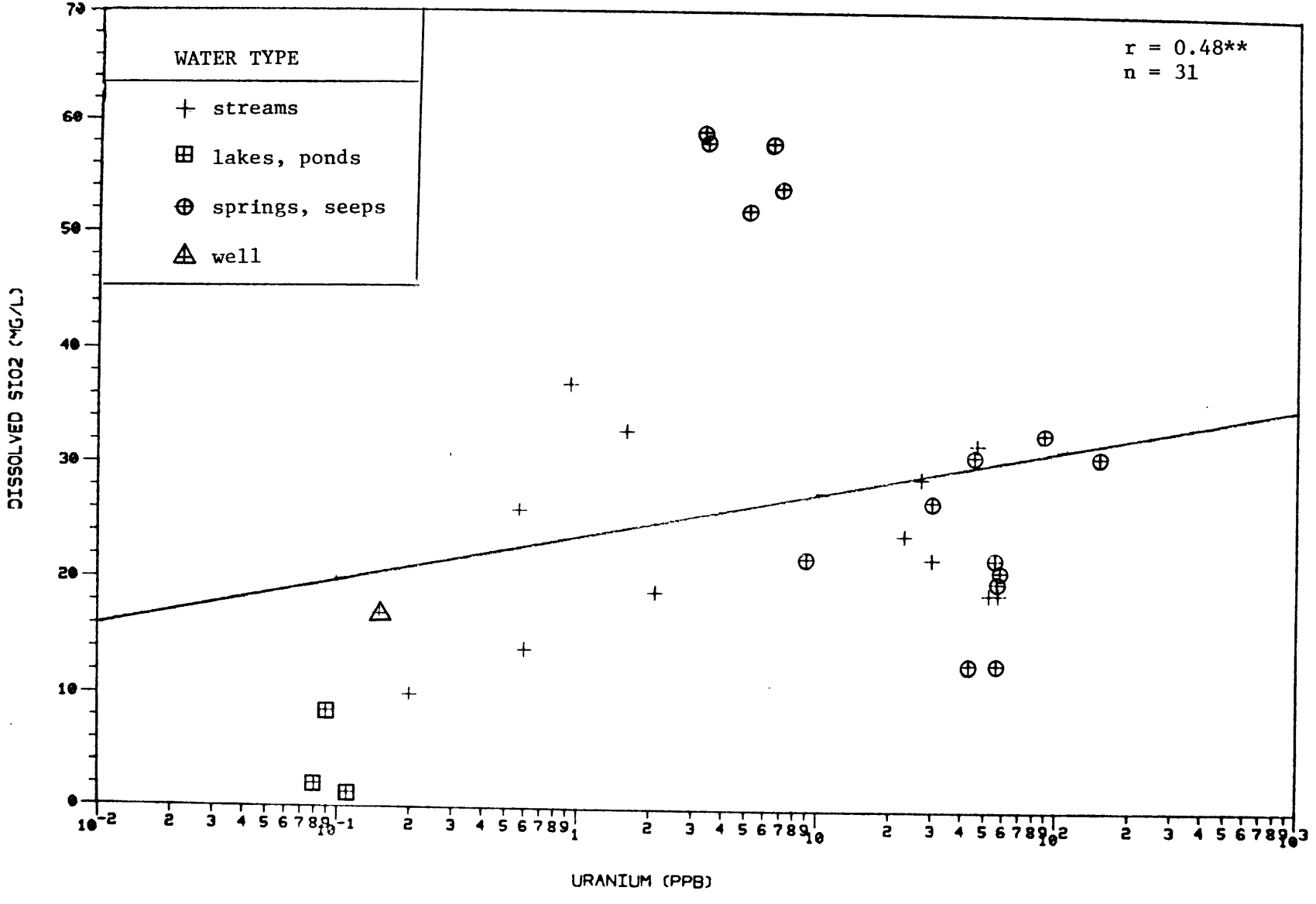

Figure 3-37.--Scatter diagram of SiO_2 versus uranium.

