APPENDIX A. Physical and Hydrologic Data for the Wells, Springs, and Outcrops Used in this Study

Table A1. Well, Spring, and Outcrop Records for the Study Area

EXPLANATION

Site identifier:	See section "Site-Numbering System". Letter following sequence number: D, well that has been deepened or otherwise reconstructed; O, outcrop; P, piezometer; S, spring.
Land-surface altitude:	In feet above sea level.
Well depth:	In feet below land surface.
Water use:	Primary water use: C, commercial; F, fire protection; H, domestic; I, irrigation; N, industrial; P, public supply; Q, aquaculture; S, stock; T, institutional; U, unused.
Geohydrologic unit:	Geohydrologic unit tapped by well (see table 1); Mlt, well taps multiple units; --, unit tapped not determined.
Water level:	In feet below land surface. Minus sign indicates water level above land surface. Water levels measured by U.S. Geological Survey are reported to nearest 0.1 foot for electric tapes and to nearest 0.01 foot for steel tapes. Reported water levels to nearest foot. Water-level status: F, flowing; P, pumping; R, recently pumped; S, nearby well pumping; Z, status uncertain; --, static.
Date:	Date of water-level measurement. See table A3 for additional water-level data.
Hydraulic conductivity:	In feet per day. Calculated from specific-capacity data.
Logs:	D, driller's log available; G, geologist's log available; --, none available.

Table A1. Well, spring, and outcrop records for the study area

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
15N/01W-06A01	Northcraft, P.D.	4649111225050	265	45	I	Mlt	--	--	--	D
15N/02W-05E01	Smith, H.J.	4649011225803	212	62	I	Qva	27	04-16-59	650	D
15N/02W-06E01	Burkholder, Dean	4649021225919	196	60	H	Qva	15	02-18-75	310	D
15N/02W-06H01	Mondor, John K.	4649001225819	208	64	H	Qva	39	08-13-79	>990	D
15N/02W-06J01	Oliver, W.H.	4648491225822	209	69	I	Mlt	20	01-22-51	--	D
15N/02W-06N07	Speedway Store (Jack Scheuermann)	4648361225920	194	67	H	Qva	39	11-10-79	410	D
15N/03E-05M02	Yelm Telephone Company	4648481222745	570	160	U	Tb	--	--		D
15N/03E-06E03	Keeslar, John & Pamela	4649031222854	538	255	H	Tb	35.79 R	12-04-97	--	D
15N/03W-01K01	Proctor, William	4648521225952	192	65	H	Qva	22	05-25-54	460	D
15N/03W-02P01	Vivoda, Peter	4648331230127	173	60	H	Qva	--	--	--	D
15N/03W-02R01P1	WDOE (Martin Sdgl. Pit)	4648331230055	173	99	U	Qc	--	--	--	D
15N/03W-02R01P2	WDOE (Martin Sdgl. Pit)	4648331230055	173	68	U	Qva	--	--	--	D
15N/03W-02R01P3	WDOE (Martin Sdgl. Pit)	4648331230055	173	34	U	Qvt	--	--	--	D
15N/03W-03A02P1	WDOE (Substation)	4649171230214	171	125	U	Qc	37.02	--	--	D
15N/03W-03A02P2	WDOE (Substation)	4649171230214	171	85	U	Qva	36.74	--	--	D
15N/03W-03A02P3	WDOE (Substation)	4649171230214	171	52	U	Qva	36.59	--	--	D
15N/03W-03R01	Rochester Water Assoc.	4648361230204	168	73	P	Mlt	33	08-26-72	--	--
15N/03W-04B01	Smiley	4649171230345	158	56	H	Qva	28.9	08-04-83	>1,200	D
15N/03W-04C01	Johnson, Louis	4649181230353	155	55	H	Qva	16	06-02-52	190	D
15N/03W-04D01	Betts, Clarence A.	4649121230426	155	63	H	Qva	23	05-01-54	46,000	D
15N/03W-04E03	Holman, Mary Ellen	4648581230418	165	220	H	Tb	21.61 R	12-05-97	--	D
15N/03W-04K01	Eckard, Charles	4648491230338	155	60	H	Qva	20	06-02-50	2,300	D
15N/03W-04Q01	Waltenberg, E.	4648351230349	150	50	H	Qva	28	09-11-49	--	D
15N/03W-04Q02	Waltenberg, E.	4648351230350	150	60	I	Qva	11	05-10-58	1,600	--
15N/03W-05B01	Paulsen, Melvin	4649161230503	155	85	I	Qva	35	12-09-44	--	D
15N/03W-05M01	Fagerness, George	4648481230542	135	55	H	Qva	31	05-31-55	>3,700	D
15N/03W-05N02P1	WDOE (Drain Control)	4648281230543	117	65.2	U	Qc	--	--	--	D
15N/03W-05N02P2	WDOE (Drain Control)	4648281230543	117	45	U	Qva	--	--	--	D
15N/03W-05N02P3	WDOE (Drain Control)	4648281230543	117	21	U	Qva	--	--	--	D
15N/03W-05P01	Holm, George	4648281230522	140	51	H	Qva	20	02-23-77	310	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
15N/03W-06A02	Rochester Water	4649151230558	135	70	P	Qva	19	09-25-69	2,900	D
15N/03W-06K01	Steelhammer, G.C.	4648401230619	118	31	I	Qva	3	02-01-54	620	D
15N/03W-06N01	Johnson, A.	4648281230646	110	32	H	Qva	9	11-27-53	550	D
15N/03W-06P01	Baybarz, A.M.	4648341230628	115	47	I	Qva	8	03-23-50	420	D
15N/03W-08D02S	Fosnacht, F.C.	4648141230533	120	-	U	Qvr	- -	--	--	--
15N/03W-08G01	Frye, Charles R.	4648111230504	120	29	I	Qva	12	--	--	D
15N/03W-09D02	Brewer, W.F.	4648161230421	135	54	I	Qva	17	05-16-55	1,500	D
15N/03W-09F01S	Fox, J.R.	4648011230355	140	-	H	Qvr	--	--	--	--
15N/03W-09F02	White, Gene	4648071230359	147	80	I	Qva	26	06-01-70	1,500	--
15N/03W-09F02S	Hillis	4648011230357	140	-	H	Qvr	--	--	--	--
15N/03W-09J01	Bartlett, T.e.	4647581230331	150	63	H	Qva	30	--	190	D
15N/03W-10A01	Tischer, Clair	4648231230159	170	59	H	Qva	10	01-25-51	300	D
15N/03W-10A02	Rossmaier, L.	4648281230209	170	52	H	Qva	36	11-15-48	1,100	D
15N/03W-10D02P1	WDOE (Weyerhaeuser)	4648261230313	158	83	U	Qc	--	--	--	D
15N/03W-10D02P2	WDOE (Weyerhaeuser)	4648261230313	158	60	U	Qva	--	--	--	D
15N/03W-10D02P3	WDOE (Weyerhaeuser)	4648261230313	158	35	U	Qva	--	--	--	D
15N/03W-11H02	Rich, Mrs. E.M.	4648131230051	170	46	H	Qva	27	12-05-52	330	D
15N/03W-11K03	Payette, F.G.	4647511230104	165	48	H	Qva	21.53	05-05-47	--	D
15N/03W-11L01	Waltrip, Stanley	4647571230129	170	58	I	Qva	22	05-04-54	16,000	D
15N/03W-11M02	Garske, Laurance	4647561230154	165	60	I	Qva	27	--	290	D
15N/03W-11M03	Knight, W.W.	4647561230142	165	52	I	Qva	32	--	--	D
15N/03W-11M04	Thurston County	4647511230142	162	81	U	?	25.27	11-25-97	--	--
15N/03W-11P04	Kuper, Ernie	4647451230124	165	59	H	Qva	35	11-23-87	610	D
15N/03W-11Q03	Thurston County	4647441230120	165	84	U	Mlt	20.36	06-17-96	--	--
15N/03W-12B01	Salzer, J.	4648171225955	185	48	I	Qva	16	04-16-58	1,800	D
15N/03W-12B04	Salzer, F.M.	4648201225947	185	53	I	Qva	30	04-09-56	--	D
15N/03W-12D01	Mcleod, J.F.	4648171230036	170	51	I	?	31	--	700	D
15N/03W-12F01	Lentz, Clara	4648091230006	175	53	I	Qva	25	--	--	D
15N/03W-13M05	Tubbs, Wallace	4647011230034	152	79	H	TQu	18.91	12-05-97	--	D
15N/03W-14C01	Maple Lane School	4647321230135	150	74	P	Qva	30.5	10-12-39	1,300	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
15N/03W-23Q01	Sorenson, E.M.	4646011230108	140	30	I	Qvr	13	--	18,000	D
15N/03W-24L01	Kunselman, H.E.	4646101230022	155	45	H	Qva	13	--	820	D
16N/01E-01H01	McGovern, Rick	4654091223656	420	145	H	Qc	37	01-17-92	36	D
16N/01E-02B01	Kronenberg, Bob	4654241223827	390	80	H	Qva	57	--	--	D
16N/01E-02F01	Rochester, Dale & Sharon	4654071223848	420	235	H	Qc	130	02-09-89	--	D
16N/01E-02N02	Crosby, Gene	4653501223906	440	183	U	QCc	141	09-07-88	--	D
16N/01E-04D01	Aschenbrenner, Dan	4654311224130	490	223	H	Qc	190	09-06-85	71	D
16N/01E-04E02	McFerron, Gary	4654071224131	490	246	H	Qc	210	--	--	D
16N/01E-05F01	Baker, Robert	4654131224228	518	274	H	Qc	220.92	11-09-88	37	D
16N/01E-05F02	Durham, Thomas	4654081224240	515	240	H	Qc	211.05	10-28-88	120	D
16N/01E-05K02	Druther, Edward	4653551224219	507	280	H	Qc	203	03-01-78	41	D
16N/01E-05M01	McDaniels	4654051224259	500	260	H	Qf	205	04-02-79	17	D
16N/01E-06J02	Glennwinkle, Bill	4653561224319	480	240	-	Qc	178.56	08-04-89	--	D
16N/01E-07C01	Zahn, Earl	4653351224350	460	223	H	Tb	160.59	11-19-88	.69	D
16N/01E-07E02	Frost, M.	4653221224405	442	220	U	Tb	118	06-04-52	.25	D
16N/01E-07E04	Frost, Floyd	4653201224407	442	226	H	Tb	133	01-11-73	6.5	D
16N/01E-07H01	Maitland, Robert	4653201224315	458	203	H	Tb	145	07-19-74	3.7	D
16N/01E-07J02	Sturgis, Clayton	4653131224314	455	119	H	Tb	95	11-24-80	450	D
16N/01E-07P02	Sickler, Bill	4652571224342	434	215	H	Tb	101	03-01-74	.54	D
16N/01E-08C02	Lenzi	4653311224229	480	203	H	TQu	170	07-11-78	49	D
16N/01E-08L01	Fairley, Carolyn	4653101224231	471	220	H	Tb	147	11-14-74	33	D
16N/01E-08N01	Sprouffske, Jerry	4653001224259	500	100	H	TQu	59.80	10-26-88	>3,700	D
16N/01E-09E01	Town of Rainier, Well No. 3	4653241224127	425	323	P	Mlt	94	06-18-70	--	D
16N/01E-09F01	Town of Rainier, Well No. 2	4653141224116	428	120	P	Qva	100	--	--	--
16N/01E-09F02	Town of Rainier, Well No. 1	4653171224111	428	120	P	Qva	115	--	1,800	--
16N/01E-09K01	Town of Rainier, Well No. 4	4653061224057	419	219	P	Qc	85	01-30-75	--	D
16N/01E-10D01	Whalen, Jimmie	4653351224016	520	260	H	Qc	210	04-03-79	>1,200	D
16N/01E-14G03	Haggerty, John	4652221223826	450	120	H	Qc	83.42	01-25-89	--	D
16N/01E-16E01	Olympic Pipeline	4652211224136	461	182	C	Tb	106.79	11-09-88	2.6	D
16N/01E-16L03	Hunsinger, Dennis	4652181224127	463	203	H	Mlt	136.72	11-09-88	--	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
16N/01E-17G01	Reichel, Hugh	4652331224210	398	200	H	Tb	52.41	11-07-88	1.1	D
16N/01E-18N01	Johnson, Roger	4652091224405	340	100	H	Tb	20	12-04-87	--	D
16N/01E-18Q01	Smith, Elmer	4652031224335	311	76	H	Qvt	9.77	10-27-88	11	D
16N/01E-18Q02	Reichel, Michael	4651571224337	350	60	H	Qvt	-- F	10-27-88	--	D
16N/01E-35G03	Leggot, Marjorie	4649531223837	510	200	H	Tb	123	08-09-95	--	D
16N/01E-35K01	Kaufman, Janey	4649361223828	490	78	H	Qva	54.58	12-02-97	--	D
16N/01W-01N01S	Schoenbachler, Herman	4653491224518	295	--	U	Qvr	--	--	--	--
16N/01W-06F01	Larson, Norm	4654051225121	240	134	H	Qva	15.06	03-21-89	28	D
16N/01W-06G01	Wolf Haven	4654101225059	250	53	C	Qva	36	10-14-85	310	D
16N/01W-06L01	Geer, Gale & Juanita	4653581225126	243	58	H	Qva	25	07-21-88	1,100	D
16N/01W-13H01	Jewell, Mike	4652231224425	340	75	U	Qva	39.74	10-17-89	--	D
16N/01W-14Q02	Moore, John	4652041224608	355	60	H	Tb	20.16	08-94-89	--	D
16N/01W-19A02	Peterson, Charles A.	4651511225047	280	115	U	Tb	28.43	08-09-88	--	D
16N/01W-19G01	Town of Tenino	4651361225058	270	42	U	Qva	7.25	04-05-41	--	--
16N/01W-19G02	Town of Tenino, Well No. 1	4651411225054	272	94	P	Qc	32.54	10-11-88	190	D
16N/01W-21D04	South Sound Utility	4651441224902	304	34	P	Qva	14	02-22-74	210	D
16N/01W-31L01	Fleming, E.l.	4649371225133	270	56	H	Qva	42	09-30-49	1,200	D
16N/02E-02B01	McKown, Charles	4654201223059	445	151	I	Mlt	14	03-09-55	--	--
16N/02E-02G01	Blackler, A.d.	4654091223052	453	225	I	TQu	89	--	110	D
16N/02E-03E02S	Rieke, B.E.	4654111223251	445	--	S	Qvt	--	--	--	--
16N/02E-04A02	Johnston, C.h.	4654311223309	380	158	I	Mlt	40	06-16-51	--	--
16N/02E-05A01	Mosmon, J.L.	4654311223416	385	19	I	Qvr	14	--	--	D
16N/02E-05C01	McMonigle, J. & A.	4654251223500	380	81	I	Qvr	4.28	02-26-52	11	D
16N/02E-05M01	Blair, Woodrow N.	4653591223518	385	154	I	Mlt	-- F	10-12-52	--	D
16N/02E-05Q01	Dunagan, Stan	4653461223441	445	177	I	Mlt	37	12-15-51	--	--
16N/02E-07Q01	Shattuck R.W.	4652491223602	445	287	I	Mlt	42	01-02-53	--	--
16N/02E-10D01	Warwick, D.R.	4653361223240	465	210	H	TQu	41	05-08-56	83	D
16N/02E-13P01O	--	4652011222959	450	--	--	--	--	--	--	G
16N/02E-16G03	Rubin, Janice	4652251223319	487	170	H	TQu	30	12-19-89	--	D
16N/02E-17L01	Dame, E.	4652121223501	465	45	H	Qbs	26	01-01-50	--	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
16N/02E-17Q03	Lake Lawrence Mobil Home Park	4652001223440	481	286	P	TQu	47.58	12-02-97	26	--
16N/02E-18H01	Boudreau, T.J.	4652261223536	450	31.26	H	Qvt	8.61	06-14-50	--	D
16N/02E-26K04	Morando, Barbara (Well 1)	4650261223059	508	460	H	TQu	--	--	--	D
16N/02E-27B03	Warner, Harry	4650591223206	538	180	S	Qc	62	04-04-92	--	D
16N/02E-32C03	Johnson, Tom	4650061223509	590	349	H	Tb	113.66	12-02-97	--	D
16N/02W-03F01	Cascade Materials	4654081225519	223	125	U	Mlt	18	05-23-69	--	D
16N/02W-04N01	Anderson, Chris	4653501225643	194	39	H	Qc	15.30	10-20-88	2,200	D
16N/02W-05N01	Christenson, Mel	4653541225806	270	149	H	TQu	91.50	08-05-88	--	D
16N/02W-05R01	Weyerhaeuser Co.	4653451225704	195	330	F	Tb	4.13	08-05-88	.36	D
16N/02W-05R02	Weyerhaeuser Co.	4653451225715	190	33	C	Mlt	8.00	10-14-88	--	D
16N/02W-06E01	Larson, Craig	4654091225919	230	152	H	TQu	62.41	03-21-89	--	D
16N/02W-09A01	Girton, Wallace	4653351225544	235	200	H	Tb	38	--	--	D
16N/02W-10C01	Sliva, Mike	4653291225508	220	35	H	Qva	1.73	09-26-88	330	D
16N/02W-12N01	McClintock, Chuck	4652531225257	300	116	H	TQu	88	12-04-79	49	D
16N/02W-20Q02	Prairie Villa Water System	4651151225729	231	159	P	TQu	41.85	08-18-88	--	D
16N/02W-26M01	Dandar Farms	4650251225414	260	200	U	Qva	34.22	08-08-88	--	D
16N/02W-27H01	Wiens, Perry	4650381225437	260	180	U	Tb	25	03-23-88	--	D
16N/02W-27H02	Wiens, Perry	4650381225437	260	47	H	TQu	12	03-28-88	--	D
16N/02W-29L02P1	WDOE (WDOT Gravel Pit)	4650331225734	217	108	U	Qc	34.1	08-22-88	1,400	D
16N/02W-29L02P2	WDOE (WDOT Gravel Pit)	4650331225734	217	82	U	Qva	34.2	08-22-88	--	D
16N/02W-29L02P3	WDOE (WDOT Gravel Pit)	4650331225734	217	48	U	Qva	34.2	08-22-88	--	D
16N/02W-30F02	Perkins, Ernest	4650491225856	210	57	H	Qva	23	06-22-76	150	D
16N/02W-31A01	Mittge, R.F.	4650061225812	210	50	I	Qva	28	09-12-52	770	D
16N/02W-31K02	Haskin, H.E.	4649411225844	205	66	I	Qva	25	05-22-50	1,300	D
16N/02W-31K03	Leitner, Ben	4649401225834	205	50	I	Qva	18	--	510	D
16N/02W-31L01	Maze, H.B.	4649411225857	203	66	I	Qva	25	05-22-50	1,900	D
16N/02W-31N01P1	Washington State Ecology	4649261225909	191	110	U	Qc	--	--	--	D
16N/02W-31N01P2	Washington State Ecology	4649261225909	191	75	U	Qva	--	--	--	D
16N/02W-31N01P3	Washington State Ecology	4649261225909	191	35	U	Qva	--	--	--	--
16N/02W-31Q01	Parkhurst, E.F.	4649271225843	198	72	H	Qva	--	--	--	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
16N/02W-32A01	Dolman, Hank	4650021225707	226	83	H	Qva	38	01-01-56	840	D
16N/02W-32B01	Jay Agnew	4650001225724	228	129	I	Qc	33	04-28-77	390	D
16N/02W-32F01	Thomsen, Robert	4649541225744	213	80	I	Mlt	28	09-17-52	--	D
16N/02W-32Q02	Williams, Oramel A.	4649281225718	209	62	H	Qva	19	09-30-77	35	D
16N/02W-33E01	Agnew, S.J.	4649531225642	231	85	I	Qva	25	01-06-51	780	D
16N/02W-33H01S	Whitcomb, Roy A.	4649531225556	213	--	S	Qvr	--	--	--	--
16N/03E-28J01	Keesler, Robin	4650251222526	585	80	H	Qva	56	02-20-91	--	D
16N/03E-29D01	Cascades Camp & Conference Center	4650561222738	565	174.5	H	Qc	128.61	12-04-97	410	D
16N/03E-30A01S	--	4651031222751	390	--	U	Qvr	--	--	--	--
16N/03E-31B03	Troutman, Doug	4650041222816	530	140	H	TQu	52	03-29-91	--	D
16N/03E-31G01	Weyerhaeuser Company	4649481222824	520	37	H	Qvr	6	--	--	D
16N/03W-01D01	Heay, Ada	4654321230043	156	68	H	Qc	32.89	09-27-88	620	D
16N/03W-01J01	Jenkins, Herbert	4654001225942	190	135	H	Mlt	23.90	10-04-88	--	D
16N/03W-02E01	Snobar, Ben	4654161230155	200	119	H	Qc	88.68	09-28-88	>1,200	D
16N/03W-02H01	Bryant, Peggy	4654171230050	155	88	H	Qva	40.52	09-27-88	620	D
16N/03W-02J01	Talcote, Shirley	4654061230058	143	46	H	Qva	31	06-30-77	>1,200	D
16N/03W-02M02	Tiede, Keith	4654051230158	197	110	U	Qva	79.70	10-12-88	180	D
16N/03W-09B02	Payne, Gary	4653391230348	220	164	U	Tb	30.25	10-12-88	.10	D
16N/03W-09B03	Payne, Gary	4653401230348	220	356	H	Tb	29.28	10-12-88	--	--
16N/03W-10B01	Klooz, Richard	4653341230231	212	115	H	Qc	102.20	10-04-88	>920	D
16N/03W-10K01	Davis, John	4653031230221	180	110	H	Qc	76.01	10-04-88	410	D
16N/03W-10Q01	Voss, Delbert	4652541230232	168	99	H	Qc	64.90	10-30-88	>1,200	D
16N/03W-12M01	McKim, Dave	4653111230028	184	39	H	Qc	2.91	10-30-88	--	D
16N/03W-12Q01	Talmage, Ron	4652571225959	217	80	H	TQu	28	08-24-78	2.4	D
16N/03W-12Q02	Landry, Bob	4653001230002	202	52	H	TQu	13.30	09-26-88	88	D
16N/03W-14B01	Capitol City Gun Club	4652451230107	240	164	C	Qc	125.78	10-14-88	>1,000	D
16N/03W-15F01	Boyd, Lyle	4652341230250	160	80	H	Qc	56.93	10-19-88	--	D
16N/03W-16K01	Weyerhaeuser Co.	4652191230337	148	78	H	Qc	47.05	09-28-88	>1,800	D
16N/03W-16L03	Weyerhaeuser Co.	4652181230405	144	67	U	Qc	42	06-13-68	580	D
16N/03W-16R01	Weyerhaeuser Co., Well No. 5	4651571230332	130	120	I	Qc	32.28	09-28-88	5,400	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
16N/03W-21F01	Black River Ranch	4651381230356	107	82	S	Qc	17	03-01-78	450	D
16N/03W-27N01S	Newby, L.W.	4650141230302	190	--	H	Qvr	--	--	--	--
16N/03W-29L03P1	WDOE (Briarwood Farms)	4650371230508	135	103	U	Qc	35.58	05-12-86	7,500	D
16N/03W-29L03P2	WDOE (Briarwood Farms)	4650371230508	135	75	U	Qva	--	--	--	D
16N/03W-29L03P3	WDOE (Briarwood Farms)	4650371230508	135	49	U	Qva	--	--	--	D
16N/03W-32E01	Nichols, R.L.	4649581230544	144	93	I	Mlt	42	05-18-62	--	--
16N/03W-32Q01	Canady, Lloyd	4649291230505	150	99	H	Mlt	35	04-12-53	--	--
16N/03W-33C01	Rotter, Adolph	4650101230406	158	133	I	Qc	--	--	120	D
16N/03W-33G05	Rochester Water Association	4649531230333	163	77	P	Qva	34	03-24-75	590	D
16N/03W-33M02	Rochester Water Association, Well No. 2	4649391230426	154	70	P	Qva	--	--	>2,300	D
16N/03W-33P01P1	WDOE (Applegate Road)	4649321230408	158	93	U	Qva	46.46	--	3,300	D
16N/03W-33P01P3	WDOE (Applegate Road)	4649321230408	158	46	U	Qvt	44.13	--	--	D
16N/03W-33R01	Dahl, J.C.	4649231230326	158	76	I	Qva	12	03-05-50	1,300	D
16N/03W-34M01	Garrett, D.P.	4649401230311	170	55	H	Qva	--	-	--	D
16N/03W-36G01	Domsea Farms (Well 4)	4649521225947	191	99	Q	Mlt	--	-	--	D
16N/03W-36H01	Carlson, Mike	4650021225928	193	49	H	Qva	9	04-18-78	160	D
16N/03W-36J01	Domsea Farms	4649451225935	199	138	Q	Mlt	33	12-15-76	--	D
16N/03W-36J02	Domsea Farms	4649471225935	200	99	Q	Mlt	31	01-09-77	--	D
16N/03W-36K01	Domsea Farms (Well 2)	4649461225950	197	109	Q	Mlt	17	11-29-77	--	D
17N/01E-02C01S	--	4659391223846	110	--	Q	Qc	--	--	--	--
17N/01E-05D01	Saarinen	4659381224247	222	219	H	Qc	183	--	1.9	D
17N/01E-05D02	Troche, Mario	4659451224241	240	220	H	Mlt	186.30	05-17-88	--	D
17N/01E-05D03	Ware, James	4659411224254	155	149	H	Qc	111.9	06-23-88	190	D
17N/01E-05E01	Walner, Warren	4659281224256	221	218	H	Qc	171.93 Z	06-30-88	46	D
17N/01E-05F01	City of Lacey, Fire Dept.	4659311224229	245	180	I	Qva	147.72	06-23-88	700	D
17N/01E-05N01	Spooner, Kenneth M.	4659021224256	225	305	I	Qc	88.99	06-23-88	62	D
17N/01E-06A01	McBurney, Robert	4659401224307	115	120	H	Qc	87	09-30-87	400	D
17N/01E-06C01	Strong, Hugh	4659371224345	100	52	H	Qvr	41.70	05-18-88	510	D
17N/01E-06J03D1	Summer Shores Water Co.	4659171224305	205	425	P	TQu	66.30	06-23-88	--	D
17N/01E-06J04	Tobinski, Frank	4659161224317	175	75	U	Qva	52.12	05-16-88	250	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/01E-06M02	Metz, Douglas	4659121224411	210	172	H	Qc	87.35	05-18-88	200	D
17N/01E-07A01	Draper, Conrad	4658441224317	210	154	H	Qc	55	07-01-88	59	D
17N/01E-07B04	Dunbar, Ralph	4658521224331	215	42	U	Qvr	28.95	06-23-88	47	D
17N/01E-07B05	Cooper, Richard	4658491224333	213	190	H	Qc	45	01-04-87	65	D
17N/01E-07C01	Duff, Richard	4658451224349	215	131	H	Qc	71	10-06-78	86	D
17N/01E-07D01	Andersen, Jim	4658441224358	208	138	H	Qc	48.55 R	09-12-79	44	D
17N/01E-07F01	Kegley, C.A.	4658391224339	208	104	H	Qva	30.60	06-27-88	200	D
17N/01E-07H01	Walters, Vic	4658351224310	204	40	H	Qva	24.57	06-28-88	--	D
17N/01E-07L01	Timm, Melvin W.	4658161224354	215	72	H	Qva	30	01-15-78	390	D
17N/01E-07P02	Wells, Clifford	4658061224350	226	74	H	Qf	16.86	06-27-88	7.3	D
17N/01E-07P03	Carson, Larry	4658091224344	212	260	H	TQu	10.14	06-28-88	160	D
17N/01E-07Q02	Parshall, Steve	4658041224336	210	35	H	Qva	13.83 Z	06-27-88	--	--
17N/01E-07Q03	Emmons, Mike	4658021224329	211	35	H	Qva	7.48	06-29-88	59	D
17N/01E-08L02	Schoepfer, Jack	4658181224238	218	258	I	TQu	28	04-10-70	7.2	D
17N/01E-08L03	Schoepfer, Jack	4658191224229	250	171	H	Qc	67.89	06-28-88	68	D
17N/01E-11B01S	Unknown	4658421223817	135	--	U	Qc	--	--	--	--
17N/01E-11G01S	Unknown	4658391223815	120	--	U	Qc	--	--	--	--
17N/01E-11G02S	Unknown	4658391223820	140	--	U	Qc	--	--	--	--
17N/01E-11H01	Longnecker, Carl	4658281223800	140	120	H	TQu	28.40	07-07-88	30	D
17N/01E-11Q02	Miller, Richard D.	4658121223815	309	139	H	Qc	106.97	07-01-88	95	D
17N/01E-11R01	Indian Health Service	4658051223806	315	193	H	TQu	93.94	07-06-88	120	D
17N/01E-12M01S	--	4658251223754	120	--	U	Qc	--	--	--	--
17N/01E-12Q01S	--	4658031223714	200	--	U	Qc	--	--	--	--
17N/01E-13D04	Clary Water Asoc	4657581223747	322	160	P	Qc	103.94	07-19-88	270	D
17N/01E-13D05	Livernash, Lyle	4657531223751	324	118	H	Qc	94.20	07-07-88	180	D
17N/01E-13E03	Longnecker, Carl	4657421223751	332	139	H	Mlt	42.31	07-07-88	--	D
17N/01E-13G02	Houston, Don	4657411223713	330	114	H	Qc	--	--	--	D
17N/01E-13K01	Sariains, Kevin	4657241223659	345	110	H	Qf	58	03-10-77	52	D
17N/01E-13L01D1	Walker, Randall	4657331223719	337	140	H	Qc	59.86	07-05-88	41	D
17N/01E-13M02	Jones, Floyd E.	4657231223737	334	98	H	Qc	51.25	07-05-88	46	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/01E-14A03	Anderson, Donald	4657551223803	322	198	H	Mlt	120	04-07-80	--	D
17N/01E-14A04	Anderson, Donald	4657551223803	320	160	I	Qc	91.03	06-30-88	60	D
17N/01E-14D01	Grantham, Earl	4657501223909	375	158	H	Qc	146.46	07-05-88	920	D
17N/01E-14L01	Powell, Linda	4657321223842	420	200	H	Qc	186.53	07-15-88	77	D
17N/01E-14M02	Armstrong, C.	4657301223906	375	168	H	Qc	145	04-19-79	66	D
17N/01E-14N02	Brown, Loren	4657181223908	370	162	H	Qf	148.42	07-11-88	50	D
17N/01E-14P01	Newberry Robert	4657131223843	376	200	H	Qc	144.13	07-07-88	31	D
17N/01E-14R01	Knight, Jasie	4657201223754	332	115	H	Qva	57.31	06-30-88	180	D
17N/01E-18N01	Unknown	4657211224402	228	77	H	Qc	7	--	300	D
17N/01E-23B01	Dallas	4657071223826	348	157	H	Qc	83.65 R	08-18-88	74	D
17N/01E-23H01	Purvis, John B.	4656531223800	370	151	P	Qc	109.60 Z	08-08-88	70	D
17N/01E-24K02	American Savings Bank	4656311223705	350	97	H	Qc	30.68	09-08-88	--	D
17N/01E-25G01	Forrester, James	4655541223704	415	137	H	Qva	92	11-08-88	--	D
17N/01E-25Q03	Jones, George	4655361223704	410	115	H	Qva	62.54	10-06-89	29	D
17N/01E-26R01	Bosequett, Jerry	4655301223811	400	72	H	Qva	43	08-06-88	--	D
17N/01E-33J01D1	Whitney, Richard	4654561224041	505	247	H	Qva	206.67	07-05-88	210	D
17N/01E-34M01	Craig, Steve	4654551224010	470	196	H	Qva	179.90	07-07-88	210	D
17N/01E-35H01	Aultman, James	4655001223804	420	80	H	Qva	56.95	07-11-88	210	D
17N/01E-36L01	Stanhope, Lee	4654541223729	400	86	U	Qva	52.94	08-03-89	--	D
17N/01E-36L02	Stanhope, Lee	4654551223729	410	112	-0	Qva	59.58	08-03-89	--	D
17N/01W-01B01	Colonial Manor	4659431224435	230	205	P	Qc	140	11-17-70	71	D
17N/01W-01B03	Grabhorn, Lynn	4659441224441	222	182	H	Qc	149.30 R	07-27-88	--	--
17N/01W-01B04	Crain, Bill	4659451224447	222	191	H	Qc	147.54	07-27-88	83	D
17N/01W-01F01	MacDonald, William H.	4659261224510	230	160	H	Qc	144.14	08-02-88	310	D
17N/01W-01G01	DNR, Southwest Well	4659321224440	235	229	I	Qc	159.63	07-27-88	1,900	D
17N/01W-01G02	DNR, Forks Well	4659201224438	215	212	I	Qc	140.60 S	07-27-88	240	D
17N/01W-01H01	DNR, Central Well	4659261224421	213	236	H	Mlt	117	03-06-52	--	D
17N/01W-01H02	DNR, Northwest Well	4659321224427	225	222	I	Qc	153.96	07-27-88	3,000	D
17N/01W-01H03	DNR, South Puget Coast Well	4659211224430	214	220	I	Qc	126.50	07-27-88	15	D
17N/01W-01J03	Summerset Water Association	4659141224429	190	179	P	Qc	67.47 R	05-23-88	30	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/01W-01L01	Swenson, Phil	4659111224510	210	157	H	Qc	87.69	08-02-88	13	D
17N/01W-01Q01	Glacier View Mobile Home Park	4658581224435	205	97	P	Qva	70.68	05-23-88	290	D
17N/01W-01Q03	French, Donald	4658581224447	200	58	H	Qvr	45.01	08-01-88	--	D
17N/01W-01Q04	Glacier View Mobile Home Park	4658581224436	205	108	P	Qva	71.00	05-23-88	800	D
17N/01W-01R01	Hircock, Jerry	4658551224415	217	122	H	Qc	70.87	07-26-88	30	D
17N/01W-02A03	South Sound Util., Winwood Well	4659431224532	216	231	P	TQu	140.82	05-16-88	55	D
17N/01W-02A04	Pattison Water Co.	4659441224544	202	166	P	TQu	129.81	08-02-88	--	--
17N/01W-02E03	Deegan, W.E.	4659321224638	178	49	H	Qva	25.31 R	08-01-88	410	D
17N/01W-02E04	Richardson Water Co.	4659251224638	215	542	P	TQu	81.03	07-22-88	39	D
17N/01W-02K01	Thomas, Steve	4659151224558	222	146	H	Qc	85	--	1,100	D
17N/01W-02L02	Zimmerman, Bill	4659191224621	216	78	H	Qva	55.34	08-01-88	230	D
17N/01W-02L03	Orr, David S.	4659171224614	211	67	H	Qvr	32	07-09-80	48	D
17N/01W-02Q03	Van Lierop, Peter	4659011224605	210	144	I	Qva	33	04-19-88	90	D
17N/01W-02Q04	Burke, Brian	4658531224559	208	79	H	Qva	32.21	08-01-88	650	D
17N/01W-02R02	Mahurin, Howard	4659011224533	209	158	I	Mlt	41.40	07-19-88	--	D
17N/01W-03A05	Montoya, Ernie	4659351224654	206	80	H	Qva	48.04	08-08-88	620	D
17N/01W-03D01	Myint, Lwin	4659331224758	188	46	I	Qva	15.59	08-02-88	2,600	D
17N/01W-03E01	Ward Farms, Well No. 1	4659191224753	197	68	I	Mlt	32	--	--	D
17N/01W-03E02	Ward Farms, Well No. 2	4659201224750	199	80	I	Qvr	18	06-15-67	530	D
17N/01W-03Q01	Ward, Mervin	4659051224712	201	114	I	Mlt	28	05-16-55	--	D
17N/01W-04E01	City of Lacey	4659331224909	210	84	I	Qvr	25	--	840	D
17N/01W-04E02	City of Lacey, Well No. 4	4659331224910	210	111	P	Qva	37	09-12-73	--	--
17N/01W-04F01	City of Lacey	4659321224851	214	72	I	Mlt	25	04-19-46	--	D
17N/01W-04G01	Capitol City Golf Club	4659321224832	207	243	I	Mlt	21	05-04-48	--	D
17N/01W-04L01	Rowe, W.R.	4659191224845	198	87	U	Mlt	22	11-13-57	--	D
17N/01W-05H02	Pust, Wes	4659271224921	210	68	I	Qvr	41.74	08-09-88	270	D
17N/01W-06B02	City of Olympia, Shanna Park WelL	4659391225110	185	80	U	Qva	--	--	--	D
17N/01W-06K05	Spahr, Jim	4659111225111	190	83	H	Qvt	34.62	08-04-88	13	D
17N/01W-07F02	Riverlea Water System	4658321225114	205	163	P	Qc	58	05-03-74	36	D
17N/01W-07G02	Bauer	4658321225104	209	104	H	Qf	54.03 R	08-04-88	18	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/01W-07R03	Carlson, William R.	4658131225037	210	120	H	Qc	48.63	08-08-88	--	--
17N/01W-08B01	McGraw, Mike	4658451224948	216	59	U	Qva	37.36 Z	08-08-88	75	D
17N/01W-08B02	Gifford	4658461224952	211	54	H	Qva	29	03-26-75	2,100	D
17N/01W-08C02	Topps, Les	4658461225014	210	52	H	Qva	22	08-24-87	--	D
17N/01W-08D03	Holcomb & Cederstrohm	4658461225031	209	48	H	Qvr	31.49	08-04-88	--	D
17N/01W-08D04	Hamsik, Randal	4658421225025	210	62	H	Qva	32	--	660	D
17N/01W-08J01	Reese, Dave	4658181224927	220	84	H	Qva	35.9	08-03-88	--	D
17N/01W-08L02	Holladay, Jim	4658221225008	200	85	H	Qva	32	06-12-79	16	D
17N/01W-08N01	Nesbit, Jerry	4658151225018	210	90	H	Qf	43.32 R	08-08-88	27	D
17N/01W-08P03	Klaasen, Tony	4658051224959	220	94	U	Qc	38	04-04-78	--	D
17N/01W-08P04	Brown, D.	4658131225008	215	94	H	Qc	45.43	08-30-88	--	D
17N/01W-08Q02	Van Dervort, Judy	4658041224953	220	180	H	Qc	40	07-30-75	48	D
17N/01W-09B01	Harper, Mike	4658421224836	210	38	H	Qvr	18.25	08-02-88	920	D
17N/01W-09D01	Lewis, E.M.	4658531224907	190	41	H	Qva	9	08-09-86	110	D
17N/01W-09G02	Iverson, Gary	4658371224832	216	55	H	Qvt	20.50	08-02-88	33	D
17N/01W-09G03	Busche, Ron	4658401224838	206	90	H	Qc	20.34	07-20-88	180	D
17N/01W-09J02	Johnson, Bill	4658251224810	205	100	H	Qc	15	06-28-76	150	D
17N/01W-10N02	Senn, Harry	4658081224752	236	78	H	Qva	39.56	07-20-88	--	D
17N/01W-11H03	Hansen, Corky	4658371224544	220	65	H	Qva	33.24 R	07-26-88	230	D
17N/01W-11J01	Obert, William	4658261224543	218	34	H	Qva	12.45	07-25-88	250	D
17N/01W-11K03	Denzler, Gus	4658221224607	264	96	H	Qva	70.94 R	07-02-88	620	D
17N/01W-11K04	Dussault	4658201224550	217	28	U	Qvr	10.74	07-26-88	430	D
17N/01W-11K05	Sunwood Lakes	4658201224601	224	301	P	TQu	44.17 R	09-01-88	2,000	D
17N/01W-11M01	Sunwood Lake, Well No. 3	4658261224630	270	334	P	TQu	87.50 R	07-26-88	49	D
17N/01W-12B02	Lawyer Nursery, Well No. 2	4658461224440	232	146	I	Mlt	60.85	05-20-88	--	D
17N/01W-12C01	Lawyer Nursery, Well No. 1	4658441224503	214	90	I	Qva	38.30	05-20-88	180	D
17N/01W-12D01	Indep. Forestry Assoc., Well No. 3	4658471224521	209	129	U	Mlt	28.10	05-20-88	--	D
17N/01W-12D02	Lawyer Nursery, Well No. 4	4658471224511	206	174	I	Mlt	29.00	05-20-88	--	D
17N/01W-12J02	Pattison Water Co., Well No. 1	4658271224426	270	186	P	Qc	79.27	10-06-89	--	--
17N/01W-13H01	Hebel, Joseph	4657351224434	340	160	H	Qc	136.57	07-22-88	92	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/01W-14B01	Benline, Lori	4657541224557	270	85	H	Qva	64.59 Z	07-26-88	310	D
17N/01W-14H01	Connolly	4657471224544	218	50	H	Qva	4.92	07-25-88	--	D
17N/01W-14K01	Fulkerson, Richard	4657291224558	218	29	H	Qvr	6.56	07-25-88	150	D
17N/01W-15A01	Sigman, Kim	4657511224659	264	91	H	Qva	56.37	07-20-88	1,200	D
17N/01W-15C01	Cooley, Daniel H.	4657501224733	256	99	H	Qva	50.24 Z	07-25-88	16	D
17N/01W-15F02	Flying Carpet Mobile Estates	4657401224729	245	120	P	Qc	56	09-03-81	76	D
17N/01W-15G01	Mitchell, Charles	4657411224713	265	121	H	Qc	56	02-23-86	46	D
17N/01W-15H01	Burrell, Lloyd	4657381224658	220	39	H	Qva	8	09-18-80	22	D
17N/01W-15H02	Gasper, Marcine	4657411224659	265	80	H	Qva	56.17	08-26-88	--	D
17N/01W-15K01	Wege, Jim	4657271224710	220	32	H	Qvr	12.00	07-15-88	88	D
17N/01W-15N01	Mustin, George	4657181224743	209	39	H	Qva	5.14	07-27-88	36	D
17N/01W-15N02	Adair, Gerald A.	4657161224748	211	32	H	Qva	4.98	07-25-88	200	D
17N/01W-15P01	Hodge, Ron	4657171224731	210	40	H	Qva	6	02-22-86	100	D
17N/01W-15P02	Hodge, Ron	4657181224738	210	46	H	Qva	3.52	07-25-88	150	D
17N/01W-15P03	Clevenger	4657151224728	213	30	H	Qva	6.00	07-25-88	310	D
17N/01W-16D01	Hall, Leslie L.	4657521224913	220	110	H	Qc	37.15	07-22-88	19	D
17N/01W-16D02	Slade, Mike	4657571224908	220	71	H	Qva	24.16	07-15-88	65	D
17N/01W-16E02	Bouchee, Bill	4657411224911	220	31	H	Qva	15.89	07-14-88	51	D
17N/01W-16F02	Cadyl Theodore S.	4657391224856	230	86	H	Qf	27.50	07-14-88	42	D
17N/01W-16F03	Aschenbrenner, Arron	4657481224847	250	82	H	Qva	45.67	07-14-88	29	D
17N/01W-16F04	Western Tex	4657431224853	250	122	H	TQu	40.50	07-14-88	94	D
17N/01W-16L01	James, Robert	4657221224853	210	51	H	Qva	9.40	07-14-88	17	D
17N/01W-16M02	Casebier, David	4657271224910	220	47	H	Qva	24.53	07-15-88	>790	D
17N/01W-17A01	Klein, Walter	4657531224921	215	78	H	Qf	24.46 R	07-07-88	16	D
17N/01W-17B03	Vansyckle, Ron	4657531224953	215	39	H	Qva	27.52	07-07-88	--	D
17N/01W-17G02	Mahlum, Stan	4657431224953	215	148	H	TQu	31.76	07-14-88	200	D
17N/01W-17J02	Schumacher, Cliff	4657301224935	220	120	H	Qc	23	02-26-73	30	D
17N/01W-17K01	Wright, Michael	4657281224943	215	41	H	Qva	20.40	07-08-88	180	D
17N/01W-17N02	Bartlett Don	4657111225026	205	80	H	Qc	29.67	07-15-88	--	D
17N/01W-18B02	Bickle, Malcolm	4658011225056	210	103	H	Qc	59.58	07-07-88	48	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/01W-18B03	Elwanger, John	4657501225105	200	300	U	TQu	53.41	10-11-89	--	D
17N/01W-19C02	Thurston County, Fire Dept. 6	4656581225123	220	119	H	TQu	45	10-14-85	--	D
17N/01W-19M02	McCue, Robert	4656371225142	340	270	H	Tb	93.59	07-22-88	.13	D
17N/01W-19P01	Sanders, Valerie	4656191225116	210	60	H	Qva	21.06 R	06-29-88	190	D
17N/01W-21K01	Miles, Mark	4656421224833	360	507	H	Tb	153.29	07-07-88	--	D
17N/01W-21P01	Bodecker, D.L.	4656241224854	250	78	H	TQu	46.40	08-02/89	68	D
17N/01W-28B01	Breedlove, Morris	4656041224821	295	167	H	Tb	12.80	06-29-88	--	D
17N/01W-28C02	Lund	4656171224859	240	72	H	TQu	44.81	07-07-88	22	D
17N/01W-28G02	Parker, Larry	4655581224838	400	342	H	Tb	132	11-23-87	0.020	D
17N/01W-28H01	Tempo Lake Water	4655571224813	260	140	P	Tb	27.95 R	07-08-88	1.4	D
17N/01W-30F02	Grunenfelder, Doug	4656001225130	260	405	U	Tb	118	01-21-88	--	D
17N/01W-30F03	LaPorte, William H.	4655521225123	250	66	H	Qva	57	04-01-75	130,000	D
17N/01W-31C01	Doyle, Don	4655221225126	260	52	H	Qva	34.56	06-28-88	400	D
17N/01W-32C01	Offutt Lake Community Well	4655121225004	230	140	P	Qc	--	--	--	--
17N/01W-32F01	Robinson, Herb G.	4655091224955	250	244	H	Qc	47.66 R	07-08-88	180	D
17N/01W-32F02	Faris, David	4655051225001	250	265	H	TQu	62.30	07-14-88	180	D
17N/01W-32K04	Burns, Veronica	4654461224947	265	158	H	TQu	46.35	07-01-88	--	D
17N/01W-32P02	Isom, Cecil	4654431225002	260	143	H	TQu	50.05	06-28-88	--	D
17N/01W-33B03	Greenwell, Thomas	4655141224826	245	59	H	Qvr	29	10-12-82	49	D
17N/01W-33E02	Nyholm, Robert	4655091224907	245	81	H	Qc	30	02-26-85	74	D
17N/01W-33E03	McIntyre, Art D.	4655071224905	230	32	H	Qva	8.10	06-29-88	92	D
17N/01W-33E04	Carr, William Jr.	4655061224902	230	54	H	Qva	7.95	06-29-88	35	D
17N/01W-33K02	Hyde, David	4654521224829	260	40	H	Qva	15.62	07-01-88	63	D
17N/01W-34D01	Brewer, Ralph	4655211224751	400	57	H	TQu	38.67	06-28-88	--	D
17N/01W-34E01D1	Camp Fire Councal of Olympia	4655071224744	280	138	H	TQu	52.25 R	06-29-88	65	D
17N/01W-34J02	Reister, Philip	4654491224703	290	61	H	Qc	23.17	07-01-88	620	D
17N/01W-34L01	Miller, Dennis	4654501224733	290	70	H	Qc	55	05-16-76	150	D
17N/01W-34L02	Gardener	4654581224735	280	125	H	Tb	38.16	06-29-88	.84	D
17N/01W-34M01	Weyerhaeuser Co.	4654551224752	290	58	H	Qvr	44.48	06-28-88	1,200	D
17N/02E-07N01S	--	4658061223634	150	--	U	Qc	--	--	--	--

