Selected Ground-Water Data for the Lummi Indian Reservation, Whatcom County, Washington, 1995

By B. W. Drost

U.S. GEOLOGICAL SURVEY

Open-File Report 96-166

Prepared in cooperation with the
BUREAU OF INDIAN AFFAIRS

Tacoma, Washington
1996

CONTENTS

ILLUSTRATIONS

PLATE

FIGURES

TABLES

CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer
square mile (mi^2)	2.590	square kilometer
gallons per minute (gal/min)	0.00006309	cubic meters per second

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

Selected Ground-Water Data for the Lummi Indian Reservation, Whatcom County, Washington, 1995

By B. W. Drost

ABSTRACT

The U.S. Geological Survey, in cooperation with the Bureau of Indian Affairs, initiated a study in 1994 of the Lummi Indian Reservation in Whatcom County, Washington, to describe the geometry of the hydrogeologic units and to investigate the quality of the ground water of the reservation.

This report contains selected basic data collected during May and June 1995 from the reservation. These data include the general locations of and construction information about 177 wells and springs, measured water levels in 60 wells, and chloride or common-constituent concentrations in water from 48 wells and springs. Chloride concentrations ranged from 5.2 to 420 mg/L (milligrams per liter), with a median value of 24 mg/L. Only 4 of the 48 wells sampled had concentrations exceeding 100 mg/L. Nitrate concentrations ranged from less than the detection limit of 0.05 mg/L to 5.2 mg/L. Nearly half of the nitrate concentrations were less than the detection limit.

INTRODUCTION

The Lummi Indian Nation is interested in protecting the water resources in its reservation for the beneficial uses of the members of the Nation. Protection from the overuse of these water resources and the degradation of water quality are the main areas of interest. Concerns that the present rate of use of ground water exceeds the rate of recharge and that the present rate of withdrawal has caused seawater intrusion into parts of the reservation have been raised. There is also concern that increased rates of withdrawal are anticipated as a result of increased growth, which could induce further intrusion.

In June 1994, the U.S. Geological Survey (USGS) and the Bureau of Indian Affairs (BIA) entered into an interagency agreement to study the northwestern part of the Lummi Indian Reservation. This work was completed in January 1995 (M. A. Jones, U.S. Geological Survey, written commun., 1995). The BIA and the Lummi Nation wanted additional information about the remainder of the reservation in order to develop a long-term management program that will maximize ground-water yield but at the same time minimize the impact on ground-water levels and not greatly increase seawater intrusion. In April 1995, the USGS and the BIA amended the interagency agreement to study the remainder of the reservation.

The principal objectives of this study were to describe the geometry of the hydrogeologic units and to investigate the quality of ground water for the remainder of the reservation. This report presents the ground-water data collected during this study. It does not offer interpretation of the geometry of the hydrogeologic units.

This study involved inventorying wells, measuring water levels, sampling and analyzing ground water for temperature, specific conductance, chloride, nitrate, and common constituent concentrations, and describing the ground-water system. The data collected during this study are presented in tables 1 through 4 at the end of this report. Plate 1 shows the study area and well and spring locations.

The study area covers about 17 mi^2 in western Whatcom County, Wash. (plate 1). It includes all of the Lummi Indian Reservation except a small part of the northwestern corner, near Sandy Point and Neptune Beach. The land-surface altitude within the study area ranges from sea level to about 200 ft above sea level.

The geology of the study area consists predominately of recent alluvial deposits and glacial deposits from the last major glaciation, the Fraser Glaciation. The surficial deposits as described by Easterbrook (1976) generally consist of the Alluvial deposits, Terrace deposits, Bellingham Drift, and a coarse sand-and-gravel deposit thought to be reworked Bellingham Drift.

Well-Numbering System

Wells and springs in Washington are assigned numbers that identify their location in a township, range, and section. For example, number 37N/01E-03H01 indicates, successively, the township (T. 37 N.) and range (R. 1E.) north and east of the Willamette base line meridian. The first number following the hyphen indicates the section (03) within the township, and the letter following the section number gives the 40-acre subdivision of the section, as shown in figure 1. The number (01) following the letter is the sequence number of the site within the 40-acre subdivision. An "S" following the sequence number indicates that the site is a spring. A "D" following the sequence number indicates that the site is a deepened well.

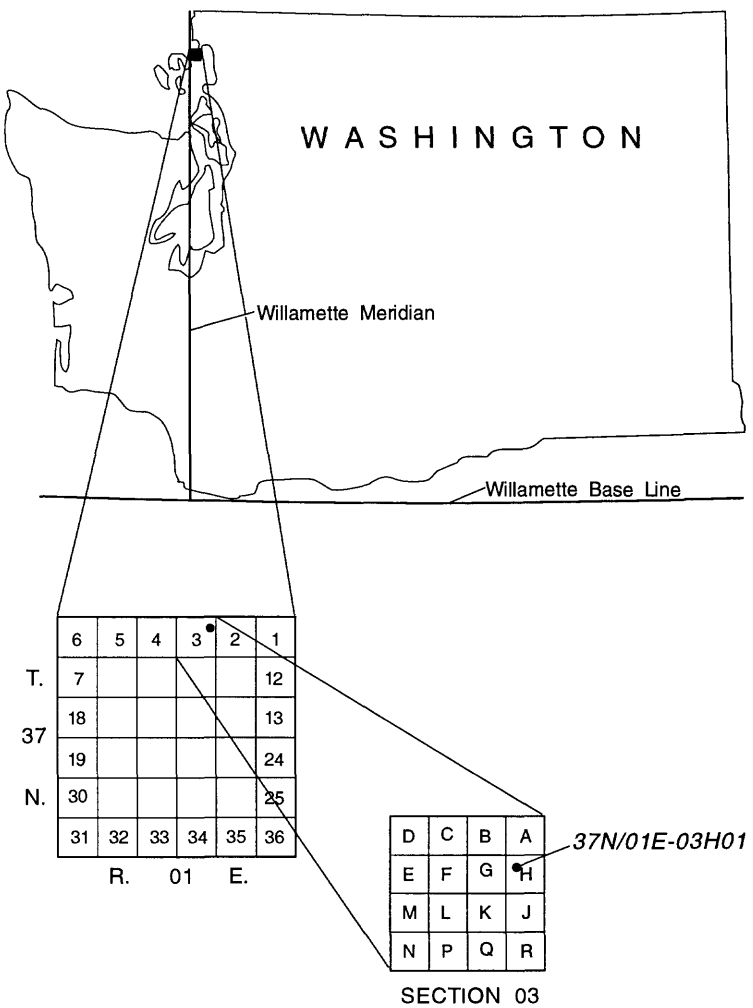

Figure 1.--Well-numbering system used in Washington.

Acknowledgments

Appreciation is expressed to the many land owners and users who supplied information, records, and access to their wells and springs. Special acknowledgment is given to Andrew Ross and Harriet Beale (employees of the Lummi Nation) for assisting us in obtaining access to wells on the Lummi Reservation.