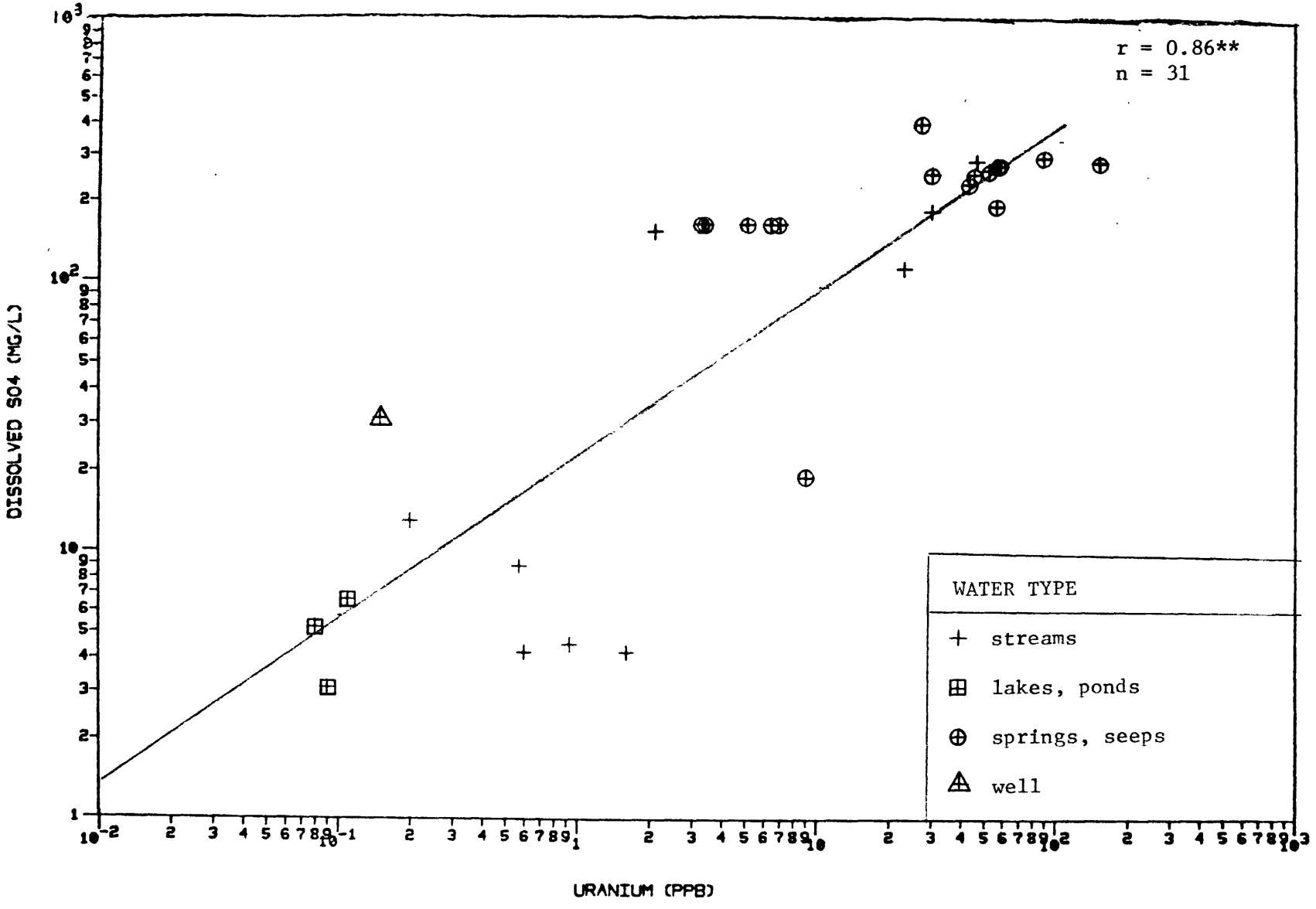

Figure 3-38.--Scatter diagram of SO_4 versus uranium.

