

WATER-QUALITY AND SELECTED WELL-INVENTORY DATA

CONVERSION FACTORS

For readers who prefer to use metric units, conversion factors for inch-pound units used in this report are listed below. Constituent concentrations are given in mg/L (milligrams per liter), which is equal to parts per million. Specific conductance is expressed as $\mu\text{S/cm}$ (microsiemens per centimeter at 25 degrees Celsius).

Temperature in $^{\circ}\text{C}$ (degrees Celsius) can be converted to $^{\circ}\text{F}$ (degrees Fahrenheit) as follows:

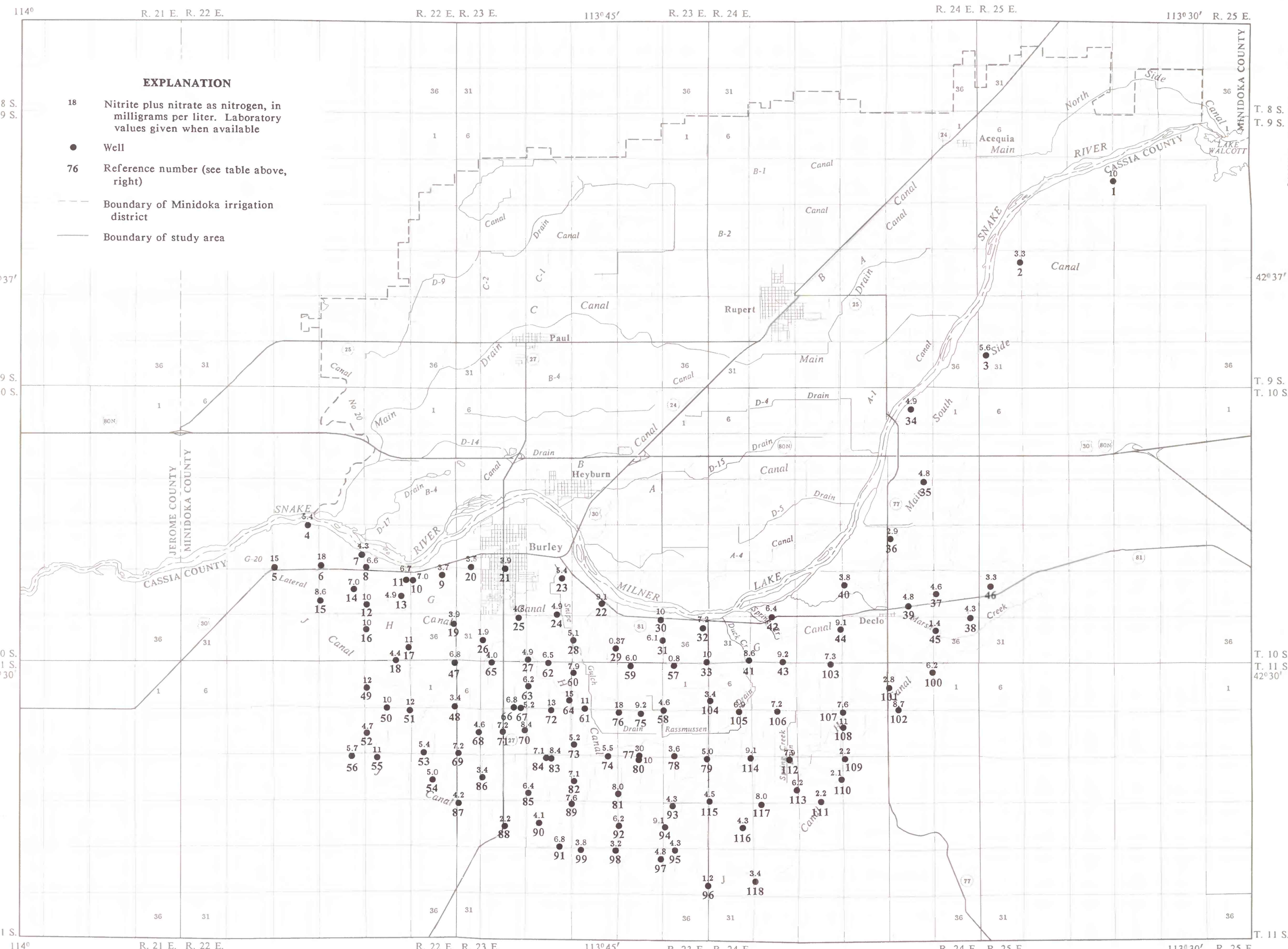
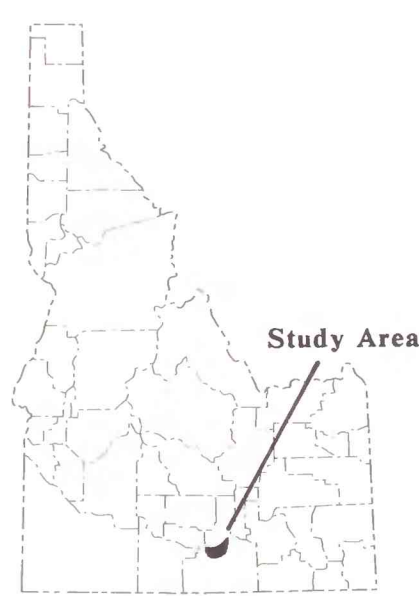
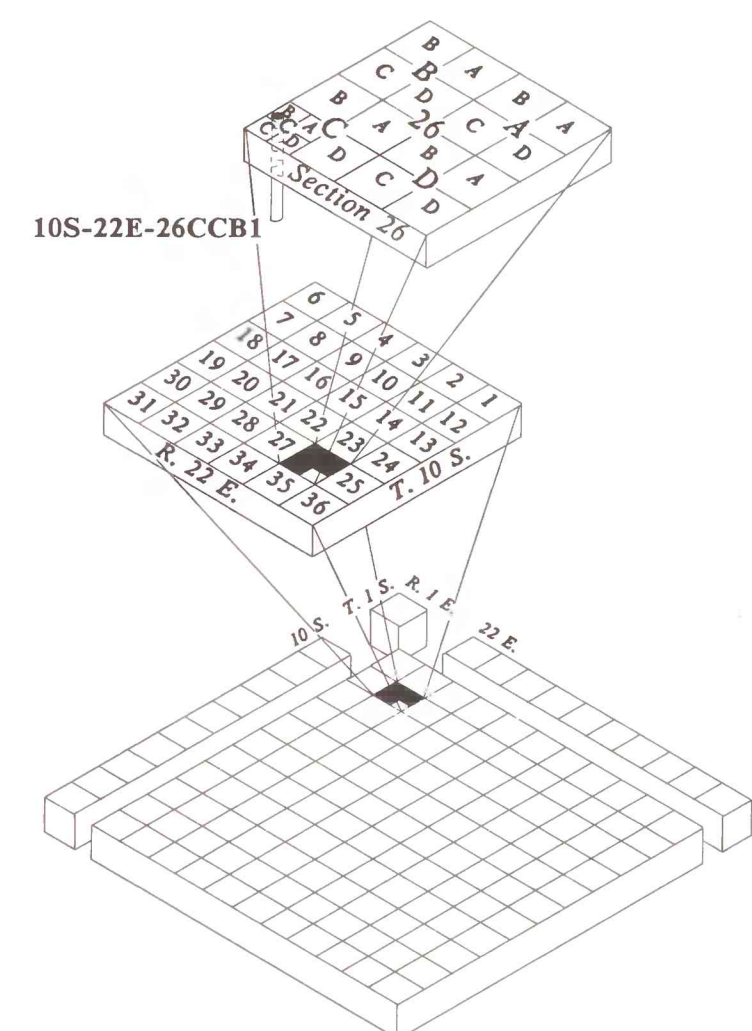
$$^{\circ}\text{F} = (1.8)^{\circ}\text{C} + 32$$