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/02E-07N02S	--	4658061223634	150	--	U	Qc	--	--	--	--
17N/02E-08M01O	--	4658241223459	290	--	--	--	--	--	--	G
17N/02E-08M02O	--	4658151223513	290	--	--	--	--	--	--	G
17N/02E-17C01S	Hutches	4657581223457	215	--	U	Qva	--	--	--	--
17N/02E-17D01S	--	4658001223511	225	--	--	Qva	--	--	--	--
17N/02E-17J01S	--	4657301223415	250	--	--	Qc	--	--	--	--
17N/02E-17L03	Nisqually Pines Community Club (Well #6)	4657331223457	300	443	P	TQu	64	11-19-87	210	D
17N/02E-18K01S	Beckendorf, R. Sr.	4657301223552	310	--	U	Qvr	--	--	--	--
17N/02E-18M01S	Beckendorf, R. Jr.	4657271223624	300	--	U	Qvr	--	--	--	--
17N/02E-18N01	Scharmann, F.A.	4657201223634	315	71	H	Qc	31	08-23-50	99	D
17N/02E-19H01	Hewitson, A.	4656511223522	340	42	H	Qva	32.23	11-24-51	--	D
17N/02E-19H03	Hewitson, A.	4656501223524	340	63	I	Qva	21	--	150	D
17N/02E-19J03	Hales, J.m.	4656331223522	345	33.8	H	?	18.3	06-08-50	--	D
17N/02E-19J05	Hales, J.m.	4656331223522	345	87	H	Mlt	24.30	09-25-51	--	D
17N/02E-19L01	Enumclaw Creamery Co.	4656401223608	335	135	N	Mlt	7.24	03-27-52	--	D
17N/02E-19M02	Yelm, City of	4656281223626	350	97	U	Qc	29.75	07-31-51	--	--
17N/02E-19M03	Yelm School District (Well 2)	4656331223623	345	101	I	Mlt	40	--	--	--
17N/02E-19N01	Yelm, City of	4656261223617	345	62	P	Qva	25.5	09-14-50	120,000	D
17N/02E-19N02	Yelm, City of	4656261223617	345	61	P	Qva	25.0	01-18-59	8,900	D
17N/02E-20J02	Yale, Dave	4656341223416	342	58	U	Qva	36	11-01-89	110	D
17N/02E-20J04	Yale, Dave	4656341223416	342	195	H	TQu	43	02-05-95	93	D
17N/02E-27Q01	Howard, Jack	4655361223158	312	110	H	TQu	3	08-23-88	250	D
17N/02E-28F01S	--	4655581223337	300	--	--	Qva	--	--	--	--
17N/02E-28R01O	--	4655251223250	375	--	--	--	--	--	--	G
17N/02E-29E03	Justman, A.	4655581223501	345	119	I	Mlt	14.35 -	03-07-52	--	--
17N/02E-29F02	Thomas, M.K.	4656001223444	355	55.4	H	Qva	29.83	11-12-51	230	D
17N/02E-29F03	Sparks, J.T.	4655591223452	355	78	H	Mlt	31.57	10-12-51	--	D
17N/02E-29L04	Roehr, Gilbert	4655401223450	355	52	I	Qva	28	09-23-50	2,500	D
17N/02E-29N01	Vogt, Frank	4655361223513	350	50	I	Mlt	19	05-22-50	--	D
17N/02E-29P02	Peugh, Jack A.	4655341223447	360	57	I	MltT	13	02-21-51	--	--

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/02E-29P03	Clark, R.H.	4655361223456	355	99	I	Mlt	9.5	06-05-56	--	--
17N/02E-29Q01	Benefield, W.B.	4655301223433	355	55	I	Mlt	--	--	--	D
17N/02E-29R06	Dale, Glen W.	4655271223406	368	160	H	TQu	35	03-10-84	99	D
17N/02E-31C02	Cecil, Debbie	4655241223610	462	152	H	Qva	--		--	D
17N/02E-32Q02	Sheldon, T.	4654441223431	365	254	H	Mlt	8	06-28-52	--	--
17N/02E-32R03S	Mosman	4654341223421	380	--	S	Qvr	--	--	--	--
17N/02E-33K02	Jewell, D.	4654471223316	375	105	H	Mlt	19.81	02-28-51	--	--
17N/02E-33P01	Peterson, Louis	4654381223338	375	105	I	Mlt	15.00	02-26-52	--	D
17N/02E-33R01	Jewell, D.	4654371223250	375	150	I	Mlt	40.95	05-08-51	--	D
17N/02W-01C01	Finnegan	4659461225245	110	32	H	Qvr	7.15	08-04-88	14	D
17N/02W-01E02	Waite, Dalrymple	4659321225255	175	92	H	Qva	65.99	07-18-88	--	D
17N/02W-02B02	Nelson, Don	4659401225327	175	200	H	Qc	73.86 R	08-26-88	11	D
17N/02W-02E03	Capitol Park Care Center	4659231225415	185	104	I	Qva	30.18	07-26-88	18	D
17N/02W-02E04	Kildow	4659291225406	183	61	H	Mlt	35.26	07-26-88	--	D
17N/02W-02K01	Lloyd, Bill	4659091225337	170	60	H	Qvr	21.89	07-26-88	--	D
17N/02W-02N01	Asbach, Donald	4659021225410	185	68	H	Qvr	23.12	08-03-88	62	D
17N/02W-02Q06	Luhr, Merlyn	4658571225336	175	67	H	Qvr	34.51	07-26-88	130	D
17N/02W-02R01	South Sound Util, Bridgewater No. 1	4658561225312	191	106	P	Qva	45.20	12-13-88	95	--
17N/02W-02R02	South Sound Util, Bridgewater No. 2	4658561225313	191	97	P	Qva	45.26	09-14-88	220	D
17N/02W-02R03	South Sound Util, Monaco Park Well	4659081225311	180	87	P	Qva	46	05-15-81	>580	D
17N/02W-03D01	Cutsinger M.D.	4659361225520	178	30	H	Qvr	21	05-14-79	--	D
17N/02W-03D02	Connelly, Jim	4659341225521	178	45	H	Qvr	18	11-20-86	77	D
17N/02W-03J02	Leal, Tom & Catherine	4659101225428	190	111	U	Qva	22	05-01-67	44	D
17N/02W-03R02	City of Tumwater, Well No. 7	4659071225433	190	333	F	TQu	61	07-01-68	77	D
17N/02W-04A01	Steiner, Glynn	4659401225546	175	43	H	Qvr	10	07-06-72	410	D
17N/02W-04E07	Vess, R.	4659241225652	180	45	H	Qvr	14	07-23-86	15	D
17N/02W-04H01	Unwin, D.J.	4659241225542	188	72	H	Qva	25	06-19-79	180	D
17N/02W-04H02	Unwin, E.R.	4659231225542	188	60	U	Qvr	20	10-12-78	130	D
17N/02W-04K04	Jones, Rick	4659201225615	190	44	H	Qvr	23.10	07-28-88	170	D
17N/02W-04L01	Jenson, Morris	4659081225624	190	50	H	Qvr	15.88	07-29-88	77	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/02W-04N04	McCrosky, Wendall	4658581225640	188	40	H	Qvr	15.35	07-29-88	280	D
17N/02W-04N05	McCrosky, Wendall	4658581225643	188	44	H	Qvr	15.72	07-29-88	250	D
17N/02W-04N06	Smith, Pat	4659041225647	190	50	H	Qva	21	09-22-78	37	D
17N/02W-04P02	Anderson PUD	4659001225617	189	46	P	Qva	19.19	07-29-88	460	D
17N/02W-05A02	Minkler, Jack	4659391225659	172	33	H	Qvr	4.32	07-28-88	110	D
17N/02W-05F01	South Sound Utility	4659261225746	165	71	U	Qva	12	04-29-82	--	D
17N/02W-05J01D1	Unwin, Nat	4659171225656	190	106	H	Qc	18	02-06-78	31	D
17N/02W-06A04	Dooley, Lloyd	4659451225818	142	48	H	Qva	7.49	08-01-88	24	D
17N/02W-06A05	Sanford, Ron	4659411225821	150	27	H	Qva	4.09	08-03-88	180	D
17N/02W-06F03	May, Ed	4659251225852	143	27	H	Qva	20.66 S	09-14-88	920	D
17N/02W-06G02	Coffey, Forrest	4659291225848	140	332	U	TQu	4	--	85	D
17N/02W-06N01	Vansyckel, Connie	4658571225910	143	55	H	Qc	-5	05-20-86	--	D
17N/02W-06P02	Kelly, Phil	4659001225905	137	59	H	Qc	8.08 R	08-08-88	13	D
17N/02W-06R01	Howard, Barry	4658571225822	140	205	H	TQu	5	09-27-86	41	D
17N/02W-08D03	Quentin, Keith	4658441225802	155	75	U	Qf	18.32	08-04-89	11	D
17N/02W-08E01	South Sound Utility, Black Lake No. 1	4658321225809	183	200	P	TQu	68.53	09-14-88	--	D
17N/02W-08K02	Fontenot, Michael	4658181225722	190	37	H	Qvr	15	03-15-77	>980	D
17N/02W-08L01	Deckert	4658241225739	188	40	H	Qvr	17.35	08-01-88	130	D
17N/02W-08L02	Elliott, Doug, Well No. 1	4658191225738	182	38	H	Qvr	7	05-25-77	>1,500	D
17N/02W-08L03	Elliott, Doug, Well No. 2	4658171225739	181	40	U	Qvr	9.24	08-02-88	>1,200	D
17N/02W-08R06	Grunenfelder, Loren	4658071225657	195	65	H	Qva	17.05	07-19-88	820	D
17N/02W-09A02	Piles, David	4658521225554	190	40	P	Qva	14.46	07-27-88	350	D
17N/02W-09C02	South Sound Utility, Summer Hill Well	4658451225620	195	56	P	Qva	19.15	07-07-88	540	D
17N/02W-09E03	Parr, William	4658291225639	195	77	I	Qva	16.86	07-29-88	78	D
17N/02W-09G02	Harrietha, Duane	4658341225607	190	56	P	Qva	13.94	09-29-88	240	D
17N/02W-09K01	Koshe, Don	4658271225606	188	44	H	Mlt	13.58	07-29-88	--	D
17N/02W-09M04	Eylenfeldt	4658241225652	195	47	H	Qva	16.59	08-02-88	>1,500	D
17N/02W-09Q01	May, Claude	4658081225607	190	62	I	Qva	14	12-22-65	290	D
17N/02W-10B01	City of Tumwater, Well No. 10	4658471225446	195	96	N	Qva	3	04-01-72	380	D
17N/02W-10B02	City of Tumwater, Well No. 9	4658421225452	195	111	N	Qva	17.07 R	01-06-89	150	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/02W-10N01	Dapaul, Inc.	4658091225539	190	56	N	Qva	10.97	07-29-88	100	D
17N/02W-11G08	Wytco, Richard	4658341225336	195	135	H	Qc	29.64	07-18-88	14	D
17N/02W-11G09	Kaufman Construction	4658311225337	200	60	C	Qvr	26	07-26-79	32	D
17N/02W-11J01	Kaufman Construction	4658221225324	198	79	C	Qvr	39	03-10-77	160	D
17N/02W-11R01	Hofert Corporation	4658131225307	200	255	I	Mlt	46.07	07-27-88	--	D
17N/02W-12E02	Estate of Helen Shanks	4658281225250	185	130	H	Qc	58	04-19-74	23	--
17N/02W-12L02	Trails End Utilities	4658241225246	195	157	P	Qc	62.86	07-27-88	30	D
17N/02W-13Q02	Melody Pines Mobile Home Estates	4657201225220	225	73	P	Qvt	55.64	08-04-88	77	D
17N/02W-13R02	Parks, Harold	4657191225154	177	73	U	Qva	10.65	10-11-88	6.8	D
17N/02W-14H02	Allsup, Randy	4657391225319	200	39	H	Qva	20.38	08-04-88	>740	D
17N/02W-14H03	Kilburg, Glen	4657411225309	196	50	H	Qva	18.48	08-09-88	380	D
17N/02W-14Q01	Longhorn Country Estates	4657231225344	198	65	P	Qva	22.34 R	06-16-88	35	D
17N/02W-14Q02	Elwanger, Eugene & Pat	4657121225338	200	40	H	Qva	14.25	08-15-88	--	D
17N/02W-15C02	Heck, Edward	4658001225515	196	--	C	?	--	--	--	--
17N/02W-15C03	Heck, Edward	4658011225516	196	--	C	?	--	--	--	--
17N/02W-15D02	Greenup, Bill	4657591225529	195	43	H	Qva	15.61	08-12-88	1,100	D
17N/02W-15E01	Balcom, John & Virginia	4657471225526	195	50	H	Qva	16.76	08-10-88	>1,500	D
17N/02W-15L04	Strawder	4657321225518	200	58	I	Qva	18.54	08-10-88	140	D
17N/02W-16M02	Luhr, Merlyn	4657241225651	191	38	H	Qva	15	02-05-88	460	D
17N/02W-16P02	Cox, Ted	4657121225636	193	77	H	Qva	13.51	08-08-88	150	D
17N/02W-16P03	Kaufman, Marvin	4657121225621	194	58	U	Qva	14	03-20-80	>980	D
17N/02W-16Q02	McKay, Stan	4657141225559	196	54	U	Qva	20	08-22-79	--	D
17N/02W-17E01	Rader, Carey	4657421225759	175	115	H	Qc	7.57	08-03-88	150	D
17N/02W-17F02	Shaw, Earl	4657401225737	186	60	H	Qva	5	05-12-76	>3,700	D
17N/02W-17H01	Pyper, William	4657441225707	190	39	H	Qva	13.56	09-08-88	620	D
17N/02W-17J01	DNR, Well No. 7	4657361225707	195	136	I	Qva	13.82	07-18-88	140	D
17N/02W-17L02	Friedel, Rudy	4657321225740	189	80	H	Qva	10.37	09-30-88	120	D
17N/02W-17N02	Inglin, Dave	4657131225758	185	83	H	Qva	5.81	08-09-88	310	D
17N/02W-17R02	Lonegran, George	4657121225702	195	54	H	Qva	18.14	08-02-88	>1,700	D
17N/02W-17R03	DNR, Well No. 6	4657231225709	192	119	I	Qva	10.74	07-18-88	66	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/02W-17R04	DNR, Well No. 5	4657231225705	192	93	I	Qva	11.86	07-18-88	400	D
17N/02W-18H03	Parks, Harold	4657441225819	175	109	P	Qf	20.16	08-18-88	27	D
17N/02W-19A01	Brown, John	4657001225829	175	57	H	Qvt	8.93	08-11-88	10	D
17N/02W-19F01	Harrison, Todd	4656431225857	164	100	H	Qc	10	08-19-86	20	D
17N/02W-19G04	Clovis, George	4656451225847	174	60	H	Qva	12.51	08-25-88	20	D
17N/02W-19L03	Thurber, Willard	4656331225903	164	67	H	Qf	11.90	08-23-88	3.4	D
17N/02W-20B05	DNR, Well No. 9	4657051225729	188	71	I	Qva	11.59	09-20-88	730	D
17N/02W-20B06	DNR, Well No. 4	4657051225717	191	91	I	Qva	17.48	09-20-88	320	D
17N/02W-20H02	DNR, Well No. 8	4656561225657	191	64	I	Qva	13.95	09-20-88	260	D
17N/02W-20J02	Bailey, Wesley	4656401225658	190	123	H	Qf	8	01-04-80	44	D
17N/02W-20J03	Parks, Harold	4656351225657	188	60	H	Qvr	7.48	08-12-88	--	D
17N/02W-20K01	Michaels, Kirby	4656371225731	186	53	H	Qva	12.48	08-15-88	>1,200	D
17N/02W-21A01	Adair Homes	4657081225545	196	63	C	Qva	15.59	09-08-88	29	D
17N/02W-21F01	Nacotta, Larry	4656571225631	195	178	U	Qc	39.15	09-21-88	--	D
17N/02W-21J01	McLain, Mike	4656361225550	193	26	H	Qvr	8.65	09-21-88	620	D
17N/02W-22A01	Tobinski, Frank & Assoc.	4657031225428	200	80	H	Qva	20.49	09-30-88	620	D
17N/02W-22A02	Shoaf, William	4657091225428	197	60	H	Qva	10	09-08-80	92	D
17N/02W-22B04	Moore, Tom	4657001225455	205	53	P	Qva	24	11-24-78	>1,100	D
17N/02W-22D02	Taylor, Dick	4657061225535	200	86	C	Qva	15.78	10-07-88	38	D
17N/02W-22E02	Heck, Edward, Well No. 2	4656531225532	200	117	C	Mlt	14	08-16-73	--	D
17N/02W-22E03	Heck, Edward, Well No. 1	4656551225533	200	87	C	Qvt	18	07-20-73	5.2	D
17N/02W-22F03	Delaney, George	4656511225514	198	66	H	Qva	13.34	08-26-88	7.7	D
17N/02W-22H02	Thurston Co., Maintenance Shop	4656461225428	196	67	C	Qva	15.51	08-22-88	--	D
17N/02W-22H03	Rogers, Darrell	4656481225441	200	57	H	Qva	23	07-19-88	180	D
17N/02W-22Q03	Bock, Fred	4656361225448	200	45	H	Qva	18.74	10-19-88	120	D
17N/02W-23B01	Ridley, William	4656541225328	215	57	H	Qva	23.80	10-03-88	41	D
17N/02W-23B02	Rexus, Frank	4657091225333	200	40	H	Mlt	15.01	09-06-88	--	D
17N/02W-23K01	Gunderson, George	4656361225342	196	59	H	Qva	14.75	08-22-88	120	D
17N/02W-24B01	Grover, Tom	4657091225209	224	100	H	Qc	60	08-04-87	62	D
17N/02W-24C02	Noe, Billy	4657081225246	210	243	H	Mlt	48.26	08-25-88	--	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/02W-24D01	Hawkins, Harry	4656591225252	220	120	H	Tb	30	10-10-79	1.1	D
17N/02W-24D02D1	Banter, Jeanette	4657091225305	200	70	U	Tb	38.23	08-12-88	--	D
17N/02W-25N02	Lincoln, Richard	4655281225251	216	104	H	Tb	8.84	08-17-88	--	--
17N/02W-25N03	Lincoln, Richard	4655271225254	217	80	U	Tb	--	--	--	D
17N/02W-25Q01	Blake, Tim	4655291225222	243	155	H	Tb	46.04 R	08-26-88	.91	D
17N/02W-25Q02	Stoddard, Patrick	4655311225218	274	113	H	TQu	52.19	08-15-88	14	D
17N/02W-25Q03	Schmitt, Evan	4655341225215	276	280	H	Mlt	40.23	08-15-88	--	D
17N/02W-26D02	Puckett, Dallas	4656081225405	380	186	H	Tb	71.41	08-17-88	7.7	D
17N/02W-26E01	Carney, Edward & Cynthia	4655571225418	200	58	H	Qc	14.57	08-23-88	44	D
17N/02W-27J01	Edminster, Ed	4655411225435	310	110	U	Tb	44	06-24-80	.087	D
17N/02W-27J02	Edminster, George	4655431225425	200	212	H	Tb	--	--	--	D
17N/02W-27P01	Skye	4655291225513	195	35	H	Qc	12.47	08-22-88	62	D
17N/02W-28J01	Roberts, Stephen	4655481225542	200	62	U	TQu	--	--	--	D
17N/02W-28J02	Roberts, Stephen	4655461225541	200	45	H	Qc	10	09-26-80	3,000	D
17N/02W-28R01	Tellers, Joseph & Cherie	4655381225557	198	28	H	Qc	10.90	09-15-88	470	D
17N/02W-29A01	Van Buskirk, George	4656101225709	188	44	H	Qva	10.52	09-07-88	62	D
17N/02W-29A02	Balukoff, Tony	4656081225703	190	50	H	Qva	9.60	08-23-88	>1,200	D
17N/02W-29D01	Peterson, Todd	4656101225804	180	56	H	Qva	7.23	09-30-88	250	D
17N/02W-29D02	Craypo, Sarah	4656121225759	180	60	H	Qva	8	05-23-84	62	D
17N/02W-29F01	Hurst, J.j.	4655571225738	186	57	C	Qva	7.73	08-26-88	130	D
17N/02W-29G01	Turcotte, Bill	4656041225728	195	50	H	Qva	14	10-27-77	--	D
17N/02W-29R01	Deeds, Norman	4655261225658	195	100	H	Qc	25	07-19-88	--	D
17N/02W-30D02D1	Lee, Bob	4656101225915	163	70	H	Qc	15.73 R	08-24-88	--	D
17N/02W-30E02	H. & R. Water Works	4655591225909	180	146	P	Tb	22	--	3.8	D
17N/02W-30E03	Campbell, Jim	4655541225915	186	146	H	Tb	22.37	09-19-88	1.4	D
17N/02W-30E04	Knierim, Eugene & Alberta	4656001225914	180	86	H	Qc	12	05-18-84	6.8	D
17N/02W-30F01	Stewart, Richard	4655591225857	185	148	H	Tb	25	09-27-78	--	D
17N/02W-30P02	Blue Ribbon Turf	4655281225851	178	31	I	Qc	4.85	09-23-88	74	D
17N/02W-31E01	Briggs, David	4655021225916	181	80	H	TQu	10	11-16-77	--	D
17N/02W-31H01	Montgomery, George	4655091225824	220	112	H	TQu	32.78	08-24-88	41	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/02W-32E01	Coleman, Carroll	4655091225809	193	24	I	Qc	10	06-14-80	>2,800	D
17N/02W-32K01	Rogers, Diana	4654461225732	188	38	H	Qf	8	08-25-87	2.4	D
17N/02W-33K02	Scott Lake Water System	4654591225608	205	41	P	Qc	16.19	09-14-88	--	D
17N/02W-34J02	Washington State Parks	4654551225424	212	97	C	Qc	17.14	08-25-88	480	D
17N/02W-35C01	Day, Margaret	4655251225353	268	201	H	Tb	15	01-07-88	.0047	D
17N/02W-36C02	Highfill	4655171225243	290	170	H	Tb	70	01-24-78	.021	D
17N/02W-36C03	Browne, Bonnie	4655191225232	310	95	H	Tb	27	12-27-79	.0028	D
17N/02W-36D01	Feden, David	4655201225248	250	--	H	?	64.40	07-22-88	--	--
17N/03W-01B01	McCarty, Beatrice	4659471225956	240	117	H	Qva	86.23	01-27-89	180	D
17N/03W-01G02	Patch, Tom	4659211230000	220	93	H	Qva	46.89	08-23-88	240	D
17N/03W-01J01	Smith, Xavier	4659101225927	210	83	H	Qva	50.00	08-23-88	100	D
17N/03W-01L02	Hill, Leon	4659151230010	220	95	H	Qva	50.46	08-24-88	250	D
17N/03W-01R03	Longnecker, David W.	4659031225939	205	113	H	Qc	67.60	08-23-88	--	D
17N/03W-02G01	Arnesen, William	4659321230111	340	166	H	Tb	18	09-15-85	1.7	D
17N/03W-02H01	Arnesen, Dale	4659271230100	290	84	H	Mlt	52.65 Z	10-19-88	--	D
17N/03W-02J01	Delphi Water System	4659121230051	260	165	P	TQu	76	12-11-71	39	D
17N/03W-02J02	Delphi Country Club, Well No. 2	4659121230053	260	165	I	Mlt	88.29	08-24-88	--	D
17N/03W-02J03D1	Butchko, fsStephen	4659181230045	260	113	H	Qva	95.63	09-13-88	--	D
17N/03W-02K01	Pekola, Jerry	4659141230109	275	46	H	Qva	33.22	08-23-88	400	D
17N/03W-02K03	South Sound Utility, Old Well No. 1	4659181230116	300	196	U	TQu	49.18	12-13-88	6.7	--
17N/03W-02K04	South Sound Utility, Alpine Hills No. 1	4659181230118	300	113	P	Qva	24.70	12-13-88	54	D
17N/03W-02K05	South Sound Utility, Alpine Hills No. 2	4659171230117	300	105	P	Qva	49.01 R	12-13-88	--	--
17N/03W-02Q01	Gamble, Don	4658571230115	270	78	H	Qva	27.16	07-21-88	89	D
17N/03W-10B01	Ernstes, Becky	4658461230227	510	74	H	Tb	15.70	08-24-88	--	D
17N/03W-10C01	Potter, Jeff	4658481230255	600	110	H	Mlt	15.71	08-24-88	--	D
17N/03W-10D01	Kiefer, Jim	4658481230303	620	42	H	TQu	18.25 R	09-13-88	41	D
17N/03W-11A03	Graham, James	4658481230054	240	94	H	Qva	79.97	10-19-88	74	D
17N/03W-11G01	Taylor, Bob	4658361230117	240	97	U	Qva	58.78	08-24-88	100	D
17N/03W-11H01	McMurry, Larry & Linda	4658371230051	240	100	H	Qva	78	06-22-87	65	D
17N/03W-11K01	Elliott, R. Lindsay	4658251230122	180	58	H	Qva	22.52	08-26-88	67	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/03W-11Q01	Beckman, James	4658181230109	140	35	H	Qva	4.65	08-24-88	46	D
17N/03W-12A02	South Sound Utility, Evergreen Shores No. 1	4658541225932	185	109	P	Qc	37.58 S	07-07-88	62	D
17N/03W-12A03	South Sound Utility, Evergreen Shores No. 2	4658541225930	180	107	P	Qc	30	07-28-73	72	D
17N/03W-12A04	South Sound Utility, Evergreen Shores No. 3	4658531225932	185	113	P	Qc	24	06-11-76	45	D
17N/03W-12B02	Berkenkamp, William	4658501225950	240	103	H	Qva	80	09-02-80	180	D
17N/03W-12E01	Follett, Douglas	4658371230029	200	56	H	Qva	44.86	10-20-88	92	D
17N/03W-12F01	Budinski, Robert	4658351230016	220	119	H	Qva	74.01	08-26-88	41	D
17N/03W-14C02	MacDuff, James	4657551230128	140	52	H	Qva	9	--	11	D
17N/03W-14F03	Larsen, Bruce	4657531230143	170	402	H	Tb	3	07-20-87	--	D
17N/03W-14R02	Gibbons, Joanne	4657201230048	200	101	H	Qbs	65.98	08-26-88	94	D
17N/03W-15A01	Foster, Mike	4658011230205	240	310	H	Tb	5	01-17-84	.0025	D
17N/03W-15B01	Stenberg, Roger	4657581230232	390	124	H	Tb	51.98 R	09-13-88	.024	D
17N/03W-15F01	Hilden, Jerry	4657421230258	580	48	U	TQu	--	--	--	D
17N/03W-15N01	Drucquer, Cedric	4657121230317	580	129	H	TQu	109.49 P	09-14-88	--	D
17N/03W-15P01	Schlutz, Leroy	4657181230249	400	282	U	Tb	159.06	08-26-88	--	D
17N/03W-15P02	Renfroe, Jack	4657231230244	360	47	U	Tb	42.34	10-25-88	--	D
17N/03W-17A01	Cronin, Mike	4657551230444	515	38	H	Tb	5	01-08-88	--	D
17N/03W-17B01	Redecker, Craig	4657481230503	420	109	H	Tb	2.19	10-03-88	7.0	D
17N/03W-17D01	Gary, Thor	4657561230537	485	75	H	TQu	16.32	09-14-88	23	D
17N/03W-17G01	McRae, Susan	4657431230509	420	81	H	TQu	-- F	10-19-88	--	D
17N/03W-17R01	McKinnon, Cameron	4657231230454	380	79	H	TQu	--	--	--	D
17N/03W-22J01	Sanford, Gary	4656431230208	200	98	H	Qva	38.13	10-21-88	>310	D
17N/03W-22L01	Oliver, Robert	4656421230248	290	243	H	Tb	15.70	10-20-88	--	D
17N/03W-23L02	Miller, Thomas	4656391230138	250	136	H	Qva	94.94	10-20-88	--	D
17N/03W-23P01	Crumley, Lonnie	4656241230132	245	98	H	Qva	74.54	10-20-88	--	D
17N/03W-23Q02	Bennett, Gordon	4656341230118	230	111	H	Qva	69	06-19-78	95	D
17N/03W-23R02	Fire District No. 11	4656341230046	170	70	H	Qva	26.41	10-05-88	50	D
17N/03W-24D01	Bodine, David	4657061230028	200	97	H	Qva	68	06-10-76	44	D
17N/03W-24E02	Salazar, Leo	4656581230032	200	89	H	Qva	63.61	10-03-88	92	D
17N/03W-24E03	Wilson, Michael	4656501230041	190	84	H	Qva	56.30	10-05-88	150	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
17N/03W-25D01	Delphi Mobile Home Park	4656191230039	160	113	P	Qc	26	--	190	D
17N/03W-25D02	Ross, Dewey	4656191230042	160	74	U	Qc	26.86	10-12-88	73	D
17N/03W-25G01	Bumford, Margaret	4655531225953	150	50	H	Qc	14.30 R	10-05-88	>740	D
17N/03W-25H02	Johnson, John	4655561225942	155	60	H	Qc	10.40	10-20-88	46	D
17N/03W-25J02	Steele, Ralph	4655481225929	180	45	H	Qc	20	08-15-83	37	D
17N/03W-25K01	Petty, Russell	4655521225949	155	43	H	Qc	10	03-05-76	>1,200	D
17N/03W-25R04	Booth, James	4655311225936	165	44	H	Qc	7.98	08-03-88	19	D
17N/03W-25R05	Baker, Jack	4655341225929	170	94	H	Qc	6	07-29-87	180	D
17N/03W-26A01	Denman, Larry	4656221230045	160	94	H	Qc	24.86	10-15-88	28	D
17N/03W-26F01	Wildberger, Paul	4656071230125	200	96	H	Qc	52.65	10-18-88	31	D
17N/03W-26G01	Gadd, Greg	4656061230119	180	66	H	Qva	16.32	10-18-88	>1,700	D
17N/03W-26H01	Hill, Ron	4656081230100	160	89	H	Qc	22.11	10-21-88	36	D
17N/03W-26H02	Bafaro, Gary	4656091230046	158	88	H	Qc	21.86	09-21-88	62	D
17N/03W-26J02	White, Clayton	4655441230052	140	30	H	Qvr	8	11-17-78	1,100	D
17N/03W-27N01	Hatcher, Tim	4655341230317	300	156	H	TQu	110.68	10-25-88	--	D
17N/03W-34E03	Walters, Roy	4655091230258	250	90	H	Qvt	29.79	10-17-88	13	D
17N/03W-34E04	Dahl, Kim	4655061230300	250	120	H	Mlt	29.00	10-25-88	--	D
17N/03W-34F01	Nappi, Amedes	4655061230256	250	288	U	Tb	74.93	10-17-88	.070	D
17N/03W-34J01	Zirbes, Larry	4654561230209	170	55	H	Qva	33.38	10-13-88	62	D
17N/03W-34M01	Bryenton, Keith	4654511230306	200	400	H	Tb	29.78	10-13-88	--	D
17N/03W-35B02	Williams, Janet	4655221230120	140	54	H	Qva	7.27	10-12-88	--	D
17N/03W-35R01	Burke, Dave E.	4654421230049	140	47	H	Qc	24.89	10-13-88	110	D
17N/03W-36A01	Reed, Paul & Beverly	4655151225936	171	55	H	Qc	9.61	09-27-88	92	D
17N/03W-36C01	Judy, Steve	4655201230009	160	248	H	Tb	15	10-20-83	2.6	D
17N/03W-36F01	Judy, Steve	4655111230014	160	34	H	Qv	11.61 R	10-25-88	99	D
17N/03W-36N05	Down, Gene	4654441230028	160	40	H	Qv	12.02	10-17-88	410	D
17N/03W-36Q02	Heppe, Ruby	4654411225950	180	185	H	Tb	15.12	10-17-88	.33	D
17N/03W-36R01	Collins, Kelvin	4654401225939	230	91	H	TQu	33.23	10-17-88	29	D
18N/01E-05M01	U.S. Fish & Wildlife Service	4704241224241	10	900	H	TQu	-- F	--	--	--
18N/01E-06N01	Parks, Harold	4704121224400	230	253	P	Qc	223	07-01-62	--	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)		Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/01E-06R01	U.S. Fish & Wildlife Service	4704171224301	18	250	U	Qc	--	F	06-22-88	1,600	D
18N/01E-07A01	Balcom, Bill	4703591224306	15	130	P	Qc	-2		08-03-88	2,500	D
18N/01E-07A02	Elwess, Gene	4703581224311	10	120	H	Qc	-1		04-01-54	11,000	--
18N/01E-07D01	Webb, Paul	4703561224412	238	260	H	Qc	205		06-29-76	43	D
18N/01E-07E01	Buck, Virginia	4703511224411	230	223	H	Qc	204		--	--	--
18N/01E-07F01S	Nisqually Trout Farm	4703411224350	100	--	Q	Qvr	--		--	--	--
18N/01E-07F02S	Nisqually Trout Farm	4703471224348	100	--	Q	Qvr	--		--	--	--
18N/01E-07L01	Thomsen, Torden	4703311224338	15	100	H	Qc	--	F	06-22-88	51	D
18N/01E-07P01S	--	4703251224342	80	--	--	Qc	--		--	--	--
18N/01E-08B03	Martin Stuart	4703561224215	18	86	H	Qc	9.06	Z	06-22-88	150	D
18N/01E-08C01	Koenig, W.	4703591224220	20	75	H	Qc	--		--	--	--
18N/01E-08D03	Independent Forestry Assoc.	4703581224253	10	110	I	Qc	1.30		05-08-78	3,700	D
18N/01E-08F02	Dahl, Lewis G.	4703531224228	18	100	H	Qc	6.70		05-08-78	--	--
18N/01E-08H01	Attwood, Larry	4703431224152	20	72	H	Qc	10.99		06-23-88	880	D
18N/01E-08J01	Dorman, Dale	4703391224153	22	96	H	Qc	12		08-22-88	--	--
18N/01E-09M01	City of Lacey, Well No. 19C	4703301224134	25	96	P	Qc	13.87		07-08-88	2,500	--
18N/01E-09M02	City of Lacey, Well No. 19A	4703301224131	25	107	P	Qc	13.50		07-08-88	170	D
18N/01E-16E01	Nisqually Sportsman Club	4702551224134	33	109	P	Qc	9.89		06-22-88	2,000	D
18N/01E-16M01S	--	4702391224130	40	--	--	Qvr	--		--	--	--
18N/01E-17D02	LaChance, Ted	4703151224239	15	110	H	Qc	--		--	--	--
18N/01E-17Q01	Wynn, Donald	4702241224210	181	260	C	Qc	176.60	R	06-28-88	>330	D
18N/01E-18A01	Schols, Herman	4703131224315	15	120	H	Qc	--	F	--	--	D
18N/01E-18A02	Schols, Herman	4703091224313	10	123	I	Qc	2.17		07-15-88	300	D
18N/01E-18B01	Braget, P.H.	4703061224333	15	84	H	Qc	--	F	--	240	D
18N/01E-18G01	Washington Dept. Fisheries	4702591224325	20	135	Q	Qc	--	F	10-06-89	--	--
18N/01E-18H01	Jess Thomsen, Inc.	4702511224259	10	130	I	Qc	1.90	Z	06-23-88	--	D
18N/01E-18P01S	Unknown	4702311224340	15	--	U	Qc	--		--	--	--
18N/01E-19J01	Loftin, Fred	4701541224302	70	68	H	Qc	61.87	Z	10-11-88	--	--
18N/01E-19J01S	City of Olympia, Abbott Spring	4701491224308	6.6	--	H	Qvr	--		--	--	--
18N/01E-19J02	City of Olympia, Abbott Expl. Well	4701491224303	39	92	U	Qc	27.11		11-15-88	--	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/01E-19Q01	City of Olympia	4701401224324	70	134	H	Qc	60.99	07-13-90	390	D
18N/01E-19Q01S	City of Olympia, Mcallister Springs	4701421224320	6.5	--	P	Qvr	--	--	--	--
18N/01E-19R01	City of Olympia, McAllister Spring Tst	4701371224306	95	312	U	Qc	86.2	08-04-92	3,700	D
18N/01E-20M01	Thompsen, John	4701431224241	120	130	H	Qc	109.9 P	08-22-88	--	--
18N/01E-20R02	Iyall, Jack	4701401224154	221	205	H	Qc	175.87	05-16-88	140	D
18N/01E-21N01	Feathers	4701321224126	230	352	P	TQu	184	01-19-71	58	D
18N/01E-21N02	Aguillard, Dale	4701421224132	220	200	H	Qc	185.98	06-23-88	74	D
18N/01E-21P01	South Sound Utility, Cuyamaca No. 2	4701361224111	230	236	P	Qc	197.14	05-24-88	--	D
18N/01E-21P02	South Sound Utility, Cuyamaca No. 1	4701361224112	230	408	P	TQu	189.79	05-24-88	38	D
18N/01E-21P03	South Sound Utility, Cuyamaca No. 3	4701371224114	230	235	P	Qc	196.63	05-24-88	120	D
18N/01E-21Q02	Iyell, Art	4701311224101	238	225	H	Qc	201.86 Z	06-24-88	>850	D
18N/01E-28M01	Nisqually Sand & Gravel	4700521224130	238	194	N	Qc	176.6	05-24-88	2,700	D
18N/01E-28N01	Noyet, Mike	4700431224129	244	197	P	Qc	175	12-09-71	--	D
18N/01E-29B01	City of Olympia, McAllister Sprng Mw-3	4701241224207	94	261	U	Qc	74	09-23-92	--	G
18N/01E-29E01	City of Olympia, McAllister Sprng Mw-4	4701121224243	112	259	U	Qc	93	09-21-92	--	G
18N/01E-29E02	City of Olympia, McAllister Sprng Pw-24	4701101224258	130	395	U	Qc	102.04	06-27-97	3,100	D
18N/01E-29N04	City of Olympia, McAllister Sprng Mw-2	4700431224252	130	206	U	Qc	111	09-22-92	--	G
18N/01E-30C01	Thomsen, Hans	4701191224348	160	26	H	Qvr	1.81	05-25-88	920	D
18N/01E-30D02	Thomsen, Hans	4701181224355	160	153	U	Qc	114.52	05-25-88	--	D
18N/01E-30M01	Nisqually Hog Ranch	4701011224411	175	170	U	Qc	124.40	05-10-88	--	--
18N/01E-30N01	South Sound Utility, Holiday No. 1	4700401224402	212	194	P	Mlt	154.50	05-10-88	--	D
18N/01E-30N02	South Sound Utility, Holiday No. 2	4700401224403	212	190	P	Qc	155.07	05-10-88	3,000	D
18N/01E-30P01	Adams, Virgil	4700471224347	212	220	U	Mlt	170	12-18-75	--	D
18N/01E-31A01	OBrien, C.F.	4700371224307	83	92	H	Qc	60.72	05-11-88	--	D
18N/01E-31E02	Lubitz, James	4700171224412	221	167	H	Qc	--	--	--	--
18N/01E-31F01	Enfield/Race Water System	4700181224349	222	214	P	Qc	183.74	06-27-88	470	D
18N/01E-31F02	Akehurst, Carol	4700191224354	216	213	H	Qc	164.57	05-12-88	80	D
18N/01E-31G01	Williams, E.V.	4700161224326	103	76	H	Qc	66	01-17-58	--	--
18N/01E-31H01	Peterson, William	4700141224302	108	101	H	Qc	70.33	05-11-88	350	D
18N/01E-31H02	Zurfluhs	4700161224311	111	119	P	Qc	75.45 Z	06-30-88	54	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/01E-31H03	Landrom, Bruce	4700231224307	160	193	H	Qc	135.84	06-24-88	>5,500	D
18N/01E-31J01	Calvert, R.D.	4700101224303	94	80	P	Qc	60.56	10-06-88	--	--
18N/01E-31M01	South Sound Utility, Triple G No. 1	4700001224412	215	190	P	Qc	147.13	05-12-88	650	D
18N/01E-31M02	South Sound Utility, Triple G No. 2	4700001224413	215	192	P	Qc	143 R	06-14-84	330	D
18N/01E-31N01	Acton, Glen	4659501224402	212	139	H	Qva	84	01-30-79	>2,700	D
18N/01E-31P01	Kagy, Robert	4659471224340	138	106	H	Qc	94.42	05-13-88	--	--
18N/01E-31Q01D1	Barnes, David	4659571224318	156	373	P	TQu	117.11	05-13-88	27	D
18N/01E-31R01	Seaunier, Phil	4659571224305	82	91	H	Qc	46.40	07-05-88	550	D
18N/01E-31R02	Doyle, Richard	4659571224301	78	85	H	Qc	39.46	05-13-88	460	D
18N/01E-32C02	Franklin, Michael G.	4700331224237	140	128	H	Qc	108	08-04-80	410	D
18N/01E-32D04D1	Wells V.	4700281224244	80	76	H	Qc	51.08 Z	06-29-88	>1,100	D
18N/01E-32D05	Cudney Robert	4700261224248	100	98	H	Qc	77.27 R	06-28-88	120	D
18N/01E-32D09	Rompa, William	4700271224249	73	93	U	Qc	57.91	05-11-88	>1,000	D
18N/01E-32E02	Krueger, Jeff	4700201224245	100	83	H	Qc	73.89	05-16-88	920	D
18N/01E-32E03	McKechnie, Don	4700151224247	97	98	H	Qc	69.70	05-16-88	410	D
18N/01E-32E04	Ruiz, J.R.	4700121224243	80	67	H	Qc	41	06-12-75	450	D
18N/01E-32H02	Casebolt, G.C.	4700171224155	253	216	P	Qc	175.48	05-11-88	360	D
18N/01E-32M01	Ernst	4700001224254	121	112	H	Qc	97.12 R	08-23-88	>920	D
18N/01E-32N01	Ryan, James G.	4659471224250	115	92	H	Qc	81.30 R	07-06-88	1,100	D
18N/01E-32N02	Hall, Jack	4659531224250	76	81	H	Qc	42.69	06-28-88	180	D
18N/01E-32N03	Lake Saint Claire Water	4659501224240	162	158	P	Qc	131.76	05-17-88	>850	D
18N/01E-32P02	Peterson, Lee	4659581224237	75	81	H	Qc	44.50	07-06-88	400	D
18N/01E-34F03	Nisqually Indian Tribe	4700101224004	260	255	P	Qc	192	05-18-76	35	D
18N/01E-34F04	Nisqually Indian Tribe	4700111224004	260	280	P	Qc	195.83 S	05-25-88	28	D
18N/01E-34J01	Simmons	4700031223926	264	229	H	Qc	198	07-16-71	--	D
18N/01E-34K01	Smith	4659581223931	273	232	H	Qc	195.38	10-17-88	--	D
18N/01E-34R01	McCloud, Jack	4659501223924	280	208	H	Qc	178.22	01-15-72	--	D
18N/01E-34R02	McCloud, George	4659521223927	280	218	H	Qc	181	08-16-81	--	D
18N/01E-35N01O	--	4659501223902	278	--	--	--	--	--	--	G
18N/01E-35N01S	--	4659491223856	110	--	Q	Qc	--	--	--	--