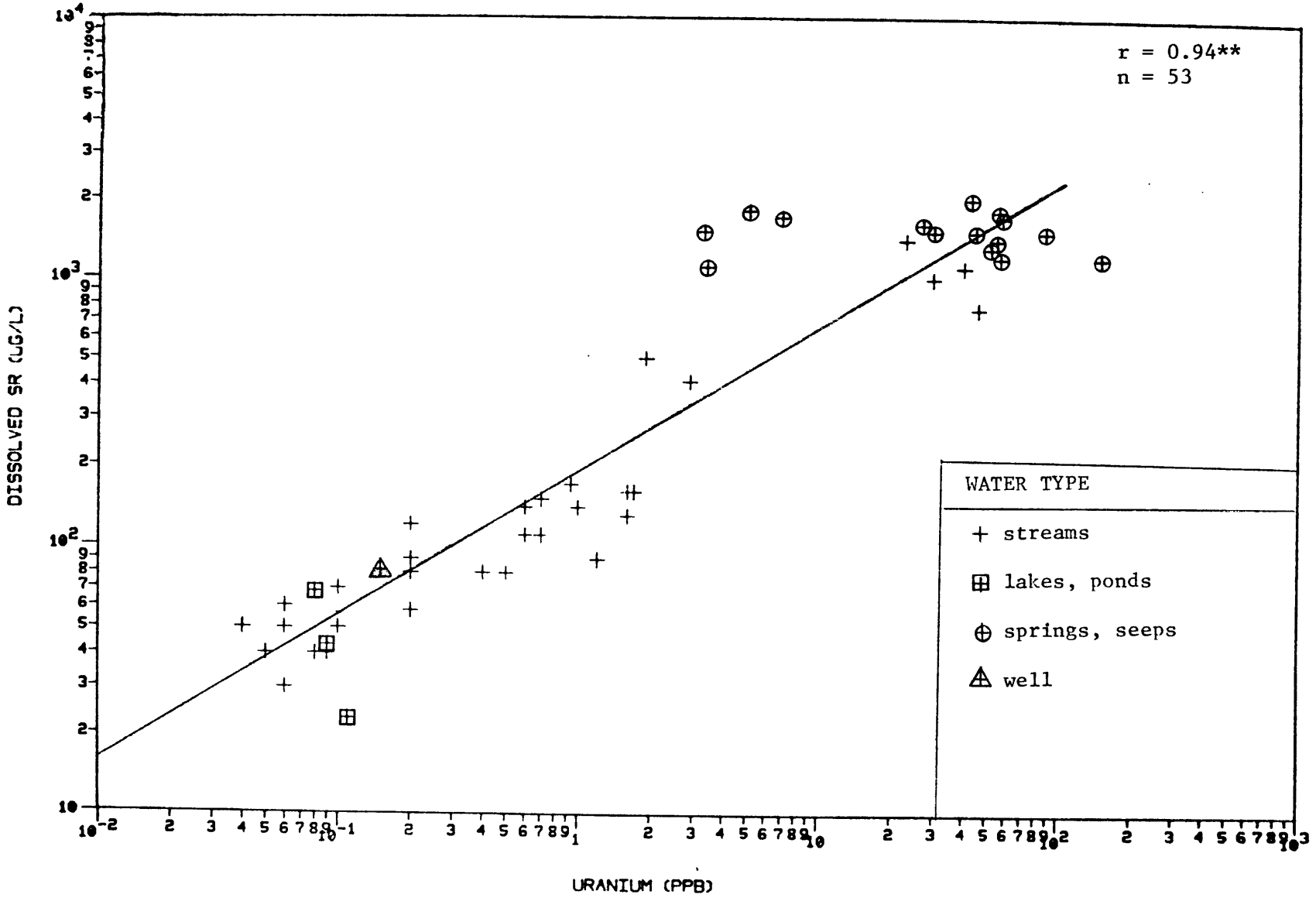

Figure 3-39.--Scatter diagram of Sr versus uranium.