METHODS OF INVESTIGATION AND RESULTING DATA

This study began with the compilation of existing information from USGS files on wells and springs. Beginning in April of 1995, records of all known wells and springs within the study area were reviewed. After elimination of those sites that reportedly have no access for water-level measurement or water-quality sampling and those sites known to be destroyed, attempts were made to field inventory the remaining wells and springs.

During June and July 1995, 104 wells and springs were inventoried. This included some wells for which no previous records existed but which were encountered during searches for wells with records. The field inventory process included locating the well or spring in the field, measuring the depth to water in the well, measuring the temperature and specific conductance of the water, collecting water samples for determination of chloride concentrations, and collecting samples from selected sites to determine concentrations of nitrate and other common constituents. The latitude, longitude, and approximate land-surface altitude of the well or spring also were determined, and data from the driller's reports were analyzed, compiled, and entered into a computerized data base. Table 1 includes records of all wells and springs (177 total sites) for which data are available from this or previous studies (Newcomb and others, 1949; Washburn, 1957; Walters, 1971; Cline, 1974; and Dion and Sumioka, 1984) or for which other reliable location information exists. Table 1 includes four offshore sites: two wells (test borings for bridges) and two springs (low-tide flows).

Depth to water was measured in 60 wells using a graduated steel tape accurate to 0.02 ft (table 2). Permission to measure water levels and collect samples was denied by owners of 13 wells. Water levels in wells with buried well heads or wells that were otherwise difficult to access were not measured. Water-level altitudes (land-surface altitude at the well minus depth to water) can be calculated using the land-surface altitudes in table 1. The accuracy of these water-level altitudes depends primarily on the accuracy of the land-surface altitude of the wells. Water-level altitudes in wells with land-surface altitudes previously surveyed (Cline, 1974) are considered accurate to within at least 1 ft (altitudes reported to one or more decimal places in table 1). Where land-surface altitudes are determined from topographic maps, the accuracy of water-level altitudes is generally within about 10 ft (altitudes reported to nearest foot in table 1).

Water samples were collected from 48 wells and springs and were analyzed to determine temperature and specific conductance with a field meter that was calibrated at least daily. Samples collected from these wells and springs were analyzed for chloride concentrations by the USGS National Water Quality Laboratory (NWQL) in Arvada, Colo. Samples from 38 of these sites were also analyzed for nitrate and major ion concentrations. Results of the analyses are presented in table 3. Chloride concentrations ranged from 5.2 to 420 mg/L (milligrams per liter), with a median value of 24 mg/L. Only 4 of the 48 wells sampled had concentrations exceeding 100 mg/L. Nitrate concentrations ranged from less than the detection limit (0.05 mg/L) to 5.2 mg/L. Nearly half of the nitrate concentrations were less than the detection limit.

Water samples were usually collected from a hose bib in the well's distribution system as close to the wellhead as possible. All samples were collected prior to any water treatment, such as chlorination, fluoridation, or softening. Where feasible, samples were collected upstream of any holding tank. Sample water was directed from the hose bib through polyethylene tubing to a flow-directing stainless-steel manifold mounted in a mobile water-quality laboratory; a sketch of the system is shown in figure 2. At a flow chamber, pH, temperature, specific conductance, and dissolved-oxygen concentration were monitored continuously. Readings were recorded every 5 minutes. Once these values were constant for at least two consecutive readings, indicating that the water monitored was being drawn from the aquifer, raw and filtered samples were collected from the appropriate manifold outlet.

After collection, samples were treated and preserved according to standard USGS procedures (Timme, 1995). Samples requiring chilling (nitrate analyses) were sent to the laboratory by air freight within 24 hours of being collected. All other samples were sent by first-class mail on a weekly basis.

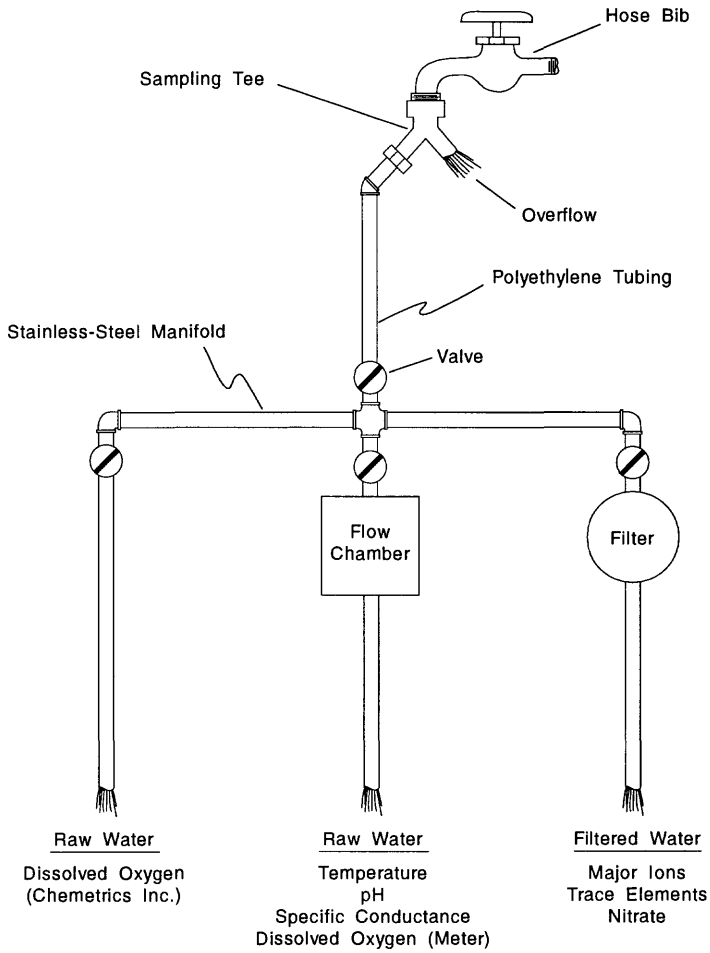

Figure 2.--Ground-water sampling system.

Determinations of pH, specific conductance, dissolved-oxygen concentration, and temperature were made onsite using methods outlined by Wood (1981). Dissolved-oxygen concentrations were determined using a meter, and concentrations of 1.0 mg/L or less were verified with a Rhodazine-D colorimetric method (White and others, 1990) developed by Chemetrics, Inc. Laboratory analyses were done by the NWQL. Dissolved concentrations were determined for all inorganic constituents. Analytical procedures used at the NWQL are described by Fishman and Friedman (1989).

As part of the study's quality-assurance program, the accuracy of field measurements of pH and specific conductance was ensured by daily calibration of meters with known standards. Dissolved-oxygen meters were also calibrated daily using the water-saturated air technique.