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/01E-35P02	Nisqually Indian Tribe	4659541223847	90	220	Q	TQu	--	--	--	--
18N/01W-01H01	Christopherson, Curtis	4704421224418	225	120	H	Qva	91.21	06-07-88	44	D
18N/01W-01H02	South Sound Utility, White Firs Well	4704361224432	225	255	P	Qc	222	10-28-78	>2,700	D
18N/01W-01R01	Knapp, Ronald H.	4704101224419	245	236	H	Qc	212	06-30-73	68	D
18N/01W-02G01	Olympia Cheese Co.	4704421224550	235	131	U	Qva	93	05-29-64	72	D
18N/01W-02G02	Olympia Cheese Co.	4704411224552	237	241	N	Qc	176	10-05-74	51	D
18N/01W-02H01	McCarthy, J. Jr.	4704361224536	245	139	P	Qva	107.87	06-07-88	--	D
18N/01W-02H02	Olympia Cheese Co.	4704381224548	235	319	N	TQu	200	02-26-77	4,200	D
18N/01W-02L01	Betti, Bruno	4704211224624	235	212	U	Qc	168.9	06-07-88	--	D
18N/01W-02M02	Betti, Bruno	4704231224632	240	218	H	Qc	148	10-19-72	82	D
18N/01W-02R01	Tom Martin Construction	4704141224547	220	256	H	Qc	166.9	06-07-88	--	D
18N/01W-03B01	Lenard, Wilbur	4704591224720	234	204	H	Qc	155.92	08-23-88	49	D
18N/01W-03B02	Parks, Harold	4704581224713	238	280	P	TQu	210	04-21-79	110	D
18N/01W-03E01	Pond, Randy	4704411224801	95	63	H	Qva	37.87	06-08-88	480	D
18N/01W-03G01	Anthony, Donald	4704391224707	195	151	H	Qva	123	06-27-84	500	D
18N/01W-03H02	Tolmie Cove Assoc.	4704371224653	205	233	P	Qc	146.0 R	06-08-88	97	D
18N/01W-04M01	Gallager, Thomas	4704291224918	70	77	H	Qva	43.60	06-08-88	150	D
18N/01W-04M02	Hall, Don	4704281224905	65	158	H	Qc	14.63	06-13-88	75	D
18N/01W-04N01	Kelleher, John	4704121224911	80	326	H	TQu	34.27	06-08-88	95	D
18N/01W-04P01	Middagh, Nancy	4704181224854	50	75	H	Qf	3.24	07-14-88	39	D
18N/01W-05E02	Estes, Robert	4704341225027	165	50	H	Qva	30.72	06-13-88	410	D
18N/01W-05E03	Lovien, Mark	4704401225030	165	46	H	Qva	31.55	06-15-88	270	D
18N/01W-05G01	Jackson	4704391224939	90	75	H	Qva	44.82	07-14-88	49	D
18N/01W-05G02	Scott, J.W.	4704431224953	110	56	H	Qva	23.40	06-20-88	360	D
18N/01W-05L02	Ruggiero, Len	4704331225006	160	40	H	Qva	25.74	07-13-88	310	D
18N/01W-05L03	Schmitke Larry	4704231225006	165	40	H	Qva	11	09-06-86	320	D
18N/01W-05L04	Ruggiero, Len	4704331225006	160	--	U	?	26.02	06-13-88	--	--
18N/01W-05L05	Brown, Gary	4704311224956	136	153	H	Qc	50	08-04-78	--	D
18N/01W-06A03	Spurr, Mahlon	4704491225047	160	118	H	Qc	51.04	06-14-88	380	D
18N/01W-06D01	Schaffer, John L.	4704521225146	145	72	H	Qva	30.55	06-14-88	--	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/01W-06E02	Conway, Harold	4704361225148	165	79	H	Qvt	21.24	06-14-88	13	D
18N/01W-06G02	Fulton, Frank	4704351225055	160	50	H	Qvr	28.74	06-14-88	140	D
18N/01W-06H03D1	Mills, Ray	4704351225052	160	157	H	TQu	114.10	06-15-88	110	D
18N/01W-06P03	Godat, Tony	4704111225125	170	86	H	Qva	35.92	07-14-88	59	D
18N/01W-06Q04	Morris, Juanita	4704121225109	160	65	H	Qvr	35.51	06-16-88	260	D
18N/01W-06R03	Hanna, Lawrence J.	4704101225036	165	72	H	Qva	19.15	06-16-88	120	D
18N/01W-07A06	Cohn, Jack	4703591225048	175	67	H	Qva	25.00 R	06-16-88	88	D
18N/01W-07C01	Dresser, Rod F.	4704001225129	175	63	H	Qvt	40.72	06-16-88	17	D
18N/01W-07E02	Swanson, Rick	4703461225137	180	64	H	Qvr	46.61	06-16-88	2,100	D
18N/01W-07E04	Williams, Chris	4703541225146	175	80	H	Qvt	47.77	09-06-88	11	D
18N/01W-07H04	Crosley, Larry	4703421225037	195	141	P	Qc	66.46	06-20-88	120	D
18N/01W-07K03	Northcott, Jay	4703341225112	185	91	H	Qvr	59.41 R	08-24-88	65	D
18N/01W-07L04	Wild, Donald	4703301225125	180	91	H	Qva	45.81	06-16-88	56	D
18N/01W-07M02	Reynolds, Bernice	4703401225140	185	79	H	Qva	38.36	06-16-88	76	D
18N/01W-07N03	Grant, Richard	4703191225134	195	98	H	Qva	52.30 R	06-20-88	22	D
18N/01W-07P02	Stuart, Jean	4703241225127	181	53	P	Qva	51.51	09-07-88	430	D
18N/01W-08C02	Mason, Colleen	4704061224956	150	140	H	Qf	45.77	07-14-88	15	D
18N/01W-08E01	Robinson, John	4703431225027	190	77	H	Qva	33.69	06-20-88	77	D
18N/01W-08G02	Sleater Kinney Baptist Church	4703481224948	150	67	H	Qva	9.80 R	06-22-88	140	D
18N/01W-08H03D1	City of Lacey, Pleasant Glade Well	4703531224925	124	570	P	TQu	55	09-22-88	23	D
18N/01W-08L01	Christianson, Harry	4703321225004	202	97	P	Qv	41.86 R	07-13-88	24	D
18N/01W-08L03	Christianson, Harry	4703321225005	202	100	H	Qva	50	07-10-67	37	D
18N/01W-08L04	Christianson, Harry	4703321225004	202	101	P	Qva	40.70	07-13-88	--	--
18N/01W-09D01	Fisher, Don	4704061224903	85	71	H	Qf	39.88	06-15-88	60	D
18N/01W-09G01	Parks, Harold	4703531224829	82	345	P	TQu	15.49	07-20-88	--	D
18N/01W-09J01	Selness, Darrell	4703321224816	105	195	H	Qc	36.76	06-22-88	49	D
18N/01W-09K03	North Woodland Water System	4703361224838	93	83	P	Qva	7.11	07-07-88	40	--
18N/01W-09K04	North Woodland Water System	4703371224838	92	88	P	Qva	8.47	07-07-88	54	D
18N/01W-09K05	North Woodland Water System	4703371224837	95	--	P	?	7.44	07-07-88	--	--
18N/01W-10F01	Olympia Sand & Gravel, Well No. 1	4703511224739	150	195	N	Qf	70.70	07-14-88	11	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/01W-10R02	Thompson, Alvin H.	4703161224651	208	171	U	Qc	136	10-20-58	1,000	D
18N/01W-10R03	Moon, J.K.	4703241224657	210	178	U	Qc	120	09-06-51	880	D
18N/01W-11A01	Lakeside Industries, Inc.	4703571224529	217	481	N	Mlt	190	08-28-70	--	D
18N/01W-11J01	DNR	4703381224529	215	165	U	Qc	128	--	--	--
18N/01W-11P05	Mills, Gary	4703211224621	205	73	C	Qva	36.36	06-23-88	--	D
18N/01W-12D01	Thurston Co. Public Works Dept.	4703551224521	220	200	U	Mlt	168	01-05-89	--	D
18N/01W-12F01	City of Lacey, Well No. 8	4703411224508	215	380	P	TQu	187	08-28-87	100	D
18N/01W-12J02	Richardson, Paul	4703321224414	240	230	H	Qc	209.06	07-07-88	--	D
18N/01W-12L04	Landram, Drew	4703381224453	218	112	P	Qva	108.16 R	08-19-88	36	--
18N/01W-12M01D1	North End Manor & Rentals	4703321224522	218	239	P	Qc	190	11-05-64	1,800	D
18N/01W-12R02	Duterrow, James	4703201224421	237	231	H	Qc	205	04-24-78	>1,200	D
18N/01W-12R03	Smith, Sylvia	4703191224427	235	145	H	Qf	54.11 R	06-23-88	62	D
18N/01W-13A01	Bontemps, Jeff	4703121224425	225	228	H	Qc	165	02-16-80	--	D
18N/01W-13A02	City of Lacey, Well No. MA 1	4703141224430	235	240	P	Qc	198.55	07-08-88	380	D
18N/01W-13A03	City of Lacey, Well No. MA 2	4703131224431	235	292	P	Qc	197.46	07-08-88	340	--
18N/01W-13B01	Brown, Harold	4703081224433	230	259	H	TQu	206.64	06-23-88	310	D
18N/01W-13C01	Boone & Boone Property Managers	4703021224454	200	16	H	Qvr	10	01-28-58	--	--
18N/01W-13F01	Owen, Boyd	4702571224509	200	16	H	Qvt	8	03-06-58	--	--
18N/01W-13G02	Washington Land Yacht Harbor, Well No. 1	4702491224449	210	259	P	Qv	175.99	06-23-88	42	D
18N/01W-13G03	Washington Land Yacht Harbor	4702541224441	223	275	P	Qv	180	04-04-69	1,300	D
18N/01W-13J01D1	Meadows Water Co., Well No. 3	4702471224427	240	321	P	TQu	238.65	05-26-88	52	D
18N/01W-13J02	Meadows Water Co., Well No. 5	4702471224420	245	336	U	TQu	223.79 R	06-01-88	8.2	D
18N/01W-13J03	Meadows Water Co., Well No. 4	4702461224434	240	292	P	TQu	217.34	05-25-88	1,200	D
18N/01W-13J04	Meadows Water Co., Well No. 6	4702481224418	240	324	U	TQu	220	03-30-89	1,400	D
18N/01W-13N01	South Sound Utility, Rolling Firs No. 2	4702331224524	265	284	P	Qc	236.95	06-27-88	2,200	D
18N/01W-14D04	Tanglewilde PUD	4703061224642	203	226	U	Qc	162	05-12-62	52	D
18N/01W-14H02	Ostrom Mushroom Farm	4702511224545	235	64	U	Qva	49.39	08-19-88	160	--
18N/01W-14H04	Ostrom Mushroom Farm	4702491224538	232	260	I	Qc	199	01-12-56	4,800	D
18N/01W-14L02	Hopkins, Brad	4702401224611	218	53	H	Qva	36.99	07-06-88	820	D
18N/01W-14R01	South Sound Utility, Rolling Firs No. 1	4702241224541	225	254	P	Qc	191	02-08-69	870	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/01W-15B04	Minelga, Antanas	4703041224718	180	149	U	Qc	108	06-30-62	45	D
18N/01W-15D01S	Nisqually Trout Farm	4703081224800	75	--	Q	Qvr	--	--	--	--
18N/01W-15H01	Tanglewilde PUD	4703001224701	175	177	U	Qc	135	--	260	D
18N/01W-16A01S	St. Martins College	4703041224820	75	--	T	Qvr	--	--	--	--
18N/01W-16Q03	Reinhardt, Herman	4702331224831	160	137	I	Qf	--	--	--	D
18N/01W-17C01	City of Olympia, No. 1/abandoned	4703031225015	199	187	U	Qc	85	03-26-63	230	D
18N/01W-17C02	City of Olympia, No. 2/abandoned	4703031225013	199	190	U	Qc	84	01-01-67	50	D
18N/01W-17G02	Union Oil Co.	4702531224956	200	62	U	Qvt	18	04-29-67	18	D
18N/01W-17H05	Dawson, Dan	4702591224928	202	101	P	Qva	51	06-11-66	270	D
18N/01W-19A01	Feely, Del	4702111225042	195	92	U	Qva	21	09-02-62	77	D
18N/01W-19C02	Woodsum, Christopher	4702151225127	145	42	H	Qva	18.20	07-25-88	48	D
18N/01W-19D05	Palmer, Nelda	4702161225139	162	75	H	Qf	22.41	07-19-88	7.5	D
18N/01W-19F02	Craig, Laura	4702031225114	182	42	P	Qva	23.49	09-06-88	180	D
18N/01W-19G02	Weiss, Oskar	4701581225058	202	60	H	Qva	44.62	08-02-88	--	D
18N/01W-19H02	Detray, Paul	4702071225054	198	82	P	Qva	35.00	09-07-88	330	D
18N/01W-19L03	Stimmel, Bob	4701511225119	185	78	H	Qva	30.64	07-25-88	58	D
18N/01W-19M05	Willows, Walt	4701521225131	210	70	H	Qva	43.75	08-10-88	300	D
18N/01W-21B04	Thurston Co. Water Dist. No. 2	4702201224822	175	120	P	Qva	64	04-27-59	650	D
18N/01W-21B05	City of Lacey Fire Dept.	4702141224826	182	107	U	Qva	60	10-29-54	62	D
18N/01W-21B06	City of Lacey, Well No. 7	4702151224827	178	481	P	TQu	52	08-14-76	140	D
18N/01W-21D03	Huntamer, Tom	4702101224912	194	153	U	Qc	60	04-14-53	--	D
18N/01W-21H02	City of Lacey Parks & Rec. Dept.	4702041224806	150	340	U	TQu	15	06-13-77	210	D
18N/01W-21P01	City of Lacey, Well No. 6B	4701341224858	228	119	U	Qva	85	11-19-59	1,100	D
18N/01W-21P02D1	City of Lacey, Well No. 6C	4701351224858	235	380	P	Mlt	94	08-25-88	--	D
18N/01W-22K01	Dotson	4701451224715	199	56	H	Qvr	47	04-30-64	52	D
18N/01W-23B02	Smith, Wesley M.	4702091224550	167	32	H	Qvr	15.87	08-18-88	830	D
18N/01W-23Q01	Erikson, Richard L.	4701401224550	181	161	H	Qc	142.62	07-29-88	620	D
18N/01W-24A02	Meadows Water Co., Well No. 1	4702161224425	213	797	P	TQu	162.36	05-26-88	55	D
18N/01W-24A03	Meadows Water Co., Well No. 2	4702161224425	214	103	P	Qva	44.18 R	05-26-88	24	D
18N/01W-24B01	Evergreen Ballroom	4702111224445	222	85	H	Qva	50	01-15-58	--	--

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/01W-24B02	Texaco	4702101224438	242	103	H	Qva	53.44	07-28-88	56	D
18N/01W-24D02	Conely, Donna	4702191224520	226	96	H	Qva	48.65	08-02-88	--	D
18N/01W-24D04	City of Lacey, Madrona Park Well A	4702171224512	254	329	P	Qc	216.5	03-01-96	4,700	G
18N/01W-24D05	City of Lacey, Madrona Park Well C	4702171224513	259	333	P	Qc	219.53	06-04-97	3,500	G
18N/01W-24E01	Travis, David	4702051224519	230	82	H	Qva	5	--	--	--
18N/01W-24L02	City of Lacey, McAllister Park Well B	4701531224506	175	214	P	Qc	135.5	03-01-95	320	G
18N/01W-25B01	South Sound Utility, Evergreen Estates	4701221224452	260	239	P	Qc	216	07-14-66	12,000	D
18N/01W-25P02	Draper, T.W.	4700501224501	181	57	H	Qva	230.1	07-29-88	--	D
18N/01W-26A02	May, Robert	4701211224539	230	118	H	Qva	80.79 R	07-29-88	620	D
18N/01W-26C02	Everett, Joel	4701221224616	189	65	H	Qva	38.91	08-02-88	130	D
18N/01W-26G01	Lakeridge Water Co.	4701141224552	187	73	P	Qva	38.72	08-17-88	3,000	D
18N/01W-26N01	Huntamer Water Service	4700391224628	182	85	U	Qva	34	03-11-57	--	D
18N/01W-26N02	City of Lacey, Long Lake Test Well	4700391224629	185	386	U	TQu	103	12-13-88	13	D
18N/01W-27A03	Glass, Ray	4701201224701	166	78	H	Qva	24.03 R	07-29-88	23	D
18N/01W-27K01	City of Lacey, Well No. 5	4700551224706	205	84	U	Qva	50.78	10-03-88	960	D
18N/01W-27M02	Guiles, James	4700581224749	190	388	H	TQu	43.27 Z	08-24-88	24	D
18N/01W-28E01	City of Lacey, Well No. 1	4701051224915	232	217	P	Qc	65.60	07-08-88	67	D
18N/01W-28J01	Hanson Bob	4700531224806	185	127	H	Qc	26.93 Z	08-17-88	--	D
18N/01W-28M01	City of Lacey, Well No. 2	4701041224914	232	227	P	Qc	76.98	07-08-88	29	D
18N/01W-28M02	City of Lacey, Well No. 3	4701031224916	232	225	P	Qc	74.70 R	07-08-88	70	--
18N/01W-28P01	Jackson E.A.	4700511224850	235	121	U	Qva	54	11-27-53	170	D
18N/01W-29E01	Nickerson, Carl	4701121225033	212	100	H	Qva	50	05-20-67	92	D
18N/01W-29Q02	Ross, Dewey	4700421224932	238	137	U	Qva	72.93	07-25-88	17	D
18N/01W-30A01	City of Olympia, Well No. 3	4701191225045	278	362	P	TQu	145	08-27-84	--	D
18N/01W-30E04	Mackey, Lanny	4701161225136	202	75	H	Qva	51.98 S	07-26-88	490	D
18N/01W-30L02	Bell, Keith	4701041225127	235	61	P	Qva	43	08-01-65	370	D
18N/01W-30M02	Bell, Keith	4700571225135	228	105	U	Qva	91	08-24-59	150	D
18N/01W-31A02	Warner, John	4700311225048	210	140	H	Qva	67.40 R	07-27-88	>1,200	D
18N/01W-31A03	Dixon, Betty	4700381225041	209	139	H	Qva	64.88	08-08-88	280	D
18N/01W-31G01	Jacobsen, Harold	4700141225056	205	84	U	Qva	22	02-08-72	63	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/01W-31G02	Jacobsen, Harold	4700151225057	204	102	U	Qva	38.52	09-07-88	340	D
18N/01W-31G03	Jacobsen, Harold	4700131225058	205	80	U	Qva	25	04-01-71	29	D
18N/01W-31K03	Boe Sand & Gravel	4700001225103	185	64	H	Qva	31.77	08-05-88	36	D
18N/01W-31R02	City of Olympia, Well No. 14	4659561225043	200	154	P	Qc	40	03-26-75	65	D
18N/01W-32D02	Bennett, James	4700341225028	203	91	H	Qva	54.90	08-08-88	31	D
18N/01W-32L01	Hutson, Jerry	4700021225014	215	79	H	Qva	43.70	08-05-88	62	D
18N/01W-32N02	Skaife, Larry	4659581225031	212	98	H	Qva	41.25	08-05-88	--	D
18N/01W-32P01	City of Olympia, Well No. 4	4659541225006	202	56	P	Qvr	25	05-02-58	>1,500	D
18N/01W-32P02	City of Olympia, Well No. 10	4659511225009	200	194	U	Qc	29.24	12-13-88	50	D
18N/01W-32P03	City of Olympia, Well No. 11	4659501225010	200	88	U	Mlt	29.00	12-13-88	--	D
18N/01W-32P04	City of Olympia, Well No. 5	4659511225006	200	47	P	Qvr	21	02-15-75	310	D
18N/01W-32P05	City of Olympia, No. 6/abandoned	4659531225007	200	170	U	Qc	31	12-21-79	20	D
18N/01W-33B01	Woodlawn Cemetery	4700381224823	212	118	I	Qva	40	04-02-59	44	D
18N/01W-33C01	Traber, John E.	4700361224851	208	73	I	Qva	40.29	08-05-88	46	D
18N/01W-33F01	Parker, Rebecca	4700251224854	208	62	H	Qva	34	10-17-62	--	D
18N/01W-33G02	Jackson, Ervin	4700231224833	212	102	U	Qva	33	04-30-59	--	D
18N/01W-33J02	Rosenthal, Ross	4700041224811	201	60	H	Qvr	36.29	08-25-88	--	D
18N/01W-33N01	City of Lacey, Well N0. 9	4659531224905	197	283	P	TQu	22	10-19-81	38	D
18N/01W-33P01	City of Lacey, Well No. 10	4659511224852	198	208	P	Qc	33.35	07-08-88	270	D
18N/01W-34G01	Hansen & Ittner	4700221224706	175	59	U	Qvr	20.45	09-22-88	72	D
18N/01W-34G01S	Unknown	4700201224716	165	--	U	Qvr	--	--	--	--
18N/01W-34J01	Gronka, Walter	4700041224651	172	54	H	Qva	21.35	08-02-88	180	D
18N/01W-34J02	City of Lacey	4700101224650	200	461	U	TQu	58	09-25-65	18	D
18N/01W-34M03	Cox, Walt	4700121224751	202	80	H	Qva	45.10	08-04-88	380	D
18N/01W-34Q01	Rumac Fund Water Assoc.	4659541224719	194	109	P	Qva	39.00	08-24-88	200	D
18N/01W-35A04	Steffens Jim	4700351224533	161	32	H	Qva	10.41	08-02-88	31	D
18N/01W-35B02	South Shore Water Co.	4700301224606	176	82	P	Qva	25.78	08-08-88	--	D
18N/01W-35G02	Roberts, James L.	4700141224549	181	139	H	Qc	101.22	08-08-88	220	D
18N/01W-35L02	Warick, Skip	4700111224619	193	56	H	Qva	43.75 R	08-08-88	370	D
18N/01W-35N01	Bienich, Joe	4659521224630	185	76	H	Qva	36	01-02-63	140	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/01W-36C01	City of Lacey, Seasons No. 1	4700261224503	195	230	U	TQu	130.42	07-08-88	39	D
18N/01W-36C02	City of Lacey, Seasons No. 2	4700271224503	195	336	U	TQu	126.87	07-08-88	11	D
18N/01W-36E01	Bayne, Sid	4700151224512	210	150	H	QC	--	--	--	--
18N/01W-36H02	Swanson, Kenneth	4700201224418	221	188	H	QC	165.45 R	08-02-88	140	D
18N/01W-36J01	Tri Lakes Country Home Estates	4700061224420	228	260	P	TQU	155	05-18-79	>590	D
18N/01W-36L01	Chapman, William K.	4700031224503	222	163	H	QC	154.18 R	07-28-88	250	D
18N/01W-36L02	Baughn, Earl	4700041224502	223	90	H	QVA	--	--	--	--
18N/01W-36M02	Tower & McCullock	4700031224523	225	160	H	QC	146	09-27-66	--	D
18N/01W-36N01	Pattison Water Co.	4659531224513	218	217	P	QC	149.11	08-17-88	9,700	D
18N/01W-36N02	Pattison Water Co.	4659501224528	210	217	P	QC	--	--	--	--
18N/02W-01E06	Lapp, Orville	4704451225251	120	37	H	QVA	18.45 Z	09-30-88	62	D
18N/02W-01F04	Plesha, Jerry	4704451225240	150	92	H	QF	42.69	09-15-88	10	D
18N/02W-01G02	Radonovich, Mike	4704351225220	168	97	H	Qva	11.72 R	09-14-88	46	D
18N/02W-01G03	Radonovich, Mike	4704351225218	168	178	U	Qc	135.32 Z	09-30-88	310	D
18N/02W-01Q03	Devoe	4704131225219	178	71	H	Qva	19.60	09-14-88	34	D
18N/02W-01R05	Lundmark, Morris	4704101225152	165	164	H	Qc	105.47	09-14-88	310	D
18N/02W-02A03	Thompson, Phil	4704471225324	110	47	H	Qvt	27.91	09-29-88	15	D
18N/02W-02A04	Goheen, Greg	4704481225320	115	111	H	Qc	100.43	08-18-88	89	D
18N/02W-02A05	Alderbrook Kennels	4704531225324	119	133	H	Qc	108.14	06-28-88	100	D
18N/02W-02B05	Hinchcliffe, Ron	4704551225339	130	74	H	Qva	19.09	06-24-88	--	D
18N/02W-02C04	Bloom, Lewis	4704571225352	100	143	H	Qc	95	05-26-59	--	--
18N/02W-02C07	Daniels, Bill	4704481225401	55	43	H	Qva	22.16	06-28-88	46	D
18N/02W-02C08	Conser, Doris	4704571225353	102	126	H	Qc	92	08-10-68	590	D
18N/02W-02C09	Keegan, Robert	4704581225358	35	60	H	Qc	33	10-16-76	140	D
18N/02W-02E02	Lockwood, Calvin	4704401225405	5	200	H	TQu	-- F	--	--	--
18N/02W-02F04	Mottman, Mike	4704391225351	105	83	H	Qva	39.82 Z	09-15-88	45	D
18N/02W-02H04	Alexander, Gary	4704451225321	110	81	H	Qf	39.67	11-04-88	8.3	D
18N/02W-03N06	Shawler, David	4704161225521	159	159	I	Qc	140	03-11-80	--	D
18N/02W-04D01	Rush, Frank	4704481225633	145	69	H	Qva	31.62 Z	09-27-88	48	D
18N/02W-04F02	Windolph Water Assoc.	4704471225614	20	400	P	TQu	-- F	--	--	--

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/02W-04F03	Mott Fredrick R.	4704361225620	98	419	H	TQu	40	06-26-62	740	D
18N/02W-04G03	Thompson, Steve	4704371225559	156	97	H	Qva	10.97	09-15-88	14	D
18N/02W-04J08	Heggen, Richard	4704341225553	170	125	H	Qf	33	12-27-78	13	D
18N/02W-05B02	Winkelman, Jim	4704511225723	182	79	H	Qva	62.34 Z	09-13-88	--	--
18N/02W-05B03	Bracken, Candy	4704571225730	150	59	H	Qva	33.37	06-29-88	--	D
18N/02W-05C03	Kelly, Dan	4704581225733	145	57	H	Qva	28.24	06-29-88	--	D
18N/02W-05D02	Sacre, Mary	4704501225805	160	110	H	Qf	55.05	09-13-88	14	D
18N/02W-05D03	South Sound Utility, Rainwood Well	4704471225755	180	106	P	Qva	68.84	06-23-88	280	D
18N/02W-05D04	Hartley, James R.	4704581225757	168	100	H	Qva	63.88	09-27-88	34	D
18N/02W-05H01	Harper, Larry	4704361225700	140	60	H	Qva	12	05-18-79	--	D
18N/02W-06E02	Brower, Hal	4704451225920	35	45	H	Qc	--	--	--	--
18N/02W-06N01	Thorkildsen, Arnt	4704131225916	150	165	P	Qc	86	11-20-87	56	D
18N/02W-07D01	South Sound Utility, Simmons Ct. Well	4704051225916	160	99	P	Qva	82.03	06-14-88	--	D
18N/02W-07E01	Rutz, Jerry	4703471225918	163	101	H	Qva	82.38	06-14-88	280	D
18N/02W-07J03	Conwell Water Supply	4703391225826	195	149	H	Qva	115.87	06-14-88	79	D
18N/02W-07L02	Noble Carol	4703361225854	145	73	H	Qva	59.98	06-14-88	290	D
18N/02W-07N02	Munro, Ralph	4703281225909	40	39	H	Qva	>-12.5 F	06-23-88	59	D
18N/02W-07N03	McKeehan, Suzan	4703271225915	40	40	H	Qva	0	01-15-87	210	D
18N/02W-07R01	McBride, Kenneth	4703211225826	155	125	U	Qva	83.43	04-04-88	75	D
18N/02W-08E03	McBrayer, Clyde	4703481225800	172	64	H	Qva	39.05	09-15-88	340	D
18N/02W-08N03	Swigert, Mike	4703271225808	160	120	H	Qva	86.97	09-03-88	110	D
18N/02W-09D01	Kanda, Devin	4704071225638	178	67	H	Qva	29.56	09-13-88	>1,100	D
18N/02W-09D02	Woodland Park Water Assoc.	4704071225649	250	104	P	Qvt	20.47 R	09-06-88	9.6	--
18N/02W-09G01	Carlson, James D.	4703541225609	248	191	H	Qva	110	07-12-82	31	D
18N/02W-12A03	Kvernvik, Andrea	4704081225149	165	84	H	Qva	7.75 Z	09-30-88	35	D
18N/02W-12E01	Ridley, Tim	4703491225253	160	70	H	Qva	15.03	11-04-88	61	D
18N/02W-12G04	Peace Lutheran Church	4703501225208	173	164	H	TQu	91.67	06-24-88	220	D
18N/02W-12G05	Olympia Frosted Foods	4703561225210	180	194	N	Qc	--	--	--	--
18N/02W-12H01	Huber, Kaiser	4703541225155	171	138	H	Qc	96.64 R	06-21-88	80	D
18N/02W-12J01	Norris, Dean	4703401225153	165	28	H	Qvr	3.45	09-30-84	26	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/02W-12K04	Childress, Bill	4703341225211	165	145	H	Qc	89.25 Z	09-14-88	11	D
18N/02W-12Q03	Knudson, Del	4703191225226	165	44	H	Qva	5	06-17-82	120	D
18N/02W-12Q04	Jones, Tom	4703271225226	180	28	H	Qvr	17.48	07-21-88	--	--
18N/02W-12R01	Brown, Adrian	4703191225200	158	139	H	Qc	66.50	09-30-88	1,000	D
18N/02W-16A01	Curls, Tilden	4703151225539	193	140	H	Qva	102.97	09-27-88	1,800	D
18N/02W-17B02	Heritage West	4703041225729	165	117	P	Qva	78	09-26-77	180	D
18N/02W-17B03	Heritage West	4703041225731	166	123	P	Qva	79	10-13-77	78	D
18N/02W-17B04	City of Olympia, Well No. 1	4703101225727	155	111	P	Qva	59	10-07-88	--	--
18N/02W-17D05	Linderman Ken	4703141225800	175	125	H	Qvt	95	03-08-87	15	D
18N/02W-17H02	Bark & Garden Center	4702531225710	185	119	I	Qva	90	07-14-78	510	D
18N/02W-17H03	Bark & Garden Center	4702541225710	183	109	I	Qva	80.56	06-17-88	560	D
18N/02W-17M02	Thurston Co. Fire Dept. No. 9	4702451225808	150	131	H	Qva	84.88	05-23-68	520	D
18N/02W-17M04	City of Olympia, McLane Test Well	4702451225810	155	160	U	Qva	91.40	06-17-88	>230	D
18N/02W-17Q04	Leight & Nelson	4702341225732	175	153	H	Qc	94.94	06-17-88	490	D
18N/02W-18A02	Unknown	4703061225812	184	140	H	Qva	98.76	06-17-88	--	D
18N/02W-18G04	Sunday, Dale	4702591225841	160	100	H	Qva	81	04-01-82	160	D
18N/02W-18K01	McLane School	4702371225833	175	180	U	Qc	117.85	05-18-78	--	--
18N/02W-18K02	City of Olympia, Test Well No. 4	4702401225848	120	160	U	Qc	84.00	06-17-88	370	D
18N/02W-18K03	City of Olympia, Expl. Well No. 2	4702411225841	145	200	U	Qc	117	01-17-88	--	D
18N/02W-18L01	City of Olympia, Well No. 2	4702381225903	10	229	U	TQu	-- F	06-17-88	47	D
18N/02W-18L01S	City of Olympia, Allison Springs	4702381225902	10	--	Q	Qva	--	--	--	--
18N/02W-18L02	City of Olympia, Well No. 13	4702411225847	130	185	U	Qc	109.53	08-02-89	540	D
18N/02W-20C01	Kaiser Road Industrial Park	4702171225735	170	71	H	Qva	62.84	06-17-88	>530	D
18N/02W-21Q01	Washington State Highway Department	4701431225615	135	75	H	Qva	9	02-20-68	65	D
18N/02W-22D01	Washington State Work Release House	4702171225527	210	149	U	Qva	123	02-27-78	23	D
18N/02W-22E01	Daigneault, Maurice	4702101225531	210	200	H	Qf	127.27	09-19-88	32	D
18N/02W-24B01	Mallinger, John	4702091225217	100	51	H	Qva	5	04-15-85	62	D
18N/02W-25A03	Porter, William	4701201225200	188	73	H	Qva	65.79	07-26-88	56	D
18N/02W-28J01	Wickett, Russ	4700591225542	198	184	H	Tb	129	05-07-87	.017	D
18N/02W-28J02	Danielson, James	4701021225552	135	83	H	Qva	18.10	09-20-88	1,100	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/02W-29N01	Mills, Gary	4700491225806	199	98	H	Tb	29.71	09-21-88	--	D
18N/02W-30Q02	Vovi Friendship Association	4700421225836	175	163	H	Tb	21.68 Z	09-29-88	--	D
18N/02W-31G01	Martini, Dick	4700241225837	150	50	H	Qvt	12	06-06-85	16	D
18N/02W-31J03	Horowitz, Harry	4700051225815	135	67	H	Qva	1.22	09-29-88	620	D
18N/02W-31L01	Williams, Nancy	4700041225849	164	68	H	Qva	35.66 Z	09-20-88	25	D
18N/02W-31P02	Columbus Park	4659541225853	167	105	P	Qc	45.36	09-20-88	81	D
18N/02W-31P03	Columbus Park Trailer Club	4659531225857	160	106	P	Qc	36.68 Z	10-11-89	22	D
18N/02W-31R02	Westhoff, Lyle	4659511225815	150	28	H	Qva	10.95	09-15-88	310	D
18N/02W-32A06	Reinker, Robert	4700361225655	181	80	H	Qva	30	--	97	D
18N/02W-32B02	Rollman, Dick	4700281225715	175	37	H	Qva	22.90	09-21-88	40	D
18N/02W-32D02	Mills, Gary	4700371225752	138	140	U	Tb	107	12-14-87	--	D
18N/02W-32D03	Woski, L.F.	4700381225808	180	173	H	TQu	38	05-19-78	--	D
18N/02W-32K01	Siegler, Jacob	4700091225720	177	67	H	Qva	7	02-16-79	51	D
18N/02W-32K02	Boysen, Linda S.	4700101225725	177	61	H	Qva	20	08-08-81	44	D
18N/02W-33A03	Scott, Gary	4700391225543	155	46	H	Qva	14	02-09-81	13	D
18N/02W-33C01	Harrison, Norman	4700391225635	270	304	H	Tb	65	08-10-88	--	D
18N/02W-33M01	Funk, Bill	4700021225642	181	120	H	Tb	9.77	09-21-88	1.2	D
18N/02W-33R02	Gronmyer, Lee	4659581225553	163	60	H	Qvr	12.55 Z	09-29-88	20	D
18N/02W-34B01	Mead, Betty	4700351225456	170	37	H	Qvr	20.07	09-20-88	63	D
18N/02W-34C02	Rogers, Sandy	4700301225508	170	61	H	Qvr	17.62	09-21-88	280	D
18N/02W-35B02	Pabst Brewing Co., Well No. 35	4700331225344	185	258	N	Qv	98	05-23-89	70	D
18N/02W-35B04	Pabst Brewing Co., Well No. 37	4700361225345	170	228	N	Mlt	46	02-09-89	--	D
18N/02W-35B05	Pabst Brewing Co., Well No. 38	4700361225341	185	294	N	Qc	98	08-23-89	90	D
18N/02W-35F06	Pabst Brewing Co., Well No. 11	4700251225353	100	134	N	Mlt	16	02-09-89	--	D
18N/02W-35F08	Pabst Brewing Co., Well No. 18	4700191225402	95	147	N	Qva	--	--	--	D
18N/02W-35F11	Pabst Brewing Co., Well No. 22	4700181225359	100	152	N	Qva	13	02-09-89	--	D
18N/02W-35F12	Pabst Brewing Co., Well No. 23	4700151225400	95	132	N	Qva	38	02-09-89	--	D
18N/02W-35K01	Pabst Brewing Co., Well No. 29	4700021225342	105	318	I	TQu	-- F	01-05-89	--	D
18N/02W-35K02	Pabst Brewing Co., Well No. 31	4700041225343	105	344	I	TQu	-- F	01-05-89	--	D
18N/02W-35K03	Pabst Brewing Co., Well No. 39	4700061225335	110	390	N	TQu	-- F	--	150	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/02W-35M01	City of Tumwater, Well No. 1	4700061225409	110	80	P	Qva	8	--	61	--
18N/02W-35M02	City of Tumwater, Well No. 2	4700071225409	110	92	P	Qva	9.27	01-06-89	250	D
18N/02W-35M03	City of Tumwater, Well No. 3	4700051225411	110	96	P	Qva	8	05-01-65	97	D
18N/02W-35M04	City of Tumwater, Well No. 4	4700061225409	110	90	P	Qva	8	--	210	D
18N/02W-35M05	City of Tumwater, Well No. 5	4700071225411	110	115	P	Qva	9.94	01-06-89	53	D
18N/02W-35M06	City of Tumwater, Well No. 6	4700041225412	110	120	P	Qva	8.22	01-06-89	75	D
18N/02W-35M08	City of Tumwater, Well No. 8	4700061225414	110	90	P	Qva	5.93	01-06-89	110	D
18N/02W-36D01	Briggs Nursery	4700261225248	183	319	I	Mlt	82.08 Z	09-29-88	84	D
18N/02W-36L01	Crawford, Dale	4700071225245	185	124	H	Qva	80	10-02-78	44	D
18N/03W-01D02	Voigt, L.C.	4704541230027	10	64	H	Qc	-- F	--	--	D
18N/03W-01D04	Holz, Tom & Lynn	4704551230027	65	136	H	Qc	46	--	140	D
18N/03W-01J02	Hicks, Bill	4704311225939	70	75	U	Qc	34.26	06-14-88	330	D
18N/03W-01K04	Neat, Darrell	4704261225954	20	72	H	Qc	-- F	07-18-82	160	D
18N/03W-01L01	Hogan, Dave	4704251230008	50	53	H	Qc	43.49	07-11-88	330	D
18N/03W-02A02D1	Tallman, Ron	4704501230046	130	179	H	Qc	126.50	07-14-88	320	D
18N/03W-02B05	Griffin School	4704481230058	165	117	H	Qva	91.43	06-16-88	270	D
18N/03W-02B06	Peters, William	4704501230110	165	100	H	Qva	87.14	08-22-88	260	D
18N/03W-02C02	Baker, Steven	4704571230130	180	180	H	Tb	6.93	08-18-88	--	D
18N/03W-02H02	Sexton, L.W.	4704361230050	6	71	P	Qc	-- F	05-02-67	--	D
18N/03W-02H05	Smith, Gary	4704451230053	135	178	H	Qc	133.18	07-15-88	--	D
18N/03W-02J01	Smith, James M.	4704321230055	35	55	H	Qc	--	--	--	--
18N/03W-03J02	Wynne, Tom	4704321230210	180	24	H	Qva	5	05-19-66	88	D
18N/03W-04R02	Wynne, Henry	4704171230319	180	60	H	Mlt	1.40	06-22-88	--	D
18N/03W-04R03	Wynne, Henry	4704181230320	180	60	H	Qc	1.87	06-22-88	20	D
18N/03W-07L02	Hills, Dwayne	4703321230612	490	420	U	Tb	13.05	06-22-88	--	D
18N/03W-08C01	Hilliard, Glenn	4703591230513	525	460	H	Tb	77.73	06-22-88	--	D
18N/03W-11C01	Campbell, Woodie	4704021230121	150	138	H	Tb	12.35	07-21-88	--	D
18N/03W-11D01	Borcherding, Dave	4704021230133	440	60	U	Tb	1.80	07-21-88	.83	D
18N/03W-11P02	Strassburger, Jim	4703181230126	230	40	H	TQu	-- F	07-11-88	57	D
18N/03W-11Q01	Connell, William	4703161230106	250	72	H	TQu	56	02-01-79	47	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/03W-12D01	Hoy, David	4703591230023	50	106	U	TQu	67.88	07-14-88	330	D
18N/03W-12G01	Ekar, Kevin	4703441225952	80	56	H	Qva	26.00	07-11-88	180	D
18N/03W-12H01	South Sound Utility, Inlet Heights Well #1	4703451225930	160	207	P	TQu	120	10-21-79	180	D
18N/03W-12H02	Garrett, Bob	4703541225942	170	121	H	Qva	99.73	07-11-88	--	D
18N/03W-12H03	South Sound Utility, Inlet Heights Well #2	4703481225928	165	114	P	Qva	88.09	08-03-89	--	D
18N/03W-12K01	Lafler, John	4703401225944	80	78	H	Qf	31.81	08-04-88	21	D
18N/03W-12L01	White, Barry & Sue	4703391230006	30	49	H	Qc	10.87	07-14-88	--	D
18N/03W-12R01	Osborne, A.F.	4703281225927	12	27	H	Qc	-- F	--	--	--
18N/03W-13B01	Hively, H.	4703151230005	15	50	H	?	--	--	--	--
18N/03W-13G02	Dorsett, Lester	4702501225952	20	90	H	Qc	-- F	--	--	--
18N/03W-13G06	Pisani, Nick	4702521225948	20	69	U	Qc	4.72	08-04-88	--	D
18N/03W-13H02	Connor, Bill	4702561225928	20	300	U	Tb	161	01-05-88	--	D
18N/03W-13K01	Mook, M.L.	4702381225958	50	85	H	Qc	21	06-30-60	--	--
18N/03W-13K03	West Olympic Baptist Chapel	4702441230001	75	79	H	Qc	29.31	06-14-88	160	D
18N/03W-13Q01	Wilder, F.E.	4702281225955	60	83	H	?	--	--	--	--
18N/03W-14J01	Simpson, Sam	4702461230054	195	38	H	Qva	17	05-01-87	32	D
18N/03W-16E01	Graves, Ray	4702521230417	540	415	U	Tb	6.00 Z	07-15-88	--	D
18N/03W-16N01	Nixon, Margaret	4702331230416	510	300	H	Tb	49.24 Z	07-21-88	.018	D
18N/03W-16P02	Jewell, Dave	4702241230355	460	80	H	Mlt	15	04-14-77	--	D
18N/03W-16Q01	Gunter, Robert	4702241230348	425	47	U	Tb	5.38	07-20-88	40	D
18N/03W-17R01	MacLachlan	4702281230430	490	88	H	TQu	24.33	07-12-88	8.5	D
18N/03W-18A01	Daniel, Daniel	4703031230544	670	400	H	Tb	84.67 R	05-11-89	--	D
18N/03W-18E01	Lamson, Earl	4702541230650	490	215	H	Tb	178	06-10-75	--	D
18N/03W-19C01	Cuyle, Jack	4702151230620	670	115	H	Tb	-- F	07-21-88	--	D
18N/03W-19E01	Hughes, Wayne	4702031230650	490	28	H	TQu	24	05-10-78	--	D
18N/03W-19F01	Person, Jerry	4702021230627	525	103	U	TQu	8.78	07-15-88	15	D
18N/03W-22A01	Oletzke, Mark	4702101230211	410	290	H	Tb	--	--	--	D
18N/03W-22H01S	Unknown	4702021230217	325	--	U	Qvr	--	--	--	--
18N/03W-22J01	Roth, Ray	4701521230206	320	47	H	Qva	24.34	06-22-88	430	D
18N/03W-23A01	Cedar Flats, Well No. 1	4702101230052	210	53	U	Qvt	1.65	06-22-88	13	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)		Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
18N/03W-23A02	Cedar Flats, Well No. 2	4702101230052	210	53	U	Qvt	5.48		06-22-88	5.4	D
18N/03W-23B02	Kibit, Robert	4702151230114	230	40	H	Qvy	1.63	R	07-15-88	8.8	D
18N/03W-23F01	Briggs, Robert	4702071230123	295	160	U	Mlt	38.86	Z	07-20-88	--	D
18N/03W-23G01	Smith, Leslie	4702071230118	260	65	H	Qc	21.95		06-16-88	--	D
18N/03W-23H04	Cedar Flats, Well No. 3	4701571230043	170	48	U	Qva	21.60		06-22-88	27	D
18N/03W-23H05	Cedar Flats, Well No. 4	4701571230043	170	48	U	Qva	26.51		06-22-88	15	D
18N/03W-23J01	Lee, Steve	4701451230043	200	55	H	Qvt	27		02-15-79	21	D
18N/03W-23K02	Ulery, George	4701471230105	225	59	H	Qva	5.69		06-16-88	19	D
18N/03W-23N01	Ziesemer, George	4701401230146	330	41	H	Qva	2.08		07-12-88	31	D
18N/03W-23N02	Ash, Mark	4701351230153	355	63	H	Qva	36.98	R	07-12-88	280	D
18N/03W-23P01	Shaffer, Bill	4701331230133	310	59	H	Qva	27.09	Z	06-15-88	140	D
18N/03W-23Q01	Olson, William	4701401230121	245	88	H	Qc	27.65	R	06-15-88	120	D
18N/03W-24H01	King, Frank	4702061225931	20	207	H	TQu	--	F	--	190	D
18N/03W-24H02	McGraw, Mike	4702021225943	35	44	P	Qc	16.11		07-12-88	680	D
18N/03W-24J01	Frank, W.L.	4701461225934	20	116	H	TQu	--	F	--	--	--
18N/03W-24J02	Ramsaver, R.J.	4701491225926	20	105	H	Tb	4.77		06-16-88	17	D
18N/03W-24J03	Jones, Jack	4701561225942	35	29	H	Qc	16.09		06-14-88	400	D
18N/03W-24M01D1	Jones, Jack	4701451230039	197	100	H	Qva	77.25	Z	06-17-88	--	D
18N/03W-24P01	House, Steve	4701351230021	180	135	H	Qc	118.33	R	06-15-88	>610	D
18N/03W-24R04	Weeks, Clarence	4701381225933	20	115	H	TQu	--	F	05-17-78	--	--
18N/03W-24R06	Shoemaker, Richard	4701431225936	30	138	H	TQu	--	F	--	280	D
18N/03W-25A02	Meredith, Mark	4701301225932	30	65	H	Tb	1.17		06-17-88	5.5	D
18N/03W-25J01	Dunham, Floyd	4700551225942	120	90	H	Qc	50.89		06-16-88	45	D
18N/03W-25P01	Coleman, Ray	4700401230007	65	100	H	Qc	2.82		07-11-88	1,500	D
18N/03W-25R04	Hanna, Lloyd	4700401225936	125	130	H	Mlt	37.06		07-12-88	--	D
18N/03W-36B01	Thomas, Ben	4700351230002	65	79	H	Qc	.98		07-12-88	--	D
19N/01E-30E01	National Fish & Oyster Co.	4706181224409	10	34	C	Qc	--	F	--	--	--
19N/01E-30M01	Foreman Zetta M.	4706151224404	55	72	H	TQu	56.72		05-08-78	100	D
19N/01E-30P06	Conner, Ann	4705571224344	155	186	H	Qv	154.90		07-13-88	62	D
19N/01E-30P07	Johnson, Robert	4705551224343	150	60	H	Qva	7.25		07-08-88	--	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
19N/01E-30Q01	Kreider C.D.	4705591224335	62	107	H	TQu	71	04-20-86	--	D
19N/01E-30Q02	Ivey, Curtis	4706001224335	80	104	H	TQu	80.15	07-08-88	130	D
19N/01E-31C03	Ramez, Maria	4705471224344	200	238	H	Qc	--	--	--	--
19N/01E-31C04	Smith, Dick	4705491224346	190	38	H	Qvr	18	09-09-85	150	D
19N/01E-31C05	Johansen, Norval	4705451224344	208	--	I	Qvr	39.84	07-08-88	--	--
19N/01W-03N01	Manor, Ron	4709311224753	30	98	H	TQu	72.95	04-10-89	480	D
19N/01W-04D03	Johnson Point Water System	4710001224909	120	134	P	Qc	102	06-20-86	630	D
19N/01W-04F02	Zittle, Mike	4709521224840	100	116	H	Qc	93.46	05-02-89	--	--
19N/01W-04G01	Pinkerton &	4710021224838	55	90	H	Qc	69	--	--	--
19N/01W-04J02	Wakkures, David	4709401224804	55	66	H	Qc	56	10-12-57	--	D
19N/01W-04P01	Eichelser	4709221224856	165	215	H	Qc	159.65	07-15-88	63	D
19N/01W-05H01	Shumway, S.E.	4709531224929	60	99	H	Qc	55.81	05-09-78	61	D
19N/01W-05J01	Cushman, Kent	4709441224932	5	337	H	TQu	-- F	05-09-78	--	--
19N/01W-05J04	Antipa, Ross	4709371224926	45	--	H	?	42.22	07-21-88	--	--
19N/01W-05N02	Brabeck, E.D.	4709331225031	45	50	H	Qc	43	10-19-59	--	--
19N/01W-05R04	Wick, R.H.	4709231224929	40	139	H	TQu	36	12-01-64	41	D
19N/01W-05R05	Treece, Steve	4709311224930	10	203	H	TQu	30.22	07-21-88	9.9	D
19N/01W-05R06	Carlson, Wendell	4709291224930	20	194	H	TQu	37	12-07-81	16	D
19N/01W-06H01	Ward J.M.	4709491225038	30	144	H	Qc	25.42	05-01-89	--	--
19N/01W-06J06	Tremblay, Laurie	4709401225048	22	37	H	Qc	11.07	07-21-88	120	D
19N/01W-06J07	Oliver, Scott	4709431225042	45	50	U	Qf	--	--	--	D
19N/01W-06K04	App, H.F.	4709451225055	40	65	H	Qc	27.47	05-02-89	--	--
19N/01W-06K05	Hoonan, Kevin	4709441225107	80	70	H	Qf	38.21	09-25-88	.052	D
19N/01W-06L01	Johnson, Harry	4709411225120	61	190	H	TQu	69.24 R	08-08-88	250	D
19N/01W-06M03	Crabb	4709351225139	65	300	H	TQu	--	--	--	--
19N/01W-07A01	South Sound Utility, Libby Road Well	4709101225039	85	82	P	Qc	45.13	06-21-88	6,600	D
19N/01W-07N01	Wright, L.W.	4708421225135	120	133	H	Qc	--	--	--	--
19N/01W-07N02	Dunham, Dennis	4708301225132	125	138	H	Qc	95	04-15-77	180	D
19N/01W-07R01	Linscott, Robert	4708331225033	40	1000	P	TQu	36.10 R	12-22-88	1.2	--
19N/01W-08A03	Budinich, Henry	4709151224926	60	137	H	TQu	--	--	--	--