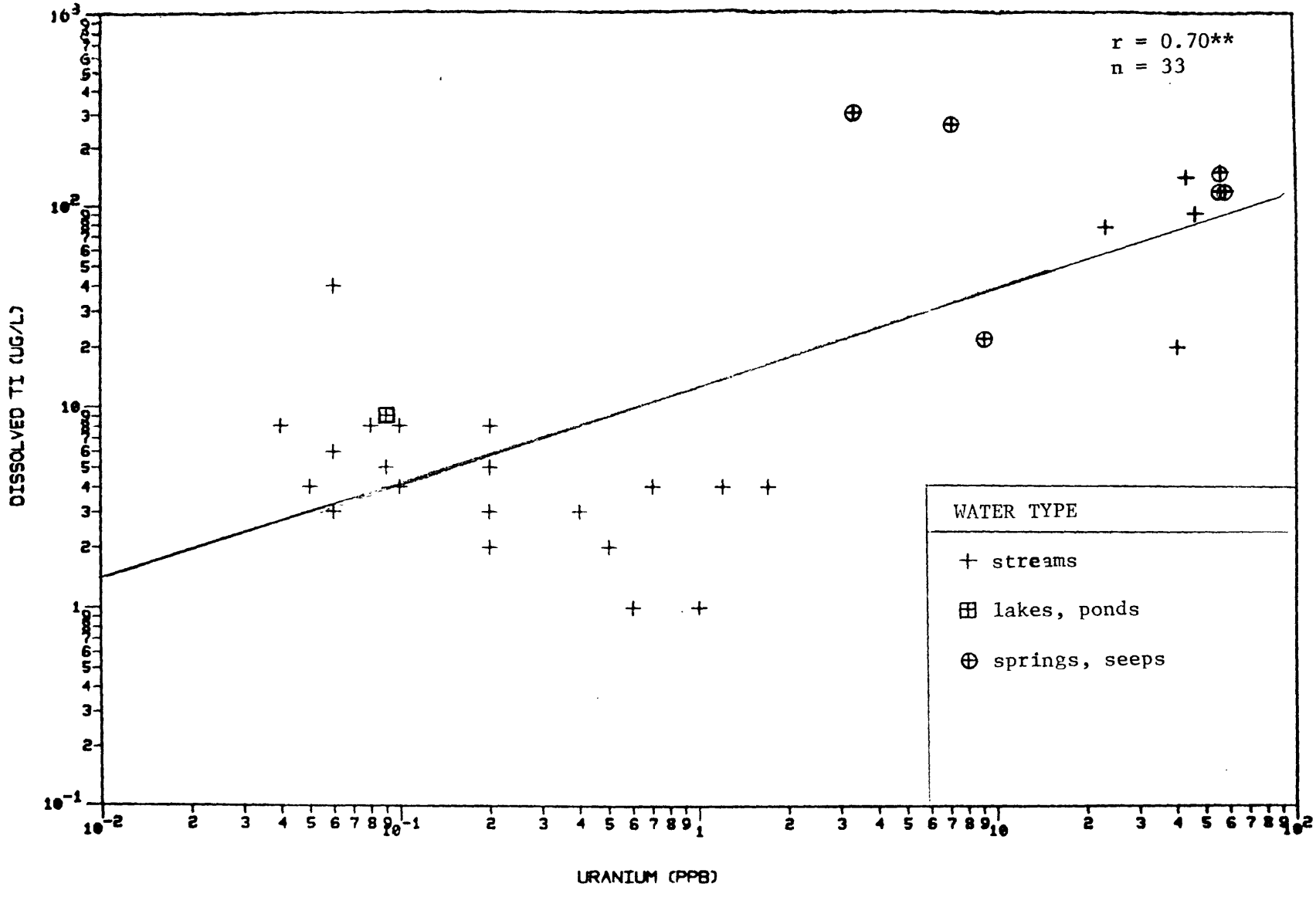

Figure 3-40.--Scatter diagram of Ti versus uranium.