Four samples for major inorganic analysis by the NWQL were collected in duplicate on a random basis. One blank was prepared from deionized water. The duplicates and blank were processed in the same manner as ordinary ground-water samples and were submitted to the laboratory disguised as normal ground-water samples. Spiked chloride samples of 0, 100, and 1,000 mg/L also were submitted from the field to the laboratory. The analyses of the duplicate, blank, and spiked samples are shown in table 4. All were considered acceptable except for the dissolved iron, which had a concentration of 25 µg/L (micrograms per liter). However, this was judged to have little effect on the use of the iron data. Standard quality-assurance procedures were used at the NWQL. The resulting analytical data were reviewed by laboratory personnel, then released to the local USGS District office in Tacoma, Wash., by electronic data transfer.

REFERENCES CITED

Cline, D.R., 1974, A ground-water investigation of the Lummi Indian Reservation, Washington: U.S. Geological Survey Open-File Report, 66 p.

Dion, N.P., and Sumioka, S.S., 1984, Seawater intrusion into coastal aquifers in Washington, 1978: Washington State Department of Ecology Water-Supply Bulletin 56, 13 p.

Easterbrook, D.J., 1976, Geologic map of western Whatcom County, Washington: U.S. Geological Survey Miscellaneous Investigations Map I-854-B, 1 pl., scale 1:62,000.

Fishman, M.J., and Friedman, L.C., eds., 1989, Methods for determination of inorganic substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, book 5, chap. A1, 545 p.

Newcomb, R.C., Sceva, J.E., and Stromme, Olaf, 1949, Ground-water resources of western Whatcom County, Washington: U.S. Geological Survey Open-File Report 50-7, 134 p.

Timme, Patricia J., 1995, National Water Quality Laboratory 1995 Services catalog: U.S. Geological Survey Open-File Report 95-352, unpaginated.

Walters, K.L., 1971, Reconnaissance of sea-water intrusion along coastal Washington, 1966-68: Washington Department of Ecology Water-Supply Bulletin 32, 208 p.

Washburn, R.L., 1957, Ground water in the Lummi Indian Reservation, Whatcom County, Washington: U.S. Geological Survey Open-File Report, 31 p.

White, A.F., Peterson, M.L., and Solbau, R.D., 1990, Measurement and interpretation of low levels of dissolved oxygen in ground water: Ground Water, v. 28, no. 4, p. 584-590.

Wood, W.W., 1981, Guidelines for collection and field analysis of ground-water samples for selected unstable constituents: U.S. Geological Survey Techniques of Water-Resources Investigations book 1, chap. D2, 24 p.

DATA TABLES

Table 1.--*Records of wells and springs in the study area, in Whatcom County, Wash.*

[--, not determined; Data reliability: C indicates well has been field inventoried, U indicates that well has not been field inventoried; Type of log: C indicates caliper log, D indicates driller's log, F indicates fluid conductivity log (spontaneous potential), G indicates geologist's log, J indicates gamma ray log (natural gamma), T indicates temperature log]

Local well number	Data reliability	Latitude	Longitude	Land surface datum (feet above sea level)	Hole depth (feet)	Well depth (feet)	Logs on file	Lummi Nation reference number
37N/01E-02E01	C	484338	1223930	33.47	--	85	--	085
37N/01E-02E02	C	484339	1223930	40.16	102	88	D	086
37N/01E-02E03	C	484336	1223922	40.78	--	127	D	087
37N/01E-02E04	C	484334	1223915	55	215	215	D	123
37N/01E-02E05	C	484331	1223916	50	92	91	D	124
37N/01E-02H01	C	484336	1223834	10.25	40	40	D	091
37N/01E-02H02	C	484338	1223832	10	113	113	D	134
37N/01E-02H03	C	484337	1223833	8	--	20	--	164
37N/01E-02H03D1	C	484337	1223833	8	--	37.9	--	164
37N/01E-02K01	C	484320	1223846	20	--	42	--	--
37N/01E-02K02	C	484321	1223845	20	--	55	--	--
37N/01E-02K03	C	484320	1223847	15	44	44	D	--
37N/01E-02K05	C	484318	1223845	15	--	47	--	--
37N/01E-02K06	C	484324	1223842	6.5	--	39	--	093
37N/01E-02K07	C	484328	1223840	7.98	--	45	--	092
37N/01E-02K08	C	484325	1223847	22	--	60	D	--
37N/01E-02K09	U	484325	1223845	18	100	100	--	--
37N/01E-02K10	U	484319	1223849	22	49	49	D	--
37N/01E-02M01	C	484318	1223920	21.21	--	42	--	090
37N/01E-02M02	C	484330	1223920	30.83	--	35.7	--	088
37N/01E-02M03	C	484320	1223915	45	72	72	D	089
37N/01E-02M04	C	484325	1223916	50	123	119	D	131
37N/01E-02P02	C	484314	1223913	55	191	191	D	130
37N/01E-02P03	C	484306	1223905	35	208	206.5	D	132
37N/01E-02Q01	C	484306	1223849	12	--	39	--	--
37N/01E-02Q02	C	484306	1223849	10.43	38	38	D	094
37N/01E-02Q03	C	484312	1223852	20	--	55	--	--
37N/01E-02Q04	C	484305	1223849	8.5	--	50	--	095
37N/01E-02Q06	C	484315	1223846	20	49	48	D	--
37N/01E-02Q08	C	484307	1223849	10	--	24.5	--	--
37N/01E-02Q10	C	484306	1223849	10	--	40	--	--
37N/01E-02Q11	C	484312	1223850	15	--	46	--	--
37N/01E-02Q12	C	484307	1223854	15	49	49	D	--
37N/01E-02Q13	C	484314	1223846	15	52	52	D	--
37N/01E-03H01	C	484340	1223935	31.83	--	42	--	084

Table 1.--*Records of wells and springs in the study area in Whatcom County, Wash.--Continued*