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
19N/01W-08J01	Bain, Leona	4708481224932	40	87	H	Qd	--	--	--	--
19N/01W-08K01	Meyer, Ernest	4708451224932	80	89	H	Qc	64.13	12-22-88	180	D
19N/01W-08R01	Coates, Don	4708351224934	50	79	H	Qc	38.33	09-14-88	33	D
19N/01W-09L01	Berndt	4708551224858	230	146	H	Qva	55	10-20-77	10	D
19N/01W-09L02	Chase, Milton	4708461224852	190	90	H	Qva	54.52	08-29-88	150	D
19N/01W-09R03	Libby, Nick	4708341224814	157	65	H	Qva	25.28	07-13-88	380	D
19N/01W-09R04	Hendershot, Ken	4708301224804	162	56	H	Qva	47.76 R	07-25-88	180	D
19N/01W-10C02	Reed, Richard	4709071224740	65	90	H	Qc	65	--	--	--
19N/01W-10F04	Smircich, Julius	4709051224735	62	74	H	Qc	60.31	08-29-88	310	D
19N/01W-10L02	Bennett, Don	4708441224727	30	85	H	Qc	30	07-28-47	--	--
19N/01W-10L04	Coker, Lynn	4708421224735	70	83	H	Qc	67.97	08-30-88	>680	D
19N/01W-10N01	Thayer, Marshall	4708291224747	161	73	H	Qva	57	03-11-88	620	D
19N/01W-10N02	Skogen, Kevin	4708401224752	148	56	H	Qva	30.88	08-30-88	150	D
19N/01W-10P01	Erickson, A.C.	4708391224737	85	88	H	Qc	73.60	07-14-88	86	D
19N/01W-10Q02	Toumey, Jim	4708291224717	70	119	H	Qc	70.11 R	08-29-88	32	D
19N/01W-15C01	Grimes, Jack	4708261224736	110	55	H	Qva	32.73	07-15-88	410	D
19N/01W-15C02	McCullough, Jerry	4708211224739	145	100	H	Qc	--	--	--	D
19N/01W-15C03	Sortias, J.	4708191224732	144	80	H	Qva	56.87	08-09-88	--	D
19N/01W-15E01	Jenkinson, David	4708031224746	165	69	H	Qva	54.73	07-14-88	600	D
19N/01W-15G01	Cole, Kenneth	4708031224716	40	80	H	TQu	38.97	05-09-78	--	--
19N/01W-15K03	Michael, George	4707491224715	80	82	H	Qf	45	04-16-76	4.9	D
19N/01W-15L01	Heinemann, Ed	4707501224730	137	134	H	Qf	100	08-04-86	.11	D
19N/01W-16K01	Faust, John	4707591224828	160	90	H	Qva	53.58	07-14-88	87	D
19N/01W-16K02	Sparling, Mary	4707581224832	155	71	H	Qva	34.22	08-18-88	440	D
19N/01W-16L01	Michael, John	4707591224849	165	80	H	Qva	46	02-02-79	--	D
19N/01W-16N02	Feero, Stan	4707421224913	121	78	H	Qva	27.27	07-13-88	54	D
19N/01W-16R01	Spraglung, Mike	4707441224807	158	149	H	Qc	113.20	07-25-88	53	D
19N/01W-17A03	Russell, Montgomery	4708301224936	30	128	H	TQu	--	--	--	--
19N/01W-17A05	Chervenka, Francis	4708241224935	40	174	H	TQu	40.97	07-15-88	47	D
19N/01W-17J02	Prince, Louis	4707571224932	43	95	H	TQu	44.29	08-24-88	100	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
19N/01W-17K01	Madden, W.C.	4708001224940	5	38	H	Qc	-- F	--	--	--
19N/01W-17M01	Weyerhaeuser Co.	4708011225030	10	995	H	TQu	-- F	--	3,100	D
19N/01W-17N01	Koch, R.m.	4707471225028	9	20	H	Qc	--	--	--	--
19N/01W-17N02	Zorn, Mike	4707461225033	70	102	H	Qc	65.32	07-20-88	20	D
19N/01W-17R02	Robinson, H.E.	4707451224936	15	130	H	TQu	9	09-22-58	--	--
19N/01W-18E01	Walker, Harlan	4708131225147	101	46	H	Qg	27	--	3.6	D
19N/01W-18F01	Hoover, Alan	4708111225128	90	64	H	Qg	28.73	07-25-88	28	D
19N/01W-18M02	Creeley, Chris	4707581225148	85	49	H	Qf	27	--	5.1	D
19N/01W-18P01	Hale, Charles	4707481225114	70	108	H	Qc	66.60	07-20-88	160	D
19N/01W-19B01	Myers, L.O	4707321225101	50	85	H	Qc	--	--	--	--
19N/01W-19L02	Seibold, Bill	4707081225123	70	98	H	Qf	25	--	35	D
19N/01W-19P03	Ledgerwood, Kelly	4706511225113	120	105	H	Qc	68.31	09-14-88	1,100	D
19N/01W-20G01	Glenn Alder Water & Improvement	4707131224940	125	159	P	Qc	113	06-01-64	68	D
19N/01W-20G04	McMinn, Jim	4707181224940	110	124	H	Qc	102.74	08-19-88	550	D
19N/01W-20H01	Husk, Richard	4707131224924	150	178	I	Qc	147	01-08-64	610	D
19N/01W-20L01	Snug Harbor Owners Club	4707101225006	15	377	P	TQu	-- F	10-17-88	--	D
19N/01W-20Q01	Wright, J.M.	4706451224958	95	116	H	Qc	96	--	310	D
19N/01W-20R03	Long, R.R.	4706541224931	15	68	H	Qc	11	09-23-58	--	--
19N/01W-21C03	Gilbery, Earl	4707251224857	162	67	H	Qva	49.28	07-28-88	260	D
19N/01W-21K01	Bruns, David W.	4707081224825	130	126	H	Qf	72	07-16-75	10	D
19N/01W-21L02	Wilmouth, William J.	4707081224855	115	78	H	Qva	26.18	07-28-88	35	D
19N/01W-21M01	Green, Bill	4707041224859	90	116	H	Qc	19.50	07-20-88	120	D
19N/01W-21M02	Smith, Charles	4707051224917	90	123	H	Qc	85.74	08-18-88	220	D
19N/01W-21N01	Flahaut, Florence	4706461224904	125	218	H	TQu	--	--	--	--
19N/01W-22A01	Whittaker, Dale	4707331224652	65	143	H	TQu	57.43 Z	09-30-88	4.2	D
19N/01W-22G01	Joachim, Jeff	4707161224710	120	128	H	Qc	92	03-06-78	150	D
19N/01W-23D02	Hovancsek, Don	4707311224647	104	133	H	Qf	92.28	09-14-88	2.9	D
19N/01W-23D03	Syben, Peter H.	4707251224641	60	114	H	Qf	81.34	09-15-88	23	D
19N/01W-23F02	Ashley, K.R.	4707121224614	40	388	H	TQu	--	--	--	--
19N/01W-23G02	Scmidt, Clifford	4707111224554	84	108	H	Qc	60	09-29-81	40	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
19N/01W-23L01	Tolmie State Park	4707091224623	100	344	P	TQu	72	06-15-71	--	D
19N/01W-23N01	Mance & Son	4706491224644	181	103	P	Qva	72.70	08-17-88	200	D
19N/01W-25F01S	Unknown	4706211224458	125	--	U	Qvt	--	--	--	--
19N/01W-25P01	City of Lacey, Well No. BC 1	4706031224458	225	140	P	Qva	77	06-28-76	360	--
19N/01W-25P02	City of Lacey, Well No. BC 2	4706021224458	225	138	P	Qva	84.63	07-08-88	420	--
19N/01W-27A01	Mance & Son	4706411224655	200	118	P	Qva	77.62	07-12-88	87	D
19N/01W-27N01	South Sound Utility, Foxhall Well No. 3	4706021224753	225	250	U	TQu	97.40	06-17-88	--	D
19N/01W-27N02	South Sound Utility, Foxhall Well No. 4	4706021224753	225	148	P	Qva	96.03	06-17-88	46	D
19N/01W-28A02	Allen, Roger	4706341224809	90	117	H	Qc	40.15 P	09-06-88	160	D
19N/01W-28C02	Gilson, John	4706351224848	170	146	H	Qc	101.96	08-19-88	520	D
19N/01W-28D04D1	Therin, Laney	4706431224900	150	228	H	TQu	110	01-05-79	3.3	D
19N/01W-28F02	Saylor, John	4706241224857	120	99	H	Qc	64.17	07-28-88	160	D
19N/01W-28F04	Laur, N.	4706291224856	140	110	H	Qc	72.60	10-27-88	--	D
19N/01W-28L02	Kaneen	4706161224853	82	78	H	Qc	31.27	10-03-78	73	D
19N/01W-28M01	Carter, Ray	4706071224900	60	84	H	Qc	12	07-16-76	33	D
19N/01W-28M02	Stillman, Charles	4706141224915	30	393	U	TQu	-- F	11-02-88	--	D
19N/01W-28N02	Sadler, Ronald	4706051224906	60	112	H	Qc	--	--	--	--
19N/01W-29A01	Maynard	4706401224940	12	225	H	TQu	-- F	--	--	--
19N/01W-29C02	Failor Richard	4706331224959	145	152	H	Qc	137.17	09-06-88	>690	D
19N/01W-29N01	Springer, Bill	4705531225033	135	120	H	Qc	37.63	09-07-88	120	D
19N/01W-30H03	Vannoy, Randy	4706291225038	120	88	H	Qva	48	--	89	D
19N/01W-30J02	Parsons, Ken	4706071225036	115	74	H	Qva	35	02-26-80	47	D
19N/01W-30P04	Canfield, Roger	4705561225128	115	122	H	TQu	98.09	10-28-88	830	D
19N/01W-30R02	Galivan, Harry	4706051225038	115	67	H	Qva	23.38	09-08-88	620	D
19N/01W-31B03	Collins, Mike	4705521225109	126	78	H	Qf	26.94	09-13-88	40	D
19N/01W-31F01	Carpenter, Denny	4705371225114	140	130	H	TQu	115	02-03-88	230	D
19N/01W-31K04	South Sound Utility, Red Cedar Est. Well	4705201225109	155	77	P	Qvt	39.35	06-21-88	27	D
19N/01W-31Q01	Crist, Brian	4705021225112	145	46	H	Qva	17	04-06-84	26	D
19N/01W-31R01	Hazel, John	4705081225042	165	164	H	TQu	126.92	07-20-88	120	D
19N/01W-32B01	Weston, Mike	4705441224946	50	211	H	TQu	39.14	09-06-88	160	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
19N/01W-32C04	Bergvall, John	4705501225007	145	94	H	Qva	46	03-26-87	130	D
19N/01W-32D03	Kirkland, Kenneth	4705461225034	157	70	H	Qva	52.17	09-15-88	130	D
19N/01W-32K03	Sodden, Ed	4705231224937	90	38	H	Qva	16.04	09-08-88	76	D
19N/01W-32K04	Hochgraef, Ron	4705181224953	128	62	H	Qva	54.45	07-11-88	73	D
19N/01W-32N03	Rose, Clyde	4705021225030	157	70	H	Qva	52.20	08-31-88	1,100	D
19N/01W-32P03	Topper	4705071225015	142	75	H	Qva	50.08	09-13-88	--	D
19N/01W-32Q03	Taber, Ron	4705061224942	100	63	H	Qva	29.44	06-20-88	43	D
19N/01W-32R01	Robb, Steve	4705041224933	80	86	H	Qvt	.56	11-01-88	15	D
19N/01W-33D03	Gretchman, A.G.	4705451224917	25	70	H	Qc	16	04-18-67	--	--
19N/01W-33E01	Lohrer, E.M.	4705311224919	5	150	H	TQu	-- F	--	--	--
19N/01W-33K03	South Sound Utility, Foxhall Well No. 1	4705211224823	160	110	P	Qva	80.00	06-17-88	--	--
19N/01W-33K04	South Sound Utility, Foxhall Well No. 2	4705221224823	160	163	P	Qc	79.41	06-17-88	36	D
19N/01W-33K05	Jacobsen, Maurice	4705141224829	150	122	H	Qva	52.55	09-08-88	38	D
19N/01W-34B01	Drohman, Robert	4705411224704	298	174	P	Qva	157.40 P	07-20-88	--	D
19N/01W-34M02	Willis, Mike	4705131224753	151	111	H	Qva	84.99	08-31-88	--	D
19N/01W-34N03	Heusman, Lee	4705031224747	151	112	H	Qva	77.89	09-06-88	--	D
19N/01W-34P01	Beaird, Pat	4705021224744	170	148	H	Qva	88.81	08-31-88	23	D
19N/01W-34Q02	Kuhnau, Dave	4705011224721	232	--	H	Qvt	94	--	--	--
19N/01W-35G01	Glacier Park Co.	4705301224558	250	590	P	TQu	201	08-23-84	170	G
19N/01W-35M01	City Of Lacey, Hawks Prairie Test	4705261224644	290	643	U	TQu	259	12-15-88	52	D
19N/02W-01Q01	Woldford, L.W.	4709241225210	80	118	H	Qc	--	--	--	--
19N/02W-01R03	Kincy, R.F.	4709251225205	85	90	H	Qc	--	--	--	--
19N/02W-03E02	Olson, Jeff	4709511225529	90	90	H	Qc	65.40	8-17-88	270	D
19N/02W-03F04	Precht, Corrine	4709541225511	30	--	H	?	--	--	--	--
19N/02W-03M02	Ronne, C.J.	4709401225523	60	104	H	Qc	--	--	--	--
19N/02W-04F03	Steeges, Ted	4709581225631	115	156	H	TQu	110	09-10-59	61	D
19N/02W-04F05	Beehler, Michael & Sally	4709581225632	125	156	H	TQu	--	--	--	D
19N/02W-05J01	Mondau, Fritz	4709411225705	85	110	H	Qc	73.20 R	08-02-88	830	D
19N/02W-05Q01	Adams, Carl	4709231225729	60	78	H	TQu	--	--	--	--
19N/02W-07L02	Rawding, Jack	4708521225857	15	120	H	TQu	10	06-11-59	--	--

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
19N/02W-07P01	Schaben, Norval	4708311225858	90	102	H	Qc	71.82	07-29-88	160	D
19N/02W-07P02	Clawson, Randy	4708341225854	80	99	H	Qc	65.90	08-01-88	410	D
19N/02W-07R01	Bork, Mike	4708391225822	40	205	H	TQu	53.82	08-12-88	>1,200	D
19N/02W-08A01	Williams, Jack	4709171225703	105	59	H	Qva	12	09-30-79	--	D
19N/02W-08B01	Camus, Damon	4709091225731	50	130	H	TQu	30.45 R	07-28-88	6.0	D
19N/02W-08C01	Sanders, Milford	4709171225733	60	85	P	TQu	--	--	--	--
19N/02W-08C02	Olympia View Water Association	4709171225733	60	160	P	TQu	53.64 R	07-28-88	78	D
19N/02W-08F02	Oviatt, Lorraine	4709031225742	40	172	H	TQu	30.75	08-10-88	190	D
19N/02W-08F03	Baker, Ted	4708591225743	60	156	H	TQu	38.86	08-17-88	--	D
19N/02W-08G01	Meach, Tom	4708571225723	100	144	U	TQu	112.31	08-02-88	>1,200	D
19N/02W-08G02	Moore	4709051225715	120	147	H	TQu	131	04-19-76	78	D
19N/02W-08H01	Miller, Dale	4708571225701	110	79	H	Qc	50	05-10-77	1,200	D
19N/02W-08K01	Osterberg, Stan	4708551225721	100	130	H	TQu	35	01-20-78	120	D
19N/02W-08M01	Cleveland, David M.	4708501225759	10	80	H	TQu	-- F	--	--	--
19N/02W-08N03	St. Julien, Joseph	4708401225801	40	221	H	TQu	36.90	07-18-88	26	D
19N/02W-08P01	Choate, James	4708311225744	125	87	H	Qc	56.41 Z	08-12-88	180	D
19N/02W-08Q01	Tanner, James	4708421225726	90	140	H	TQu	102.15	08-01-88	--	D
19N/02W-09F02	Norwood, Randy	4709021225628	100	139	H	TQu	99	12-30-83	620	D
19N/02W-09F03	Pegg, Lloyd	4709071225618	70	79	H	TQu	59	06-11-85	320	D
19N/02W-09G01	Edgewater Beach Water Co.	4709081225602	75	120	P	TQu	87	02-28-75	130	D
19N/02W-09H01	Edgewater Beach Water Co.	4709051225551	70	102	P	TQu	70.55	08-10-88	99	D
19N/02W-09L05	McConnell, Rachel	4708521225617	15	37	H	Qc	13.90 R	04-24-89	--	--
19N/02W-09L06	Salewsky, Ben	4708461225626	30	43	H	Qc	26	02-04-86	230	D
19N/02W-09N01	Camus, Morris	4708381225639	30	37	H	Qc	26.50	05-19-78	--	--
19N/02W-09N02	Pickering, Chris	4708401225636	30	56	H	Qc	23.85	06-23-89	720	D
19N/02W-09N03	Hueckel	4708381225647	80	105	H	Qc	69.24 R	08-11-88	120	D
19N/02W-09R01	Coopers Point Water Co.	4708341225539	10	360	P	TQu	-- F	--	--	D
19N/02W-11P02	Parsons	4708361225349	60	351	H	TQu	61.44	08-03-89	120	D
19N/02W-12C02	Lapham, H.H.	4709131225235	50	120	H	Qc	--	-	--	--
19N/02W-12F02	Ross, Ann	4709091225240	35	40	H	Qc	--	-	--	--

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
19N/02W-12F03	Hill, G.E.	4709061225242	60	65	H	Qc	52.76 -	04-28-89	--	--
19N/02W-12L02	Shaw, Lewis	4708541225232	98	148	H	Qc	--	--	--	D
19N/02W-12M02	Kluh, Frederick	4708471225257	80	621	H	TQu	--	--	--	--
19N/02W-13N03	Cushman, Bob	4707491225259	140	107	H	Qva	71.40	10-24-88	880	D
19N/02W-14H03	Boston Harbor Water System	4708101225317	130	36	P	Qvt	-- F	01-05-89	89	D
19N/02W-14H04	Ames, Martin	4708121225316	125	430	H	TQu	125.49	10-24-88	4.6	D
19N/02W-14J01	Johnson, Lee	4707541225316	146	116	H	Qf	77	--	16	D
19N/02W-14K01	Hammar, Bill	4707531225344	110	68	H	Qva	36.10	11-01-88	130	D
19N/02W-14P02	Radcliff, Bill	4707401225400	175	232	H	Qc	153.63	08-03-88	110	D
19N/02W-14Q03D1	McGill, Billy	4707381225326	140	130	H	Qc	--	--	--	D
19N/02W-15N01	Clearwell Water Co.	4707391225535	90	117	P	Qc	--	--	400	D
19N/02W-16A01	Lewis Water System	4708181225553	10	552	P	TQu	-- F	--	--	--
19N/02W-16J02	Finley, J.m.	4707531225549	140	10	U	Qvt	7	07-08-58	--	--
19N/02W-16J06	Lesnick, A.J.	4707571225540	80	105	H	Qc	--	--	--	--
19N/02W-16J08	Stewart, Michael	4707531225536	40	83	H	Qc	63.69 R	09-09-88	--	D
19N/02W-16J09	Myers, Bill	4708011225539	85	114	H	Qc	80	09-11-78	--	D
19N/02W-16K02D1	Vista Home Owners Association	4708021225556	55	382	P	TQu	35	--	31	D
19N/02W-16P01	Stone F.C.	4707411225624	40	70	H	Qc	--	--	--	--
19N/02W-16Q04D1	Kus, Roy	4707371225555	140	225	H	TQu	155	02-28-84	9.8	D
19N/02W-16Q05	Skube, Mary	4707381225558	140	151	H	Qc	139.32 Z	08-10-88	250	D
19N/02W-17A01	Boulden, O.O.	4708271225656	60	64	H	Qc	48	01-01-66	--	--
19N/02W-17C01	Freeze, Robert	4708271225733	120	240	H	TQu	111.36 Z	08-01-88	--	D
19N/02W-17D02	Bryant, Bill	4708281225754	100	345	H	TQu	93.88 R	08-01-88	--	D
19N/02W-17F01	Perez, Tony	4708141225734	120	335	U	TQu	95.54	08-04-88	--	D
19N/02W-17G01	Clark, Keith	4708111225725	105	210	H	TQu	70		620	D
19N/02W-18A02	Vannelli, Jim	4708191225818	120	67	H	Mlt	39.36	07-29-88	--	D
19N/02W-18B01	Dahlberg, Geoffrey	4708221225839	25	100	H	TQu	--	-	--	--
19N/02W-18C01	Reed, Dorothy	4708271225851	35	120	H	TQu	--	--	--	--
19N/02W-18F01	Bayness E.R.	4708171225859	40	73	H	TQu	--	--	--	--
19N/02W-18G01	Palmer, Fred	4708081225832	120	207	H	TQu	94	02-02-88	120	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
19N/02W-18K02	Robbins, Les	4707541225843	130	166	H	TQu	104.51	05-10-89	16	D
19N/02W-18K03	Niemi, George	4708011225840	120	150	H	TQu	97	04-30-77	120	D
19N/02W-18M01	Fitzthum, Alan	4708011225920	80	70	H	Qc	37.70	07-29-88	34	D
19N/02W-18N04	Parks, James	4707421225921	140	138	H	Qc	110	01-15-79	44	D
19N/02W-19H01	Eld Inlet Water Association	4707201225823	100	112	H	TQu	56.43	08-12-88	22	D
19N/02W-20D01	Rudnick, Terry & Sandy	4707291225755	110	299	U	TQu	90.93	08-17-88	370	D
19N/02W-20E01	Frohboes, K.H.	4707261225752	85	138	H	TQu	20	--	--	--
19N/02W-20E02	Maple Shores Community Homeowners	4707111225756	120	233	P	TQu	111.90 R	07-20-88	23	D
19N/02W-21C02	St. Martins Abbey	4707331225627	60	89	H	Qc	54.45	09-30-88	--	D
19N/02W-21F01	Murray, R.M.	4707201225627	85	306	H	TQu	75	--	--	D
19N/02W-21L01	Stuart, Dean	4707031225614	50	84	H	Qv	50	--	--	--
19N/02W-21Q03	Bidlake	4706511225611	60	275	H	TQu	--	--	--	--
19N/02W-21Q04	Gehring, Walter	4706521225610	48	231	H	TQu	49.72	09-08-88	82	D
19N/02W-21R02	Smith, Sherwood	4706491225545	125	161	P	Qv	135	10-07-79	100	D
19N/02W-22D01	Sollars, Ken	4707351225529	80	90	H	Qv	--	--	--	--
19N/02W-22D02	Tamo O Shan Water	4707281225532	40	258	P	TQu	14	11-02-88	62	D
19N/02W-22M06	Beverly Beach Community	4707101225524	10	439	P	TQu	-- F	--	--	D
19N/02W-22N01	Warden, John	4706491225525	50	65	H	Qv	47	08-10-59	--	--
19N/02W-23K01	Lynch, W.J.	4706581225334	20	385	H	TQu	-- F	--	--	D
19N/02W-24F01	Sims, Rory	4707181225238	105	80	H	Qg	57	03-27-88	18	D
19N/02W-24F02	Moore	4707171225230	120	86	H	Qbs	64.56	10-27-88	120	D
19N/02W-24H01	Lemon, Bob	4707161225154	120	110	H	Qg	67.03	10-24-88	26	D
19N/02W-24K01	Harry, Ray	4707081225225	120	93	H	Qg	65.49	11-01-88	20	D
19N/02W-25A02	Johnson, David	4706391225153	100	212	H	TQu	34.25 Z	10-27-88	6.9	D
19N/02W-25C07	Burdick, Eldie	4706381225235	118	140	H	Qv	110.46	07-25-88	250	D
19N/02W-25D01	Sears, Donald	4706441225257	90	123	H	Qv	82.90	05-12-78	84	D
19N/02W-25F01	North Olympia Fire Dist.	4706201225245	145	91	H	Qbs	56.48	11-01-88	82	D
19N/02W-25N01	Sollars, Ken	4705541225251	140	158	H	Qc	131.88	11-02-88	330	D
19N/02W-25R01	Merrilees, Charles	4705561225206	165	74	H	Qva	41.92 Z	10-31-88	62	D
19N/02W-26B01	Cushman, Dan	4706361225328	20	116	H	Qc	-- F	05-12-78	160	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
19N/02W-26J01	Ames, Mel	4706131225322	125	147	H	Qc	120	--	11	D
19N/02W-26K02	Stigglebout, Hendrick	4706071225330	80	173	H	TQu	--	--	--	--
19N/02W-26Q01	DNR	4705571225333	15	--	H	?	-- F	--	--	--
19N/02W-26Q05	Seashore Villa	4706021225333	20	118	P	TQu	--	--	--	--
19N/02W-27D03	Manning	4706411225527	78	114	H	Qc	61.75 Z	08-09-88	--	D
19N/02W-27D04	Wehrli, Craig	4706321225527	50	115	H	Qc	34.58	08-11-88	--	D
19N/02W-27D05	Smyth, D.W.	4706341225525	10	240	H	TQu	-- F	--	--	--
19N/02W-28B02	Wieg, D.	4706371225604	60	390	U	TQu	57.64	10-28-88	--	D
19N/02W-28J01	Dunn, Charles	4706121225551	10	213	P	TQu	-- F	--	--	D
19N/02W-28L02	Layton, M.J.	4706141225628	80	146	H	Qv	70.10	05-23-89	--	--
19N/02W-28L05	Allen, John	4706051225618	135	54	H	Qbs	30.79	08-08-88	41	D
19N/02W-28L06	Law, Don	4706181225614	108	460	H	TQu	108.51 Z	08-09-88	2.1	D
19N/02W-28N02	Haynes, Herbert L.	4706021225646	30	75	H	Qv	--	--	--	--
19N/02W-28N08	Baker, Don	4706041225643	50	88	H	Qv	43.28	08-09-88	23	D
19N/02W-29B02	Blackmer, C.L.	4706351225726	35	44	H	Qv	33	--	100	D
19N/02W-29B03	Labreck, Clayton	4706321225722	30	74	H	Qv	28	03-28-77	66	D
19N/02W-29B04	Labreck, Clayton	4706321225728	58	90	H	Qv	57.03	08-02-88	82	D
19N/02W-29C01	Coleman, Murry	4706421225738	40	76	H	Qc	35.16 R	08-03-88	32	D
19N/02W-29F01	Rohr, Robert	4706191225738	75	114	H	Qc	65.10 Z	08-04-88	140	D
19N/02W-29G02	Roe, F.D. & Carol	4706201225729	20	43	H	Qc	16.06	08-11-88	120	D
19N/02W-29M01	Breidnbach, F.J.	4706171225809	90	150	H	Qc	--	--	--	--
19N/02W-30B01	Vogt, Frank	4706421225842	100	79	H	Qva	61.78 R	08-01-88	--	D
19N/02W-30E01	Mustard, Rick	4706221225918	25	84	H	Qc	3.94	08-02-88	78	D
19N/02W-30F01	Cox, G.S.	4706231225900	70	70	H	Qva	38	--	--	--
19N/02W-30J02	McLean, R.B.	4706121225820	25	79	H	TQu	17.54 Z	08-10-88	15	D
19N/02W-30K03	Steere E.F.	4706151225844	60	110	H	Qc	45	05-02-67	--	--
19N/02W-30L03	Kissick, Gary	4706141225846	20	109	P	TQu	35	04-10-69	270	D
19N/02W-30N01	Barrett, Douglas	4705541225912	65	45	H	Qva	26	05-03-78	300	D
19N/02W-30N02	Yates, Richard	4706051225909	35	62	H	Qc	30	--	56	D
19N/02W-31E03	Martin, Mel	4705321225909	60	109	H	Qc	36.25	08-03-88	260	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
19N/02W-31M01	Nisbet, Charles & Sandra	4705141225917	40	86	H	Qva	--	--	--	--
19N/02W-31M03	Cratsenberg, Steve	4705241225911	20	104	H	Qc	15.97	08-03-88	15	D
19N/02W-31N01	Alberti	4705071225924	40	50	H	Qc	35	--	--	--
19N/02W-31R03	Evergreen State College	4705111225826	25	58	H	Qc	10	04-08-59	--	--
19N/02W-32A04	Biscay, John H.	4705471225702	80	120	H	Qc	59.32	05-23-89	--	--
19N/02W-32A06	Olympia Oil & Wood Products Co.	4705471225656	30	224	H	TQu	-- F	08-08-88	690	D
19N/02W-32A07	Havens, John	4705431225705	130	70	H	Qva	31.92	08-11-88	310	D
19N/02W-32B05	Beeman, P.J	4705471225719	5	228	H	TQu	-- F	--	--	--
19N/02W-32F02	Walbridge, Frank	4705311225740	30	60	H	Qc	7	--	--	--
19N/02W-32G02	Reese, Owen	4705301225716	175	158	H	Qva	83.90	08-11-88	74	D
19N/02W-32G03	Brenner, Byron	4705291225721	158	122	H	Qva	68.59	09-22-88	35	D
19N/02W-32G04	Skov, Niels	4705321225711	195	210	H	Qc	153.17 R	08-11-88	33	D
19N/02W-32H03	South Sound Utility, Biscay Villa Well	4705311225700	182	158	P	Qc	132.85	09-15-88	77	D
19N/02W-32M03	Aspinwall, R.C.	4705221225801	35	90	H	Qc		--	--	--
19N/02W-32M05	Dolby, Timothy	4705241225754	60	52	H	Qc	27	10-15-86	--	D
19N/02W-32M06	Kildow, Beverly	4705251225750	65	65	H	Qc	25.78 Z	08-11-88	78	D
19N/02W-33B02	Cockrall & Peckler	4705441225555	192	134	H	Qva	111.01	09-15-88	60	D
19N/02W-33D01	Burmer, Fred	4705441225650	70	107	H	Qc	65.15	08-10-88	130	D
19N/02W-33F02	Sager, Roger	4705301225623	135	112	H	Qc	70.57	09-30-88	150	D
19N/02W-33G01S	Unknown	4705301225612	95	--	U	Qva	58.12	--	--	--
19N/02W-33G02	Lazar, David	4705341225604	130	--	H	Qva	116.08	09-29-88	--	--
19N/02W-33G03	Kormandy, Mrs. Ed	4705311225603	130	143	H	Qc		09-09-88	--	D
19N/02W-33H02	Bruno	4705371225552	150	165	H	Qc	142	--	130	--
19N/02W-33H03	Stivers-Schmidt, Zua	4705371225550	120	139	H	Qc	101.76	09-08-88	170	D
19N/02W-33K05	Breuer, W.J.	4705181225605	140	150	H	Qc	--	--	--	--
19N/02W-33K08	Ramsey, Wilmont	4705241225556	19	120	H	Qc	-- F	09-08-88	140	D
19N/02W-33M03	Adee, Don	4705131225633	165	84	H	Qva	59.93 Z	09-09-88	32	D
19N/02W-33Q01	Butler Cove Water Co., Well No. 3	4705071225600	10	355	P	TQu	-- F		--	D
19N/02W-33Q03	Olympia Country & Golf Club	4705071225600	30	227	P	TQu	10	06-24-77	73	D
19N/02W-35B01	Dehart, Glenn	4705451225336	110	173	H	Qv	--	--	--	--

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
19N/02W-35B03	Putscher, Larry	4705491225325	118	160	H	Qv	110.17	07-25-88	220	D
19N/02W-35G02	Anderson, John	4705291225328	120	160	H	Qv	115	05-28-59	--	--
19N/02W-35K05	Bunn, Larry	4705151225356	70	107	H	Qc	68.48 Z	11-04-88	240	D
19N/02W-35P02	Hanna, W.S Jr.	4705031225352	120	132	H	Qc	114	--	--	--
19N/02W-35P03	Stehr, Everett	4705011225347	123	208	H	TQu	111.90	07-21-88	120	D
19N/02W-36A03	Thorp, Michael	4705461225206	160	68	H	Qva	30.06	11-04-88	370	D
19N/02W-36H02	Haglund, Jim	4705291225152	160	75	H	Qva	33.84 R	10-27-88	22	D
19N/02W-36J01	Nelson, David	4705231225158	160	73	H	Qva	23.45	10-27-88	77	D
19N/02W-36M02	Boyer, Tom	4705211225250	160	160	H	Qc	139	03-30-88	270	D
19N/02W-36N02	Fantoni, Aldo	4705121225303	152	69	H	Qva	18	--	180	D
19N/02W-36N03	Wyer, Roy	4705031225246	155	157	H	Qc	140	03-18-81	--	D
19N/03W-12Q01	Rodgers, Duane	4708421225945	100	199	P	TQu	--	--	--	D
19N/03W-13K01	Taylor, Justin	4707591225957	15	86	H	Qc	4	--	--	D
19N/03W-24D03	Dobson, M.W.	4707281230018	100	120	H	Qc	98.23	05-23-78	--	--
19N/03W-24L01	Cox, Henry W.	4707111230001	130	71	H	Qva	--	--	--	D
19N/03W-24M01	Jacob, Ken	4707071230026	130	163	H	Qc	129.17	07-22-88	46	D
19N/03W-25C01	Page, Alice	4706381230010	135	118	H	Qc	87	08-06-80	47	D
19N/03W-25E02	Griggs, Jim	4706311230034	150	120	H	Qc	85	06-04-86	--	D
19N/03W-25E03	Collins, Mike	4706281230018	130	118	H	Qc	72	07-03-79	>3,700	D
19N/03W-25J01	Schmidt, Gary	4706141225944	145	128	H	Qc	89.16	08-15-88	43	D
19N/03W-25K01	ONeill, Tom	4706171225952	175	41	H	Qvr	13.85	08-15-88	770	D
19N/03W-25M03	Edington, Mary	4706151230034	150	123	H	Qva	80	02-07-79	180	D
19N/03W-25N02	Savage, Floyd R.	4705531230032	150	106	H	Qc	67.15	08-15-88	62	D
19N/03W-26E01	Klontz, Thomas	4706271230150	40	62	H	Qc	19	06-17-59	--	--
19N/03W-26F01	Smith, Paul	4706221230122	130	101	H	Qc	72.02	08-16-88	130	D
19N/03W-26H02	Alexander, Forrest	4706311230039	150	179	H	Qc	89.92	08-15-88	--	D
19N/03W-27E03	Burns Point Util. Co.	4706331230300	50	123	P	Qc	47	11-15-74	--	--
19N/03W-27K01	Hoffman. Hubert H.	4706191230227	35	70	H	Qc	33.41	05-23-78	--	--
19N/03W-27L01	Dickenson, Col. Harry	4706181230238	40	103	I	TQu	32.12 R	10-05-88	53	D
19N/03W-27M02	Salmi, Frank	4706211230309	165	103	H	Qc	75.45	08-15-88	230	D

Table A1. Well, spring, and outcrop records for the study area—Continued

Site identifer	Owner	Latitude and longitude	Land-surface altitude (feet)	Well depth (feet)	Water use	Geohy-drologic unit	Water level (feet)	Date water level measured	Hydraulic conduc-tivity (feet per day)	Logs
19N/03W-27N01	Barnhart, Robert	4706091230305	165	83	H	Qva	65.08 R	08-18-88	>920	D
19N/03W-27R01	Demich, Gary	4706061230158	140	106	H	Qc	65	08-30-78	79	D
19N/03W-27R02	Wilson, Jim	4706051230204	125	113	H	Qc	52	12-01-78	45	D
19N/03W-28H02	Cox, Chello	4706241230320	150	79	H	Qva	60	10-18-84	180	D
19N/03W-28J01	Mason, William	4706091230323	215	160	H	Qc	141	03-02-88	330	D
19N/03W-28K01	Crowley, W.D	4706211230342	100	135	H	Qc	--	--	--	--
19N/03W-28L01	Mccool, H.L.	4706141230358	25	70	H	Qc	13	--	--	--
19N/03W-34A01	Ward, Hugh	4705481230203	130	47	H	Qva	19.06	08-16-88	610	D
19N/03W-34H01	Cook, William	4705341230200	150	103	H	Qc	85	05-17-77	920	D
19N/03W-34K01	Holiday Valley Estates, Well No. 1	4705281230222	140	127	P	Qc	74	04-02-68	290	D
19N/03W-34K02	Holiday Valley Estates, Well No. 2	4705281230222	140	134	P	Qc	72	05-25-81	200	D
19N/03W-35J02	Creel, C.O.	4705241230040	165	113	H	Qc	73	03-30-83	82	D
19N/03W-36B04	Basham, Tania	4705491225958	160	111	H	Qc	91	05-23-86	250	D
19N/03W-36D03	Kelly, Tom	4705401230016	150	92	H	Qc	72	09-19-86	620	D
19N/03W-36E03	Brown, Phil	4705281230034	150	94	H	Qc	63.55	08-22-88	210	D
19N/03W-36M02	Ehresmann, Adolph	4705231230036	150	105	H	Qc	69.59	08-22-88	>2,800	D
19N/03W-36P01	Koch, W.A.	4705061230005	135	142	H	Qc	117	--	--	--
19N/03W-36P03	Helmer, Marie	4705011230013	30	45	H	Qc	18	06-12-78	71	D
19N/03W-36R03	Grant, Gregory	4705051225927	30	78	H	Qc	30	05-02-81	--	D
20N/01W-33L02	Brown, Dr. R.C.	4710391224850	5	500	H	TQu	-- F	--	130	--
20N/01W-33N01	Hurley, John	4710191224911	91	119	H	Qc	84.04	07-15-88	>1,200	D
20N/02W-28P01	Steamboat Islanders, Inc.	4711071225623	10	425	P	TQu	-- F	--	2,600	D
20N/02W-33F01	Sabin, Howard	4710451225618	40	98	H	TQu	71	08-30-87	76	D
20N/02W-33L01	Gaffney, Arthur	4710291225620	65	107	H	Qc	63	06-02-59	--	--
20N/02W-33L02	Bella Vista Water Co.	4710321225621	55	455	H	TQu	46	11-15-60	790	--
20N/02W-33L03	Murphy	4710391225622	25	500	H	TQu	-- F	10-10-78	--	--
20N/02W-33Q01	Carlyon Beach Club, Well No. 1	4710251225608	70	736	P	TQu	53.16	08-12-88	6.8	D
20N/02W-33Q02	Carlyon Beach Club. Well No. 2	4710161225606	80	757	P	TQu	56	11-25-81	64	D

Table A2. Depths to Tops of Geohydrologic Units in Study-Area Wells and Outcrops

EXPLANATION

[NP, unit not present; ?, log incomplete at surface (depth = 0) or unit top not apparent in log; --, well does not penetrate to stratigraphic position where unit may or may not be present]

Latitude and longitude: Most well locations are believed to be accurate to within 1 second of latitude and longitude. The least accurate locations are probably within 10 seconds of latitude and longitude.

Land-surface altitude: In feet above sea level. Most altitudes were obtained from topographic maps (scale of 1:24,000; with 10- or 20-foot contour intervals) and are generally accurate to within 10 feet. In steep terrain, or where the precise location of the well is in doubt, the error may be as great as 50 feet. Altitudes of some wells (less than 10 percent) have been surveyed and are accurate to within 1 foot.

Hole depth: Total depth, in feet below land surface, penetrated during drilling; does not necessarily equal finished depth of the well.