All water temperatures are reported to the nearest one-half $^{\circ}\text{C}$.

WELL-NUMBERING SYSTEM

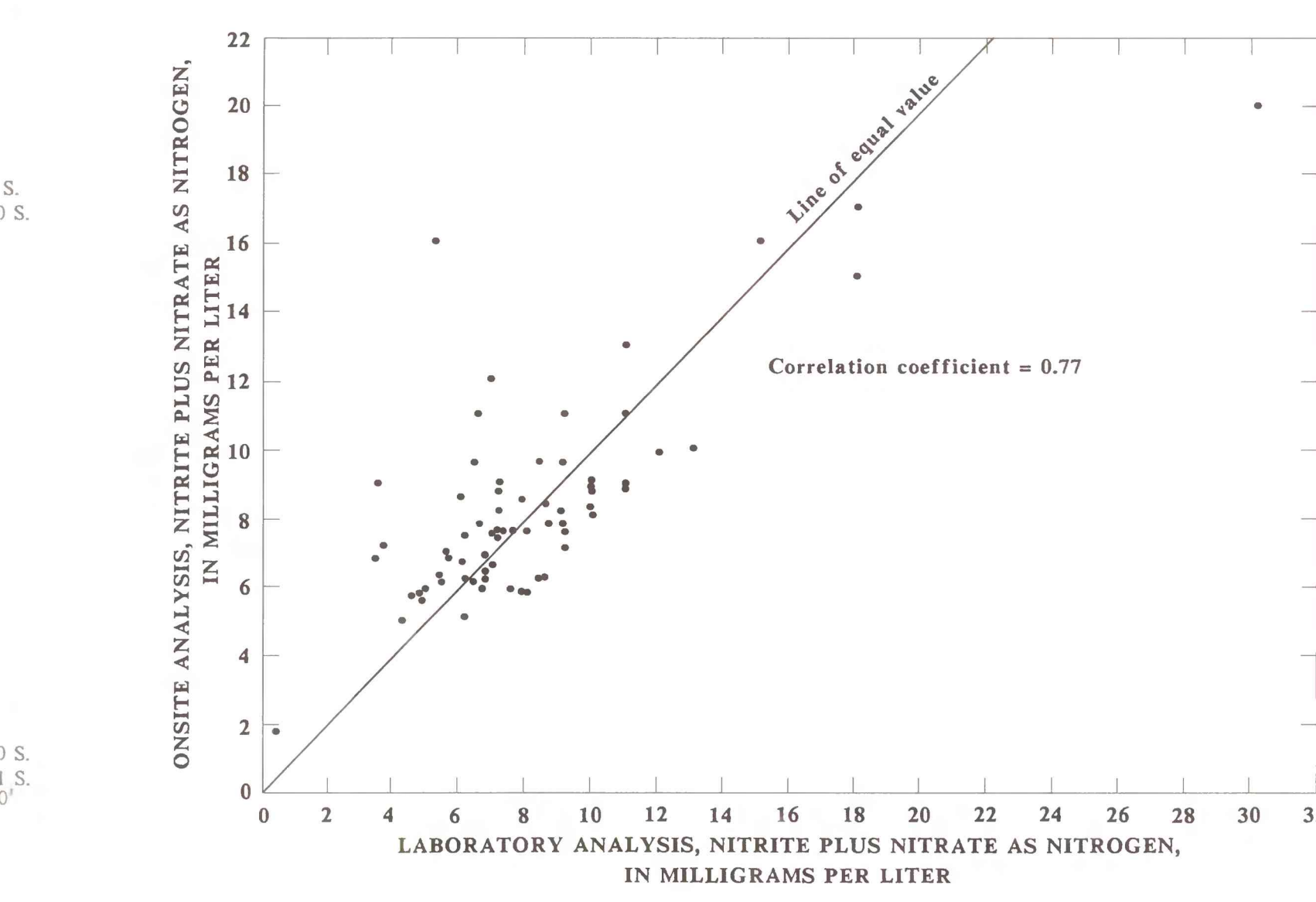
The well-numbering system used by the U.S. Geological Survey in Idaho indicates the location of wells within the official rectangular subdivision of public lands, with reference to the Boise base line and Meridian. The first two segments of the number designate the township (north or south) and range (east or west). The third segment gives the section number; three letters, which indicate the $1/4$ section (160-acre tract), $1/4$ section (40-acre tract), and $1/4$ section (10-acre tract); and serial number of the well within the tract.

Quarter sections are designated by the letters A, B, C, and D in counterclockwise order from the northeast quarter of each section. Within the quarter sections, 40-acre and 10-acre tracts are lettered in the same manner. Well 10S-22E-26C3B1 (example at right) is in the NW1/4 sec. 26, T. 10 S., R. 22 E., and is the first well inventoried in that tract.



EXPLANATION
● Nitrite plus nitrate as nitrogen, in milligrams per liter. Laboratory values given when available.
● Well.
76 Reference number (see table above, right).
--- Boundary of Minidoka irrigation district.
--- Boundary of study area.

Table with 13 columns for Onsite and Laboratory data. Columns include Well location, Date sampled, Total depth of well, Water level, Specific conductance, pH, Temperature, Bicarbonate, Alkalinity, Chloride, Nitrogen, Nitrite, Nitrate, Ammonia + organic nitrogen, Dissolved oxygen. Rows correspond to wells 98-258-19A01 through 118-238-10C01.



The purpose of this study was to determine concentrations of nitrogen compounds in ground water in the Burley Irrigation District. The Burley Irrigation District is the area between the J Canal and the Snake River. The scope of the study was limited to inventorying 114 wells and making onsite determinations of depth to water, specific conductance, pH, water temperature, and concentrations of alkalinity, dissolved chloride, and dissolved nitrite plus nitrate as nitrogen. When onsite nitrite plus nitrate concentrations exceeded about 6 mg/L nitrogen, ground-water samples were collected for nitrite plus nitrate as nitrogen and ammonia plus organic nitrogen (as nitrogen) analyses at the U.S. Geological Survey National Water Quality Laboratory.

Locations of wells and concentrations of nitrite plus nitrate as nitrogen are shown on the map at left. Water-quality and selected well-inventory data for 114 wells sampled during March and April 1987 and 4 wells sampled in 1986 are shown in the table above. A statistical summary of selected water-quality data is shown in the table below, and onsite versus laboratory measurements of nitrite plus nitrate as nitrogen concentrations are shown in the graph at left.

STATISTICAL SUMMARY OF SELECTED WATER-QUALITY DATA
[*: onsite analysis; **: Laboratory analysis; >, greater than or equal to]

Table with 7 columns: Water-quality constituent, Number of samples, Median (50 percent), Mean, Minimum, Maximum, and Range. Rows list constituents such as Specific conductance, pH, Temperature, Bicarbonate, Alkalinity, Chloride, and Nitrogen.

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Scale 1:100,000 quadrangles. 1 0 1 2 MILES. 1 0 1 2 KILOMETERS.