Local well number	Data reli-abil-ity	Latitude	Longitude	Land surface datum (feet above sea level)	Hole depth (feet)	Well depth (feet)	Logs on file	Lummi Nation reference number
37N/01E-11B01	C	484303	1223854	11.42	--	59	D	096
37N/01E-11C01	C	484302	1223856	12.12	40	40	D	097
37N/01E-11C01D1	C	484302	1223856	12.12	139	124	D	097
37N/01E-11C01S	C	484259	1223901	-2	--	--	--	--
37N/01E-11C02	C	484301	1223856	15	--	--	--	--
37N/01E-11K01	C	484231	1223849	-11.4	51	51	G	098
37N/01E-12L01	C	484228	1223736	35	47	46.3	D	099
38N/01E-01B01	C	484900	1223721	6.83	330	11	D	027
38N/01E-01B02	C	484900	1223719	8.67	--	13	--	028
38N/01E-01N01	C	484825	1223814	15.8	280	280	--	--
38N/01E-01Q01	C	484819	1223732	8	60	60	G	--
38N/01E-11N01	C	484729	1223923	3	--	150	--	039
38N/01E-11N02	C	484729	1223923	3	75	75	D	040
38N/01E-11R01	C	484729	1223818	23.9	255	255	D	038
38N/01E-12H01	C	484758	1223700	19.96	--	8.95	--	036
38N/01E-12J01	C	484740	1223657	50	--	13.5	D	157
38N/01E-12K01	C	484742	1223718	43.11	200	160	CDFJT	037
38N/01E-12M01	C	484743	1223804	10	--	18	--	--
38N/01E-13C01	C	484717	1223740	70	--	7	--	158
38N/01E-13J01	C	484658	1223711	112.68	148	143	D	045
38N/01E-13J01D1	C	484658	1223710	112.68	242	194	CDFJT	045
38N/01E-13J02	C	484656	1223711	117.34	--	178.5	D	046
38N/01E-13J03	C	484658	1223658	126.81	160	158	D	047
38N/01E-13J04	C	484657	1223659	120	45	45	G	--
38N/01E-13J05	U	484658	1223713	113	91	91	D	--
38N/01E-13K01	C	484658	1223724	83.06	157	155	D	044
38N/01E-14A01	C	484715	1223826	30	70	70	G	--
38N/01E-14H01	C	484707	1223823	28	218	218	D	--
38N/01E-14H01D1	C	484707	1223823	28	356	356	D	--
38N/01E-14H01D2	C	484707	1223823	28	356	248	D	--
38N/01E-14J01	C	484655	1223825	53.1	95	95	D	042
38N/01E-14J02	C	484656	1223828	47.6	176	174	D	041
38N/01E-14Q01	C	484639	1223839	27.7	107	107	D	043
38N/01E-14Q02	C	484645	1223836	25	140	117	D	111
38N/01E-14Q03	C	484643	1223836	25	165	141	D	155
38N/01E-23B01	C	484624	1223845	10	8	8	D	--
38N/01E-23B02	C	484625	1223838	22	36	36	D	--
38N/01E-23B03	C	484623	1223846	9.94	--	8	D	054
38N/01E-23P01	C	484543	1223910	18	78	78	D	113
38N/01E-24G01	C	484613	1223731	105	46	15.5	--	--

Table 1.--*Records of wells and springs in the study area in Whatcom County, Wash.--Continued*

Local well number	Data reli-abil-ity	Latitude	Longitude	Land surface datum (feet above sea level)	Hole depth (feet)	Well depth (feet)	Logs on file	Lummi Nation reference number
38N/01E-24G01D1	C	484613	1223731	115.11	122	122	D	053
38N/01E-24G02	C	484612	1223732	110	50	50	G	--
38N/01E-25C01	C	484530	1223741	125	63	63	G	--
38N/01E-25D01	C	484528	1223756	106.65	170.5	166	D	063
38N/01E-25J01	C	484503	1223711	42	70	11.9	--	--
38N/01E-25J02	C	484502	1223714	63.06	90	86	D	066
38N/01E-25J03	C	484506	1223713	51.94	109	97	CEGJT	065
38N/01E-25J04	C	484511	1223704	45	50	50	G	--
38N/01E-25K01	C	484507	1223718	52.96	84	80	D	064
38N/01E-25Q01	C	484453	1223721	35	--	17.1	--	171
38N/01E-25Q02	C	484456	1223722	41.04	88	88	D	067
38N/01E-26C01	C	484534	1223912	25	95	91.6	D	112
38N/01E-26D01	C	484540	1223919	18.24	50	50	D	055
38N/01E-26E01	C	484520	1223916	39.07	112	112	D	057
38N/01E-26G01	C	484527	1223851	100.25	156	154.3	D	056
38N/01E-26J01	C	484503	1223826	132.22	17	16.3	D	061
38N/01E-26M01	C	484514	1223917	70	--	165	--	--
38N/01E-26M02	U	484508	1223922	80	100	100	D	--
38N/01E-26N01	C	484456	1223923	150	203	202.5	D	115
38N/01E-26Q01	C	484455	1223843	132.5	185	182	D	059
38N/01E-26Q02	C	484451	1223841	130	88	88	G	--
38N/01E-26R01	C	484449	1223833	125	--	18.9	--	166
38N/01E-26R02	C	484450	1223820	105	--	14	--	--
38N/01E-26R03	C	484452	1223828	125.10	128	128	D	062
38N/01E-26R04	C	484500	1223830	133.01	32	14	D	060
38N/01E-27J01	C	484506	1223935	50	80	80	D	--
38N/01E-27J02	C	484504	1223937	50	112	108	D	--
38N/01E-27J03	C	484503	1223937	70	77	77	D	--
38N/01E-27J04	C	484507	1223934	50	89	89	D	--
38N/01E-27J05	C	484505	1223936	50	77	--	D	--
38N/01E-27J06	C	484503	1223937	50	94	94	D	--
38N/01E-27R01	C	484452	1223936	131.44	164	164	D	058
38N/01E-27R02	C	484450	1223935	141	165	165	D	122
38N/01E-27R03	C	484500	1223938	70	94	94	D	--
38N/01E-27R04	C	484455	1223944	90	117	117	D	--
38N/01E-27R05	C	484500	1223941	60	78	78	D	--
38N/01E-27R06	U	484459	1223940	70	90	90	D	--
38N/01E-34A01	C	484440	1223947	142.04	169	169	D	073
38N/01E-34A02	U	484440	1223947	145	200	199.6	D	--
38N/01E-34A03	C	484442	1223947	140	175	175	D	146

Table 1.--*Records of wells and springs in the study area in Whatcom County, Wash.--Continued*