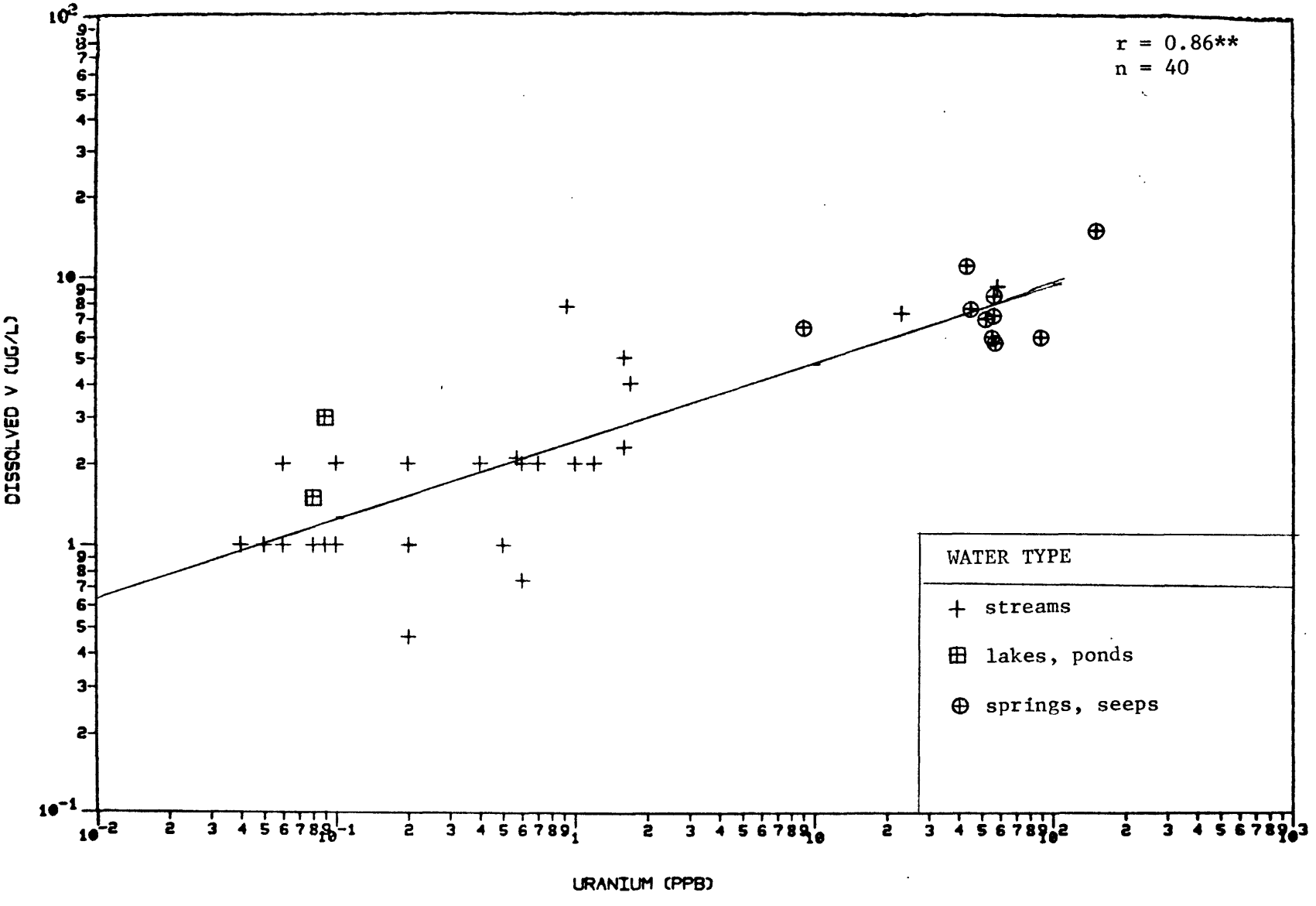

Figure 3-41.--Scatter diagram of V versus uranium.