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
15N/01W-06A01	4649111225050	265	45	0	32	39	-	-	-	-
15N/02W-05E01	4649011225803	212	62	0	30	47	-	-	-	-
15N/02W-06E01	4649021225919	196	60	0	18	48	-	-	-	-
15N/02W-06H01	4649001225819	208	64	0	12	55	-	-	-	-
15N/02W-06J01	4648491225822	209	69	0	3	55	-	-	-	-
15N/02W-06N07	4648361225920	194	67	0	31	38	-	-	-	-
15N/03E-05M02	4648481222745	570	160	0	20	30	NP	NP	58	100
15N/03E-06E03	4649031222854	538	255	0	5	20	NP	60	80	160
15N/03W-01K01	4648521225952	192	65	0	NP	<65	-	-	-	-
15N/03W-02P01	4648331230127	173	60	0	15	30	-	-	-	-
15N/03W-02R01P1	4648331230055	173	145	0	8	37	NP	85	NP	103
15N/03W-03A02P1	4649171230214	171	132	0	17	33	NP	101	NP	126
15N/03W-03R01	4648361230204	168	73	0	4	22	60	62	-	-
15N/03W-04B01	4649171230345	158	57	0	22	36	-	-	-	-
15N/03W-04C01	4649181230353	155	55	0	25	40	-	-	-	-
15N/03W-04D01	4649121230426	155	63	0	9	48	-	-	-	-
15N/03W-04E03	4648581230418	165	220	0	NP	NP	NP	NP	NP	24
15N/03W-04K01	4648491230338	155	60	0	30	40	-	-	-	-
15N/03W-04Q01	4648351230349	150	51	0	NP	28	-	-	-	-
15N/03W-04Q02	4648351230350	150	60	0	5	25	-	-	-	-
15N/03W-05B01	4649161230503	155	85	0	NP	<70	-	-	-	-
15N/03W-05M01	4648481230542	135	55	0	6	35	-	-	-	-
15N/03W-05N02P1	4648281230543	117	89	0	4	13	NP	54	79	-
15N/03W-05P01	4648281230522	140	51	0	4	15	-	-	-	-
15N/03W-06A02	4649151230558	135	70	0	7	47	-	-	-	-
15N/03W-06K01	4648401230619	118	31	0	3	20	-	-	-	-
15N/03W-06N01	4648281230646	110	32	0	8	28	-	-	-	-
15N/03W-06P01	4648341230628	115	47	0	<10	10	-	-	-	-
15N/03W-08G01	4648111230504	120	29	0	6	13	-	-	-	-
15N/03W-09D02	4648161230421	135	54	0	NP	<54	-	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
15N/03W-09F02	4648071230359	147	80	0	NP	<80	-	-	-	-
15N/03W-09J01	4647581230331	150	63	0	<24	54	-	-	-	-
15N/03W-10A01	4648231230159	170	59	0	3	30	-	-	-	-
15N/03W-10A02	4648281230209	170	52	0	16	18	-	-	-	-
15N/03W-10D02P1	4648261230313	158	120	0	13	37	NP	<100	100	-
15N/03W-11H02	4648131230051	170	46	0	6	27	-	-	-	-
15N/03W-11K03	4647511230104	165	48	0	<34	40	-	-	-	-
15N/03W-11L01	4647571230129	170	58	0	3	30	-	-	-	-
15N/03W-11M02	4647561230154	165	60	0	<55	56	-	-	-	-
15N/03W-11M03	4647561230142	165	52	0	32	48	-	-	-	-
15N/03W-11M04	4647511230142	162	84	0	18	23	NP	<82	82	-
15N/03W-11P04	4647451230124	165	60	0	20	23	-	-	-	-
15N/03W-11Q03	4647441230120	165	97	0	15	22	NP	66	89	-
15N/03W-12B01	4648171225955	185	48	NP	0	38	-	-	-	-
15N/03W-12B04	4648201225947	185	53	0	20	38	-	-	-	-
15N/03W-12D01	4648171230036	170	51	0	<40	42	-	-	-	-
15N/03W-12F01	4648091230006	175	53	0	2	38	-	-	-	-
15N/03W-13M05	4647011230034	152	79	0	NP	<55	NP	NP	55	-
15N/03W-14C01	4647321230135	150	74	0	2	45	-	-	-	-
15N/03W-23Q01	4646011230108	140	30	0	-	-	-	-	-	-
15N/03W-24L01	4646101230022	155	45	0	19	35	-	-	-	-
16N/01E-01H01	4654091223656	420	164	NP	0	113	119	122	137	-
16N/01E-02B01	4654241223827	390	80	0	6	40	-	-	-	-
16N/01E-02F01	4654071223848	420	235	0	2	16	60	160	-	-
16N/01E-02N02	4653501223906	440	183	0	12	36	40	173	-	-
16N/01E-04D01	4654311224130	490	223	0	54	130	147	213	-	-
16N/01E-04E02	4654071224131	490	246	0	NP	71	NP	179	-	-
16N/01E-05F01	4654131224228	518	274	0	18	122	165	238	-	-
16N/01E-05F02	4654081224240	515	263	0	81	<221	<221	221	-	-
16N/01E-05K02	4653551224219	507	283	0	36	107	178	258	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
16N/01E-05M01	4654051224259	500	263	0	2	125	156	-	-	-
16N/01E-06J02	4653561224319	480	243	0	2	20	110	220	-	-
16N/01E-07C01	4653351224350	460	223	0	<39	39	90	94	NP	167
16N/01E-07E02	4653221224405	442	220	0	38	NP	74	90	99	160
16N/01E-07E04	4653201224407	442	286	0	24	NP	77	91	107	158
16N/01E-07H01	4653201224315	458	203	0	12	48	86	94	122	168
16N/01E-07J02	4653131224314	455	126	NP	0	37	88	NP	NP	109
16N/01E-07P02	4652571224342	434	215	0	5	30	NP	NP	105	123
16N/01E-08C02	4653311224229	480	203	0	NP	72	109	116	196	-
16N/01E-08L01	4653101224231	471	220	0	NP	61	84	118	125	175
16N/01E-08N01	4653001224259	500	103	NP	NP	NP	NP	NP	0	-
16N/01E-09E01	4653241224127	425	430	0	64	107	121	170	222	417
16N/01E-09K01	4653061224057	419	305	0	NP	19	84	120	200	-
16N/01E-10D01	4653351224016	520	263	0	12	110	113	252	-	-
16N/01E-14G03	4652221223826	450	120	NP	0	25	NP	80	-	-
16N/01E-16E01	4652211224136	461	182	0	2	NP	NP	NP	NP	113
16N/01E-16L03	4652181224127	463	205	0	2	NP	NP	NP	NP	143
16N/01E-17G01	4652331224210	398	200	0	10	NP	NP	NP	70	118
16N/01E-18N01	4652091224405	340	100	0	22	NP	NP	NP	NP	23
16N/01E-18Q01	4652031224335	311	76	0	2	-	-	-	-	-
16N/01E-18Q02	4651571224337	350	140	0	3	NP	NP	NP	NP	110
16N/01E-35G03	4649531223837	510	200	NP	0	NP	NP	NP	46	131
16N/01E-35K01	4649361223828	490	78	0	1	30	-	-	-	-
16N/01W-06F01	4654051225121	240	147	0	4	55	NP	NP	134	-
16N/01W-06G01	4654101225059	250	53	0	10	51	-	-	-	-
16N/01W-06L01	4653581225126	243	58	0	2	39	-	-	-	-
16N/01W-13H01	4652231224425	340	75	0	20	40	-	-	-	-
16N/01W-14Q02	4652041224608	355	60	NP	NP	NP	NP	NP	NP	0
16N/01W-19A02	4651511225047	280	120	0	NP	11	NP	35	65	72
16N/01W-19G02	4651411225054	272	94	0	14	23	NP	<94	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
16N/01W-21D04	4651441224902	304	95	0	16	28	NP	NP	35	83
16N/01W-31L01	4649371225133	270	56	0	22	50	-	-	-	-
16N/02E-01F01O	4654111222959	480	-	NP	0	15	55	-	-	-
16N/02E-02B01	4654201223059	445	151	0	4	38	51	140	146	-
16N/02E-02G01	4654091223052	453	225	NP	0	NP	46	NP	80	-
16N/02E-04A02	4654311223309	380	158	0	24	62	76	?	?	-
16N/02E-05A01	4654311223416	385	19	0	-	-	-	-	-	-
16N/02E-05C01	4654251223500	380	81	0	NP	<80	80	-	-	-
16N/02E-05M01	4653591223518	385	154	0	7	65	70	101	106	-
16N/02E-05Q01	4653461223441	445	181	?	?	<39	58	65	94	-
16N/02E-07Q01	4652491223602	445	287	NP	0	11	26	91	101	-
16N/02E-10D01	4653361223240	465	210	NP	0	NP	57	129	134	-
16N/02E-13P01O	4652011222959	450	-	0	36	-	-	-	-	-
16N/02E-16G03	4652251223319	487	170	0	3	44	86	118	160	-
16N/02E-17L01	4652121223501	465	45	NP	0	45	-	-	-	-
16N/02E-17Q03	4652001223440	481	286	NP	0	48	67	145	181	-
16N/02E-18H01	4652261223536	450	--	NP	0	-	-	-	-	-
16N/02E-26K04	4650261223059	508	460	NP	0	NP	NP	NP	22	-
16N/02E-27B03	4650591223206	538	180	NP	0	60	90	120	-	-
16N/02E-32C03	4650061223509	590	349	NP	NP	NP	NP	NP	NP	0
16N/02W-03F01	4654081225519	223	125	0	NP	NP	NP	NP	41	46
16N/02W-04N01	4653501225643	194	39	0	18	NP	NP	26	-	-
16N/02W-05N01	4653541225806	270	149	NP	NP	NP	NP	NP	0	-
16N/02W-05R01	4653451225704	195	330	0	16	NP	NP	NP	38	160
16N/02W-05R02	4653451225715	190	33	0	5	NP	NP	18	NP	29
16N/02W-06E01	4654091225919	230	152	NP	NP	NP	NP	0	60	-
16N/02W-09A01	4653351225544	235	200	NP	NP	NP	NP	NP	0	28
16N/02W-10C01	4653291225508	220	35	NP	0	25	-	-	-	-
16N/02W-12N01	4652531225257	300	118	NP	0	NP	NP	NP	21	-
16N/02W-20Q02	4651151225729	231	159	0	NP	NP	NP	NP	20	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
16N/02W-26M01	4650251225414	260	202	0	2	58	NP	NP	NP	62
16N/02W-27H01	4650381225437	260	185	0	<47	NP	NP	NP	47	56
16N/02W-27H02	4650381225437	260	47	0	<47	NP	NP	NP	47	-
16N/02W-29L02P1	4650331225734	217	148	0	32	43	NP	88	NP	124
16N/02W-30F02	4650491225856	210	57	0	2	33	-	-	-	-
16N/02W-31A01	4650061225812	210	50	0	4	50	-	-	-	-
16N/02W-31K02	4649411225844	205	66	0	NP	30	-	-	-	-
16N/02W-31K03	4649401225834	205	50	0	20	30	-	-	-	-
16N/02W-31L01	4649411225857	203	66	0	25	35	-	-	-	-
16N/02W-31N01P1	4649261225909	191	122	0	6	26	NP	84	NP	113
16N/02W-31Q01	4649271225843	198	72	?	?	<45	-	-	-	-
16N/02W-32A01	4650021225707	226	83	0	32	48	-	-	-	-
16N/02W-32B01	4650001225724	228	129	0	2	38	NP	85	-	-
16N/02W-32F01	4649541225744	213	80	0	6	31	NP	78	-	-
16N/02W-32Q02	4649281225718	209	68	0	3	17	NP	NP	45	-
16N/02W-33E01	4649531225642	231	85	0	3	32	NP	NP	75	-
16N/03E-28J01	4650251222526	585	80	0	36	71	-	-	-	-
16N/03E-29D01	4650561222738	565	174	0	63	80	NP	120	-	-
16N/03E-31B03	4650041222816	530	140	0	<42	42	NP	85	120	-
16N/03E-31G01	4649481222824	520	37	0	-	-	-	-	-	-
16N/03W-01D01	4654321230043	156	68	0	26	36	44	47	-	-
16N/03W-01J01	4654001225942	190	135	0	NP	NP	NP	13	53	-
16N/03W-02E01	4654161230155	200	119	0	NP	<60	60	106	-	-
16N/03W-02H01	4654171230050	155	89	0	14	58	-	-	-	-
16N/03W-02J01	4654061230058	143	46	0	18	44	-	-	-	-
16N/03W-02M02	4654051230158	197	110	0	<94	94	-	-	-	-
16N/03W-09B02	4653391230348	220	164	0	7	NP	NP	NP	NP	41
16N/03W-10B01	4653341230231	212	116	0	35	55	85	112	-	-
16N/03W-10K01	4653031230221	180	110	0	15	55	NP	107	-	-
16N/03W-10Q01	4652541230232	168	100	0	NP	<100	NP	<100	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
16N/03W-12M01	4653111230028	184	39	NP	0	NP	NP	37	-	-
16N/03W-12Q01	4652571225959	217	80	NP	NP	NP	NP	NP	0	-
16N/03W-12Q02	4653001230002	202	52	NP	NP	NP	NP	NP	0	-
16N/03W-14B01	4652451230107	240	164	NP	0	NP	NP	103	-	-
16N/03W-15F01	4652341230250	160	80	0	NP	<80	NP	<80	-	-
16N/03W-16K01	4652191230337	148	78	0	NP	<78	NP	<78	-	-
16N/03W-16L03	4652181230405	144	67	0	2	20	NP	<67	-	-
16N/03W-16R01	4651571230332	130	127	0	5	32	NP	<125	NP	125
16N/03W-21F01	4651381230356	107	82	0	<18	27	NP	<82	-	-
16N/03W-29L03P1	4650371230508	135	126	0	11	28	NP	<118	NP	118
16N/03W-32E01	4649581230544	144	93	0	5	62	NP	80	-	-
16N/03W-32Q01	4649291230505	150	99	0	8	46	67	77	-	-
16N/03W-33C01	4650101230406	158	133	0	<18	41	NP	<133	-	-
16N/03W-33G05	4649531230333	163	77	0	2	51	-	-	-	-
16N/03W-33M02	4649391230426	154	70	0	25	59	-	-	-	-
16N/03W-33P01P1	4649321230408	158	105	0	13	46	NP	78	NP	94
16N/03W-33R01	4649231230326	158	76	0	35	55	-	-	-	-
16N/03W-34M01	4649401230311	170	55	0	>2	53	-	-	-	-
16N/03W-36G01	4649521225947	191	99	0	2	35	NP	73	-	-
16N/03W-36H01	4650021225928	193	49	0	NP	<49	-	-	-	-
16N/03W-36J01	4649451225935	199	138	0	42	51	NP	<108	108	118
16N/03W-36J02	4649471225935	200	108	0	43	63	NP	<105	NP	105
16N/03W-36K01	4649461225950	197	109	0	9	20	NP	<107	107	-
17N/01E-05D01	4659381224247	222	226	0	NP	97	132	190	-	-
17N/01E-05D02	4659451224241	240	226	0	NP	122	NP	215	220	-
17N/01E-05D03	4659411224254	155	149	0	NP	<135	135	143	-	-
17N/01E-05E01	4659281224256	221	218	0	NP	<180	180	200	-	-
17N/01E-05F01	4659311224229	245	182	0	102	154	180	-	-	-
17N/01E-05N01	4659021224256	225	306	0	NP	92	190	212	304	-
17N/01E-06A01	4659401224307	115	120	0	NP	55	NP	87	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/01E-06C01	4659371224345	100	54	0	-	-	-	-	-	-
17N/01E-06J03D1	4659171224305	205	427	0	NP	80	NP	180	296	-
17N/01E-06J04	4659161224317	175	75	0	NP	65	-	-	-	-
17N/01E-06M02	4659121224411	210	174	0	NP	68	NP	170	-	-
17N/01E-07A01	4658441224317	210	154	0	NP	44	113	143	-	-
17N/01E-07B04	4658521224331	215	43	0	-	-	-	-	-	-
17N/01E-07B05	4658491224333	213	190	0	NP	49	NP	110	-	-
17N/01E-07C01	4658451224349	215	132	0	NP	48	NP	126	-	-
17N/01E-07D01	4658441224358	208	138	0	NP	72	107	127	-	-
17N/01E-07F01	4658391224339	208	105	0	NP	35	-	-	-	-
17N/01E-07H01	4658351224310	204	41	0	NP	30	-	-	-	-
17N/01E-07L01	4658161224354	215	72	0	NP	40	-	-	-	-
17N/01E-07P02	4658061224350	226	84	0	NP	46	47	-	-	-
17N/01E-07P03	4658091224344	212	260	0	NP	36	<172	<172	172	-
17N/01E-07Q03	4658021224329	211	36	0	NP	29	35	-	-	-
17N/01E-08L02	4658181224238	218	258	0	NP	56	63	88	178	-
17N/01E-08L03	4658191224229	250	171	0	17	40	92	126	-	-
17N/01E-11H01	4658281223800	140	120	NP	NP	NP	NP	NP	0	-
17N/01E-11Q02	4658121223815	309	139	0	<18	44	NP	79	-	-
17N/01E-11R01	4658051223806	315	193	0	2	<109	<109	109	185	-
17N/01E-13D04	4657581223747	322	183	0	27	<120	<120	120	161	-
17N/01E-13D05	4657531223751	324	118	0	68	75	78	98	-	-
17N/01E-13E03	4657421223751	332	139	?	?	<88	103	126	-	-
17N/01E-13G02	4657411223713	330	114	0	<100	<100	<100	100	-	-
17N/01E-13K01	4657241223659	345	111	0	12	42	73	-	-	-
17N/01E-13L01D1	4657331223719	337	140	0	12	57	60	94	-	-
17N/01E-13M02	4657231223737	334	98	0	14	<90	<90	90	-	-
17N/01E-14A03	4657551223803	322	203	0	12	78	81	121	165	-
17N/01E-14A04	4657551223803	320	160	0	7	60	80	105	-	-
17N/01E-14D01	4657501223909	375	160	0	21	40	57	152	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/01E-14L01	4657321223842	420	200	0	8	64	143	184	-	-
17N/01E-14M02	4657301223906	375	168	0	6	52	110	162	-	-
17N/01E-14N02	4657181223908	370	162	0	40	<112	142	-	-	-
17N/01E-14P01	4657131223843	376	200	0	10	54	100	172	-	-
17N/01E-14R01	4657201223754	332	115	0	18	74	-	-	-	-
17N/01E-18N01	4657211224402	228	79	0	2	32	42	69	77	-
17N/01E-23B01	4657071223826	348	157	NP	0	74	101	156	-	-
17N/01E-23H01	4656531223800	370	153	NP	0	78	82	150	-	-
17N/01E-24K02	4656311223705	350	97	0	12	30	32	89	-	-
17N/01E-25G01	4655541223704	415	137	NP	0	111	-	-	-	-
17N/01E-25Q03	4655361223704	410	115	NP	0	94	-	-	-	-
17N/01E-26R01	4655301223811	400	72	NP	0	56	-	-	-	-
17N/01E-33J01D1	4654561224041	505	247	?	?	<203	-	-	-	-
17N/01E-34M01	4654551224010	470	196	NP	0	180	-	-	-	-
17N/01E-35H01	4655001223804	420	80	0	2	65	-	-	-	-
17N/01E-36L01	4654541223729	400	86	0	10	85	-	-	-	-
17N/01E-36L02	4654551223729	410	112	0	20	100	-	-	-	-
17N/01W-01B01	4659431224435	230	205	0	70	NP	96	172	-	-
17N/01W-01B04	4659451224447	222	196	0	35	NP	98	174	196	-
17N/01W-01F01	4659261224510	230	160	0	36	81	NP	141	-	-
17N/01W-01G01	4659321224440	235	235	0	56	NP	97	145	-	-
17N/01W-01G02	4659201224438	215	215	0	NP	<140	NP	140	-	-
17N/01W-01H01	4659261224421	213	236	0	45	96	101	143	145	-
17N/01W-01H02	4659321224427	225	225	0	49	NP	65	157	-	-
17N/01W-01H03	4659211224430	214	250	0	NP	60	105	172	-	-
17N/01W-01J03	4659141224429	190	179	0	NP	65	136	146	-	-
17N/01W-01L01	4659111224510	210	157	0	2	40	73	152	-	-
17N/01W-01Q01	4658581224435	205	105	0	NP	70	-	-	-	-
17N/01W-01Q03	4658581224447	200	58	0	-	-	-	-	-	-
17N/01W-01Q04	4658581224436	205	110	0	78	100	-	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/01W-01R01	4658551224415	217	123	0	NP	<112	112	121	-	-
17N/01W-02A03	4659431224532	216	235	0	2	NP	80	NP	<235	-
17N/01W-02E03	4659321224638	178	49	0	NP	35	-	-	-	-
17N/01W-02E04	4659251224638	215	542	0	26	90	120	138	184	-
17N/01W-02K01	4659151224558	222	146	0	72	85	88	145	-	-
17N/01W-02L02	4659191224621	216	78	0	59	73	-	-	-	-
17N/01W-02L03	4659171224614	211	67	0	-	-	-	-	-	-
17N/01W-02Q03	4659011224605	210	154	0	58	92	145	-	-	-
17N/01W-02Q04	4658531224559	208	79	0	38	70	-	-	-	-
17N/01W-02R02	4659011224533	209	158	0	43	86	109	139	-	-
17N/01W-03A05	4659351224654	206	80	0	17	68	-	-	-	-
17N/01W-03D01	4659331224758	188	48	0	37	42	-	-	-	-
17N/01W-03E01	4659191224753	197	68	0	66	-	-	-	-	-
17N/01W-03E02	4659201224750	199	81	0	80	-	-	-	-	-
17N/01W-03Q01	4659051224712	201	126	0	51	60	-	-	-	-
17N/01W-04E01	4659331224909	210	84	0	76	-	-	-	-	-
17N/01W-04F01	4659321224851	214	72	0	62	-	-	-	-	-
17N/01W-04G01	4659321224832	207	243	0	57	76	113	121	159	-
17N/01W-04L01	4659191224845	198	87	0	59	65	82	-	-	-
17N/01W-05H02	4659271224921	210	68	0	-	-	-	-	-	-
17N/01W-06B02	4659391225110	185	80	0	9	28	-	-	-	-
17N/01W-06K05	4659111225111	190	83	0	54	-	-	-	-	-
17N/01W-07F02	4658321225114	205	163	0	NP	26	80	122	162	-
17N/01W-07G02	4658321225104	209	104	0	NP	27	81	-	-	-
17N/01W-08B01	4658451224948	216	59	0	6	51	-	-	-	-
17N/01W-08B02	4658461224952	211	54	0	3	45	-	-	-	-
17N/01W-08C02	4658461225014	210	52	0	20	49	-	-	-	-
17N/01W-08D03	4658461225031	209	48	0	-	-	-	-	-	-
17N/01W-08D04	4658421225025	210	64	0	28	50	62	-	-	-
17N/01W-08J01	4658181224927	220	84	0	8	68	82	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/01W-08L02	4658221225008	200	85	0	8	69	-	-	-	-
17N/01W-08N01	4658151225018	210	95	0	28	>55	90	-	-	-
17N/01W-08P03	4658051224959	220	94	0	8	57	59	88	-	-
17N/01W-08P04	4658131225008	215	94	0	2	64	80	90	-	-
17N/01W-08Q02	4658041224953	220	181	0	7	63	99	118	-	-
17N/01W-09B01	4658421224836	210	40	0	-	-	-	-	-	-
17N/01W-09D01	4658531224907	190	41	0	12	33	-	-	-	-
17N/01W-09G02	4658371224832	216	55	0	23	-	-	-	-	-
17N/01W-09G03	4658401224838	206	91	0	2	53	69	86	-	-
17N/01W-09J02	4658251224810	205	100	0	20	62	75	95	-	-
17N/01W-10N02	4658081224752	236	79	NP	0	75	-	-	-	-
17N/01W-11H03	4658371224544	220	65	0	8	55	-	-	-	-
17N/01W-11J01	4658261224543	218	36	0	19	25	-	-	-	-
17N/01W-11K03	4658221224607	264	96	NP	0	51	-	-	-	-
17N/01W-11K04	4658201224550	217	28	0	-	-	-	-	-	-
17N/01W-11K05	4658201224601	224	302	NP	0	51	60	111	180	-
17N/01W-11M01	4658261224630	270	334	NP	0	79	93	169	203	-
17N/01W-12B02	4658461224440	232	166	0	27	89	117	137	146	-
17N/01W-12C01	4658441224503	214	100	0	NP	53	-	-	-	-
17N/01W-12D01	4658471224521	209	180	0	13	40	NP	104	155	-
17N/01W-12D02	4658471224511	206	174	0	15	24	NP	115	157	-
17N/01W-13H01	4657351224434	340	160	0	8	40	NP	140	-	-
17N/01W-14B01	4657541224557	270	85	NP	0	42	-	-	-	-
17N/01W-14H01	4657471224544	218	50	0	NP	10	-	-	-	-
17N/01W-14K01	4657291224558	218	29	0	-	-	-	-	-	-
17N/01W-15A01	4657511224659	264	91	NP	0	16	-	-	-	-
17N/01W-15C01	4657501224733	256	99	NP	0	41	99	-	-	-
17N/01W-15F02	4657401224729	245	120	0	15	20	40	105	-	-
17N/01W-15G01	4657411224713	265	121	0	17	58	62	118	-	-
17N/01W-15H01	4657381224658	220	39	0	3	34	39	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/01W-15H02	4657411224659	265	83	0	55	60	-	-	-	-
17N/01W-15K01	4657271224710	220	33	0	-	-	-	-	-	-
17N/01W-15N01	4657181224743	209	39	0	2	14	-	-	-	-
17N/01W-15N02	4657161224748	211	32	0	2	15	-	-	-	-
17N/01W-15P01	4657171224731	210	40	0	NP	31	-	-	-	-
17N/01W-15P02	4657181224738	210	46	0	15	39	-	-	-	-
17N/01W-15P03	4657151224728	213	33	0	11	29	-	-	-	-
17N/01W-16D01	4657521224913	220	110	0	10	45	55	105	-	-
17N/01W-16D02	4657571224908	220	72	0	24	64	71	-	-	-
17N/01W-16E02	4657411224911	220	31	0	6	25	-	-	-	-
17N/01W-16F02	4657391224856	230	89	0	6	43	59	-	-	-
17N/01W-16F03	4657481224847	250	89	0	4	79	82	-	-	-
17N/01W-16F04	4657431224853	250	122	0	4	50	74	103	121	-
17N/01W-16L01	4657221224853	210	52	0	20	31	51	-	-	-
17N/01W-16M02	4657271224910	220	49	0	2	36	-	-	-	-
17N/01W-17A01	4657531224921	215	79	0	2	38	70	-	-	-
17N/01W-17B03	4657531224953	215	39	0	1	37	-	-	-	-
17N/01W-17G02	4657431224953	215	148	0	10	20	60	NP	100	-
17N/01W-17J02	4657301224935	220	123	0	16	27	42	48	-	-
17N/01W-17K01	4657281224943	215	41	0	20	40	-	-	-	-
17N/01W-17N02	4657111225026	205	80	0	17	39	40	68	-	-
17N/01W-18B02	4658011225056	210	103	0	25	NP	45	74	-	-
17N/01W-18B03	4657501225105	200	300	0	20	NP	NP	60	120	-
17N/01W-19C02	4656581225123	220	120	0	4	56	68	80	85	-
17N/01W-19M02	4656371225142	340	270	NP	0	NP	NP	NP	NP	76
17N/01W-19P01	4656191225116	210	60	0	NP	15	46	-	-	-
17N/01W-21K01	4656421224833	360	507	NP	NP	NP	NP	NP	0	14
17N/01W-21P01	4656241224854	250	78	NP	NP	NP	NP	NP	0	-
17N/01W-28B01	4656041224821	295	167	NP	NP	NP	NP	NP	0	9
17N/01W-28C02	4656171224859	240	72	NP	NP	NP	NP	NP	0	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/01W-28G02	4655581224838	400	342	NP	NP	NP	NP	0	30	90
17N/01W-28H01	4655571224813	260	140	NP	NP	NP	NP	NP	0	26
17N/01W-30F02	4656001225130	260	405	NP	0	NP	NP	NP	NP	18
17N/01W-30F03	4655521225123	250	67	0	NP	<67	NP	NP	NP	67
17N/01W-31C01	4655221225126	260	52	0	24	36	-	-	-	-
17N/01W-32F01	4655091224955	250	250	0	8	19	35	97	248	-
17N/01W-32F02	4655051225001	250	270	0	9	32	41	82	236	-
17N/01W-32K04	4654461224947	265	168	0	NP	NP	65	NP	100	168
17N/01W-32P02	4654431225002	260	143	0	NP	NP	55	NP	70	-
17N/01W-33B03	4655141224826	245	59	0	-	-	-	-	-	-
17N/01W-33E02	4655091224907	245	81	0	23	29	52	74	-	-
17N/01W-33E03	4655071224905	230	32	0	8	22	-	-	-	-
17N/01W-33E04	4655061224902	230	55	0	15	39	-	-	-	-
17N/01W-33K02	4654521224829	260	41	0	8	37	-	-	-	-
17N/01W-34D01	4655211224751	400	80	NP	NP	NP	NP	NP	0	-
17N/01W-34E01D1	4655071224744	280	142	0	5	17	63	NP	94	138
17N/01W-34J02	4654491224703	290	61	0	12	40	50	60	-	-
17N/01W-34L01	4654501224733	290	70	0	22	43	55	61	-	-
17N/01W-34L02	4654581224735	280	125	0	21	NP	NP	NP	NP	45
17N/01W-34M01	4654551224752	290	68	0	60	-	-	-	-	-
17N/02E-08M01O	4658241223459	290	--	0	NP	12	34	-	-	-
17N/02E-08M02O	4658151223513	290	--	0	48	50	54	-	-	-
17N/02E-17L03	4657331223457	300	443	0	17	20	41	47	82	-
17N/02E-18N01	4657201223634	315	71	0	<15	15	20	70	-	-
17N/02E-19H01	4656511223522	340	42	0	38	41	-	-	-	-
17N/02E-19H03	4656501223524	340	63	0	2	20	29	62	-	-
17N/02E-19J03	4656331223522	345	--	0	20	-	-	-	-	-
17N/02E-19J05	4656331223522	345	87	0	3	NP	27	<87	<87	-
17N/02E-19L01	4656401223608	335	135	0	<15	17	26	54	100	-
17N/02E-19M03	4656331223623	345	101	0	<20	51	71	77	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/02E-19N01	4656261223617	345	63	0	3	35	62	-	-	-
17N/02E-19N02	4656261223617	345	62	0	4	30	61	-	-	-
17N/02E-20J02	4656341223416	342	58	0	39	51	-	-	-	-
17N/02E-20J04	4656341223416	342	195	0	40	51	58	94	150	-
17N/02E-27Q01	4655361223158	312	110	NP	NP	NP	NP	NP	0	-
17N/02E-28R01O	4655251223250	375	--	0	18	<41	<6	8	-	-
17N/02E-29E03	4655581223501	345	119	0	31	48	52	<117	117	-
17N/02E-29F02	4656001223444	355	--	0	2	50	-	-	-	-
17N/02E-29F03	4655591223452	355	78	0	3	32	36	<78	-	-
17N/02E-29L04	4655401223450	355	66	0	3	28	42	-	-	-
17N/02E-29N01	4655361223513	350	50	0	30	45	-	-	-	-
17N/02E-29P02	4655341223447	360	57	0	3	29	46	-	-	-
17N/02E-29P03	4655361223456	355	99	0	18	51	59	73	88	-
17N/02E-29Q01	4655301223433	355	55	?	?	<40	43	-	-	-
17N/02E-29R06	4655271223406	368	160	0	14	22	38	NP	<136	-
17N/02E-31C02	4655241223610	462	153	NP	0	141	-	-	-	-
17N/02E-32Q02	4654441223431	365	254	0	2	38	53	76	92	-
17N/02E-33K02	4654471223316	375	105	0	24	48	52	92	-	-
17N/02E-33P01	4654381223338	375	105	0	34	56	74	91	95	-
17N/02E-33R01	4654371223250	375	170	0	47	69	78	<170	<170	-
17N/02W-01C01	4659461225245	110	32	0	-	-	-	-	-	-
17N/02W-01E02	4659321225255	175	148	0	22	45	-	-	-	-
17N/02W-02B02	4659401225327	175	200	0	NP	<105	105	166	-	-
17N/02W-02E03	4659231225415	185	106	0	24	80	104	-	-	-
17N/02W-02E04	4659291225406	183	62	0	41	61	-	-	-	-
17N/02W-02K01	4659091225337	170	60	0	-	-	-	-	-	-
17N/02W-02N01	4659021225410	185	70	0	-	-	-	-	-	-
17N/02W-02Q06	4658571225336	175	67	0	-	-	-	-	-	-
17N/02W-02R01	4658561225312	191	106	0	NP	<106	-	-	-	-
17N/02W-02R02	4658561225313	191	97	0	NP	<97	97	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/02W-02R03	4659081225311	180	88	0	20	32	88	-	-	-
17N/02W-03D01	4659361225520	178	30	0	-	-	-	-	-	-
17N/02W-03D02	4659341225521	178	45	0	-	-	-	-	-	-
17N/02W-03J02	4659101225428	190	111	0	45	103	-	-	-	-
17N/02W-03R02	4659071225433	190	334	0	49	106	108	128	153	-
17N/02W-04A01	4659401225546	175	43	0	-	-	-	-	-	-
17N/02W-04E07	4659241225652	180	45	0	-	-	-	-	-	-
17N/02W-04H01	4659241225542	188	73	0	55	72	-	-	-	-
17N/02W-04H02	4659231225542	188	60	0	-	-	-	-	-	-
17N/02W-04K04	4659201225615	190	45	0	-	-	-	-	-	-
17N/02W-04L01	4659081225624	190	50	0	-	-	-	-	-	-
17N/02W-04N04	4658581225640	188	40	0	-	-	-	-	-	-
17N/02W-04N05	4658581225643	188	44	0	-	-	-	-	-	-
17N/02W-04N06	4659041225647	190	53	0	-	-	-	-	-	-
17N/02W-04P02	4659001225617	189	47	0	16	37	-	-	-	-
17N/02W-05A02	4659391225659	172	33	0	-	-	-	-	-	-
17N/02W-05F01	4659261225746	165	71	0	10	55	71	-	-	-
17N/02W-05J01D1	4659171225656	190	106	0	43	67	72	104	-	-
17N/02W-06A04	4659451225818	142	51	0	15	24	51	-	-	-
17N/02W-06A05	4659411225821	150	27	0	20	25	-	-	-	-
17N/02W-06F03	4659251225852	143	27	0	2	27	-	-	-	-
17N/02W-06G02	4659291225848	140	332	0	20	NP	26	NP	<158	-
17N/02W-06N01	4658571225910	143	60	0	NP	NP	30	44	-	-
17N/02W-06P02	4659001225905	137	62	0	NP	NP	19	58	-	-
17N/02W-06R01	4658571225822	140	205	0	NP	NP	40	NP	90	-
17N/02W-08D03	4658441225802	155	76	0	26	NP	34	-	-	-
17N/02W-08E01	4658321225809	183	200	0	25	NP	72	115	139	-
17N/02W-08K02	4658181225722	190	37	0	-	-	-	-	-	-
17N/02W-08L01	4658241225739	188	41	0	-	-	-	-	-	-
17N/02W-08L02	4658191225738	182	38	0	-	-	-	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/02W-08L03	4658171225739	181	40	0	-	-	-	-	-	-
17N/02W-08R06	4658071225657	195	65	0	21	62	-	-	-	-
17N/02W-09A02	4658521225554	190	40	0	19	32	-	-	-	-
17N/02W-09C02	4658451225620	195	56	0	46	49	-	-	-	-
17N/02W-09E03	4658291225639	195	77	0	32	52	77	-	-	-
17N/02W-09G02	4658341225607	190	56	0	19	46	-	-	-	-
17N/02W-09K01	4658271225606	188	44	0	12	43	-	-	-	-
17N/02W-09M04	4658241225652	195	47	0	35	43	-	-	-	-
17N/02W-09Q01	4658081225607	190	70	0	4	40	-	-	-	-
17N/02W-10B01	4658471225446	195	105	0	52	56	98	-	-	-
17N/02W-10B02	4658421225452	195	111	0	47	52	99	-	-	-
17N/02W-10N01	4658091225539	190	57	0	NP	<57	-	-	-	-
17N/02W-11G08	4658341225336	195	136	0	51	70	83	129	-	-
17N/02W-11G09	4658311225337	200	60	0	60	-	-	-	-	-
17N/02W-11J01	4658221225324	198	79	0	79	-	-	-	-	-
17N/02W-11R01	4658131225307	200	300	0	NP	90	105	<265	<265	-
17N/02W-12L02	4658241225246	195	157	0	31	62	<130	130	-	-
17N/02W-13Q02	4657201225220	225	73	0	6	-	-	-	-	-
17N/02W-13R02	4657191225154	177	107	0	4	48	73	NP	104	-
17N/02W-14H02	4657391225319	200	39	0	3	34	-	-	-	-
17N/02W-14H03	4657411225309	196	50	0	6	47	50	-	-	-
17N/02W-14Q01	4657231225344	198	150	0	8	50	65	97	143	-
17N/02W-14Q02	4657121225338	200	40	0	22	30	-	-	-	-
17N/02W-15D02	4657591225529	195	43	0	4	31	-	-	-	-
17N/02W-15E01	4657471225526	195	50	0	4	45	50	-	-	-
17N/02W-15L04	4657321225518	200	58	0	42	51	-	-	-	-
17N/02W-16M02	4657241225651	191	39	0	17	31	-	-	-	-
17N/02W-16P02	4657121225636	193	77	0	30	60	-	-	-	-
17N/02W-16P03	4657121225621	194	58	0	27	57	-	-	-	-
17N/02W-16Q02	4657141225559	196	55	0	NP	<55	-	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/02W-17E01	4657421225759	175	115	0	<44	44	53	115	-	-
17N/02W-17F02	4657401225737	186	63	0	16	51	-	-	-	-
17N/02W-17H01	4657441225707	190	39	0	17	38	-	-	-	-
17N/02W-17J01	4657361225707	195	136	0	18	39	136	-	-	-
17N/02W-17L02	4657321225740	189	80	0	25	73	-	-	-	-
17N/02W-17N02	4657131225758	185	83	0	44	78	83	-	-	-
17N/02W-17R02	4657121225702	195	55	0	4	47	55	-	-	-
17N/02W-17R03	4657231225709	192	257	0	18	52	120	167	178	-
17N/02W-17R04	4657231225705	192	122	0	12	41	114	-	-	-
17N/02W-18H03	4657441225819	175	109	0	1	30	79	-	-	-
17N/02W-19A01	4657001225829	175	57	0	<55	-	-	-	-	-
17N/02W-19F01	4656431225857	164	100	0	11	36	47	97	-	-
17N/02W-19G04	4656451225847	174	60	0	14	46	-	-	-	-
17N/02W-19L03	4656331225903	164	67	0	5	48	62	-	-	-
17N/02W-20B05	4657051225729	188	80	0	27	42	71	-	-	-
17N/02W-20B06	4657051225717	191	91	0	18	40	-	-	-	-
17N/02W-20H02	4656561225657	191	74	0	28	43	70	-	-	-
17N/02W-20J02	4656401225658	190	123	0	55	NP	63	-	-	-
17N/02W-20J03	4656351225657	188	60	0	-	-	-	-	-	-
17N/02W-20K01	4656371225731	186	53	0	23	51	-	-	-	-
17N/02W-21A01	4657081225545	196	63	0	15	30	-	-	-	-
17N/02W-21F01	4656571225631	195	178	0	19	54	90	>121	178	-
17N/02W-21J01	4656361225550	193	26	0	-	-	-	-	-	-
17N/02W-22A01	4657031225428	200	83	0	54	79	-	-	-	-
17N/02W-22A02	4657091225428	197	60	0	20	53	-	-	-	-
17N/02W-22B04	4657001225455	205	53	0	18	40	-	-	-	-
17N/02W-22D02	4657061225535	200	86	0	2	73	-	-	-	-
17N/02W-22E02	4656531225532	200	117	0	60	77	87	NP	NP	112
17N/02W-22E03	4656551225533	200	106	0	76	NP	89	NP	NP	97
17N/02W-22F03	4656511225514	198	66	0	28	58	-	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/02W-22H02	4656461225428	196	87	0	28	45	69	-	-	-
17N/02W-22H03	4656481225441	200	57	0	21	52	-	-	-	-
17N/02W-22Q03	4656361225448	200	45	0	1	34	-	-	-	-
17N/02W-23B01	4656541225328	215	57	0	4	41	-	-	-	-
17N/02W-23B02	4657091225333	200	40	0	24	38	-	-	-	-
17N/02W-23K01	4656361225342	196	59	0	3	20	-	-	-	-
17N/02W-24B01	4657091225209	224	100	0	12	72	76	92	-	-
17N/02W-24C02	4657081225246	210	243	0	NP	<42	42	56	NP	70
17N/02W-24D01	4656591225252	220	120	0	5	NP	NP	NP	47	52
17N/02W-24D02D1	4657091225305	200	-	0	NP	NP	NP	NP	NP	37
17N/02W-25N03	4655271225254	217	80	0	14	NP	NP	NP	NP	38
17N/02W-25Q01	4655291225222	243	155	0	6	NP	41	NP	56	122
17N/02W-25Q02	4655311225218	274	113	0	5	NP	49	NP	68	-
17N/02W-25Q03	4655341225215	276	280	0	8	55	63	NP	110	156
17N/02W-26D02	4656081225405	380	186	NP	0	NP	NP	58	88	183
17N/02W-26E01	4655571225418	200	68	0	NP	NP	NP	19	-	-
17N/02W-27J01	4655411225435	310	110	NP	0	NP	NP	NP	NP	19
17N/02W-27J02	4655431225425	200	212	NP	0	NP	NP	NP	NP	4
17N/02W-27P01	4655291225513	195	35	NP	0	NP	NP	25	-	-
17N/02W-28J01	4655481225542	200	62	NP	0	NP	NP	17	18	-
17N/02W-28J02	4655461225541	200	45	NP	0	NP	NP	19	23	-
17N/02W-28R01	4655381225557	198	28	0	20	NP	NP	27	-	-
17N/02W-29A01	4656101225709	188	44	0	18	42	-	-	-	-
17N/02W-29A02	4656081225703	190	50	0	34	46	-	-	-	-
17N/02W-29D01	4656101225804	180	56	0	NP	<55	-	-	-	-
17N/02W-29D02	4656121225759	180	60	0	32	55	-	-	-	-
17N/02W-29F01	4655571225738	186	57	0	16	37	-	-	-	-
17N/02W-29G01	4656041225728	195	50	0	3	47	-	-	-	-
17N/02W-29R01	4655261225658	195	100	0	20	22	35	88	-	-
17N/02W-30D02D1	4656101225915	163	-	0	15	38	?	?	?	?