Local well number	Data reli-abil-ity	Latitude	Longitude	Land surface datum (feet above sea level)	Hole depth (feet)	Well depth (feet)	Logs on file	Lummi Nation reference number
38N/01E-34B01	C	484436	1223958	94.97	138	138	D	074
38N/01E-34B01S	C	484440	1224005	-2	--	--	--	--
38N/01E-34G02	C	484431	1224000	95.95	140	140	D	075
38N/01E-34G03	C	484429	1224003	75.74	96	87	D	076
38N/01E-34G04	C	484434	1223957	115	160	157	D	127
38N/01E-34G05	C	484433	1224004	70	--	--	--	--
38N/01E-34G06	U	484432	1224004	60	99	99	D	--
38N/01E-34H01	C	484434	1223937	140	169	169	D	--
38N/01E-34H02	C	484434	1223950	145	150	150	D	--
38N/01E-34J01	C	484410	1223953	82.22	--	95	--	081
38N/01E-34J02	C	484422	1223943	125	190	187.4	D	128
38N/01E-34J03	C	484410	1223953	80	--	160	--	--
38N/01E-34K01	C	484411	1223959	57.71	70	67	D	080
38N/01E-34K01D1	C	484411	1223959	57.71	195	117	D	080
38N/01E-34K03	C	484412	1223959	60.55	128	128	D	078
38N/01E-34K04	C	484412	1224002	59.14	--	62	--	079
38N/01E-34P01	C	484408	1224026	-8	142	142	G	077
38N/01E-34Q01	C	484358	1224010	6	185	185	D	083
38N/01E-34R01	C	484408	1223953	75.76	138	138	D	082
38N/01E-34R01S	C	484402	1223953	20	--	--	--	--
38N/01E-35E01	C	484431	1223932	155	200	196.8	D	129
38N/01E-35R01	C	484401	1223818	33.77	44	30	D	072
38N/01E-35R02	C	484358	1223826	40	80	75	D	--
38N/01E-36B01	C	484448	1223727	35	65	65	G	--
38N/01E-36C01	C	484438	1223744	30	--	12	D	167
38N/01E-36E01	C	484427	1223758	45	--	16.5	D	168
38N/01E-36E02	C	484423	1223759	45	28	28	G	--
38N/01E-36M01	C	484418	1223803	30	--	54	--	170
38N/02E-06B01	C	484908	1223615	13	--	535	--	029
38N/02E-06P01	U	484824	1223629	8	22	22	D	--
38N/02E-07E01	C	484757	1223652	17.64	12	12	D	035
38N/02E-07J01	C	484746	1223538	8	57	57	G	031
38N/02E-07M01	C	484739	1223649	41.8	--	18	D	033
38N/02E-07M01S	C	484750	1223646	15	--	--	--	156
38N/02E-07M02	C	484739	1223649	40.89	--	27	--	034
38N/02E-07M02S	C	484751	1223648	20	--	--	--	162
38N/02E-07M03	C	484750	1223651	30	90	90	G	--
38N/02E-07M03S	C	484751	1223648	20	--	--	--	161
38N/02E-07Q01	C	484737	1223616	5	52	52	G	032
38N/02E-18C01	C	484714	1223635	30	15	15	--	--

Table 1.--*Records of wells and springs in the study area in Whatcom County, Wash.--Continued*

Local well number	Data reli-abil-ity	Latitude	Longitude	Land surface datum (feet above sea level)	Hole depth (feet)	Well depth (feet)	Logs on file	Lummi Nation reference number
38N/02E-18C02	C	484713	1223634	30	50	50	G	--
38N/02E-18D01	C	484715	1223643	55	--	16.3	--	163
38N/02E-18F01	C	484700	1223632	20	50	50	G	--
38N/02E-18F02	C	484659	1223633	30	11	11	G	--
38N/02E-18L01S	C	484657	1223632	40	--	--	--	169
38N/02E-18P01	C	484645	1223624	10	90	90	G	--
38N/02E-19B01S	C	484630	1223614	20	--	--	--	159
38N/02E-19B02	C	484621	1223606	25	--	11.8	--	165
38N/02E-19G01S	C	484619	1223604	25	--	--	--	160
38N/02E-19G02	C	484612	1223605	30	--	9.4	--	--
38N/02E-19G03	C	484620	1223605	25	40	40	G	--
38N/02E-19L01	C	484556	1223619	45	--	17	--	--
38N/02E-19L02	C	484555	1223622	51.05	170	170	D	051
38N/02E-19L03	C	484556	1223620	46.02	12	12	D	048
38N/02E-19L04	C	484556	1223620	49.79	--	17.1	D	049
38N/02E-19L05	C	484555	1223622	51.05	--	17	--	050
38N/02E-19P01	C	484543	1223635	54.5	--	64	--	052
38N/02E-19P02	C	484541	1223633	25	55	55	G	--
38N/02E-30D01	C	484529	1223640	68.16	107	105	D	069
38N/02E-30D02	C	484529	1223636	52.96	68	68	D	070
38N/02E-30D03	C	484539	1223638	88.57	147	145	D	068
38N/02E-30E01	C	484520	1223652	66.21	32	32	D	071

Table 2.--*Water levels in 1995 in wells in the study area, in Whatcom County, Wash.*

[--, not determined; Primary use of well: H indicates domestic, P indicates public supply, U indicates unused, Z indicates chlorinator at sewage treatment plant; Water-level status: O indicates obstruction, P indicates pumping, R indicates recently pumped, X indicates surface-water effects]

Local well number	Primary use of well	Well depth (feet)	Top of open interval (feet below land surface)	Bottom of open interval (feet below land surface)	Date of water-level measurement	Water level (feet below land surface)	Status of water level
37N/01E-02E01	P	85	85	85	05-23-95	26.53	--
37N/01E-02E03	U	127	123	127	05-31-95	34.28	--
37N/01E-02E04	H	215	209	215	05-26-95	54.02	--
37N/01E-02E05	U	91	83	91	05-22-95	44.7	--
37N/01E-02H02	H	113	108	113	05-22-95	12.84	R
37N/01E-02H03D1	U	38	--	--	05-22-95	3.88	--
--	--	--	--	--	06-19-95	4.44	--
37N/01E-02K01	H	42	--	--	05-30-95	15.90	--
37N/01E-02K06	H	39	--	--	05-17-95	13.75	R
37N/01E-02K07	H	45	--	--	05-23-95	14.7	R
--	--	--	--	--	05-23-95	4.7	R
37N/01E-02K08	H	60	47	60	05-31-95	16.88	R
37N/01E-02M02	P	36	36	36	05-22-95	23.81	--
--	--	--	--	--	05-31-95	24.04	--
37N/01E-02M03	H	72	63	70	05-24-95	47.55	--
37N/01E-02M04	H	119	113	119	05-24-95	46.39	--
37N/01E-02P02	Z	191	182	191	05-18-95	55.19	R
37N/01E-02P03	H	206	199	206	05-30-95	34.27	--
37N/01E-02Q08	H	24	--	--	05-19-95	7.36	--
37N/01E-02Q10	H	40	--	--	05-23-95	7.40	--
37N/01E-11B01	H	59	54	59	05-26-95	10.04	--
37N/01E-11C01D1	H	124	--	--	05-23-95	5.88	--
37N/01E-11C02	H	--	--	--	05-23-95	10.43	--
38N/01E-01B02	U	13	--	--	06-01-95	5.88	--
38N/01E-12H01	U	9	9	9	06-02-95	3.20	--
--	--	--	--	--	06-19-95	2.13	--
--	--	--	--	--	06-19-95	3.18	P
38N/01E-13J02	U	178	174	178	06-01-95	103.71	--
38N/01E-13J03	U	158	154	158	05-31-95	112.65	--
38N/01E-14H01D2	U	248	--	--	05-24-95	14.63	--
38N/01E-14J01	U	95	95	95	06-20-95	3.47	X
38N/01E-14Q02	U	117	109	117	05-26-95	20.25	--
--	--	--	--	--	06-20-95	20.24	--
38N/01E-14Q03	U	141	34	38	05-17-95	18.00	--
38N/01E-23B03	P	8	5	8	05-25-95	4.90	--