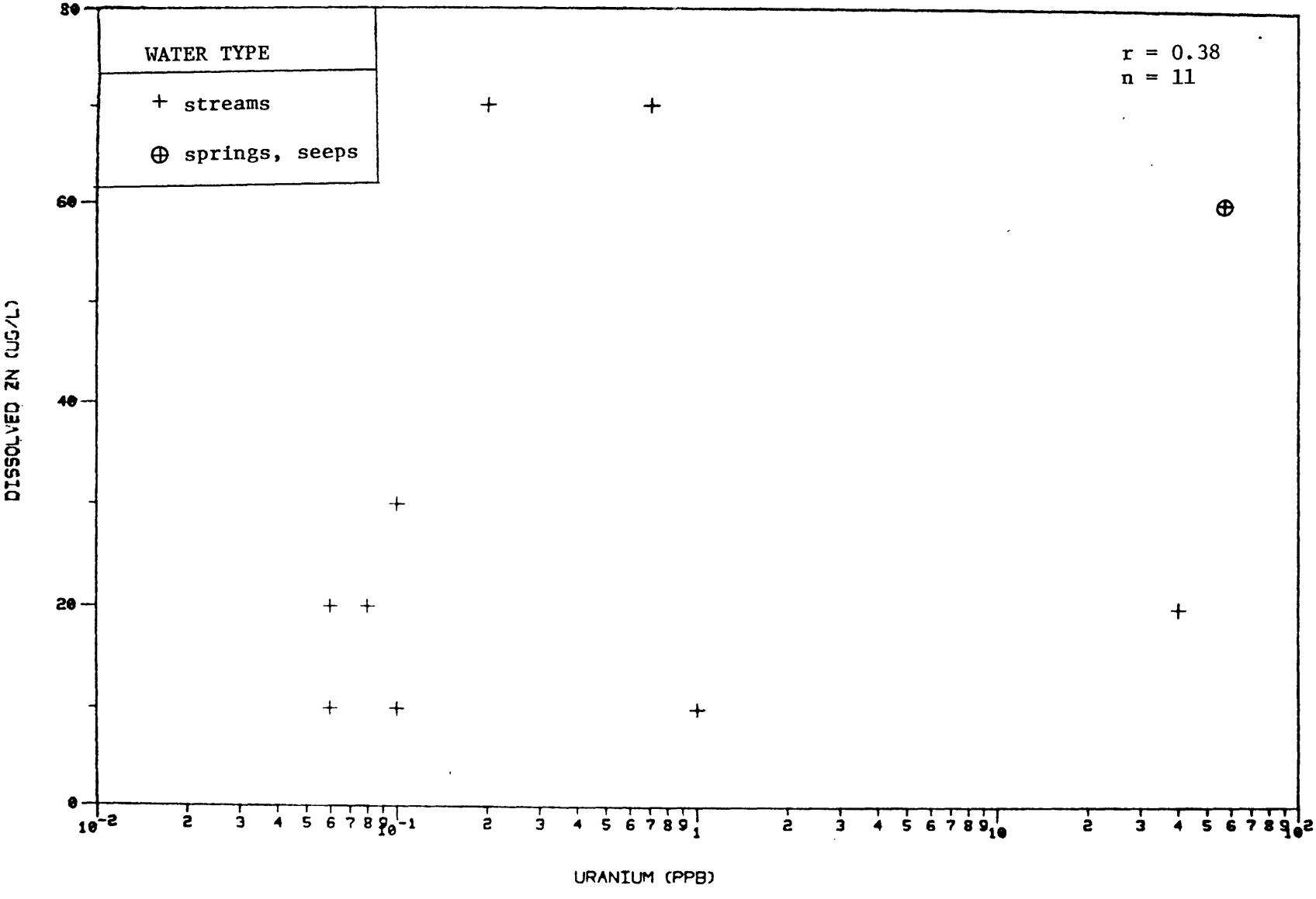

Figure 3-42.--Scatter diagram of Zn versus uranium.