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/02W-30E02	4655591225909	180	146	0	10	NP	NP	NP	NP	21
17N/02W-30E03	4655541225915	186	146	0	19	NP	42	NP	NP	55
17N/02W-30E04	4656001225914	180	86	0	18	NP	20	84	-	-
17N/02W-30F01	4655591225857	185	148	0	25	30	34	NP	60	96
17N/02W-30P02	4655281225851	178	49	0	NP	NP	NP	17	NP	36
17N/02W-31E01	4655021225916	181	80	0	NP	NP	NP	NP	<32	-
17N/02W-31H01	4655091225824	220	112	0	<38	NP	NP	28	38	-
17N/02W-32E01	4655091225809	193	24	0	<19	NP	NP	19	-	-
17N/02W-32K01	4654461225732	188	38	0	NP	NP	8	-	-	-
17N/02W-33K02	4654591225608	205	41	NP	0	NP	NP	22	-	-
17N/02W-34J02	4654551225424	212	120	0	NP	NP	NP	<120	-	-
17N/02W-35C01	4655251225353	268	201	NP	0	NP	NP	NP	NP	20
17N/02W-36C02	4655171225243	290	170	0	10	NP	NP	NP	NP	25
17N/02W-36C03	4655191225232	310	95	0	4	NP	NP	NP	NP	29
17N/03W-01B01	4659471225956	240	117	NP	0	64	-	-	-	-
17N/03W-01G02	4659211230000	220	94	0	3	62	-	-	-	-
17N/03W-01J01	4659101225927	210	83	0	6	71	-	-	-	-
17N/03W-01L02	4659151230010	220	95	?	?	<60	-	-	-	-
17N/03W-01R03	4659031225939	205	113	NP	0	94	101	111	-	-
17N/03W-02G01	4659321230111	340	166	0	5	67	NP	NP	72	166
17N/03W-02H01	4659271230100	290	85	0	4	77	NP	NP	80	-
17N/03W-02J01	4659121230051	260	165	0	10	93	NP	NP	122	-
17N/03W-02J02	4659121230053	260	165	0	19	89	NP	NP	116	-
17N/03W-02J03D1	4659181230045	260	113	0	18	82	?	?	?	?
17N/03W-02K01	4659141230109	275	46	0	12	42	-	-	-	-
17N/03W-02K04	4659181230118	300	115	0	17	58	NP	NP	112	-
17N/03W-02Q01	4658571230115	270	203	0	2	72	NP	NP	78	142
17N/03W-10B01	4658461230227	510	74	0	6	NP	NP	NP	NP	21
17N/03W-10C01	4658481230255	600	110	0	16	NP	NP	NP	46	-
17N/03W-10D01	4658481230303	620	43	0	18	NP	NP	NP	26	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/03W-11A03	4658481230054	240	94	0	6	88	-	-	-	-
17N/03W-11G01	4658361230117	240	99	0	37	67	-	-	-	-
17N/03W-11H01	4658371230051	240	100	NP	0	97	-	-	-	-
17N/03W-11K01	4658251230122	180	62	0	12	50	NP	NP	NP	60
17N/03W-11Q01	4658181230109	140	35	0	20	35	-	-	-	-
17N/03W-12A02	4658541225932	185	109	0	6	30	70	94	-	-
17N/03W-12A03	4658541225930	180	107	0	29	51	60	86	-	-
17N/03W-12A04	4658531225932	185	113	0	<25	64	70	72	-	-
17N/03W-12B02	4658501225950	240	103	0	17	80	103	-	-	-
17N/03W-12E01	4658371230029	200	56	0	9	54	-	-	-	-
17N/03W-12F01	4658351230016	220	119	0	22	87	-	-	-	-
17N/03W-14C02	4657551230128	140	70	0	NP	29	NP	NP	NP	70
17N/03W-14F03	4657531230143	170	402	0	NP	NP	NP	NP	5	21
17N/03W-14R02	4657201230048	200	101	NP	0	4	-	-	-	-
17N/03W-15A01	4658011230205	240	310	0	NP	NP	NP	NP	35	48
17N/03W-15B01	4657581230232	390	124	NP	NP	NP	NP	NP	0	52
17N/03W-15F01	4657421230258	580	64	NP	NP	NP	NP	NP	0	52
17N/03W-15N01	4657121230317	580	129	NP	NP	NP	NP	NP	0	-
17N/03W-15P01	4657181230249	400	282	0	NP	NP	NP	NP	<3	3
17N/03W-15P02	4657231230244	360	47	NP	NP	NP	NP	NP	0	41
17N/03W-17A01	4657551230444	515	40	NP	NP	NP	NP	NP	0	21
17N/03W-17B01	4657481230503	420	110	NP	NP	NP	NP	NP	0	25
17N/03W-17D01	4657561230537	485	75	NP	NP	NP	NP	NP	0	-
17N/03W-17G01	4657431230509	420	89	NP	NP	NP	NP	NP	0	-
17N/03W-17R01	4657231230454	380	79	NP	NP	NP	NP	NP	0	-
17N/03W-22J01	4656431230208	200	100	0	NP	<95	-	-	-	-
17N/03W-22L01	4656421230248	290	243	0	NP	NP	NP	NP	12	30
17N/03W-23L02	4656391230138	250	136	NP	0	110	-	-	-	-
17N/03W-23P01	4656241230132	245	98	NP	0	95	-	-	-	-
17N/03W-23Q02	4656341230118	230	113	NP	0	91	112	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/03W-23R02	4656341230046	170	70	0	22	54	-	-	-	-
17N/03W-24D01	4657061230028	200	97	NP	0	30	-	-	-	-
17N/03W-24E02	4656581230032	200	89	NP	0	42	-	-	-	-
17N/03W-24E03	4656501230041	190	84	NP	0	41	-	-	-	-
17N/03W-25D01	4656191230039	160	113	0	<45	45	51	70	-	-
17N/03W-25D02	4656191230042	160	74	0	23	35	57	68	-	-
17N/03W-25G01	4655531225953	150	50	0	NP	NP	14	34	-	-
17N/03W-25H02	4655561225942	155	60	0	NP	NP	35	55	-	-
17N/03W-25J02	4655481225929	180	45	0	NP	NP	34	39	-	-
17N/03W-25K01	4655521225949	155	44	0	NP	NP	30	42	-	-
17N/03W-25R04	4655311225936	165	45	0	NP	NP	5	38	-	-
17N/03W-25R05	4655341225929	170	94	0	NP	NP	5	18	-	-
17N/03W-26A01	4656221230045	160	94	0	18	21	38	72	-	-
17N/03W-26F01	4656071230125	200	96	0	8	20	43	75	-	-
17N/03W-26G01	4656061230119	180	66	0	2	48	-	-	-	-
17N/03W-26H01	4656081230100	160	89	0	30	43	49	54	-	-
17N/03W-26H02	4656091230046	158	89	0	32	62	71	76	-	-
17N/03W-26J02	4655441230052	140	30	0	-	-	-	-	-	-
17N/03W-27N01	4655341230317	300	156	0	12	NP	NP	NP	46	-
17N/03W-34E03	4655091230258	250	95	0	<42	-	-	-	-	-
17N/03W-34E04	4655061230300	250	120	0	3	NP	NP	NP	73	93
17N/03W-34F01	4655061230256	250	288	0	1	NP	NP	NP	77	92
17N/03W-34J01	4654561230209	170	55	0	5	53	-	-	-	-
17N/03W-34M01	4654511230306	200	400	0	<17	NP	NP	NP	NP	17
17N/03W-35B02	4655221230120	140	54	0	34	46	-	-	-	-
17N/03W-35R01	4654421230049	140	47	0	3	26	32	43	-	-
17N/03W-36A01	4655151225936	171	55	0	NP	NP	24	45	-	-
17N/03W-36C01	4655201230009	160	248	0	<80	NP	NP	NP	80	115
17N/03W-36F01	4655111230014	160	34	0	NP	NP	12	20	-	-
17N/03W-36N05	4654441230028	160	40	0	NP	NP	5	30	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
17N/03W-36Q02	4654411225950	180	185	NP	NP	NP	NP	0	35	150
17N/03W-36R01	4654401225939	230	91	NP	0	NP	NP	NP	12	-
18N/01E-06N01	4704121224400	230	253	0	10	20	140	220	-	-
18N/01E-06R01	4704171224301	18	250	NP	NP	NP	0	135	234	-
18N/01E-07A01	4703591224306	15	130	NP	NP	NP	0	119	-	-
18N/01E-07D01	4703561224412	238	260	0	<65	65	130	225	-	-
18N/01E-07L01	4703311224338	15	100	NP	NP	NP	0	23	-	-
18N/01E-08B03	4703561224215	18	86	NP	NP	NP	0	80	-	-
18N/01E-08D03	4703581224253	10	112	NP	NP	NP	0	95	-	-
18N/01E-08H01	4703431224152	20	73	NP	NP	NP	0	68	-	-
18N/01E-09M02	4703301224131	25	108	NP	NP	NP	0	88	-	-
18N/01E-16E01	4702551224134	33	110	NP	NP	NP	0	104	-	-
18N/01E-17Q01	4702241224210	181	260	0	20	98	110	165	-	-
18N/01E-18A01	4703131224315	15	120	NP	NP	NP	0	111	-	-
18N/01E-18A02	4703091224313	10	123	NP	NP	NP	0	112	-	-
18N/01E-18B01	4703061224333	15	84	NP	NP	NP	0	48	-	-
18N/01E-18H01	4702511224259	10	130	NP	NP	NP	0	118	130	-
18N/01E-19J02	4701491224303	39	112	0	NP	33	NP	43	108	-
18N/01E-19Q01	4701401224324	70	137	0	NP	42	NP	64	-	-
18N/01E-19R01	4701371224306	95	332	0	NP	65	NP	105	-	-
18N/01E-20R02	4701401224154	221	207	0	88	120	NP	200	-	-
18N/01E-21N01	4701321224126	230	352	0	88	125	130	203	297	-
18N/01E-21N02	4701421224132	220	200	0	81	120	125	175	-	-
18N/01E-21P01	4701361224111	230	236	0	63	NP	<184	184	-	-
18N/01E-21P02	4701361224112	230	417	0	88	186	191	211	235	-
18N/01E-21P03	4701371224114	230	235	0	79	175	191	211	-	-
18N/01E-21Q02	4701311224101	238	227	0	116	NP	156	211	-	-
18N/01E-28M01	4700521224130	238	194	0	3	NP	84	179	-	-
18N/01E-28N01	4700431224129	244	197	0	10	140	155	185	-	-
18N/01E-29B01	4701241224207	94	303	0	NP	78	NP	104	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/01E-29E01	4701121224243	112	330	0	NP	85	NP	127	-	-
18N/01E-29E02	4701101224258	130	-	0	NP	110	NP	150	-	-
18N/01E-29N04	4700431224252	130	222	0	NP	87	NP	120	-	-
18N/01E-30C01	4701191224348	160	32	0	26	-	-	-	-	-
18N/01E-30D02	4701181224355	160	153	0	35	71	76	130	-	-
18N/01E-30N01	4700401224402	212	194	0	37	NP	NP	161	192	-
18N/01E-30N02	4700401224403	212	191	0	51	NP	NP	163	191	-
18N/01E-30P01	4700471224347	212	287	0	41	NP	NP	185	223	-
18N/01E-31A01	4700371224307	83	92	0	NP	60	NP	80	-	-
18N/01E-31F01	4700181224349	222	220	0	NP	80	NP	184	-	-
18N/01E-31F02	4700191224354	216	215	0	NP	85	NP	179	-	-
18N/01E-31H01	4700141224302	108	101	0	NP	75	NP	98	-	-
18N/01E-31H02	4700161224311	111	119	0	NP	78	NP	109	-	-
18N/01E-31H03	4700231224307	160	193	0	NP	148	NP	165	-	-
18N/01E-31M01	4700001224412	215	194	0	10	NP	NP	164	191	-
18N/01E-31M02	4700001224413	215	192	0	15	NP	157	164	192	-
18N/01E-31N01	4659501224402	212	139	0	10	109	-	-	-	-
18N/01E-31Q01D1	4659571224318	156	373	0	NP	<111	NP	111	195	-
18N/01E-31R01	4659571224305	82	91	0	NP	<73	NP	73	-	-
18N/01E-31R02	4659571224301	78	85	0	NP	53	NP	84	-	-
18N/01E-32C02	4700331224237	140	128	0	NP	114	NP	123	-	-
18N/01E-32D04D1	4700281224244	80	76	0	NP	<62	NP	62	-	-
18N/01E-32D05	4700261224248	100	98	0	NP	76	NP	91	-	-
18N/01E-32D09	4700271224249	73	93	0	NP	57	NP	83	-	-
18N/01E-32E02	4700201224245	100	83	0	NP	55	NP	78	-	-
18N/01E-32E03	4700151224247	97	98	0	NP	49	NP	76	-	-
18N/01E-32E04	4700121224243	80	67	0	NP	26	NP	47	-	-
18N/01E-32H02	4700171224155	253	219	0	51	158	166	205	-	-
18N/01E-32M01	4700001224254	121	112	0	NP	80	NP	90	112	-
18N/01E-32N01	4659471224250	115	92	0	NP	60	NP	83	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/01E-32N02	4659531224250	76	81	0	NP	<68	NP	68	-	-
18N/01E-32N03	4659501224240	162	158	0	NP	55	118	129	-	-
18N/01E-32P02	4659581224237	75	81	0	NP	<42	NP	42	-	-
18N/01E-34F03	4700101224004	260	260	0	NP	32	NP	40	-	-
18N/01E-34F04	4700111224004	260	280	0	NP	58	NP	65	-	-
18N/01E-34J01	4700031223926	264	231	0	NP	40	NP	57	-	-
18N/01E-34K01	4659581223931	273	239	0	NP	60	NP	88	-	-
18N/01E-34R01	4659501223924	280	212	0	NP	<86	NP	86	-	-
18N/01E-34R02	4659521223927	280	222	0	NP	<71	NP	71	-	-
18N/01E-35N01O	4659501223902	278	-	0	NP	<89	89	93	-	-
18N/01W-01H01	4704421224418	225	120	0	11	94	-	-	-	-
18N/01W-01H02	4704361224432	225	255	0	42	119	121	248	-	-
18N/01W-01R01	4704101224419	245	237	0	22	142	150	224	-	-
18N/01W-02G01	4704421224550	235	155	0	8	109	130	-	-	-
18N/01W-02G02	4704411224552	237	241	0	13	119	135	222	-	-
18N/01W-02H01	4704361224536	245	139	0	11	124	-	-	-	-
18N/01W-02H02	4704381224548	235	319	0	3	117	138	248	284	-
18N/01W-02L01	4704211224624	235	212	0	60	NP	133	203	212	-
18N/01W-02M02	4704231224632	240	218	0	101	129	148	209	-	-
18N/01W-02R01	4704141224547	220	256	0	94	131	213	231	256	-
18N/01W-03B01	4704591224720	234	223	NP	0	141	187	203	223	-
18N/01W-03B02	4704581224713	238	280	NP	0	?	?	200	220	-
18N/01W-03E01	4704411224801	95	67	0	20	60	65	-	-	-
18N/01W-03G01	4704391224707	195	151	0	5	105	151	-	-	-
18N/01W-03H02	4704371224653	205	233	0	<166	<166	166	186	-	-
18N/01W-04M01	4704291224918	70	77	0	<61	63	-	-	-	-
18N/01W-04M02	4704281224905	65	158	0	30	78	89	140	-	-
18N/01W-04N01	4704121224911	80	326	0	47	65	74	109	222	-
18N/01W-04P01	4704181224854	50	76	0	NP	NP	28	-	-	-
18N/01W-05E02	4704341225027	165	50	NP	0	48	-	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/01W-05E03	4704401225030	165	46	NP	0	38	-	-	-	-
18N/01W-05G01	4704391224939	90	75	0	12	28	-	-	-	-
18N/01W-05G02	4704431224953	110	56	0	10	46	-	-	-	-
18N/01W-05L02	4704331225006	160	40	NP	0	39	-	-	-	-
18N/01W-05L03	4704231225006	165	40	NP	0	36	-	-	-	-
18N/01W-05L05	4704311224956	136	153	NP	0	53	76	149	-	-
18N/01W-06A03	4704491225047	160	118	0	1	58	81	113	-	-
18N/01W-06D01	4704521225146	145	72	0	18	44	72	-	-	-
18N/01W-06E02	4704361225148	165	79	0	49	-	-	-	-	-
18N/01W-06G02	4704351225055	160	50	0	-	-	-	-	-	-
18N/01W-06H03D1	4704351225052	160	159	0	48	72	90	<126	131	-
18N/01W-06P03	4704111225125	170	91	0	73	81	86	-	-	-
18N/01W-06Q04	4704121225109	160	65	0	-	-	-	-	-	-
18N/01W-06R03	4704101225036	165	72	NP	0	46	-	-	-	-
18N/01W-07A06	4703591225048	175	67	NP	0	36	-	-	-	-
18N/01W-07C01	4704001225129	175	63	0	28	-	-	-	-	-
18N/01W-07E02	4703461225137	180	64	0	-	-	-	-	-	-
18N/01W-07E04	4703541225146	175	83	0	62	-	-	-	-	-
18N/01W-07H04	4703421225037	195	141	NP	0	94	99	130	-	-
18N/01W-07K03	4703341225112	185	91	0	90	-	-	-	-	-
18N/01W-07L04	4703301225125	180	91	0	16	72	-	-	-	-
18N/01W-07M02	4703401225140	185	79	0	37	72	-	-	-	-
18N/01W-07N03	4703191225134	195	98	0	21	92	-	-	-	-
18N/01W-07P02	4703241225127	181	53	0	17	45	-	-	-	-
18N/01W-08C02	4704061224956	150	140	NP	0	21	66	-	-	-
18N/01W-08E01	4703431225027	190	77	NP	0	71	-	-	-	-
18N/01W-08G02	4703481224948	150	67	NP	0	60	-	-	-	-
18N/01W-08H03D1	4703531224925	124	570	0	26	NP	54	189	221	-
18N/01W-08L01	4703321225004	202	101	NP	0	65	82	-	-	-
18N/01W-08L03	4703321225005	202	100	NP	0	95	99	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/01W-09D01	4704061224903	85	71	0	NP	NP	46	-	-	-
18N/01W-09G01	4703531224829	82	345	0	NP	NP	60	140	200	-
18N/01W-09J01	4703321224816	105	197	0	NP	65	118	183	195	-
18N/01W-09K04	4703371224838	92	90	0	NP	49	-	-	-	-
18N/01W-10F01	4703511224739	150	195	0	55	100	125	-	-	-
18N/01W-10R02	4703161224651	208	171	0	5	82	90	150	-	-
18N/01W-10R03	4703241224657	210	178	0	7	68	90	163	-	-
18N/01W-11A01	4703571224529	217	481	0	4	104	172	230	242	-
18N/01W-11P05	4703211224621	205	73	0	15	70	-	-	-	-
18N/01W-12D01	4703551224521	220	200	0	<140	<140	140	180	-	-
18N/01W-12F01	4703411224508	215	390	0	10	97	114	203	237	-
18N/01W-12J02	4703321224414	240	232	0	2	<108	116	218	232	-
18N/01W-12M01D1	4703321224522	218	240	?	?	?	?	193	-	-
18N/01W-12R02	4703201224421	237	244	0	23	<92	92	216	-	-
18N/01W-12R03	4703191224427	235	145	0	23	39	108	-	-	-
18N/01W-13A01	4703121224425	225	228	0	14	58	105	217	-	-
18N/01W-13A02	4703141224430	235	242	0	2	33	94	190	-	-
18N/01W-13B01	4703081224433	230	259	0	17	70	95	229	258	-
18N/01W-13G02	4702491224449	210	259	0	10	71	105	241	-	-
18N/01W-13G03	4702541224441	223	275	0	7	39	92	247	-	-
18N/01W-13J01D1	4702471224427	240	321	0	2	82	101	222	258	-
18N/01W-13J02	4702471224420	245	336	0	20	80	122	197	245	-
18N/01W-13J03	4702461224434	240	293	0	10	90	98	240	246	-
18N/01W-13J04	4702481224418	240	325	0	9	68	97	170	200	-
18N/01W-13N01	4702331224524	265	286	0	32	133	135	268	285	-
18N/01W-14D04	4703061224642	203	226	0	15	21	81	187	226	-
18N/01W-14H04	4702491224538	232	260	0	45	64	74	190	260	-
18N/01W-14L02	4702401224611	218	53	0	25	53	-	-	-	-
18N/01W-14R01	4702241224541	225	254	0	42	88	100	206	-	-
18N/01W-15B04	4703041224718	180	149	0	16	56	69	130	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/01W-15H01	4703001224701	175	186	0	3	40	49	156	177	-
18N/01W-16Q03	4702331224831	160	137	0	37	50	116	-	-	-
18N/01W-17C01	4703031225015	199	187	0	22	95	114	175	-	-
18N/01W-17C02	4703031225013	199	191	0	24	77	90	175	-	-
18N/01W-17G02	4702531224956	200	62	0	9	-	-	-	-	-
18N/01W-17H05	4702591224928	202	101	0	23	57	-	-	-	-
18N/01W-19A01	4702111225042	195	92	0	21	39	-	-	-	-
18N/01W-19C02	4702151225127	145	42	0	NP	12	-	-	-	-
18N/01W-19D05	4702161225139	162	83	0	NP	40	74	-	-	-
18N/01W-19F02	4702031225114	182	42	0	34	35	-	-	-	-
18N/01W-19G02	4701581225058	202	60	0	25	56	-	-	-	-
18N/01W-19H02	4702071225054	198	82	?	?	<64	-	-	-	-
18N/01W-19L03	4701511225119	185	78	0	40	72	-	-	-	-
18N/01W-19M05	4701521225131	210	70	0	28	63	-	-	-	-
18N/01W-21B04	4702201224822	175	130	0	60	66	120	-	-	-
18N/01W-21B05	4702141224826	182	107	0	58	75	-	-	-	-
18N/01W-21B06	4702151224827	178	488	0	<58	58	NP	136	204	-
18N/01W-21D03	4702101224912	194	153	0	33	44	129	139	-	-
18N/01W-21P01	4701341224858	228	119	0	22	48	-	-	-	-
18N/01W-21P02D1	4701351224858	235	403	0	<31	<145	145	173	270	-
18N/01W-22K01	4701451224715	199	56	0	-	-	-	-	-	-
18N/01W-23B02	4702091224550	167	32	0	-	-	-	-	-	-
18N/01W-23Q01	4701401224550	181	161	0	21	75	95	148	-	-
18N/01W-24A02	4702161224425	213	797	0	8	77	106	203	206	-
18N/01W-24A03	4702161224425	214	103	0	23	86	-	-	-	-
18N/01W-24B02	4702101224438	242	103	0	27	76	-	-	-	-
18N/01W-24D02	4702191224520	226	96	0	?	?	-	-	-	-
18N/01W-24D04	4702171224512	254	334	0	<28	77	117	235	327	-
18N/01W-24D05	4702171224513	259	334	0	10	87	122	228	332	-
18N/01W-24L02	4701531224506	175	239	0	2	28	67	123	233	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/01W-25B01	4701221224452	260	245	NP	0	111	161	216	-	-
18N/01W-25P02	4700501224501	181	59	0	30	43	-	-	-	-
18N/01W-26A02	4701211224539	230	118	0	38	50	-	-	-	-
18N/01W-26C02	4701221224616	189	65	0	NP	28	-	-	-	-
18N/01W-26G01	4701141224552	187	73	0	NP	59	-	-	-	-
18N/01W-26N01	4700391224628	182	85	0	42	73	-	-	-	-
18N/01W-26N02	4700391224629	185	500	0	?	?	94	100	?	-
18N/01W-27A03	4701201224701	166	78	0	25	71	-	-	-	-
18N/01W-27K01	4700551224706	205	84	0	40	57	-	-	-	-
18N/01W-27M02	4700581224749	190	388	0	21	41	98	141	174	-
18N/01W-28E01	4701051224915	232	217	NP	0	35	162	188	217	-
18N/01W-28J01	4700531224806	185	127	0	10	20	<120	120	-	-
18N/01W-28M01	4701041224914	232	238	NP	0	29	162	191	227	-
18N/01W-28P01	4700511224850	235	121	0	8	65	-	-	-	-
18N/01W-29E01	4701121225033	212	100	0	26	100	-	-	-	-
18N/01W-29Q02	4700421224932	238	137	0	13	84	134	-	-	-
18N/01W-30A01	4701191225045	278	378	NP	0	106	191	201	228	368
18N/01W-30E04	4701161225136	202	75	0	9	62	-	-	-	-
18N/01W-30L02	4701041225127	235	61	0	24	49	-	-	-	-
18N/01W-30M02	4700571225135	228	105	0	30	91	-	-	-	-
18N/01W-31A02	4700311225048	210	140	0	16	67	-	-	-	-
18N/01W-31A03	4700381225041	209	139	?	<62	72	-	-	-	-
18N/01W-31G01	4700141225056	205	84	0	17	71	-	-	-	-
18N/01W-31G02	4700151225057	204	102	0	11	76	102	-	-	-
18N/01W-31G03	4700131225058	205	80	0	8	64	-	-	-	-
18N/01W-31K03	4700001225103	185	64	0	9	56	-	-	-	-
18N/01W-31R02	4659561225043	200	154	0	19	43	65	126	-	-
18N/01W-32D02	4700341225028	203	91	0	20	77	-	-	-	-
18N/01W-32L01	4700021225014	215	79	0	39	75	-	-	-	-
18N/01W-32N02	4659581225031	212	98	0	22	<90	-	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/01W-32P01	4659541225006	202	56	0	56	-	-	-	-	-
18N/01W-32P02	4659511225009	200	390	0	41	58	112	151	204	-
18N/01W-32P03	4659501225010	200	91	0	45	78	-	-	-	-
18N/01W-32P04	4659511225006	200	50	0	48	-	-	-	-	-
18N/01W-32P05	4659531225007	200	170	?	?	?	<119	128	-	-
18N/01W-33B01	4700381224823	212	118	0	60	99	-	-	-	-
18N/01W-33C01	4700361224851	208	73	0	23	48	-	-	-	-
18N/01W-33F01	4700251224854	208	62	0	34	45	-	-	-	-
18N/01W-33G02	4700231224833	212	102	0	75	85	-	-	-	-
18N/01W-33J02	4700041224811	201	61	0	60	-	-	-	-	-
18N/01W-33N01	4659531224905	197	440	0	50	65	122	168	203	-
18N/01W-33P01	4659511224852	198	216	0	53	72	124	169	211	-
18N/01W-34G01	4700221224706	175	59	0	-	-	-	-	-	-
18N/01W-34J01	4700041224651	172	55	0	12	49	-	-	-	-
18N/01W-34J02	4700101224650	200	510	0	50	73	74	NP	120	-
18N/01W-34M03	4700121224751	202	80	0	32	44	-	-	-	-
18N/01W-34Q01	4659541224719	194	110	0	68	79	-	-	-	-
18N/01W-35A04	4700351224533	161	32	0	8	15	-	-	-	-
18N/01W-35B02	4700301224606	176	84	0	26	44	-	-	-	-
18N/01W-35G02	4700141224549	181	139	0	2	63	64	119	-	-
18N/01W-35L02	4700111224619	193	56	0	5	37	-	-	-	-
18N/01W-35N01	4659521224630	185	76	0	4	20	-	-	-	-
18N/01W-36C01	4700261224503	195	230	0	3	56	<164	<164	164	-
18N/01W-36C02	4700271224503	195	336	0	20	76	115	147	175	-
18N/01W-36H02	4700201224418	221	188	0	28	94	96	168	-	-
18N/01W-36J01	4700061224420	228	263	0	36	NP	<172	172	228	-
18N/01W-36L01	4700031224503	222	164	0	46	126	134	155	-	-
18N/01W-36M02	4700031224523	225	160	0	75	86	148	154	-	-
18N/01W-36N01	4659531224513	218	217	0	NP	79	100	150	180	-
18N/02W-01E06	4704451225251	120	39	0	8	33	38	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/02W-01F04	4704451225240	150	97	0	4	46	65	-	-	-
18N/02W-01G02	4704351225220	168	121	0	18	71	97	-	-	-
18N/02W-01G03	4704351225218	168	178	0	25	69	91	178	-	-
18N/02W-01Q03	4704131225219	178	74	0	22	69	-	-	-	-
18N/02W-01R05	4704101225152	165	164	0	58	92	116	157	-	-
18N/02W-02A03	4704471225324	110	48	0	7	-	-	-	-	-
18N/02W-02A04	4704481225320	115	115	0	31	72	105	109	-	-
18N/02W-02A05	4704531225324	119	133	0	50	68	99	125	-	-
18N/02W-02B05	4704551225339	130	74	0	11	69	-	-	-	-
18N/02W-02C07	4704481225401	55	43	NP	0	31	43	-	-	-
18N/02W-02C08	4704571225353	102	128	NP	0	NP	70	104	-	-
18N/02W-02C09	4704581225358	35	60	NP	0	NP	21	37	59	-
18N/02W-02F04	4704391225351	105	84	NP	0	73	-	-	-	-
18N/02W-02H04	4704451225321	110	81	NP	0	64	74	-	-	-
18N/02W-03N06	4704161225521	159	159	NP	0	59	60	156	-	-
18N/02W-04D01	4704481225633	145	69	NP	0	50	-	-	-	-
18N/02W-04F03	4704361225620	98	420	NP	0	NP	18	NP	<410	-
18N/02W-04G03	4704371225559	156	113	NP	0	69	80	-	-	-
18N/02W-04J08	4704341225553	170	125	0	12	NP	40	-	-	-
18N/02W-05B03	4704571225730	150	59	0	10	56	-	-	-	-
18N/02W-05C03	4704581225733	145	57	NP	0	35	-	-	-	-
18N/02W-05D02	4704501225805	160	110	NP	0	NP	73	-	-	-
18N/02W-05D03	4704471225755	180	106	NP	0	73	-	-	-	-
18N/02W-05D04	4704581225757	168	100	NP	0	78	-	-	-	-
18N/02W-05H01	4704361225700	140	60	0	17	38	-	-	-	-
18N/02W-06N01	4704131225916	150	169	0	12	78	114	159	-	-
18N/02W-07D01	4704051225916	160	99	0	22	95	-	-	-	-
18N/02W-07E01	4703471225918	163	101	0	34	73	-	-	-	-
18N/02W-07J03	4703391225826	195	149	NP	0	122	-	-	-	-
18N/02W-07L02	4703361225854	145	73	0	12	61	-	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/02W-07N02	4703281225909	40	39	0	4	34	-	-	-	-
18N/02W-07N03	4703271225915	40	40	0	5	36	-	-	-	-
18N/02W-07R01	4703211225826	155	125	0	35	86	-	-	-	-
18N/02W-08E03	4703481225800	172	64	NP	0	61	-	-	-	-
18N/02W-08N03	4703271225808	160	128	0	19	77	120	-	-	-
18N/02W-09D01	4704071225638	178	67	0	20	57	-	-	-	-
18N/02W-09G01	4703541225609	248	191	NP	0	171	-	-	-	-
18N/02W-12A03	4704081225149	165	84	0	60	77	-	-	-	-
18N/02W-12E01	4703491225253	160	70	0	39	63	-	-	-	-
18N/02W-12G04	4703501225208	173	164	0	26	69	73	146	163	-
18N/02W-12H01	4703541225155	171	138	0	64	73	84	133	-	-
18N/02W-12J01	4703401225153	165	28	0	-	-	-	-	-	-
18N/02W-12K04	4703341225211	165	145	0	21	60	63	137	-	-
18N/02W-12Q03	4703191225226	165	44	0	16	34	-	-	-	-
18N/02W-12R01	4703191225200	158	139	0	36	48	55	133	-	-
18N/02W-16A01	4703151225539	193	140	0	5	123	-	-	-	-
18N/02W-17B02	4703041225729	165	118	0	16	83	118	-	-	-
18N/02W-17B03	4703041225731	166	123	0	25	83	-	-	-	-
18N/02W-17D05	4703141225800	175	125	0	4	-	-	-	-	-
18N/02W-17H02	4702531225710	185	120	NP	0	104	-	-	-	-
18N/02W-17H03	4702541225710	183	116	NP	0	98	109	-	-	-
18N/02W-17M02	4702451225808	150	131	NP	0	108	-	-	-	-
18N/02W-17M04	4702451225810	155	160	NP	0	105	-	-	-	-
18N/02W-17Q04	4702341225732	175	153	0	2	80	109	153	-	-
18N/02W-18A02	4703061225812	184	140	NP	0	132	-	-	-	-
18N/02W-18G04	4702591225841	160	100	0	5	82	90	-	-	-
18N/02W-18K02	4702401225848	120	160	NP	NP	0	NP	<160	-	-
18N/02W-18K03	4702411225841	145	200	NP	NP	0	NP	146	-	-
18N/02W-18L01	4702381225903	10	240	NP	NP	0	NP	26	76	-
18N/02W-18L02	4702411225847	130	200	NP	NP	0	NP	<200	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/02W-20C01	4702171225735	170	85	NP	0	60	69	NP	NP	85
18N/02W-21Q01	4701431225615	135	77	0	NP	43	-	-	-	-
18N/02W-22D01	4702171225527	210	149	0	3	108	149	-	-	-
18N/02W-22E01	4702101225531	210	200	0	2	80	132	-	-	-
18N/02W-24B01	4702091225217	100	51	0	16	45	-	-	-	-
18N/02W-25A03	4701201225200	188	73	0	10	65	-	-	-	-
18N/02W-28J01	4700591225542	198	184	NP	0	NP	NP	NP	NP	27
18N/02W-28J02	4701021225552	135	84	0	NP	<77	NP	NP	NP	83
18N/02W-29N01	4700491225806	199	100	0	NP	NP	30	NP	NP	90
18N/02W-30Q02	4700421225836	175	163	0	NP	NP	NP	NP	45	115
18N/02W-31G01	4700241225837	150	80	0	12	NP	68	NP	NP	80
18N/02W-31J03	4700051225815	135	69	0	2	60	67	-	-	-
18N/02W-31L01	4700041225849	164	68	0	2	61	-	-	-	-
18N/02W-31P02	4659541225853	167	105	0	2	54	57	92	104	-
18N/02W-31P03	4659531225857	160	380	0	2	54	62	96	105	360
18N/02W-31R02	4659511225815	150	28	0	5	27	-	-	-	-
18N/02W-32A06	4700361225655	181	80	0	15	49	-	-	-	-
18N/02W-32B02	4700281225715	175	39	0	2	32	37	-	-	-
18N/02W-32D02	4700371225752	138	140	0	NP	NP	15	NP	40	77
18N/02W-32D03	4700381225808	180	173	0	NP	NP	45	NP	120	-
18N/02W-32K01	4700091225720	177	68	0	26	60	-	-	-	-
18N/02W-32K02	4700101225725	177	61	0	10	51	-	-	-	-
18N/02W-33A03	4700391225543	155	50	0	NP	<50	NP	NP	NP	50
18N/02W-33C01	4700391225635	270	304	NP	0	NP	NP	NP	NP	32
18N/02W-33M01	4700021225642	181	120	0	30	NP	NP	NP	NP	34
18N/02W-33R02	4659581225553	163	60	0	-	-	-	-	-	-
18N/02W-34B01	4700351225456	170	37	0	-	-	-	-	-	-
18N/02W-34C02	4700301225508	170	61	0	-	-	-	-	-	-
18N/02W-35B02	4700331225344	185	264	0	NP	<110	110	225	256	260
18N/02W-35B04	4700361225345	170	251	0	NP	74	130	190	224	241

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/02W-35B05	4700361225341	185	303	0	NP	<129	129	213	293	303
18N/02W-35F06	4700251225353	100	136	0	NP	<99	99	126	NP	134
18N/02W-35F08	4700191225402	95	155	0	NP	<147	147	-	-	-
18N/02W-35F11	4700181225359	100	157	0	NP	<150	150	-	-	-
18N/02W-35F12	4700151225400	95	143	0	NP	<132	132	-	-	-
18N/02W-35K01	4700021225342	105	323	0	NP	<92	92	93	153	-
18N/02W-35K02	4700041225343	105	347	0	NP	<93	93	106	151	-
18N/02W-35K03	4700061225335	110	393	0	NP	<104	104	136	198	-
18N/02W-35M02	4700071225409	110	92	0	NP	<92	-	-	-	-
18N/02W-35M03	4700051225411	110	96	0	NP	<96	-	-	-	-
18N/02W-35M04	4700061225409	110	90	0	NP	59	-	-	-	-
18N/02W-35M05	4700071225411	110	115	0	NP	<114	114	-	-	-
18N/02W-35M06	4700041225412	110	122	0	NP	<120	120	-	-	-
18N/02W-35M08	4700061225414	110	93	0	NP	<93	-	-	-	-
18N/02W-36D01	4700261225248	183	534	0	NP	<129	129	<283	283	-
18N/02W-36L01	4700071225245	185	124	0	NP	<124	-	-	-	-
18N/03W-01D02	4704541230027	10	65	NP	0	NP	<65	65	-	-
18N/03W-01D04	4704551230027	65	136	NP	0	NP	14	62	-	-
18N/03W-01J02	4704311225939	70	76	0	3	NP	28	61	-	-
18N/03W-01K04	4704261225954	20	72	NP	0	NP	39	70	-	-
18N/03W-01L01	4704251230008	50	53	0	3	NP	12	31	NP	53
18N/03W-02A02D1	4704501230046	130	181	NP	0	72	79	?	?	?
18N/03W-02B05	4704481230058	165	118	NP	0	105	117	-	-	-
18N/03W-02C02	4704571230130	180	180	NP	0	NP	NP	NP	NP	43
18N/03W-02H02	4704361230050	6	71	NP	0	NP	23	50	-	-
18N/03W-02H05	4704451230053	135	178	NP	0	79	82	172	-	-
18N/03W-03J02	4704321230210	180	24	NP	0	23	-	-	-	-
18N/03W-04R02	4704171230319	180	60	NP	0	23	24	40	46	51
18N/03W-04R03	4704181230320	180	65	NP	0	10	21	58	60	65
18N/03W-07L02	4703321230612	490	420	NP	NP	NP	NP	NP	0	15

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/03W-08C01	4703591230513	525	460	NP	NP	NP	NP	NP	NP	0
18N/03W-11C01	4704021230121	150	138	NP	0	NP	NP	NP	NP	25
18N/03W-11D01	4704021230133	440	60	NP	NP	NP	NP	NP	NP	0
18N/03W-11P02	4703181230126	230	40	NP	0	NP	NP	NP	<40	-
18N/03W-11Q01	4703161230106	250	72	0	10	NP	NP	NP	21	-
18N/03W-12D01	4703591230023	50	106	NP	NP	NP	0	22	70	-
18N/03W-12G01	4703441225952	80	56	NP	0	49	-	-	-	-
18N/03W-12H01	4703451225930	160	207	0	3	100	120	154	176	-
18N/03W-12H02	4703541225942	170	121	NP	0	104	119	-	-	-
18N/03W-12H03	4703481225928	165	120	0	3	67	114	-	-	-
18N/03W-12K01	4703401225944	80	78	0	5	33	51	-	-	-
18N/03W-12L01	4703391230006	30	49	NP	0	NP	NP	20	-	-
18N/03W-13G06	4702521225948	20	69	NP	NP	NP	0	63	-	-
18N/03W-13H02	4702561225928	20	300	NP	NP	NP	0	NP	NP	32
18N/03W-13K03	4702441230001	75	79	0	8	NP	20	59	-	-
18N/03W-14J01	4702461230054	195	46	0	6	34	37	NP	NP	41
18N/03W-16E01	4702521230417	540	415	NP	NP	NP	NP	NP	NP	0
18N/03W-16N01	4702331230416	510	300	NP	NP	NP	NP	NP	0	61
18N/03W-16P02	4702241230355	460	80	NP	NP	NP	NP	NP	0	67
18N/03W-16Q01	4702241230348	425	47	NP	NP	NP	NP	NP	0	28
18N/03W-17R01	4702281230430	490	88	NP	NP	NP	NP	NP	0	-
18N/03W-18A01	4703031230544	670	400	NP	NP	NP	NP	NP	NP	0
18N/03W-18E01	4702541230650	490	215	NP	NP	NP	NP	NP	0	18
18N/03W-19C01	4702151230620	670	115	NP	NP	NP	NP	NP	0	105
18N/03W-19E01	4702031230650	490	30	NP	NP	NP	NP	NP	0	-
18N/03W-19F01	4702021230627	525	103	NP	NP	NP	NP	NP	0	-
18N/03W-22A01	4702101230211	410	290	0	17	NP	NP	NP	NP	85
18N/03W-22J01	4701521230206	320	47	0	28	40	-	-	-	-
18N/03W-23A01	4702101230052	210	54	0	<30	-	-	-	-	-
18N/03W-23A02	4702101230052	210	53	0	<10	NP	NP	NP	NP	53