Table 2.--*Water levels in 1995 in wells in the study area, in Whatcom County, Wash.--Continued*

Local well number	Primary use of well	Well depth (feet)	Top of open interval (feet below land surface)	Bottom of open interval (feet below land surface)	Date of water-level measurement	Water level (feet below land surface)	Status of water level
38N/01E-23P01	H	78	71	76	05-30-95	15.78	--
38N/01E-25D01	U	166	163	166	05-25-95	98.10	--
38N/01E-25J02	U	86	82	86	05-31-95	61.13	--
38N/01E-25K01	P	80	70	80	06-19-95	47.28	R
38N/01E-25Q02	U	88	78	88	06-01-95	34.97	--
38N/01E-26C01	H	92	86	92	05-19-95	18.97	--
38N/01E-26G01	U	154	149	154	05-26-95	96.42	--
38N/01E-26J01	U	16	16	16	06-01-95	5.54	--
--	--	--	--	--	06-21-95	6.97	--
--	--	--	--	--	06-21-95	8.03	P
38N/01E-26N01	P	202	194	202	05-24-95	154.75	P
--	--	--	--	--	05-24-95	138.65	--
38N/01E-26Q01	P	182	173	182	05-18-95	134.09	P
--	--	--	--	--	05-18-95	127.24	R
38N/01E-27J02	H	108	103	108	05-25-95	46.51	--
38N/01E-27J04	H	89	84	89	05-18-95	36.49	R
38N/01E-27J05	H	--	--	--	05-25-95	45.97	--
38N/01E-27J06	U	94	89	94	05-26-95	56.39	--
38N/01E-27R01	P	164	154	164	05-22-95	128.79	--
38N/01E-27R02	P	165	155	165	05-17-95	135.15	--
38N/01E-34A03	P	175	165	175	05-18-95	143.57	P
--	--	--	--	--	05-18-95	139.01	R
--	--	--	--	--	05-30-95	143.81	P
38N/01E-34B01	H	138	133	138	05-19-95	93.10	--
38N/01E-34G04	U	157	152	157	05-26-95	113.41	--
38N/01E-34G05	H	--	--	--	06-20-95	70.16	--
38N/01E-34H01	H	169	164	169	05-22-95	132.86	--
38N/01E-34H02	H	150	146	150	05-22-95	129.53	--
38N/01E-34J02	P	187	178	187	05-19-95	118.98	--
38N/01E-34J03	P	160	--	--	06-20-95	88.00	P
--	--	--	--	--	06-21-95	82.44	--
38N/01E-34K01D1	U	117	--	--	05-30-95	--	O
38N/01E-34R01	P	138	133	138	06-21-95	108.86	P
--	--	--	--	--	06-21-95	72.91	R
38N/01E-35E01	P	197	189	197	05-19-95	138.13	--
38N/02E-07E01	U	12	12	12	06-22-95	0.34	--
38N/02E-19B02	U	12	--	--	05-25-95	5.15	--
38N/02E-19L03	H	12	--	--	05-17-95	8.18	--
38N/02E-19L04	U	17	--	--	05-17-95	12.00	--
38N/02E-30D03	H	145	140	145	05-23-95	80.06	--

Table 3.--*Records of 1995 water-quality analyses in the study area, in Whatcom County, Wash.*

[--, not determined; <, not detected at the given concentration; mg/L = milligrams per liter; µS/cm = microsiemens per centimeter; µg/L = micrograms per liter; °C = degrees Celsius]

Local well number	Date sampled	Time sampled	Temperature (°C)	Specific conductance (µS/cm at 25°C)	Oxygen dissolved (mg/L)	pH	Nitrate plus nitrite, dissolved (mg/L as N)	Hardness, total (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)
37N/01E-02E01	05-23-95	1500	12.5	391	<0.1	8.3	<0.05	130	25	16
37N/01E-02E04	05-26-95	1120	11.0	557	0.6	8.5	<0.05	36	10	2.7
37N/01E-02H02	05-22-95	1210	13.0	473	<0.1	8.3	<0.05	110	22	14
37N/01E-02H03D1	06-19-95	1540	13.0	489	0.1	6.9	<0.05	200	65	8.1
37N/01E-02K01	05-30-95	2000	12.0	618	<0.0	8.0	<0.05	240	38	36
37N/01E-02K06	05-17-95	1700	12.5	525	--	--	--	--	--	--
37N/01E-02K07	05-23-95	1300	12.5	447	1.1	8.4	<0.05	110	18	15
37N/01E-02K08	05-31-95	1610	12.5	475	--	8.3	0.08	140	23	20
37N/01E-02M02	05-22-95	1630	11.0	422	--	--	--	--	--	--
--	05-31-95	1140	12.0	463	2.4	7.7	0.10	190	44	19
37N/01E-02M03	05-30-95	1400	12.0	518	--	--	--	--	--	--
37N/01E-02M04	05-24-95	1030	10.5	396	<0.0	8.1	<0.05	160	37	16
37N/01E-02P02	05-18-95	1450	11.0	406	<0.0	8.1	<0.05	150	28	20
37N/01E-02Q04	05-22-95	1400	12.0	425	--	--	--	--	--	--
37N/01E-02Q08	05-19-95	1110	12.5	415	--	--	--	--	--	--
--	06-01-95	1410	15.5	416	<0.0	8.0	<0.05	160	33	19
37N/01E-02Q10	05-23-95	0950	12.0	412	--	--	--	--	--	--
37N/01E-02Q11	05-31-95	1400	14.0	441	0.4	8.0	<0.05	170	30	22
37N/01E-11B01	05-26-95	1300	12.5	432	<0.0	8.0	<0.05	140	30	15
37N/01E-11C02	05-23-95	1720	12.5	497	<0.0	7.8	<0.05	190	49	17
38N/01E-12H01	06-19-95	1410	14.5	410	3.5	6.9	0.75	130	34	11
38N/01E-23B03	05-25-95	1150	10.0	285	--	--	--	--	--	--
38N/01E-23P01	05-26-95	1020	11.0	422	--	--	--	--	--	--
38N/01E-25K01	06-19-95	1820	10.5	563	5.8	7.7	4.5	160	41	15
38N/01E-26C01	05-19-95	1620	11.5	241	0.1	7.8	<0.05	94	23	8.9
38N/01E-26J01	06-21-95	1420	14.5	280	2.0	7.4	1.5	110	36	5.7
38N/01E-26N01	06-01-95	0940	11.0	364	2.1	7.6	0.97	130	33	11
38N/01E-26Q01	05-18-95	1240	10.5	461	5.3	7.6	1.6	140	38	12
38N/01E-27J02	05-25-95	1040	10.5	301	0.2	7.3	0.21	110	21	15
38N/01E-27J04	05-18-95	1640	10.5	287	--	--	--	--	--	--
38N/01E-27J05	05-25-95	0900	10.0	211	--	--	--	--	--	--
--	06-02-95	1100	10.5	211	7.6	7.4	4.4	75	12	11
38N/01E-27R01	05-22-95	1720	10.5	393	2.6	7.6	2.1	140	34	13
38N/01E-27R02	05-22-95	1240	11.5	365	--	--	--	--	--	--
38N/01E-34A03	05-18-95	1050	10.0	415	--	--	--	--	--	--
--	05-30-95	1740	10.5	415	3.4	7.7	2.2	130	34	12
38N/01E-34B01	05-19-95	1430	15.5	315	1.6	7.4	0.14	110	25	12
38N/01E-34G05	06-20-95	1330	11.0	301	6.0	7.3	3.7	110	21	14
38N/01E-34H01	05-22-95	1440	11.5	418	4.6	7.8	1.7	130	33	11
38N/01E-34H02	05-22-95	1600	10.5	294	--	--	--	--	--	--

Table 3.--*Records of 1995 water-quality analyses in the study area, in Whatcom County, Wash.--Continued*

Local well number	Date sampled	Time sampled	Temperature (°C)	Specific conductance (µS/cm at 25°C)	Oxygen dissolved (mg/L)	pH	Nitrate plus nitrite, dissolved (mg/L as N)	Hardness, total (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)
--	06-01-95	1150	11.0	294	8.5	7.5	2.6	110	26	11
38N/01E-34J02	05-19-95	1240	11.5	457	11.4	7.5	<0.05	140	32	14
38N/01E-34J03	06-21-95	0920	11.0	1,810	<0.0	7.6	<0.05	410	85	49
38N/01E-34R01	06-21-95	1020	11.0	1,060	0.2	7.7	<0.05	290	64	31
38N/01E-34R01S	06-21-95	1540	11.5	257	6.1	6.4	1.5	74	17	7.7
38N/01E-35E01	05-19-95	1020	11.5	494	<0.0	7.4	0.14	150	35	14
38N/02E-07E01	06-22-95	1020	11.0	235	--	--	--	--	--	--
38N/02E-19B01S	05-25-95	1500	16.5	332	--	--	--	--	--	--
38N/02E-19B02	06-20-95	1100	14.5	459	1.5	7.5	5.1	160	58	4.1
38N/02E-19L03	05-17-95	1900	12.0	439	3.7	6.7	0.25	100	19	13
38N/02E-19P01	05-25-95	1440	12.0	208	3.8	6.8	5.2	54	9.1	7.7
38N/02E-30D01	05-24-95	1500	13.5	644	<0.0	7.9	<0.05	120	24	14
38N/02E-30D03	05-23-95	1050	14.0	1,540	1.1	7.5	0.33	200	38	25

Table 3.--*Records of 1995 water-quality analyses in the study area, in Whatcom County, Wash.--Continued*

Local well number	Sodium, dissolved (mg/L as Na)	Sodium adsorption ratio	Sodium percent	Potassium, dissolved (mg/L as K)	Alkalinity (mg/L as $CaCO_3$)	Chloride, dissolved (mg/L as Cl)	Sulfate, dissolved (mg/L as SO_4)	Fluoride, dissolved (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Iron, dissolved (µg/L as Fe)
37N/01E-02E01	30	1	32	7.2	169	16	11	0.2	19	86
37N/01E-02E04	110	8	84	7.5	231	18	26	0.6	27	26
37N/01E-02H02	53	2	48	8.1	166	40	14	0.3	18	7
37N/01E-02H03D1	20	0.6	18	5.2	213	22	4.4	<0.1	19	1,400
37N/01E-02K01	30	0.8	20	8.3	245	43	18	0.1	31	4
37N/01E-02K06	--	--	--	--	--	38	--	--	--	--
37N/01E-02K07	52	2	49	7.9	178	24	15	0.3	17	27
37N/01E-02K08	41	2	37	8.8	189	29	12	0.2	18	10
37N/01E-02M02	--	--	--	--	--	22	--	--	--	--
--	21	0.7	19	2.8	187	23	18	0.1	26	<3
37N/01E-02M03	--	--	--	--	--	22	--	--	--	--
37N/01E-02M04	19	0.7	20	3.0	161	19	14	0.2	23	16
37N/01E-02P02	20	0.7	21	7.7	170	19	12	0.2	35	57
37N/01E-02Q04	--	--	--	--	--	20	--	--	--	--
37N/01E-02Q08	--	--	--	--	--	18	--	--	--	--
--	21	0.7	21	7.3	185	19	4.3	0.2	31	80
37N/01E-02Q10	--	--	--	--	--	18	--	--	--	--
37N/01E-02Q11	26	0.9	24	7.0	196	19	6.6	0.2	34	44
37N/01E-11B01	34	1	34	7.3	184	21	7.4	0.3	39	230
37N/01E-11C02	25	0.8	21	6.2	195	36	4.1	0.2	39	210
38N/01E-12H01	27	1	31	2.5	110	46	14	0.1	22	410
38N/01E-23B03	--	--	--	--	--	13	--	--	--	--
38N/01E-23P01	--	--	--	--	--	34	--	--	--	--
38N/01E-25K01	41	1	34	4.4	131	69	20	0.1	22	<3
38N/01E-26C01	9.4	0.4	17	3.0	99	6.4	14	0.2	26	110
38N/01E-26J01	11	0.4	17	3.3	121	5.2	8.6	<0.1	18	34
38N/01E-26N01	21	0.8	26	3.7	121	29	12	0.1	27	70
38N/01E-26Q01	29	1	30	3.8	123	52	14	0.2	25	3
38N/01E-27J02	14	0.6	21	3.1	117	14	13	0.1	23	140
38N/01E-27J04	--	--	--	--	--	8.7	--	--	--	--
38N/01E-27J05	--	--	--	--	--	9.2	--	--	--	--
--	11	0.6	24	1.8	62	10	10	<0.1	25	19
38N/01E-27R01	23	0.9	26	3.8	123	34	12	0.1	27	<3
38N/01E-27R02	--	--	--	--	--	23	--	--	--	--
38N/01E-34A03	--	--	--	--	--	33	--	--	--	--
--	28	1	30	4.4	136	33	13	0.2	29	64
38N/01E-34B01	18	0.7	25	3.3	125	17	12	0.2	34	14
38N/01E-34G05	15	0.6	22	3.1	110	14	7.5	0.2	37	6
38N/01E-34H01	32	1	34	4.4	137	35	12	0.2	29	9
38N/01E-34H02	--	--	--	--	--	12	--	--	--	--
--	14	0.6	21	3.0	107	13	13	0.1	35	<3
38N/01E-34J02	34	1	34	5.8	157	42	12	0.3	36	490
38N/01E-34J03	170	4	46	15	182	420	56	0.3	37	530
38N/01E-34R01	82	2	37	9.3	184	200	28	0.3	38	330
38N/01E-34R01S	16	0.8	32	1.0	41	39	11	<0.1	21	10