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
18N/03W-23B02	4702151230114	230	40	NP	0	-	-	-	-	-
18N/03W-23F01	4702071230123	295	160	NP	0	NP	NP	NP	33	56
18N/03W-23G01	4702071230118	260	65	NP	0	NP	36	59	-	-
18N/03W-23H04	4701571230043	170	48	NP	0	41	-	-	-	-
18N/03W-23H05	4701571230043	170	48	NP	0	33	47	-	-	-
18N/03W-23J01	4701451230043	200	55	NP	0	-	-	-	-	-
18N/03W-23K02	4701471230105	225	59	0	4	54	-	-	-	-
18N/03W-23N01	4701401230146	330	41	0	5	39	-	-	-	-
18N/03W-23N02	4701351230153	355	63	NP	0	59	-	-	-	-
18N/03W-23P01	4701331230133	310	59	0	4	37	-	-	-	-
18N/03W-23Q01	4701401230121	245	88	0	6	60	70	82	-	-
18N/03W-24H01	4702061225931	20	207	NP	0	NP	18	46	52	-
18N/03W-24H02	4702021225943	35	44	NP	0	16	27	38	-	-
18N/03W-24J02	4701491225926	20	105	NP	0	NP	6	NP	<105	105
18N/03W-24J03	4701561225942	35	29	0	NP	NP	14	25	-	-
18N/03W-24M01D1	4701451230039	197	-	NP	0	56	>61	?	?	?
18N/03W-24P01	4701351230021	180	142	0	4	38	54	133	NP	136
18N/03W-24R06	4701431225936	30	143	NP	0	NP	19	NP	<118	-
18N/03W-25A02	4701301225932	30	65	NP	0	NP	4	50	NP	52
18N/03W-25J01	4700551225942	120	92	NP	0	NP	69	87	-	-
18N/03W-25P01	4700401230007	65	102	0	8	NP	30	88	-	-
18N/03W-25R04	4700401225936	125	130	NP	0	58	81	NP	NP	102
18N/03W-36B01	4700351230002	65	79	0	12	NP	<78	78	-	-
19N/01E-30M01	4706151224404	55	73	NP	0	NP	NP	34	51	-
19N/01E-30P06	4705571224344	155	186	0	13	45	55	150	-	-
19N/01E-30P07	4705551224343	150	60	0	9	48	-	-	-	-
19N/01E-30Q01	4705591224335	62	107	NP	NP	NP	0	29	50	-
19N/01E-30Q02	4706001224335	80	104	NP	NP	NP	0	56	84	-
19N/01E-31C04	4705491224346	190	38	0	-	-	-	-	-	-
19N/01W-03N01	4709311224753	30	98	NP	NP	NP	0	37	40	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
19N/01W-04D03	4710001224909	120	134	NP	0	50	57	66	-	-
19N/01W-04J02	4709401224804	55	66	NP	NP	0	8	47	-	-
19N/01W-04P01	4709221224856	165	215	NP	0	42	67	124	214	-
19N/01W-05H01	4709531224929	60	99	NP	0	NP	35	90	-	-
19N/01W-05R04	4709231224929	40	139	NP	0	NP	97	NP	110	-
19N/01W-05R05	4709311224930	10	204	NP	0	NP	62	NP	<176	-
19N/01W-05R06	4709291224930	20	196	NP	0	NP	72	NP	<185	-
19N/01W-06J06	4709401225048	22	37	NP	0	NP	<34	34	-	-
19N/01W-06J07	4709431225042	45	80	NP	0	NP	40	-	-	-
19N/01W-06K05	4709441225107	80	70	NP	0	NP	14	-	-	-
19N/01W-06L01	4709411225120	61	190	NP	0	NP	18	NP	<185	-
19N/01W-07A01	4709101225039	85	82	NP	0	NP	17	55	-	-
19N/01W-07N02	4708301225132	125	138	0	5	NP	35	136	-	-
19N/01W-08K01	4708451224932	80	89	NP	0	NP	25	80	-	-
19N/01W-08R01	4708351224934	50	79	NP	0	NP	NP	58	-	-
19N/01W-09L01	4708551224858	230	147	NP	0	140	147	-	-	-
19N/01W-09L02	4708461224852	190	90	NP	0	78	-	-	-	-
19N/01W-09R03	4708341224814	157	66	NP	0	58	-	-	-	-
19N/01W-09R04	4708301224804	162	56	NP	0	52	-	-	-	-
19N/01W-10F04	4709051224735	62	75	NP	0	NP	NP	34	-	-
19N/01W-10L04	4708421224735	70	83	NP	NP	NP	0	74	-	-
19N/01W-10N01	4708291224747	161	73	NP	0	60	-	-	-	-
19N/01W-10N02	4708401224752	148	56	NP	0	50	-	-	-	-
19N/01W-10P01	4708391224737	85	88	NP	0	NP	9	82	-	-
19N/01W-10Q02	4708291224717	70	121	NP	NP	NP	0	85	-	-
19N/01W-15C01	4708261224736	110	56	NP	0	54	56	-	-	-
19N/01W-15C02	4708211224739	145	100	NP	0	68	70	94	-	-
19N/01W-15C03	4708191224732	144	80	NP	0	77	-	-	-	-
19N/01W-15E01	4708031224746	165	69	NP	0	62	-	-	-	-
19N/01W-15K03	4707491224715	80	150	NP	NP	0	11	NP	110	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
19N/01W-15L01	4707501224730	137	192	NP	0	26	70	NP	<190	-
19N/01W-16K01	4707591224828	160	90	NP	0	67	-	-	-	-
19N/01W-16K02	4707581224832	155	71	NP	0	52	-	-	-	-
19N/01W-16L01	4707591224849	165	80	NP	0	57	-	-	-	-
19N/01W-16N02	4707421224913	121	78	NP	0	42	-	-	-	-
19N/01W-16R01	4707441224807	158	152	NP	0	60	85	93	150	-
19N/01W-17A05	4708241224935	40	176	NP	0	NP	NP	56	59	-
19N/01W-17J02	4707571224932	43	95	NP	0	NP	14	30	66	-
19N/01W-17M01	4708011225030	10	1000	NP	NP	NP	NP	0	45	-
19N/01W-17N02	4707461225033	70	102	NP	0	NP	8	81	-	-
19N/01W-18E01	4708131225147	101	47	0	13	NP	25	-	-	-
19N/01W-18F01	4708111225128	90	64	NP	0	NP	23	-	-	-
19N/01W-18M02	4707581225148	85	49	0	9	NP	21	-	-	-
19N/01W-18P01	4707481225114	70	110	NP	0	NP	46	98	-	-
19N/01W-19L02	4707081225123	70	105	NP	0	NP	37	-	-	-
19N/01W-19P03	4706511225113	120	108	NP	0	NP	25	95	-	-
19N/01W-20G01	4707131224940	125	159	NP	0	21	57	121	-	-
19N/01W-20G04	4707181224940	110	124	NP	0	NP	29	106	124	-
19N/01W-20H01	4707131224924	150	178	NP	0	NP	68	151	-	-
19N/01W-20L01	4707101225006	15	377	NP	0	NP	?	NP	?	-
19N/01W-20Q01	4706451224958	95	116	NP	0	NP	40	105	-	-
19N/01W-21C03	4707251224857	162	67	NP	0	52	67	-	-	-
19N/01W-21K01	4707081224825	130	128	NP	0	55	81	-	-	-
19N/01W-21L02	4707081224855	115	80	NP	0	71	-	-	-	-
19N/01W-21M01	4707041224859	90	118	NP	0	77	83	108	-	-
19N/01W-21M02	4707051224917	90	124	NP	0	66	68	115	-	-
19N/01W-22A01	4707331224652	65	160	NP	NP	NP	0	NP	118	-
19N/01W-22G01	4707161224710	120	132	NP	0	NP	58	120	-	-
19N/01W-23D02	4707311224647	104	138	NP	0	NP	19	NP	136	-
19N/01W-23D03	4707251224641	60	119	NP	NP	NP	0	NP	115	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
19N/01W-23G02	4707111224554	84	109	NP	NP	NP	0	94	109	-
19N/01W-23L01	4707091224623	100	347	NP	0	NP	12	NP	95	-
19N/01W-23N01	4706491224644	181	111	0	20	86	111	-	-	-
19N/01W-27A01	4706411224655	200	118	0	22	88	118	-	-	-
19N/01W-27N01	4706021224753	225	259	0	3	109	143	215	236	-
19N/01W-27N02	4706021224753	225	148	0	3	88	148	-	-	-
19N/01W-28A02	4706341224809	90	117	NP	0	38	78	110	-	-
19N/01W-28C02	4706351224848	170	146	NP	0	NP	92	135	-	-
19N/01W-28D04D1	4706431224900	150	250	NP	0	NP	33	NP	94	-
19N/01W-28F02	4706241224857	120	100	NP	0	NP	73	75	-	-
19N/01W-28F04	4706291224856	140	110	NP	0	NP	40	105	-	-
19N/01W-28L02	4706161224853	82	78	NP	0	NP	NP	22	-	-
19N/01W-28M01	4706071224900	60	84	NP	0	NP	NP	39	-	-
19N/01W-28M02	4706141224915	30	393	NP	0	NP	10	20	90	-
19N/01W-29C02	4706331224959	145	152	NP	0	69	73	143	-	-
19N/01W-29N01	4705531225033	135	120	0	12	67	74	112	-	-
19N/01W-30H03	4706291225038	120	89	0	54	74	-	-	-	-
19N/01W-30J02	4706071225036	115	74	0	38	70	-	-	-	-
19N/01W-30P04	4705561225128	115	122	NP	0	38	42	NP	<112	-
19N/01W-30R02	4706051225038	115	67	0	10	64	-	-	-	-
19N/01W-31B03	4705521225109	126	80	0	2	NP	73	-	-	-
19N/01W-31F01	4705371225114	140	130	0	32	NP	58	NP	115	-
19N/01W-31K04	4705201225109	155	78	0	9	-	-	-	-	-
19N/01W-31Q01	4705021225112	145	46	0	5	38	-	-	-	-
19N/01W-31R01	4705081225042	165	164	NP	0	58	70	NP	148	-
19N/01W-32B01	4705441224946	50	211	NP	0	NP	26	NP	<170	-
19N/01W-32C04	4705501225007	145	94	0	10	60	94	-	-	-
19N/01W-32D03	4705461225034	157	70	0	31	52	-	-	-	-
19N/01W-32K03	4705231224937	90	38	0	20	28	-	-	-	-
19N/01W-32K04	4705181224953	128	62	0	12	51	-	-	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
19N/01W-32N03	4705021225030	157	80	NP	0	52	-	-	-	-
19N/01W-32P03	4705071225015	142	75	0	7	58	-	-	-	-
19N/01W-32Q03	4705061224942	100	64	0	6	56	-	-	-	-
19N/01W-32R01	4705041224933	80	86	0	12	NP	86	-	-	-
19N/01W-33K04	4705221224823	160	164	0	4	55	110	148	164	-
19N/01W-33K05	4705141224829	150	129	NP	0	49	121	-	-	-
19N/01W-34B01	4705411224704	298	174	NP	0	152	-	-	-	-
19N/01W-34M02	4705131224753	151	111	0	2	63	-	-	-	-
19N/01W-34N03	4705031224747	151	112	0	15	97	112	-	-	-
19N/01W-34P01	4705021224744	170	148	NP	0	142	-	-	-	-
19N/01W-35G01	4705301224558	250	600	0	19	115	162	246	343	-
19N/01W-35M01	4705261224644	290	667	0	3	?	202	300	355	-
19N/02W-03E02	4709511225529	90	90	NP	0	26	55	78	83	-
19N/02W-04F03	4709581225631	115	156	NP	0	36	42	NP	94	-
19N/02W-04F05	4709581225632	125	156	NP	0	NP	49	NP	100	-
19N/02W-05J01	4709411225705	85	110	NP	0	NP	21	82	-	-
19N/02W-07P01	4708311225858	90	103	NP	0	44	55	98	-	-
19N/02W-07P02	4708341225854	80	99	NP	0	44	51	96	-	-
19N/02W-07R01	4708391225822	40	206	NP	NP	0	16	NP	<105	-
19N/02W-08A01	4709171225703	105	59	NP	0	54	-	-	-	-
19N/02W-08B01	4709091225731	50	130	NP	NP	NP	0	NP	8	-
19N/02W-08C02	4709171225733	60	160	NP	NP	NP	0	NP	28	-
19N/02W-08F02	4709031225742	40	172	NP	NP	NP	0	NP	35	-
19N/02W-08F03	4708591225743	60	156	NP	NP	NP	0	NP	34	-
19N/02W-08G01	4708571225723	100	144	NP	0	NP	39	NP	65	-
19N/02W-08G02	4709051225715	120	147	NP	0	18	47	NP	81	-
19N/02W-08H01	4708571225701	110	79	NP	0	NP	<65	65	-	-
19N/02W-08K01	4708551225721	100	130	NP	0	NP	<45	80	-	-
19N/02W-08N03	4708401225801	40	221	NP	0	NP	<30	NP	30	-
19N/02W-08P01	4708311225744	125	87	NP	0	NP	<86	86	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
19N/02W-08Q01	4708421225726	90	140	NP	0	NP	<50	NP	54	-
19N/02W-09F02	4709021225628	100	139	NP	0	31	67	NP	94	-
19N/02W-09F03	4709071225618	70	79	NP	0	NP	12	NP	34	-
19N/02W-09G01	4709081225602	75	120	NP	0	17	51	NP	57	-
19N/02W-09H01	4709051225551	70	103	NP	0	NP	42	NP	64	-
19N/02W-09L06	4708461225626	30	43	NP	NP	NP	0	18	-	-
19N/02W-09N02	4708401225636	30	115	NP	NP	NP	0	37	54	-
19N/02W-09N03	4708381225647	80	105	NP	0	19	31	60	-	-
19N/02W-09R01	4708341225539	10	360	NP	0	NP	<30	30	65	-
19N/02W-11P02	4708361225349	60	351	NP	0	NP	21	NP	107	-
19N/02W-12L02	4708541225232	98	148	NP	0	NP	28	130	-	-
19N/02W-13N03	4707491225259	140	107	NP	0	75	-	-	-	-
19N/02W-14H03	4708101225317	130	40	NP	0	-	-	-	-	-
19N/02W-14H04	4708121225316	125	430	NP	0	48	98	NP	148	-
19N/02W-14J01	4707541225316	146	116	NP	0	78	96	-	-	-
19N/02W-14K01	4707531225344	110	68	NP	0	44	68	-	-	-
19N/02W-14P02	4707401225400	175	234	NP	0	<75	91	170	-	-
19N/02W-14Q03D1	4707381225326	140	130	NP	0	99	114	?	?	?
19N/02W-15N01	4707391225535	90	117	NP	0	NP	25	101	-	-
19N/02W-16J08	4707531225536	40	83	NP	NP	NP	0	59	83	-
19N/02W-16J09	4708011225539	85	114	NP	0	55	62	96	-	-
19N/02W-16K02D1	4708021225556	55	382	NP	0	NP	<88	88	93	-
19N/02W-16Q04D1	4707371225555	140	225	NP	0	NP	96	163	176	-
19N/02W-16Q05	4707381225558	140	151	NP	0	81	99	140	-	-
19N/02W-17C01	4708271225733	120	240	NP	0	38	55	NP	88	-
19N/02W-17D02	4708281225754	100	345	NP	0	35	85	NP	120	-
19N/02W-17F01	4708141225734	120	335	NP	0	21	45	NP	<335	-
19N/02W-17G01	4708111225725	105	210	NP	0	36	58	NP	115	-
19N/02W-18A02	4708191225818	120	220	NP	0	48	54	NP	89	-
19N/02W-18G01	4708081225832	120	207	NP	0	26	64	NP	86	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
19N/02W-18K02	4707541225843	130	166	NP	0	NP	52	NP	60	-
19N/02W-18K03	4708011225840	120	150	NP	0	NP	33	NP	63	-
19N/02W-18M01	4708011225920	80	71	NP	0	45	46	67	-	-
19N/02W-18N04	4707421225921	140	138	NP	0	25	40	118	-	-
19N/02W-19H01	4707201225823	100	113	NP	0	47	48	70	76	-
19N/02W-20D01	4707291225755	110	300	NP	0	48	60	85	90	-
19N/02W-20E02	4707111225756	120	233	NP	0	32	70	NP	84	-
19N/02W-21C02	4707331225627	60	89	NP	NP	NP	0	17	-	-
19N/02W-21F01	4707201225627	85	307	NP	NP	NP	0	82	130	-
19N/02W-21Q04	4706521225610	48	231	NP	NP	NP	NP	0	30	-
19N/02W-21R02	4706491225545	125	161	NP	0	NP	70	149	-	-
19N/02W-22D02	4707281225532	40	258	NP	NP	NP	0	68	117	-
19N/02W-22M06	4707101225524	10	439	NP	0	NP	38	67	98	-
19N/02W-23K01	4706581225334	20	385	NP	NP	NP	0	22	<175	-
19N/02W-24F01	4707181225238	105	80	0	17	52	60	-	-	-
19N/02W-24F02	4707171225230	120	86	0	30	79	-	-	-	-
19N/02W-24H01	4707161225154	120	115	NP	0	NP	47	-	-	-
19N/02W-24K01	4707081225225	120	93	NP	0	41	72	-	-	-
19N/02W-25A02	4706391225153	100	212	NP	0	40	72	NP	<212	-
19N/02W-25C07	4706381225235	118	140	0	18	NP	50	120	-	-
19N/02W-25D01	4706441225257	90	123	NP	0	NP	<110	110	-	-
19N/02W-25F01	4706201225245	145	93	NP	0	68	-	-	-	-
19N/02W-25N01	4705541225251	140	159	NP	0	68	70	148	-	-
19N/02W-25R01	4705561225206	165	74	NP	0	58	-	-	-	-
19N/02W-26B01	4706361225328	20	116	NP	NP	NP	0	30	-	-
19N/02W-26J01	4706131225322	125	154	NP	0	NP	56	118	148	-
19N/02W-27D03	4706411225527	78	114	NP	0	NP	15	109	-	-
19N/02W-27D04	4706321225527	50	115	NP	0	NP	20	110	-	-
19N/02W-28B02	4706371225604	60	390	NP	NP	NP	0	59	60	-
19N/02W-28J01	4706121225551	10	213	NP	0	NP	7	NP	<213	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
19N/02W-28L05	4706051225618	135	200	NP	0	54	58	NP	<200	-
19N/02W-28L06	4706181225614	108	460	NP	0	65	116	NP	<435	-
19N/02W-28N08	4706041225643	50	88	NP	0	NP	34	81	-	-
19N/02W-29B02	4706351225726	35	44	NP	0	NP	NP	37	-	-
19N/02W-29B03	4706321225722	30	74	NP	0	NP	42	50	-	-
19N/02W-29B04	4706321225728	58	91	NP	0	NP	64	85	-	-
19N/02W-29C01	4706421225738	40	76	NP	0	NP	NP	46	-	-
19N/02W-29F01	4706191225738	75	114	NP	0	14	34	72	-	-
19N/02W-29G02	4706201225729	20	43	NP	NP	NP	NP	0	-	-
19N/02W-30B01	4706421225842	100	79	NP	0	68	-	-	-	-
19N/02W-30E01	4706221225918	25	84	NP	0	28	30	78	-	-
19N/02W-30J02	4706121225820	25	79	NP	NP	NP	NP	0	60	-
19N/02W-30L03	4706141225846	20	109	NP	NP	NP	NP	0	92	-
19N/02W-30N01	4705541225912	65	45	NP	0	33	-	-	-	-
19N/02W-30N02	4706051225909	35	62	NP	0	3	12	55	-	-
19N/02W-31E03	4705321225909	60	109	NP	0	NP	25	94	109	-
19N/02W-31M03	4705241225911	20	104	NP	NP	0	12	104	-	-
19N/02W-32A06	4705471225656	30	228	NP	0	NP	27	43	110	-
19N/02W-32A07	4705431225705	130	70	NP	0	66	-	-	-	-
19N/02W-32G02	4705301225716	175	158	NP	0	>100	-	-	-	-
19N/02W-32G03	4705291225721	158	122	NP	0	105	-	-	-	-
19N/02W-32G04	4705321225711	195	211	NP	0	110	111	192	211	-
19N/02W-32H03	4705311225700	182	160	NP	0	NP	<150	150	160	-
19N/02W-32M05	4705241225754	60	52	NP	0	NP	20	48	-	-
19N/02W-32M06	4705251225750	65	65	NP	0	NP	30	58	-	-
19N/02W-33B02	4705441225555	192	134	NP	0	122	134	-	-	-
19N/02W-33D01	4705441225650	70	107	NP	0	NP	16	106	-	-
19N/02W-33F02	4705301225623	135	114	NP	0	NP	54	104	112	-
19N/02W-33G03	4705311225603	130	143	?	?	?	78	138	-	-
19N/02W-33H03	4705371225550	120	139	NP	0	?	?	?	?	?

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
19N/02W-33K08	4705241225556	19	120	NP	NP	NP	0	38	-	-
19N/02W-33M03	4705131225633	165	84	NP	0	71	-	-	-	-
19N/02W-33Q01	4705071225600	10	363	NP	NP	NP	0	<59	59	-
19N/02W-33Q03	4705071225600	30	227	NP	NP	NP	0	28	53	-
19N/02W-35B03	4705491225325	118	161	NP	0	34	40	143	159	-
19N/02W-35K05	4705151225356	70	107	NP	0	NP	69	93	-	-
19N/02W-35P03	4705011225347	123	276	NP	0	NP	48	97	175	-
19N/02W-36A03	4705461225206	160	68	0	5	67	-	-	-	-
19N/02W-36H02	4705291225152	160	77	0	4	47	-	-	-	-
19N/02W-36J01	4705231225158	160	73	0	<34	64	-	-	-	-
19N/02W-36M02	4705211225250	160	160	0	27	92	96	146	-	-
19N/02W-36N02	4705121225303	152	72	0	2	62	69	-	-	-
19N/02W-36N03	4705031225246	155	157	0	4	78	82	150	-	-
19N/03W-12Q01	4708421225945	100	199	NP	0	NP	<60	NP	<190	-
19N/03W-13K01	4707591225957	15	86	NP	NP	NP	0	18	-	-
19N/03W-24L01	4707111230001	130	71	NP	0	61	69	-	-	-
19N/03W-24M01	4707071230026	130	163	NP	0	47	91	154	163	-
19N/03W-25C01	4706381230010	135	118	NP	0	23	30	97	-	-
19N/03W-25E02	4706311230034	150	120	NP	0	82	99	108	-	-
19N/03W-25E03	4706281230018	130	118	0	23	45	NP	110	-	-
19N/03W-25J01	4706141225944	145	129	NP	0	47	68	127	-	-
19N/03W-25K01	4706171225952	175	42	0	42	-	-	-	-	-
19N/03W-25M03	4706151230034	150	123	0	41	90	-	-	-	-
19N/03W-25N02	4705531230032	150	106	0	45	90	95	102	-	-
19N/03W-26F01	4706221230122	130	104	NP	0	NP	73	86	-	-
19N/03W-26H02	4706311230039	150	182	NP	0	?	?	?	-	-
19N/03W-27L01	4706181230238	40	103	NP	NP	NP	0	35	55	-
19N/03W-27M02	4706211230309	165	103	0	16	68	NP	86	-	-
19N/03W-27N01	4706091230305	165	83	0	13	75	-	-	-	-
19N/03W-27R01	4706061230158	140	106	NP	0	67	69	98	-	-

Table A2. Depth to tops of geohydrologic units in study area wells and outcrops--Continued

Site identifer	Latitude and longitude	Land-surface altitude (feet)	Hole depth (feet)	Depth to top of indicated geohydrologic unit (feet)						
				Qvr	Qvt	Qva	Qf	Qc	TQu	Tb
19N/03W-27R02	4706051230204	125	115	NP	0	48	50	97	-	-
19N/03W-28H02	4706241230320	150	79	0	6	70	-	-	-	-
19N/03W-28J01	4706091230323	215	160	0	27	73	NP	86	-	-
19N/03W-34A01	4705481230203	130	48	NP	0	30	-	-	-	-
19N/03W-34H01	4705341230200	150	103	NP	0	34	48	99	-	-
19N/03W-34K01	4705281230222	140	127	NP	0	NP	49	116	-	-
19N/03W-34K02	4705281230222	140	134	NP	0	NP	34	117	NP	134
19N/03W-35J02	4705241230040	165	113	NP	0	81	99	107	-	-
19N/03W-36B04	4705491225958	160	111	0	4	52	85	104	-	-
19N/03W-36D03	4705401230016	150	92	0	49	NP	82	90	-	-
19N/03W-36E03	4705281230034	150	101	NP	0	?	?	?	?	?
19N/03W-36M02	4705231230036	150	105	NP	0	77	92	101	-	-
19N/03W-36P03	4705011230013	30	46	NP	NP	0	30	38	-	-
19N/03W-36R03	4705051225927	30	78	NP	0	NP	<74	74	-	-
20N/01W-33N01	4710191224911	91	120	NP	0	NP	34	110	-	-
20N/02W-28P01	4711071225623	10	425	NP	0	NP	NP	20	250	-
20N/02W-33F01	4710451225618	40	98	NP	NP	NP	0	47	61	-
20N/02W-33Q02	4710161225606	80	770	NP	0	NP	34	57	147	-

Table A3. Water Levels in Wells and Calculated Differences Between 1988 and 1990

EXPLANATION

Waer level:	In feet below land surface; P, well being pumpled; R, recently pumped; S, nearby well being pumped; T, nearby well recently pumped; Z, status uncertain.
Waer level difference:	A positive number indicates a higher water level (smaller depth to water) in 1990 than in 1988. A negatuve number indicates the opposite; ?, status of one or both water levels either non-static or unknown.
Hole depth:	(See table 1); ?, unknown; Mlt, well open to multiple units.

Table A3. Water-levels in wells and calculated differences between 1988 and 1990

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
16N/01E-05F01	11-09-88	220.92	08-02-90	208.30	12.62	Qc
16N/01E-05F02	10-28-88	211.05	07-24-90	212.53	-1.48	Qc
16N/01E-06J02	08-04-89	178.56	07-24-90	176.35 Z	2.21 ?	Qc
16N/01E-08N01	10-26-88	59.80	07-23-90	59.88	-0.08	TQu
16N/01E-14G03	01-25-89	83.42	07-24-90	65.16	18.26	Qc
16N/01E-16E01	11-09-88	106.79	07-23-90	105.59	1.20	Tb
16N/01E-16L03	11-09-88	136.72	07-24-90	133.08	3.64	Mlt
16N/01E-17G01	11-07-88	52.41	07-23-90	52.90	-0.49	Tb
16N/01W-06F01	03-21-89	15.06	07-23-90	22.43	-7.37	Qva
16N/01W-13H01	10-17-89	39.74	07-23-90	36.73	3.01	Qva
16N/01W-14Q02	08-04-89	20.16	07-23-90	19.80	0.36	Tb
16N/01W-19G02	10-11-88	32.54	07-23-90	19.55 T	12.99 ?	Qc
16N/02W-04N01	10-20-88	15.30	07-23-90	14.67	0.63	Qc
16N/02W-05R01	08-05-88	4.13	07-23-90	3.28	0.85	Tb
16N/02W-05R02	10-14-88	8.00	07-23-90	7.84	0.16	Mlt
16N/02W-06E01	03-21-89	62.41	07-25-90	65.57	-3.16	TQu
16N/02W-10C01	09-26-88	1.73	07-23-90	0.77	0.96	Qva
16N/02W-20Q02	08-18-88	41.85	07-23-90	37.55	4.30	TQu
16N/02W-26M01	08-08-88	34.22	07-24-90	32.83	1.39	Qva
16N/02W-27H02	03-23-88	29.42 R	07-23-90	27.03	2.39 ?	TQu
16N/03W-01D01	09-27-88	32.89	07-25-90	32.56 R	0.33 ?	Qc
16N/03W-01J01	10-04-88	23.90	07-25-90	22.37	1.53	Mlt
16N/03W-02E01	09-28-88	88.68	07-26-90	85.90	2.78	Qc
16N/03W-02H01	09-27-88	40.52	07-26-90	38.49	2.03	Qva
16N/03W-02M02	10-12-88	79.70	07-25-90	75.60	4.10	Qva
16N/03W-09B02	10-12-88	30.25	07-25-90	26.07	4.18	Tb
16N/03W-09B03	10-12-88	29.28	07-25-90	25.22 Z	4.06 ?	Tb
16N/03W-10K01	10-04-88	76.01	07-25-90	75.13	0.88	Qc
16N/03W-12Q02	09-26-88	13.30	07-25-90	14.82	-1.52	TQu
16N/03W-14B01	10-14-88	125.78	07-30-90	125.36	0.42	Qc
16N/03W-16K01	09-28-88	47.05	07-25-90	46.18	0.87	Qc
16N/03W-16R01	09-28-88	32.28	07-25-90	32.10	0.18	Qc
17N/01E-05D02	05-17-88	186.30	07-25-90	183.85	2.45	Mlt
17N/01E-05E01	06-30-88	171.93 Z	07-25-90	170.65	1.28 ?	Qc
17N/01E-05F01	06-23-88	147.72	07-24-90	146.63	1.09	Qva
17N/01E-05N01	06-23-88	88.99	07-24-90	88.47 R	0.52 ?	Qc
17N/01E-06C01	05-18-88	41.70	07-24-90	37.27	4.43	Qvr
17N/01E-06J03D1	06-23-88	66.30	07-26-90	64.33	1.97	TQu
17N/01E-06J04	05-16-88	52.12	07-24-90	51.17	0.95	Qva
17N/01E-06M02	05-18-88	87.35	07-25-90	85.06	2.29	Qc
17N/01E-07B04	06-23-88	28.95	07-24-90	26.98	1.97	Qvr
17N/01E-07F01	06-27-88	30.60	07-24-90	27.96	2.64	Qva
17N/01E-07H01	06-28-88	24.57	07-24-90	22.55	2.02	Qva
17N/01E-07P02	06-27-88	16.86	07-24-90	17.56 R	-0.70 ?	Qf
17N/01E-07Q02	06-27-88	13.83 Z	07-24-90	12.68	1.15 ?	Qva

Table A3. Water-levels in wells and calculated differences between 1988 and 1990—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
17N/01E-07Q03	06-29-88	7.48	07-24-90	6.74 R	0.74 ?	Qva
17N/01E-08L03	06-28-88	67.89	07-24-90	65.44	2.45	Qc
17N/01E-11H01	07-07-88	28.40	07-25-90	24.69 R	3.71 ?	TQu
17N/01E-11R01	07-06-88	93.94	07-26-90	91.10	2.84	TQu
17N/01E-13D04	07-19-88	103.94	07-25-90	95.05 Z	8.89 ?	Qc
17N/01E-13D05	07-07-88	94.20	07-25-90	87.02	7.18	Qc
17N/01E-13L01D1	07-05-88	59.86	07-25-90	53.87	5.99	Qc
17N/01E-13M02	07-05-88	51.25	07-25-90	51.72 Z	-0.47 ?	Qc
17N/01E-14A04	06-30-88	91.03	07-25-90	89.48	1.55	Qc
17N/01E-14L01	07-15-88	186.53	07-25-90	187.45	-0.92	Qc
17N/01E-14P01	07-07-88	144.13	07-24-90	137.49	6.64	Qc
17N/01E-14R01	06-30-88	57.31	07-25-90	58.47	-1.16	Qva
17N/01E-23B01	08-18-88	83.65 R	07-26-90	69.19	14.46 ?	Qc
17N/01E-23H01	08-08-88	109.60 Z	07-24-90	110.35 R	-0.75 ?	Qc
17N/01E-24K02	09-08-88	30.68	07-24-90	35.12 R	-4.44 ?	Qc
17N/01E-25Q03	10-16-89	62.54	07-24-90	56.00	6.54	Qva
17N/01E-33J01D1	07-05-88	208.67	07-24-90	199.02	9.65	Qva
17N/01E-34M01	07-07-88	179.90	07-24-90	158.25	21.65	Qva
17N/01E-35H01	07-11-88	56.95	07-24-90	54.19 Z	2.76 ?	Qva
17N/01E-36L01	08-03-89	52.94	07-24-90	48.27 Z	4.67 ?	Qva
17N/01E-36L02	08-03-89	59.58	07-24-90	54.82	4.76	Qva
17N/01W-01B04	07-27-88	147.54	07-26-90	143.01	4.53	Qc
17N/01W-01F01	08-02-88	144.14	07-23-90	139.81	4.33	Qc
17N/01W-01H03	07-27-88	126.50	07-24-90	122.95	3.55	Qc
17N/01W-01J03	05-23-88	67.47 R	07-25-90	68.08 R	-0.61 ?	Qc
17N/01W-01L01	08-02-88	87.69	07-23-90	82.16	5.53	Qc
17N/01W-01Q01	05-23-88	70.68	07-23-90	67.14	3.54	Qva
17N/01W-01Q03	08-01-88	45.01	07-23-90	41.00	4.01	Qvr
17N/01W-01R01	07-26-88	70.87	07-23-90	67.10	3.77	Qc
17N/01W-02A03	05-16-88	140.82	07-24-90	137.84 R	2.98 ?	TQu
17N/01W-02E03	08-01-88	25.31 R	07-26-90	24.76 Z	0.55 ?	Qva
17N/01W-02E04	07-22-88	81.03	07-27-90	79.44	1.59	TQu
17N/01W-02L02	08-01-88	55.34	07-24-90	54.14	1.20	Qva
17N/01W-02Q04	08-01-88	32.21	07-24-90	31.01	1.20	Qva
17N/01W-03A05	08-08-88	48.04	07-24-90	46.48	1.56	Qva
17N/01W-03D01	08-02-88	15.59	07-23-90	13.29	2.30	Qva
17N/01W-05H02	08-09-88	41.74	07-25-90	38.70	3.04	Qvr
17N/01W-06K05	08-04-88	34.62	07-25-90	31.68	2.94	Qvt
17N/01W-07G02	08-04-88	54.03 R	07-25-90	52.74	1.29 ?	Qf
17N/01W-07R03	08-08-88	48.63	07-25-90	47.06	1.57	Qc
17N/01W-08B01	08-08-88	37.36 Z	07-25-90	35.30	2.06 ?	Qva
17N/01W-08D03	08-04-88	31.49	07-25-90	29.20	2.29	Qvr
17N/01W-08J01	08-03-88	35.9	07-26-90	36.00 R	-0.1?	Qva
17N/01W-08N01	08-08-88	43.32 R	07-25-90	40.87 Z	2.45 ?	Qf
17N/01W-08P04	08-30-88	45.43	07-25-90	44.45	0.98	Qc

Table A3. Water-levels in wells and calculated differences between 1988 and 1990—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
17N/01W-09G02	08-02-88	20.50	07-26-90	18.95	1.55	Qvt
17N/01W-09G03	07-20-88	20.34	07-24-90	19.77	0.57	Qc
17N/01W-10N02	07-20-88	39.56	07-24-90	38.88 R	0.68 ?	Qva
17N/01W-11H03	07-26-88	33.24 R	07-24-90	31.64	1.60 ?	Qva
17N/01W-11J01	07-25-88	12.45	07-24-90	10.97	1.48	Qva
17N/01W-11K03	07-02-88	70.94 R	07-24-90	68.88	2.06 ?	Qva
17N/01W-11K04	07-26-88	10.74	07-24-90	9.33	1.41	Qvr
17N/01W-11K05	09-01-88	44.15 R	07-27-90	32.95	11.20 ?	TQu
17N/01W-11M01	07-26-88	87.50 R	07-27-90	84.94 R	2.56 ?	TQu
17N/01W-12D01	05-20-88	28.10	07-24-90	32.18	-4.08	Mlt
17N/01W-12J02	10-06-89	79.27	07-25-90	76.82	2.45	Qc
17N/01W-13H01	07-22-88	136.57	08-02-90	135.66	0.91	Qc
17N/01W-14B01	07-26-88	64.59 Z	07-24-90	64.18	0.41 ?	Qva
17N/01W-14H01	07-25-88	4.92	07-24-90	4.67	0.25	Qva
17N/01W-14K01	07-25-88	6.56	07-24-90	6.32	0.24	Qvr
17N/01W-15A01	07-20-88	56.37	07-24-90	55.44	0.93	Qva
17N/01W-15C01	07-25-88	50.24 Z	07-24-90	48.84	1.40 ?	Qva
17N/01W-15H02	08-26-88	56.17	07-24-90	54.85	1.32	Qva
17N/01W-15K01	07-15-88	12.00	07-24-90	11.91	0.09	Qvr
17N/01W-15N01	07-27-88	5.14	07-25-90	4.80 R	0.34 ?	Qva
17N/01W-15P02	07-25-88	3.52	07-24-90	3.46	0.06	Qva
17N/01W-15P03	07-25-88	6.00	07-24-90	5.75 S	0.25 ?	Qva
17N/01W-16D01	07-22-88	37.15	07-25-90	33.22	3.93	Qc
17N/01W-16D02	07-15-88	24.16	07-25-90	24.68	-0.52	Qva
17N/01W-16E02	07-14-88	15.89	07-26-90	16.88	-0.99	Qva
17N/01W-16F02	07-14-88	27.50	07-26-90	28.50	-1.00	Qf
17N/01W-16F03	07-14-88	45.67	07-25-90	46.55	-0.88	Qva
17N/01W-16F04	07-14-88	40.50	07-26-90	41.49	-0.99	TQu
17N/01W-16L01	07-14-88	9.40	07-26-90	8.02 R	1.38 ?	Qva
17N/01W-17A01	07-07-88	24.46 R	07-25-90	25.30	-0.84 ?	Qf
17N/01W-17B03	07-07-88	27.52	07-25-90	28.00	-0.48	Qva
17N/01W-17G02	07-14-88	31.76	07-25-90	37.55 R	-5.79 ?	TQu
17N/01W-17N02	07-15-88	29.67	07-24-90	28.73	0.94	Qc
17N/01W-18B02	07-07-88	59.58	07-25-90	59.59 Z	-0.01 ?	Qc
17N/01W-18B03	10-11-89	53.41	07-25-90	52.67	0.74	TQu
17N/01W-19M02	07-22-88	93.59	07-25-90	111.95 R	-18.36 ?	Tb
17N/01W-19P01	06-29-88	21.06 R	07-24-90	22.26	-1.20 ?	Qva
17N/01W-21K01	07-07-88	153.29	07-26-90	159.29 Z	-6.00 ?	Tb
17N/01W-21P01	08-02-89	46.40	07-26-90	45.95	0.45	TQu
17N/01W-28C02	07-07-88	44.81	07-26-90	45.23	-0.42	TQu
17N/01W-28H01	07-08-88	27.95 R	07-27-90	19.75	8.20 ?	Tb
17N/01W-31C01	06-28-88	34.56	07-23-90	34.25	0.31	Qva
17N/01W-32F01	07-08-88	47.66 R	07-23-90	48.13	-0.47 ?	Qc
17N/01W-32F02	07-14-88	62.30	07-23-90	60.26	2.04	TQu
17N/01W-32K04	07-01-88	46.35	07-23-90	53.86	-7.51	TQu

Table A3. Water-levels in wells and calculated differences between 1988 and 1990—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
17N/01W-32P02	06-28-88	50.05	07-23-90	51.62	-1.57	TQu
17N/01W-33E03	06-29-88	8.10	07-23-90	9.35	-1.25	Qva
17N/01W-33E04	06-29-88	7.95	07-23-90	7.84	0.11	Qva
17N/01W-34D01	06-28-88	38.67	07-26-90	38.70	-0.03	TQu
17N/01W-34L02	06-29-88	38.16	07-26-90	39.56	-1.40	Tb
17N/01W-34M01	06-28-88	44.48	07-26-90	46.05	-1.57	Qvr
17N/02W-01C01	08-04-88	7.15	07-31-90	6.58	0.57	Qvr
17N/02W-01E02	07-18-88	65.99	07-26-90	65.43	0.56	Qva
17N/02W-02B02	08-26-88	73.86 R	07-31-90	73.95 R	-0.09 ?	Qc
17N/02W-02E03	07-26-88	30.18	07-26-90	28.65	1.53	Qva
17N/02W-02E04	07-26-88	35.26	07-31-90	23.30	11.96	Mlt
17N/02W-02K01	07-26-88	21.89	07-26-90	20.86	1.03	Qvr
17N/02W-02Q06	07-26-88	34.51	07-31-90	32.41	2.10	Qvr
17N/02W-02R01	12-13-88	45.20	07-26-90	43.04 R	2.16 ?	Qva
17N/02W-04K04	07-28-88	23.10	07-24-90	20.90	2.20	Qvr
17N/02W-04L01	07-29-88	15.88	07-23-90	13.04	2.84	Qvr
17N/02W-04N04	07-29-88	15.35	07-23-90	12.49	2.86	Qvr
17N/02W-04N05	07-29-88	15.72	07-23-90	12.93	2.79	Qvr
17N/02W-04P02	07-29-88	19.19	07-23-90	16.08 R	3.11 ?	Qva
17N/02W-05A02	07-28-88	4.32	07-23-90	2.61	1.71	Qvr
17N/02W-06A04	08-01-88	7.49	07-23-90	6.15	1.34	Qva
17N/02W-06A05	08-03-88	4.09	07-23-90	3.73	0.36	Qva
17N/02W-08D03	08-04-89	18.32	07-23-90	19.15 R	-0.83 ?	Qf
17N/02W-08E01	09-14-88	68.53	07-24-90	80.33 R	-11.80 ?	TQu
17N/02W-08L01	08-01-88	17.35	07-24-90	16.25	1.10	Qvr
17N/02W-08L03	08-02-88	9.24	07-24-90	4.77	4.47	Qvr
17N/02W-08R06	07-19-88	17.05	07-24-90	14.68	2.37	Qva
17N/02W-09A02	07-27-88	14.46	07-23-90	10.95	3.51	Qva
17N/02W-09C02	07-07-88	19.15	07-24-90	16.76	2.39	Qva
17N/02W-09E03	07-29-88	16.86	07-24-90	13.90 R	2.96 ?	Qva
17N/02W-09G02	09-29-88	13.94	07-24-90	8.69	5.25	Qva
17N/02W-09K01	07-29-88	13.58	07-24-90	10.19	3.39	Mlt
17N/02W-09M04	08-02-88	16.59	07-23-90	13.59 R	3.00 ?	Qva
17N/02W-10N01	07-29-88	10.97	07-26-90	7.73	3.24	Qva
17N/02W-11G08	07-18-88	29.64	07-26-90	26.54	3.10	Qc
17N/02W-11R01	07-27-88	46.07	07-31-90	49.83	-3.76	Mlt
17N/02W-13Q02	08-04-88	55.64	07-26-90	53.45 R	2.19 ?	Qvt
17N/02W-14H02	08-04-88	20.38	07-26-90	18.06	2.32	Qva
17N/02W-14H03	08-09-88	18.48	07-26-90	16.15	2.33	Qva
17N/02W-14Q02	08-15-88	14.25	07-25-90	11.94	2.31	Qva
17N/02W-15D02	08-12-88	15.61	07-26-90	12.34	3.27	Qva
17N/02W-15E01	08-10-88	16.76	07-26-90	13.16	3.60	Qva
17N/02W-15L04	08-10-88	18.54	07-26-90	15.27	3.27	Qva
17N/02W-16P02	08-08-88	13.51	07-24-90	10.93	2.58	Qva
17N/02W-17E01	08-03-88	7.57	07-24-90	6.42	1.15	Qc

Table A3. Water-levels in wells and calculated differences between 1988 and 1990—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
17N/02W-17J01	07-18-88	13.82	07-25-90	11.59	2.23	Qva
17N/02W-17L02	09-30-88	10.37	07-24-90	7.82	2.55	Qva
17N/02W-17N02	08-09-88	5.81	07-24-90	4.49	1.32	Qva
17N/02W-17R02	08-02-88	18.14	07-24-90	16.05	2.09	Qva
17N/02W-17R03	07-18-88	10.74	07-25-90	9.03	1.71	Qva
17N/02W-17R04	07-18-88	11.86	07-25-90	10.08	1.78	Qva
17N/02W-18H03	08-18-88	20.16	07-24-90	18.35	1.81	Qf
17N/02W-19A01	08-11-88	8.93	07-25-90	9.33 R	-0.40 ?	Qvt
17N/02W-19G04	08-25-88	12.51	07-25-90	12.05	0.46	Qva
17N/02W-19L03	08-23-88	11.90	07-25-90	12.75	-0.85	Qf
17N/02W-20B05	09-20-88	11.59	07-26-90	9.27 Z	2.32 ?	Qva
17N/02W-20B06	09-20-88	17.48	07-25-90	14.61	2.87	Qva
17N/02W-20H02	09-20-88	13.95	07-25-90	10.61	3.34	Qva
17N/02W-20J03	08-12-88	7.48	07-24-90	5.88	1.60	Qvr
17N/02W-20K01	08-15-88	12.48	07-24-90	11.10	1.38	Qva
17N/02W-21A01	09-08-88	15.59	07-24-90	11.35	4.24	Qva
17N/02W-21F01	09-21-88	39.15	07-24-90	35.37	3.78	Qc
17N/02W-21J01	09-21-88	8.65	07-24-90	6.96	1.69	Qvr
17N/02W-22A01	09-30-88	20.49	07-24-90	16.73	3.76	Qva
17N/02W-22D02	10-07-88	15.78	07-24-90	11.28	4.50	Qva
17N/02W-22F03	08-26-88	13.34	07-25-90	12.95 R	0.39 ?	Qva
17N/02W-22H02	08-22-88	15.51	07-24-90	13.28	2.23	Qva
17N/02W-22Q03	10-19-88	18.74	07-24-90	16.75 R	1.99 ?	Qva
17N/02W-23B01	10-03-88	23.80	07-25-90	20.54 R	3.26 ?	Qva
17N/02W-23B02	09-06-88	15.01	07-25-90	11.51	3.50	Mlt
17N/02W-23K01	08-22-88	14.75	07-24-90	12.61	2.14	Qva
17N/02W-25N02	08-17-88	8.84	07-23-90	8.26	0.58	Tb
17N/02W-25Q02	08-15-88	52.19	07-24-90	64.96 R	-12.77 ?	TQu
17N/02W-25Q03	08-15-88	40.23	07-24-90	39.58	0.65	Mlt
17N/02W-26E01	08-23-88	14.57	07-24-90	13.00	1.57	Qc
17N/02W-27P01	08-22-88	12.47	07-24-90	11.17	1.30	Qc
17N/02W-29A01	09-07-88	10.52	07-23-90	9.73 Z	0.79 ?	Qva
17N/02W-29A02	08-23-88	9.60	07-25-90	8.88	0.72	Qva
17N/02W-29D01	09-30-88	7.23	07-25-90	6.26	0.97	Qva
17N/02W-29F01	08-26-88	7.73	07-25-90	6.64	1.09	Qva
17N/02W-30E03	09-19-88	22.37	07-25-90	23.23	-0.86	Tb
17N/02W-30P02	09-23-88	4.85	07-26-90	3.80	1.05	Qc
17N/02W-31H01	08-24-88	32.78	07-25-90	31.80	0.98	TQu
17N/02W-34J02	08-25-88	17.14	07-24-90	16.77	0.37	Qc
17N/02W-36D01	07-22-88	64.40	07-23-90	67.58	-3.18	?
17N/03W-01G02	08-23-88	46.89	07-26-90	45.22	1.67	Qva
17N/03W-01J01	08-23-88	50.00	07-23-90	46.70	3.30	Qva
17N/03W-01R03	08-23-88	67.60	07-26-90	63.93	3.67	Qc
17N/03W-02H01	10-19-88	52.65 Z	07-24-90	47.52	5.13 ?	Mlt
17N/03W-02J03D1	09-13-88	95.63	07-24-90	91.88 Z	3.72 ?	Qva

Table A3. Water-levels in wells and calculated differences between 1988 and 1990—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
17N/03W-02K01	08-23-88	33.22	07-26-90	32.70	0.48	Qva
17N/03W-02K03	12-13-88	49.18	07-30-90	70.47 R	-21.29 ?	TQu
17N/03W-02K04	12-13-88	24.70	07-30-90	33.36 R	-8.66 ?	Qva
17N/03W-02Q01	07-21-88	27.16	07-26-90	26.87 Z	0.29 ?	Qva
17N/03W-10C01	08-24-88	15.70	07-24-90	14.04	1.66	Mlt
17N/03W-11A03	10-19-88	79.97	07-24-90	76.41 Z	3.56 ?	Qva
17N/03W-11G01	08-24-88	58.78	07-26-90	57.76	1.02	Qva
17N/03W-11K01	08-26-88	22.52	07-26-90	19.80 Z	2.70 ?	Qva
17N/03W-11Q01	08-24-88	4.65	07-26-90	3.89 R	0.76 ?	Qva
17N/03W-12E01	10-20-88	44.86	07-26-90	40.02	4.84	Qva
17N/03W-12F01	08-26-88	74.01	07-26-90	70.68	3.33	Qva
17N/03W-14R02	08-26-88	65.98	07-26-90	64.24	1.74	Qva
17N/03W-15P02	10-25-88	42.34	07-26-90	38.95	3.39	Tb
17N/03W-17B01	10-03-88	2.19	07-26-90	2.64	-0.45	Tb
17N/03W-17D01	09-14-88	16.32	07-26-90	15.70 Z	0.62 ?	TQu
17N/03W-22J01	10-21-88	38.13	07-26-90	31.65	6.48	Qva
17N/03W-22L01	10-20-88	15.70	07-26-90	18.02	-2.32	Tb
17N/03W-23L02	10-20-88	94.94	07-26-90	72.39 Z	22.55 ?	Qva
17N/03W-23P01	10-20-88	74.54	07-27-90	68.83	5.71	Qva
17N/03W-23R02	10-05-88	26.41	07-26-90	21.72	4.69	Qva
17N/03W-24E02	10-03-88	63.61	07-26-90	61.47 R	2.14 ?	Qva
17N/03W-24E03	10-05-88	56.30 Z	07-26-90	52.09	4.21 ?	Qva
17N/03W-25H02	10-20-88	10.40	07-25-90	12.24	-1.84	Qc
17N/03W-25R04	08-03-88	7.98	07-25-90	7.81	0.17	Qc
17N/03W-26A01	10-15-88	24.86	07-26-90	28.31 R	-3.45 ?	Qc
17N/03W-26F01	10-18-88	52.65	07-27-90	47.82	4.83	Qc
17N/03W-26G01	10-18-88	16.32	07-27-90	13.70	2.62	Qva
17N/03W-26H01	10-21-88	22.11	07-27-90	21.90 R	0.21 ?	Qc
17N/03W-26H02	09-21-88	21.86	07-27-90	21.94	-0.08	Qc
17N/03W-27N01	10-25-88	110.68	07-26-90	101.59	9.09	TQu
17N/03W-34E03	10-17-88	29.79	07-26-90	26.56	3.23	Qvt
17N/03W-34J01	10-13-88	33.38	07-27-90	29.82	3.56	Qva
17N/03W-35B02	10-12-88	7.27	07-27-90	5.73	1.54	Qva
17N/03W-35R01	10-13-88	24.89	07-25-90	24.32	0.57	Qc
17N/03W-36A01	09-27-88	9.61	07-25-90	8.55	1.06	Qc
17N/03W-36N05	10-17-88	12.02	07-25-90	12.35 R	-0.33 ?	Qc
17N/03W-36R01	10-17-88	33.23	07-26-90	32.20	1.03	TQu
18N/01E-08B03	06-22-88	9.06 Z	07-26-90	9.55	-0.49 ?	Qc
18N/01E-08H01	06-23-88	10.99	07-26-90	11.14	-0.15	Qc
18N/01E-09M01	07-08-88	13.87	07-26-90	13.76	0.11	Qc
18N/01E-16E01	06-22-88	9.89	07-26-90	9.93 Z	-0.04 ?	Qc
18N/01E-17Q01	06-28-88	176.60 R	07-26-90	175.40 R	1.20 ?	Qc
18N/01E-18A02	07-15-88	2.17	07-26-90	3.09 R	-0.92 ?	Qc
18N/01E-18H01	06-23-88	1.90 Z	07-26-90	1.86	0.04 ?	Qc
18N/01E-19J01	10-11-88	61.87 Z	07-25-90	60.44	1.43 ?	Qc