Table 3.--*Records of 1995 water-quality analyses in the study area, in Whatcom County, Wash.--Continued*

Local well number	Sodium, dissolved (mg/L as Na)	Sodium adsorption ratio	Sodium percent	Potassium, dissolved (mg/L as K)	Alkalinity (mg/L as $CaCO_3$)	Chloride, dissolved (mg/L as Cl)	Sulfate, dissolved (mg/L as SO_4)	Fluoride, dissolved (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Iron, dissolved (µg/L as Fe)
38N/01E-35E01	38	1	35	4.8	139	57	17	0.2	27	94
38N/02E-07E01	--	--	--	--	--	13	--	--	--	--
38N/02E-19B01S	--	--	--	--	--	34	--	--	--	--
38N/02E-19B02	24	0.8	24	1.4	115	37	16	<0.1	20	14
38N/02E-19L03	40	2	45	3.7	68	71	26	0.2	21	48
38N/02E-19P01	17	1	40	1.0	33	19	11	<0.1	18	29
38N/02E-30D01	76	3	56	8.4	118	110	16	0.2	31	140
38N/02E-30D03	220	7	69	15	225	300	45	0.3	22	67

Table 3.--*Records of 1995 water-quality analyses in the study area, in Whatcom County, Wash.--Continued*

Local well number	Manganese, dissolved (µg/L as Mn)	Solids, residue at 180°C, dissolved (mg/L)	Bromide, dissolved (mg/L as Br)
37N/01E-02E01	24	220	0.07
37N/01E-02E04	52	345	0.04
37N/01E-02H02	20	261	0.13
37N/01E-02H03D1	330	296	0.11
37N/01E-02K01	34	340	0.16
37N/01E-02K06	--	--	--
37N/01E-02K07	16	251	0.10
37N/01E-02K08	21	254	0.11
37N/01E-02M02	--	--	--
--	16	262	0.12
37N/01E-02M03	--	--	--
37N/01E-02M04	41	226	0.14
37N/01E-02P02	70	243	0.08
37N/01E-02Q04	--	--	--
37N/01E-02Q08	--	--	--
--	34	234	0.08
37N/01E-02Q10	--	--	--
37N/01E-02Q11	45	255	0.08
37N/01E-11B01	79	258	0.11
37N/01E-11C02	190	289	0.10
38N/01E-12H01	50	239	0.16
38N/01E-23B03	--	--	--
38N/01E-23P01	--	--	--
38N/01E-25K01	<1	319	0.27
38N/01E-26C01	40	148	0.03
38N/01E-26J01	16	171	0.03
38N/01E-26N01	30	210	0.12
38N/01E-26Q01	7	261	0.21
38N/01E-27J02	53	171	0.13
38N/01E-27J04	--	--	--
38N/01E-27J05	--	--	--
--	2	133	0.04
38N/01E-27R01	32	231	0.14
38N/01E-27R02	--	--	--
38N/01E-34A03	--	--	--
--	32	241	0.13
38N/01E-34B01	4	190	0.08
38N/01E-34G05	1	188	0.07
38N/01E-34H01	14	243	0.15
38N/01E-34H02	--	--	--
--	<1	181	0.05
38N/01E-34J02	93	274	0.17
38N/01E-34J03	300	1,070	1.4
38N/01E-34R01	150	623	0.68
38N/01E-34R01S	<1	178	0.06

Table 3.--*Records of 1995 water-quality analyses in the study area, in Whatcom County, Wash.--Continued*

Local well number	Manganese, dissolved (µg/L as Mn)	Solids, residue at 180°C, dissolved (mg/L)	Bromide, dissolved (mg/L as Br)
38N/01E-35E01	80	278	0.22
38N/02E-07E01	--	--	--
38N/02E-19B01S	--	--	--
38N/02E-19B02	12	313	0.05
38N/02E-19L03	74	247	0.19
38N/02E-19P01	6	128	0.08
38N/02E-30D01	110	352	0.38
38N/02E-30D03	2	816	0.51

Table 4.--*Records of quality-assurance/quality-control analyses*

[--, not determined; <, not detected at the given concentration; mg/L, milligrams per liter; µg/L, micrograms per liter]

Local well number	Date sampled	Hardness, total (mg/L as $CaCO_3$)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Potassium, dissolved (mg/L as K)	Chloride, dissolved (mg/L as Cl)	Sulfate, dissolved (mg/L as SO_4)
37N/01E-02E01	05-23-95	130	25	16	30	7.2	16	11
--	05-23-95	130	25	16	30	7.3	16	11
38N/01E-25K01	06-19-95	160	41	15	41	4.4	69	20
--	06-19-95	160	41	15	42	4.4	71	20
38N/01E-34R01	06-21-95	290	64	31	81	9.3	200	28
--	06-21-95	290	66	31	82	9.3	200	28
38N/02E-19P01	05-25-95	54	9.1	7.7	17	1.0	19	11
--	05-25-95	54	9.1	7.7	17	1.0	19	11
Spiked samples:								
Chloride solution #1 (Cl = 0 mg/L)	05-22-95	--	--	--	--	--	<0.1	--
Chloride solution #2 (Cl = 100 mg/L)	06-01-85	--	--	--	--	--	99	--
Chloride solution #3 (Cl = 1,000 mg/L)	06-01-95	--	--	--	--	--	980	--
Blank sample:								
Ocala lot #95045 (#20)	05-31-95 (also includes dissolved nitrate plus nitrite value of <0.05 mg/L)	0	0.12	0.04	<0.2	<0.1	0.1	<0.1

Table 4.--*Records of quality-assurance/quality-control analyses--Continued*

Local well number	Fluoride, dissolved (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Iron, dissolved (µg/L as Fe)	Manganese, dissolved (µg/L as Mn)	Solids, residue at 180°C, dissolved (mg/L)	Bromide, dissolved (mg/L as Br)	Alkalinity (mg/L as $CaCO_3$)
37N/01E-02E01	0.2	19	86	24	220	0.07	169
--	0.2	19	61	24	221	0.06	168
38N/01E-25K01	0.1	22	<3	<1	319	0.27	131
--	0.1	23	4	<1	317	0.27	131
38N/01E-34R01	0.3	38	330	150	623	0.68	184
--	0.2	38	330	150	615	0.68	185
38N/02E-19P01	<0.1	18	29	6	128	0.08	33
--	<0.1	18	23	6	129	0.08	33
Spiked samples:							
Chloride solution #1 (Cl = 0 mg/L)	--	--	--	--	--	--	--
Chloride solution #2 (Cl = 100 mg/L)	--	--	--	--	--	--	--
Chloride solution #3 (Cl = 1,000 mg/L)	--	--	--	--	--	--	--
Blank sample:							
Ocala lot #95045 (#20)	<0.1	<0.01	25	1	2	<0.01	1.9
	(also includes dissolved nitrate plus nitrite value of <0.05 mg/L)						