Table A3. Water-levels in wells and calculated differences between 1988 and 1990—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
18N/01E-19J02	11-15-88	27.11	07-25-90	25.87	1.24	Qc
18N/01E-20R02	05-16-88	175.87	07-25-90	176.19 Z	-0.32 ?	Qc
18N/01E-21N02	06-23-88	185.98	07-25-90	185.04 Z	0.94 ?	Qc
18N/01E-21P02	05-24-88	189.79	07-30-90	190.55	-0.76	TQu
18N/01E-21P03	05-24-88	196.63	07-30-90	198.83 Z	-2.20 ?	Qc
18N/01E-21Q02	06-24-88	201.86 Z	07-25-90	201.83 Z	0.03 ?	Qc
18N/01E-28M01	05-24-88	176.6	08-02-90	182.05	-5.4	Qc
18N/01E-30C01	05-25-88	1.81	07-25-90	1.07 Z	0.74 ?	Qvr
18N/01E-30D02	05-25-88	114.52	07-25-90	112.17 Z	2.35 ?	Qc
18N/01E-30N01	05-10-88	154.50	07-24-90	151.31	3.19	Mlt
18N/01E-31A01	05-11-88	60.72	07-25-90	59.07	1.65	Qc
18N/01E-31F02	05-12-88	164.57	07-26-90	161.64 Z	2.93 ?	Qc
18N/01E-31H01	05-11-88	70.33	07-25-90	69.22	1.11	Qc
18N/01E-31H02	06-30-88	75.45 Z	07-25-90	73.26	2.19 ?	Qc
18N/01E-31J01	10-06-88	60.56	07-25-90	54.97	5.59	Qc
18N/01E-31M01	05-12-88	147.13	07-24-90	143.04	4.09	Qc
18N/01E-31P01	05-13-88	92.42	07-23-90	91.01 Z	1.41 ?	Qc
18N/01E-31Q01D1	05-13-88	117.11	07-24-90	115.93 Z	1.18 ?	TQu
18N/01E-31R02	05-13-88	39.46	07-25-90	38.10	1.36	Qc
18N/01E-32D04D1	06-29-88	51.08 Z	07-24-90	48.64	2.44 ?	Qc
18N/01E-32D05	06-28-88	77.27 R	07-25-90	74.89	2.38 ?	Qc
18N/01E-32D09	05-11-88	57.91	07-24-90	46.54	11.37	Qc
18N/01E-32E02	05-16-88	73.89	07-25-90	72.58 Z	1.32 ?	Qc
18N/01E-32H02	05-11-88	175.48	07-24-90	174.77	0.71	Qc
18N/01E-32M01	08-23-88	97.12	07-25-90	88.85	8.27	Qc
18N/01E-32P02	07-06-88	44.50	07-25-90	40.61 Z	3.89 ?	Qc
18N/01W-01H01	06-07-88	91.21	07-23-90	87.33	3.88	Qva
18N/01W-02H01	06-07-88	107.87	07-23-90	104.18	3.69	Qva
18N/01W-02L01	06-07-88	169.0	07-23-90	163.22 Z	5.8 ?	Qc
18N/01W-02R01	06-07-88	166.0	07-23-90	154.72	11.3	Qc
18N/01W-03B01	08-23-88	155.92	07-25-90	148.78 Z	7.14 ?	Qc
18N/01W-03E01	06-08-88	37.87	07-23-90	38.03	-0.16	Qva
18N/01W-04M01	06-08-88	43.60	07-23-90	43.46	0.14	Qva
18N/01W-04M02	06-13-88	14.63	07-23-90	13.53	1.10	Qc
18N/01W-04N01	06-08-88	34.27	07-23-90	33.63	0.64	TQu
18N/01W-05E02	06-13-88	30.72	07-27-90	30.47	0.25	Qva
18N/01W-05G02	06-20-88	23.40	07-23-90	22.48	0.92	Qva
18N/01W-05L04	06-13-88	26.02	07-23-90	24.95	1.07	?
18N/01W-06A03	06-14-88	51.04	07-23-90	49.68	1.36	Qc
18N/01W-06D01	06-14-88	30.55	07-27-90	30.26	0.29	Qva
18N/01W-06E02	06-14-88	21.24	07-27-90	21.20	0.04	Qvt
18N/01W-06G02	06-14-88	28.74	07-27-90	30.46	-1.72	Qvr
18N/01W-06R03	06-16-88	19.15	07-23-90	22.56	-3.41	Qva
18N/01W-07A06	06-16-88	25.00 R	07-24-90	25.78	-0.78 ?	Qva
18N/01W-07C01	06-16-88	40.72	07-23-90	40.03	0.69	Qvt

Table A3. Water-levels in wells and calculated differences between 1988 and 1990—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
18N/01W-07E02	06-16-88	46.61	07-23-90	44.78	1.83	Qvr
18N/01W-07E04	09-06-88	47.77 Z	07-23-90	45.89	1.88 ?	Qvt
18N/01W-07L04	06-16-88	45.81	07-27-90	44.13	1.68	Qva
18N/01W-07M02	06-16-88	38.36	07-23-90	36.74	1.62	Qva
18N/01W-07P02	09-07-88	51.51	07-27-90	48.51	3.00	Qva
18N/01W-08C02	07-14-88	45.77	07-23-90	44.38 Z	1.39 ?	Qf
18N/01W-09D01	06-15-88	39.88	07-23-90	37.93	1.95	Qf
18N/01W-09G01	07-20-88	15.49	07-23-90	13.32 Z	2.17 ?	TQu
18N/01W-09J01	06-22-88	36.76	07-23-90	35.71	1.05	Qc
18N/01W-09K03	07-07-88	7.11	07-26-90	6.82 Z	0.29 ?	Qva
18N/01W-09K04	07-07-88	8.47	07-23-90	6.90	1.57	Qva
18N/01W-09K05	07-07-88	7.44	07-23-90	8.12	-0.68	?
18N/01W-12J02	07-07-88	209.06	08-02-90	208.93	0.13	Qc
18N/01W-12L04	08-19-88	108.16 R	07-23-90	103.09	5.07 ?	Qva
18N/01W-13A02	07-08-88	198.55 Z	07-27-90	195.95 P	2.60 ?	Qc
18N/01W-13A03	07-08-88	197.46	07-27-90	197.96	-0.50	Qc
18N/01W-13B01	06-23-88	206.64	07-26-90	206.07	0.57	TQu
18N/01W-13G02	06-23-88	175.99	07-26-90	175.10	0.89	Qc
18N/01W-13J01D1	05-26-88	238.65	07-27-90	246.87 P	-8.22 ?	TQu
18N/01W-13J03	05-25-88	217.34	07-27-90	214.80 Z	2.54 ?	TQu
18N/01W-13N01	06-27-88	236.95	07-23-90	235.64	1.31	Qc
18N/01W-14H02	08-19-88	49.39	07-23-90	46.27	3.12	Qva
18N/01W-14L02	07-06-88	36.99	07-23-90	34.38	2.61	Qva
18N/01W-19C02	07-25-88	18.20	07-27-90	16.93	1.27	Qva
18N/01W-19D05	07-19-88	22.41	07-27-90	21.08	1.33	Qf
18N/01W-19F02	09-06-88	23.49 Z	07-27-90	20.57	2.92 ?	Qva
18N/01W-19G02	08-02-88	44.62	07-27-90	42.35	2.27	Qva
18N/01W-19H02	09-07-88	35.00	07-27-90	33.55	1.45	Qva
18N/01W-19L03	07-25-88	30.64	07-27-90	27.00	3.64	Qva
18N/01W-19M05	08-10-88	43.75	07-27-90	39.93	3.82	Qva
18N/01W-23B02	08-18-88	15.87	07-24-90	10.75	5.12	Qvr
18N/01W-23Q01	07-29-88	142.62	07-23-90	140.59	1.93	Qc
18N/01W-24B02	07-28-88	53.44	07-26-90	54.63	-1.19	Qva
18N/01W-24D02	08-02-88	48.65	07-24-90	45.86	2.79	Qva
18N/01W-26C02	08-02-88	38.91	07-23-90	38.10	0.81	Qva
18N/01W-27K01	10-03-88	50.78	07-23-90	47.59	3.19	Qva
18N/01W-27M02	08-24-88	43.27 Z	07-23-90	40.95	2.32 ?	TQu
18N/01W-28E01	07-08-88	65.60	07-27-90	75.04 R	-9.44 ?	Qc
18N/01W-28J01	08-17-88	26.93 Z	07-23-90	25.55	1.38 ?	Qc
18N/01W-28M01	07-08-88	76.98	07-27-90	99.70 R	-22.72 ?	Qc
18N/01W-31A03	08-08-88	64.88	07-23-90	59.18	5.70	Qva
18N/01W-31K03	08-05-88	31.77	07-25-90	29.67 R	2.10 ?	Qva
18N/01W-32D02	08-08-88	54.90	07-25-90	44.06 Z	10.84 ?	Qva
18N/01W-32L01	08-05-88	43.70	07-25-90	41.55	2.15	Qva
18N/01W-32N02	08-05-88	41.25	07-25-90	37.65	3.60	Qva

Table A3. Water-levels in wells and calculated differences between 1988 and 1990—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
18N/01W-32P02	12-13-88	29.24	07-25-90	24.74	4.50	Qc
18N/01W-33C01	08-05-88	40.29	07-23-90	36.84	3.45	Qva
18N/01W-33J02	08-25-88	36.29	07-23-90	32.65	3.64	Qvr
18N/01W-34G01	09-22-88	20.45	07-23-90	19.29	1.16	Qvr
18N/01W-34J01	08-02-88	21.35	07-23-90	20.30	1.05	Qva
18N/01W-34M03	08-04-88	45.10	07-23-90	42.42	2.68	Qva
18N/01W-34Q01	08-24-88	39.00	07-23-90	37.04	1.96	Qva
18N/01W-35A04	08-02-88	10.41	07-24-90	9.84	0.57	Qva
18N/01W-35G02	08-08-88	101.22	07-23-90	97.43	3.79	Qc
18N/01W-35L02	08-08-88	43.75	07-23-90	41.40	2.35	Qva
18N/01W-36C01	07-08-88	130.42	07-23-90	126.70	3.72	TQu
18N/01W-36C02	07-08-88	126.87 Z	07-23-90	123.18	3.69 ?	TQu
18N/01W-36N01	08-17-88	149.11 Z	07-26-90	143.91	5.20 ?	Qc
18N/02W-01E06	09-30-88	18.45 Z	07-27-90	15.31	3.14 ?	Qva
18N/02W-01F04	09-15-88	42.69	07-27-90	41.60	1.09	Qf
18N/02W-01G03	09-30-88	135.32 Z	07-30-90	134.18 Z	1.14 ?	Qc
18N/02W-01R05	09-14-88	105.47	07-23-90	105.55	-0.08	Qc
18N/02W-02A03	09-29-88	27.91	07-27-90	24.45	3.46	Qvt
18N/02W-02A04	08-18-88	100.43	07-27-90	100.15	0.28	Qc
18N/02W-02A05	06-28-88	108.14	07-31-90	107.54	0.60	Qc
18N/02W-02C07	06-28-88	22.16	07-31-90	22.60 Z	-0.44 ?	Qva
18N/02W-02F04	09-15-88	39.82 Z	07-31-90	37.47	2.35 ?	Qva
18N/02W-02H04	11-04-88	39.67	07-27-90	36.11	3.56	Qf
18N/02W-04D01	09-27-88	31.62 Z	07-26-90	37.26 Z	-5.64 ?	Qva
18N/02W-04G03	09-15-88	10.97	07-27-90	9.86	1.11	Qva
18N/02W-05B02	09-13-88	62.34 Z	07-24-90	57.31	5.03 ?	Qva
18N/02W-05B03	06-29-88	33.37	07-24-90	29.59	3.78	Qva
18N/02W-05C03	06-29-88	28.24	07-24-90	24.46	3.78	Qva
18N/02W-05D02	09-13-88	55.05	07-24-90	48.30 Z	7.20 ?	Qf
18N/02W-05D03	06-23-88	68.84	07-24-90	64.92 R	3.92 ?	Qva
18N/02W-05D04	09-27-88	63.88	07-24-90	58.68 Z	5.20 ?	Qva
18N/02W-07D01	06-14-88	82.03	07-27-90	78.39	3.64	Qva
18N/02W-07E01	06-14-88	82.38	07-27-90	80.22 Z	2.16 ?	Qva
18N/02W-07J03	06-14-88	115.87	07-27-90	111.78	4.09	Qva
18N/02W-07L02	06-14-88	59.98	07-23-90	56.47 Z	3.51 ?	Qva
18N/02W-08E03	09-15-88	39.05 Z	07-27-90	37.93	1.12 ?	Qva
18N/02W-08N03	09-03-88	86.97	07-27-90	81.84	5.13	Qva
18N/02W-09D01	09-13-88	29.56	07-27-90	28.80	0.76	Qva
18N/02W-12A03	09-30-88	7.75 Z	07-23-90	7.35	0.40 ?	Qva
18N/02W-12E01	11-04-88	15.03	07-31-90	13.10	1.93	Qva
18N/02W-12G04	06-24-88	91.67	07-30-90	92.69	-1.02	TQu
18N/02W-12H01	06-23-88	96.94 R	08-02-90	92.09	4.55 ?	Qc
18N/02W-12K04	09-14-88	89.25 Z	07-27-90	88.04 Z	1.21 ?	Qc
18N/02W-12Q04	07-21-88	17.48	07-27-90	16.71	0.77	Qvr
18N/02W-16A01	09-27-88	102.97	07-27-90	96.16	6.81	Qva

Table A3. Water-levels in wells and calculated differences between 1988 and 1990—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
18N/02W-17H03	06-17-88	80.56	07-23-90	79.07	1.49	Qva
18N/02W-17M04	06-17-88	91.40	07-27-90	86.98 Z	4.42 ?	Qva
18N/02W-17Q04	06-17-88	94.94	07-23-90	92.39 Z	2.55 ?	Qc
18N/02W-18A02	06-17-88	98.76	07-23-90	94.61 Z	4.15 ?	Qva
18N/02W-18K02	06-17-88	84.00	07-27-90	89.94	-5.94	Qc
18N/02W-20C01	06-17-88	62.84	07-23-90	66.56	-3.72	Qva
18N/02W-25A03	07-26-88	65.79	08-02-90	61.25 Z	4.54 ?	Qva
18N/02W-28J02	09-20-88	18.10	07-24-90	15.68	2.42	Qva
18N/02W-29N01	09-21-88	29.71	07-23-90	37.20 R	-7.49 ?	Tb
18N/02W-30Q02	09-29-88	21.68 Z	07-23-90	13.04	8.64 ?	Tb
18N/02W-31J03	09-29-88	1.22	07-23-90	3.20 R	-1.98 ?	Qva
18N/02W-31L01	09-20-88	35.66 Z	07-23-90	35.22	0.44 ?	Qva
18N/02W-31P03	10-11-89	36.68 Z	07-23-90	52.83 S	-16.15 ?	Qc
18N/02W-31R02	09-15-88	10.95	07-23-90	9.90	1.05	Qva
18N/02W-32B02	09-21-88	22.90	07-23-90	19.71	3.19	Qva
18N/02W-33M01	09-21-88	9.77	07-23-90	9.43	0.34	Tb
18N/02W-33R02	09-29-88	12.55 Z	07-23-90	13.75 R	-1.20 ?	Qvr
18N/02W-34B01	09-20-88	20.07	07-23-90	17.86 Z	2.21 ?	Qvr
18N/02W-34C02	09-21-88	17.62	07-23-90	15.82	1.80	Qvr
18N/02W-35M02	01-06-89	9.27	07-31-90	26.95 S	-17.68 ?	Qva
18N/02W-36D01	09-29-88	82.08 Z	07-30-90	73.05 R	9.03 ?	TQu
18N/03W-01J02	06-14-88	34.26	07-27-90	35.63 R	-1.37 ?	Qc
18N/03W-01L01	07-11-88	43.49	07-27-90	42.62 Z	0.87 ?	Qc
18N/03W-02A02D1	07-14-88	126.50	07-23-90	124.69	1.81	Qc
18N/03W-02B05	06-16-88	91.43	07-23-90	85.65	5.78	Qva
18N/03W-02B06	08-22-88	87.14	07-23-90	80.09	7.05	Qva
18N/03W-02C02	08-18-88	6.93	07-26-90	8.76	-1.83	Tb
18N/03W-02H05	07-15-88	133.18	07-23-90	131.83	1.35	Qc
18N/03W-04R02	06-22-88	1.40	07-23-90	2.10	-0.70	Mlt
18N/03W-04R03	06-22-88	1.87	07-23-90	2.60	-0.73	Qc
18N/03W-07L02	06-22-88	13.05	07-25-90	14.68	-1.63	Tb
18N/03W-08C01	06-22-88	77.73	07-25-90	84.85 R	-7.12 ?	Tb
18N/03W-11C01	07-21-88	12.35	07-23-90	14.31	-1.96	Tb
18N/03W-11D01	07-21-88	1.80	07-23-90	2.20	-0.40	Tb
18N/03W-12D01	07-14-88	67.88	08-01-90	66.93 Z	0.95 ?	TQu
18N/03W-12G01	07-11-88	26.00	07-25-90	24.00 Z	2.00 ?	Qva
18N/03W-12H02	07-11-88	99.73 Z	08-01-90	96.96	2.77 ?	Qva
18N/03W-12H03	08-03-89	88.09	08-01-90	86.82 Z	1.27 ?	Qva
18N/03W-12K01	08-04-88	31.81	08-01-90	29.99	1.82	Qf
18N/03W-13G06	08-04-88	4.72	07-23-90	4.10	0.62	Qc
18N/03W-13K03	06-14-88	29.31	07-23-90	30.46	-1.15	Qc
18N/03W-16E01	07-15-88	6.00 Z	07-25-90	6.51	-0.51 ?	Tb
18N/03W-16N01	07-21-88	49.24 Z	07-25-90	37.42	11.82 ?	Tb
18N/03W-16Q01	07-20-88	5.38	07-25-90	5.40	-0.02	Tb
18N/03W-17R01	07-12-88	24.33	07-25-90	28.76	-4.43	TQu

Table A3. Water-levels in wells and calculated differences between 1988 and 1990—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
18N/03W-19F01	07-15-88	8.78	07-25-90	8.98	-0.20	TQu
18N/03W-22J01	06-22-88	24.34	07-23-90	25.04	-0.70	Qva
18N/03W-23A01	06-22-88	1.65	07-24-90	4.81	-3.16	Qvt
18N/03W-23A02	06-22-88	5.48	07-23-90	6.96	-1.48	Qvt
18N/03W-23B02	07-15-88	1.63 R	07-24-90	1.08	0.55 ?	Qvt
18N/03W-23F01	07-20-88	38.86 Z	07-24-90	41.06	-2.20 ?	Mlt
18N/03W-23H04	06-22-88	21.60	07-24-90	21.82	-0.22	Qva
18N/03W-23H05	06-22-88	26.51	07-24-90	27.08	-0.57	Qva
18N/03W-23N01	07-12-88	2.08	07-23-90	2.50	-0.42	Qva
18N/03W-23P01	06-15-88	27.09 Z	07-23-90	28.41	-1.32 ?	Qva
18N/03W-23Q01	06-15-88	27.56 R	07-23-90	28.76	-1.11 ?	Qc
18N/03W-24H02	07-12-88	16.11	07-25-90	15.89	0.22	Qc
18N/03W-24J02	06-16-88	4.77	07-23-90	6.94	-2.17	Tb
18N/03W-24J03	06-14-88	16.09	07-23-90	16.97	-0.88	Qc
18N/03W-24M01D1	06-17-88	77.25 Z	07-25-90	78.87	-1.62 ?	Qva
18N/03W-25A02	06-17-88	1.17	07-25-90	2.59	-1.42	Tb
18N/03W-25J01	06-16-88	50.89	07-25-90	52.00	-1.11	Qc
18N/03W-25P01	07-11-88	2.82	07-24-90	2.87	-0.05	Qc
18N/03W-25R04	07-12-88	37.06	07-25-90	35.98	1.08	Mlt
18N/03W-36B01	07-12-88	0.98	07-24-90	1.26	-0.28	Qc
19N/01E-30P07	07-08-88	7.24	07-26-90	8.19	-0.95	Qva
19N/01E-30Q02	07-08-88	80.15	07-26-90	79.04 Z	1.11 ?	TQu
19N/01E-31C05	07-08-88	39.84	07-26-90	37.91	1.93	Qvr
19N/01W-04P01	07-15-88	159.65	07-25-90	158.93	0.72	Qc
19N/01W-05J04	07-21-88	42.22	07-25-90	41.20 Z	1.02 ?	?
19N/01W-05R05	07-21-88	30.22	07-25-90	30.50 Z	-0.28 ?	TQu
19N/01W-06J06	07-21-88	11.07	07-25-90	9.98 Z	1.09 ?	Qc
19N/01W-06K05	09-25-88	38.21	07-25-90	35.98	2.23	Qf
19N/01W-06L01	08-08-88	69.24 R	07-25-90	71.88	-2.64 ?	TQu
19N/01W-07A01	06-21-88	45.13	07-25-90	44.52 Z	0.61 ?	Qc
19N/01W-07R01	12-22-88	36.10 R	07-25-90	33.60 R	2.50 ?	TQu
19N/01W-08K01	12-22-88	64.13	07-25-90	64.69 Z	-0.56 ?	Qc
19N/01W-08R01	09-14-88	38.33	07-25-90	36.95 Z	1.38 ?	Qc
19N/01W-09L02	08-29-88	54.52	07-25-90	52.20 Z	2.32 ?	Qva
19N/01W-09R03	07-13-88	25.28	07-25-90	24.95	0.33	Qva
19N/01W-10F04	08-29-88	60.31	07-25-90	60.20	0.11	Qc
19N/01W-10L04	08-30-88	67.97	07-25-90	66.20	1.77	Qc
19N/01W-10N02	08-30-88	30.88	07-25-90	28.88	2.00	Qva
19N/01W-10P01	07-14-88	73.60	07-25-90	73.59	0.01	Qc
19N/01W-10Q02	08-29-88	70.11	07-25-90	68.70	1.41	Qc
19N/01W-15C01	07-15-88	32.73	07-25-90	30.07	2.66	Qva
19N/01W-15C03	08-09-88	56.87	07-25-90	52.29	4.58	Qva
19N/01W-15E01	07-14-88	54.73	07-26-90	49.64 R	5.09 ?	Qva
19N/01W-16K01	07-14-88	53.58	07-26-90	47.04	6.54	Qva
19N/01W-16K02	08-18-88	34.22	07-26-90	26.68	7.54	Qva

Table A3. Water-levels in wells and calculated differences between 1988 and 1990—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
19N/01W-16N02	07-13-88	27.27	07-26-90	24.74	2.53	Qva
19N/01W-16R01	07-25-88	113.20	07-26-90	114.92	-1.72	Qc
19N/01W-17A05	07-15-88	40.97	07-25-90	40.45	0.52	TQu
19N/01W-17N02	07-20-88	65.32	07-25-90	63.45 Z	1.87 ?	Qc
19N/01W-18F01	07-25-88	28.73	07-25-90	28.52 Z	0.21 ?	Qf
19N/01W-18P01	07-20-88	66.60	07-25-90	63.24	3.36	Qc
19N/01W-19P03	09-14-88	68.31	07-25-90	66.03	2.28	Qc
19N/01W-20G04	08-19-88	102.74	07-24-90	100.70	2.04	Qc
19N/01W-21C03	07-28-88	49.28	07-24-90	45.00	4.28	Qva
19N/01W-21L02	07-28-88	26.18	07-24-90	25.24 Z	0.94 ?	Qva
19N/01W-21M01	07-20-88	19.50	07-24-90	18.58	0.92	Qc
19N/01W-21M02	08-18-88	85.74	07-24-90	85.41	0.33	Qc
19N/01W-22A01	09-30-88	57.43 Z	07-24-90	60.23	-2.80 ?	TQu
19N/01W-23D02	09-14-88	92.28	07-24-90	92.00	0.28	Qf
19N/01W-23D03	09-15-88	81.34	07-24-90	76.20 Z	5.14 ?	Qf
19N/01W-23N01	08-17-88	72.70	07-24-90	72.61 Z	0.09 ?	Qva
19N/01W-25P02	07-08-88	84.63	07-24-90	81.57 Z	3.06 ?	Qva
19N/01W-27A01	07-12-88	77.60	07-24-90	72.01	5.59	Qva
19N/01W-27N02	06-17-88	96.03	07-30-90	94.61 R	1.42 ?	Qva
19N/01W-28A02	09-06-88	40.15 P	07-24-90	29.74	10.41 ?	Qc
19N/01W-28C02	08-19-88	101.96	07-24-90	101.99 R	-0.03 ?	Qc
19N/01W-28F02	07-28-88	64.17	07-24-90	64.03	0.14	Qc
19N/01W-28F04	10-27-88	72.60	07-24-90	71.50	1.10	Qc
19N/01W-29C02	09-06-88	137.17	07-27-90	136.06	1.11	Qc
19N/01W-29N01	09-07-88	37.63	07-25-90	34.89	2.74	Qc
19N/01W-30P04	10-28-88	98.09	07-30-90	98.13	-0.04	TQu
19N/01W-30R02	09-08-88	23.38	07-25-90	24.72	-1.34	Qva
19N/01W-31B03	09-13-88	26.94	07-25-90	23.76	3.18	Qf
19N/01W-31K04	06-21-88	39.35	07-24-90	36.95	2.40	Qvt
19N/01W-31R01	07-20-88	126.92	07-24-90	126.33	0.59	TQu
19N/01W-32B01	09-06-88	39.14	07-27-90	14.14	25.00	TQu
19N/01W-32D03	09-15-88	52.17	07-24-90	46.27	5.90	Qva
19N/01W-32K04	07-11-88	54.45	07-24-90	53.00	1.45	Qva
19N/01W-32N03	08-31-88	52.20	07-30-90	48.64 R	3.56 ?	Qva
19N/01W-32P03	09-13-88	50.08	07-27-90	46.40	3.68	Qva
19N/01W-32Q03	06-20-88	29.44	07-24-90	28.98	0.46	Qva
19N/01W-32R01	11-01-88	0.56	07-24-90	1.32	-0.76	Qvt
19N/01W-33K03	06-17-88	80.00	08-02-90	79.86	0.14	Qva
19N/01W-33K04	06-17-88	79.41	08-02-90	79.00	0.41	Qc
19N/01W-33K05	09-08-88	52.55	07-24-90	51.12	1.43	Qva
19N/01W-34N03	09-06-88	77.89	07-24-90	75.98	1.91	Qva
19N/01W-34P01	08-31-88	88.81	07-24-90	81.43	7.38	Qva
19N/02W-03E02	08-17-88	65.40	07-24-90	65.00	0.40	Qc
19N/02W-07P01	07-29-88	71.82	07-25-90	71.96	-0.14	Qc
19N/02W-07P02	08-01-88	65.90	07-25-90	65.25	0.65	Qc

Table A3. Water-levels in wells and calculated differences between 1988 and 1990—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
19N/02W-07R01	08-12-88	53.82	07-25-90	52.33	1.49	TQu
19N/02W-08F03	08-17-88	38.86	07-24-90	40.06	-1.20	TQu
19N/02W-08G01	08-02-88	112.31	07-24-90	111.55	0.76	TQu
19N/02W-08N03	07-18-88	36.90	07-24-90	37.55 Z	-0.65 ?	TQu
19N/02W-08P01	08-12-88	56.41 Z	07-24-90	52.58	3.83 ?	Qc
19N/02W-09H01	08-10-88	70.55	07-24-90	70.00	0.55	TQu
19N/02W-09N02	06-23-89	23.85	07-24-90	24.08	-0.23	Qc
19N/02W-11P02	08-03-89	61.44	07-26-90	53.26 Z	8.18 ?	TQu
19N/02W-14H04	10-24-88	125.49	07-26-90	124.24 R	1.25 ?	TQu
19N/02W-14K01	11-01-88	36.10	07-26-90	32.20	3.90	Qva
19N/02W-14P02	08-03-88	153.63	07-26-90	152.44	1.19	Qc
19N/02W-16J08	09-09-88	63.69	07-25-90	63.36 Z	0.23 ?	Qc
19N/02W-16Q05	08-10-88	139.32 Z	07-25-90	139.17 R	0.15 ?	Qc
19N/02W-17C01	08-01-88	111.36 Z	07-25-90	110.92 Z	0.44 ?	TQu
19N/02W-17F01	08-04-88	95.54	07-25-90	97.24	-1.70	TQu
19N/02W-18A02	07-29-88	39.36	07-25-90	35.98	3.38	Mlt
19N/02W-18M01	07-29-88	37.70	07-25-90	37.03	0.67	Qc
19N/02W-19H01	08-12-88	56.43	07-25-90	55.27	1.16	TQu
19N/02W-21C02	09-30-88	54.45	07-26-90	54.94 Z	-0.49 ?	Qc
19N/02W-21Q04	09-08-88	49.72	07-25-90	48.40	1.32	TQu
19N/02W-24F02	10-27-88	64.56	07-26-90	63.59	0.97	Qva
19N/02W-24H01	10-24-88	67.03	07-26-90	69.93	-2.90	Qf
19N/02W-24K01	11-01-88	65.49	07-26-90	65.04	0.45	Qf
19N/02W-25A02	10-27-88	34.25 Z	07-26-90	33.36	0.89 ?	TQu
19N/02W-25C07	07-25-88	110.46	07-26-90	109.50 R	0.96 ?	Qc
19N/02W-25F01	11-01-88	56.48	07-24-90	53.83	2.65	Qva
19N/02W-25N01	11-02-88	131.88	07-24-90	132.33	-0.45	Qc
19N/02W-25R01	10-31-88	41.19 Z	07-26-90	37.54 R	3.65 ?	Qva
19N/02W-27D03	08-09-88	61.75 Z	07-26-90	59.73 Z	2.02 ?	Qc
19N/02W-27D04	08-11-88	34.58	07-27-90	34.17	0.41	Qc
19N/02W-28B02	10-28-88	57.64	07-27-90	61.12 Z	-3.48 ?	TQu
19N/02W-28L05	08-08-88	30.79	07-24-90	29.30 Z	1.49 ?	Qva
19N/02W-28L06	08-09-88	108.51 Z	07-26-90	110.59	-2.08 ?	TQu
19N/02W-28N08	08-09-88	43.28	07-27-90	39.89 Z	3.39 ?	Qc
19N/02W-29B04	08-02-88	57.03	07-26-90	55.25 Z	1.78 ?	Qc
19N/02W-29F01	08-04-88	65.10 Z	07-25-90	64.77	0.33 ?	Qc
19N/02W-30E01	08-02-88	3.94	07-26-90	1.47	2.47	Qc
19N/02W-30J02	08-10-88	17.54 Z	07-25-90	20.12	-2.58 ?	TQu
19N/02W-31E03	08-03-88	36.25	07-26-90	32.97	3.28	Qc
19N/02W-31M03	08-03-88	15.97	07-26-90	7.11	8.86	Qc
19N/02W-32A07	08-11-88	31.92	07-24-90	30.48	1.44	Qva
19N/02W-32G02	08-11-88	83.90	07-24-90	82.58	1.32	Qva
19N/02W-32G03	09-22-88	68.59	07-25-90	67.71	0.88	Qva
19N/02W-32G04	08-11-88	153.17 R	07-25-90	154.88 R	-1.71 ?	Qc
19N/02W-32H03	09-15-88	132.85	07-25-90	134.03 Z	-1.18 ?	Qc

Table A3. Water-levels in wells and calculated differences between 1988 and 19900—Continued

Site identifier	Water level date	Water level (feet)	Water level date	Water level (feet)	Water level diffe-rence (feet)	Geohy-drologic unit
19N/02W-33B02	09-15-88	111.01	08-02-90	110.82 Z	0.19 ?	Qva
19N/02W-33D01	08-10-88	65.15	07-24-90	64.79	0.36	Qc
19N/02W-33F02	09-30-88	70.57	07-25-90	69.66	0.91	Qc
19N/02W-33G03	09-09-88	116.08	07-25-90	117.14	-1.06	Qc
19N/02W-33H03	09-08-88	101.76	07-25-90	102.77 Z	-1.01 ?	Qc
19N/02W-33M03	09-09-88	59.93 Z	07-25-90	54.98 R	4.95 ?	Qva
19N/02W-35K05	11-04-88	68.48 Z	07-31-90	67.69 Z	0.79 ?	Qc
19N/02W-35P03	07-21-88	111.90	07-31-90	110.76	1.14	TQu
19N/02W-36A03	11-04-88	30.06	07-30-90	26.79	3.27	Qva
19N/02W-36H02	10-27-88	33.84 R	07-30-90	31.70 Z	2.14 ?	Qva
19N/02W-36J01	10-27-88	23.45	07-24-90	20.89	2.56	Qva
19N/03W-24M01	07-22-88	129.17	07-25-90	129.06 Z	0.11 ?	Qc
19N/03W-25J01	08-15-88	89.16	07-25-90	87.62 Z	1.54 ?	Qc
19N/03W-25K01	08-15-88	13.85	07-25-90	13.45	0.40	Qvr
19N/03W-26F01	08-16-88	72.02	07-26-90	70.96 Z	1.06 ?	Qc
19N/03W-26H02	08-15-88	89.92	07-25-90	89.33	0.59	Qc
19N/03W-27M02	08-15-88	75.45	07-26-90	73.48 Z	1.97 ?	Qc
19N/03W-34A01	08-16-88	19.06	07-26-90	16.77 Z	2.29 ?	Qva
19N/03W-36E03	08-22-88	63.55	07-26-90	58.50 Z	5.05 ?	Qc
19N/03W-36M02	08-22-88	69.59	07-26-90	63.77	5.82	Qc
20N/01W-33N01	07-15-88	84.04	07-25-90	83.85	0.19	Qc
20N/02W-33Q01	08-12-88	53.16	07-24-90	48.12 Z	5.04 ?	TQu

APPENDIX B. Details of Calculations of Ground-Water Budget Components

WATER BUDGET FOR LAKE ST. CLAIR

A water budget for Lake St. Clair can be defined by the following equation:

$$GW_{out} = Ppt - E + SW_{in} - SW_{out} + GW_{in} - \Delta S \quad (1)$$

where:

GW_{out} is ground-water outflow from lake,
Ppt is precipitation on lake,
E is evaporation from lake,
SW_{in} is surface-water inflow to lake,
SW_{out} is surface-water outflow from lake,
GW_{in} is ground-water inflow to lake, and
ΔS is change in storage in lake.

Rearranging equation 1 results in an equation that yields net ground-water flow to or from the lake.

$$GW_{out} - GW_{in} = Ppt - E + SW_{in} - SW_{out} - \Delta S \quad (2)$$

Using the following data, a budget for Lake St. Clair can be calculated for the period October 1, 1988, through September 30, 1989:

- Precipitation (Ppt); Using precipitation data from the Olympia Airport weather station (National Oceanic and Atmospheric Administration, 1989 and 1990) and adjusting for the location of Lake St. Clair based on isohyets (U.S. Weather Bureau, 1965; ratio of 1.25:1, Olympia Airport versus lake) yields a value of 34 inches per year. Given a lake surface area of 268 acres (Bortleson and others, 1976), the volume of precipitation is 760 acre-ft.
- Evaporation (E); Using pan evaporation at Puyallup weather station (26.99 inches; National Oceanic and Atmospheric Administration, 1990) and adjusting using pan coefficient of 0.70 (Brutsaert, 1982) yields a value of 19 inches and an evaporation volume of 420 acre-ft.
- Surface-water inflow (SW_{in}); Assuming all inflow is from Eaton Creek, the 10 miscellaneous measurements taken between November 10, 1988, and October 9, 1989, can be correlated to a continuous-recording gage site (Riggs, 1969). Using Huge Creek (12073500) to correlate, a mean annual flow rate of 3,400 acre-ft/yr (4.7 ft^3/s) is calculated for Eaton Creek.
- Surface-water outflow (SW_{out}); there is no surface-water outflow from the lake.
- Storage change (ΔS); The lake stage was approximately 0.9 foot lower on September 30, 1989, than on October 1, 1988. Change in storage for the period was -240 acre-ft.

Substituting these values into equation 2 (all values in acre-feet):

$$GW_{out} - GW_{in} = 760 - 420 + 3,400 - 0 + 240$$

Simplifying:

$$GW_{out} - GW_{in} = 4,000$$

For the period October 1, 1988, through September 30, 1989, the calculated net ground-water flow for Lake St. Clair is approximately 4,000 acre-ft/yr from the lake to the ground-water system.

Table B1. Factors used to estimate secondary recharge

Type of water use	Percent of water use that becomes secondary recharge	Source
Household (public and domestic)		
Sewered areas	0	Sapik and others, 1988
Septic-system area	87	Solly and others, 1993
Irrigation	57	Solly and others, 1993
Commercial-Industrial	84	Solly and other, 1993 (average of 80 percent for commercial and 88 percent for industrial)
Aquaculture	80	Estimated for this study. Most water used for aquaculture in the study area leaks from ponds or is discharged to small streams and infiltrates to ground water.
Stock	13	Solly and others, 1993

Table B2. Seepage-studies data

Map number (fig. B1)	Site name	Latitude	Longitude	Date discharge measured	Discharge (cubic feet per second)
	Woodland Creek (U.S. Geological Survey)				
1	Pattison Lake inlet	470018	1224713	08/11/88	0.19
2	Pattison Lake outlet	470013	1224603	08/11/88	3.2
3	Long Lake outlet	470208	1224652	08/11/88	.69
4	Woodland Creek at Pacific Avenue	470222	1224742	08/11/88	.43
5	Woodland Creek at Lake Lois outlet	470230	1224802	08/11/88	DRY
6	Woodland Creek at Martin Way	470300	1224813	08/11/88	DRY
7	Woodland Creek at Draham Road	470340	1224811	08/11/88	8.0
8	Woodland Creek at Pleasant Glade Road	470419	1224858	08/11/88	12
9	Woodland Creek Tributary at Jorgenson Road	470433	1224914	08/11/88	.61
	Eaton Creek (U.S. Geological Survey)				
1	Eaton Creek at Tucker Road	465742	1224407	08/01/89	3.7
2	Eaton Creek at Evergreen Valley Road	465805	1224334	08/01/89	3.7
3	Eaton Creek below drain	465842	1224342	08/01/89	3.8
4	Eaton Creek at Yelm Highway	465906	1224402	08/01/89	3.2
5	Eaton Creek near mouth	465925	1224334	08/01/89	3.2
	Deschutes River (U.S. Geological Survey)				
1	Deschutes River near Rainier (12079000)	465108	1224003	08/12/88	35
2	Unnamed tributary to Deschutes River	465221	1224341	08/12/88	[1]2
3	Deschutes River at Highway 507 (12079004)	465223	1224344	08/12/88	38
4	Silver(?) Creek near mouth	465408	1224552	08/12/88	1.1
5	Deschutes River at Waldrick Road	465512	1224830	08/12/88	50
6	Offutt Lake outlet	465512	1224846	08/12/88	DRY
7	Deschutes River at farm bridge	465533	1225026	08/12/88	55
8	Deschutes River at Rich Road	465644	1225057	08/12/88	57
9	Spurgeon Creek at Rich Road	465658	1225034	08/12/88	4.4
10	Unnamed tributary to Deschutes River	465829	1225141	--	[2]--
11	Chambers(?) Creek at Rich Road	465923	1225113	08/12/88	5.0
12	Deschutes River at Henderson Boulevard	465943	1225246	08/12/88	86
13	Unnamed tributary to Deschutes River	465937	1225317	--	[2]--
14	Deschutes River at "E" Avenue (12080010)	470042	1225407	08/12/88	89
	Nisqually River (U.S. Geological Survey)				
1	Nisqually River at McKenna (12089500)	465601	1223335	10/09/91	574
2	Murray Creek near mouth	465800	1223343	--	[2]--
3	Yelm Creek near mouth	465814	1223734	--	[3]14
4	Nisqually River above Centralia Power canal	465822	1223748	10/09/91	600
5	Centralia Power Canal above spillway	465820	1223808	10/08/91	353

Table B2. Seepage studies data—Continued

Map number (fig. B1)	Site name	Latitude	Longitude	Date discharge measured	Discharge (cubic feet per second)
	Nisqually River (U.S. Geological Survey)—Continued				
6	Thompson Creek near mouth	465838	1223814	--	[2]--
7	Nisqually River below Centralia Power Canal spillway	465912	1223757	10/09/91	961
8	Muck Creek near mouth	470007	1223817	10/08/91	6.6
9	Nisqually River at I-5 (12090240)	470418	1224211	10/09/91	1,140
	Black River (Pickett, 1994)				
1	Black River at River Mile 15.2	465221	1230125	07/20/92	26.5
				08/18/92	17.0
2	Mima Creek at Mima-Gate Road	465157	1230442	07/23/92	1.98
				08/05/92	1.52
3	Black River at River Mile 11.8	465114	1230505	07/20/92	32.5
				08/18/92	31.9
4	Swecker Salmon Farm return to Black River	465034	1230606	07/20/92	.77
5	Black River at River Mile 9.5	465003	1230708	08/18/92	44.4
6	Black River at River Mile 9.3	465013	1230711	07/20/92	50.0
	Chehalis River (Sinclair and Hirschey, 1992)				
1	Chehalis River near Grand Mound (12027500)	464634	1230204	08/24/87	[4]168
2	Scatter Creek near mouth	464817	1230635	08/24/87	12
3	Chehalis River below Scatter Creek	464815	1230640	08/24/87	196
	Scatter Creek (Sinclair and Hirschey, 1992)				
1	Scatter Creek at River Mile 4.6	464945	1230249	08/18/89	15
2	Scatter Creek at River Mile 4.1	464919	1230257	08/18/89	17
3	Scatter Creek at River Mile 2.3	464826	1230413	08/18/89	16
4	Scatter Creek at River Mile 1.5	464810	1230507	08/18/89	18

[1]Estimated.

[2]Not measured, assumed insignificant.

[3]Value is median of historical low-flow measurements (Thompson [1937], and State of Washington, Department of Conservation, Water-Supply Bulletin 23 [1964]); Yelm Creek discharge at/near mouth; 07-31-29 = 11.7 cubic feet per second, 09-07-49 = 15.7 cubic feet per second, 09-12-50 = 13.6 cubic feet per second).

[4]Daily mean flow at gage.

Table B3. Water-Use Data

EXPLANATION

Site identifier: A site identifier with no numeral after the quarter-quarter letter designation indicates that the location is estimated.

A site identifier followed by a number in parentheses indicates multiple wells (number indicates number of wells).

A site identifier containing "NEQT', "NWQT", "SEQT", or "SWQT refers to calculated water use within a quarter township that is not assigned to specific wells.

Type of water use:

- C, Commercial (included under commercial-industrial);
- CN, Commercial and industrial (included under commercial-industrial);
- I, Irrigation;
- J, Industrial cooling (included under commercial-industrial);
- K, Mining (included under commercial-industrial);
- N, Industrial (included under commercial-industrial);
- P, Public supply – domestic;
- Q, Aquaculture; and
- S, Stock.

Population served: NA, not applicable.

Method of water-use computation or source of data :

1. Information from owner (generally metered, some calculated using owner's data);
2. Calculated (using 130 gallons per day per person);
3. Calculated values from U.S. Geological Survey water-use data base (data retrieved 03-22-98), population calculated using 100 gallons per day per person;
4. Calculated (using 100 gallons per day per person);
5. Estimated by using type of use multiplied by assumed rate;
6. Assumed 10 gallons per minute continuous use (16 acre-feet per year);
7. Assumed 5 gallons per minute continuous use (8 acre-feet per year);
8. From 1975 U.S. Geological Survey water-use inventory;
9. Reported by Department of Ecology (Mr. William Moore);
10. Estimated springflow;
11. Estimated using amount and type of stock and assumed annual use rate per head;
12. Pumping rate multiplied by hours pumped (as reported by owner);
13. 1.5 acre-feet per year multiplied by acres irrigated (acres generally reported by owner);
14. From Washington State water-right certificate;
15. Assumed 5 acres multiplied by 1.5 acre-feet per year;
16. Assumed 10 acres multiplied by 1.5 acre-feet per year;

?, Reported (method uncertain)

Unit: See table 1; unit TQu subdivided into: TQu (A1), uppermost aquifer in TQU; TQu (UN), below uppermost aquifer in TQu.

Latitude/Longitude: Wells with latitudes and longitudes in this column were not inventoried in this or previous projects. These wells have not been field checked, therefore location accuracy is in doubt.

Wells with "--" in this column were inventoried in this or previous projects and have latitudes and longitudes in Appendix A, table A1.

Table B3. Water-use data

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geo-hydro-logic unit	Latitude	Longitude
15N/01W-05	I	NA	16	15	Qva	464900	1225000
15N/01W-05M02	I	NA	16	15	Qc	464850	1225035
15N/01W-06A01	I	NA	14	18	Qva	--	--
15N/01W-NWQT	P	27	4	3.0	Qva	464852	1225026
15N/02W-05E01	I	NA	15	7.5	Qva	--	--
15N/02W-05E02	I	NA	16	15	Qva	464900	1225800
15N/02W-06J01	I	NA	14	50	Qva	--	--
15N/02W-06KO1	P	49	1	5.2	Qva	464845	1225837
15N/02W-NEQT	P	48	4	5.4	Qvr	464913	1225239
15N/02W-NWQT	P	621	4	70	Qva	464907	1225841
15N/03E-06F01	P	18	3	2.0	Qc	464900	1222840
15N/03W-01M01	P	51	3	5.7	Qva	464849	1230033
15N/03W-02G04	I	NA	15	7.5	Qva	464900	1230110
15N/03W-02K01	I	NA	15	7.5	Qva	464845	1230115
15N/03W-02Q02	I	NA	14	20	Qva	464830	1230120
15N/03W-03Q02	I	NA	14	22	Qva	464830	1230235
15N/03W-03R01	P	150	1	22	Qc	--	--
15N/03W-04G01	I	NA	15	7.5	Qva	464859	1230345
15N/03W-04N01	I	NA	16	15	Qva	464832	1230417
15N/03W-04Q02	I	NA	16	15	Qva	--	--
15N/03W-05B01	I	NA	16	15	Qva	--	--
15N/03W-05F01	I	NA	16	15	Qva	464900	1230520
15N/03W-05R01	I	NA	16	15	Qva	464830	1230440
15N/03W-06A02	P	150	1	22	Qva	--	--
15N/03W-06D01	I	NA	15	15	Qva	464910	1230645
15N/03W-06H02	P	90	3	10	Qc	464902	1230559
15N/03W-06H03	I	NA	16	15	Qc	464900	1230550
15N/03W-06H04	I	NA	16	15	Qc	464900	1230550
15N/03W-06K01	I	NA	15	7.5	Qva	--	--
15N/03W-06K02	I	NA	15	7.5	Qva	464840	1230620
15N/03W-06K03	Q	NA	1	4,100	Qva	464850	1230610
15N/03W-06P01	I	NA	14	15	Qva	--	--
15N/03W-08A01	I	NA	16	15	Qva	464824	1230437
15N/03W-08G01	I	NA	16	15	Qva	--	--
15N/03W-09D02	I	NA	16	15	Qva	--	--
15N/03W-09F02	I	NA	16	15	Qva	--	--
15N/03W-10E01	I	NA	16	15	Qva	464810	1230305
15N/03W-10N01	I	NA	15	7.5	Qva	464745	1230302
15N/03W-11D02	I	NA	15	7.5	Qva	464820	1230150
15N/03W-11K02	I	NA	14	30	Qva	464749	1230113

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geo-hydro-logic unit	Latitude	Longitude
15N/03W-11KO5D1	P	109	3	12	Qva	464800	1230110
15N/03W-11L01	I	NA	14	40	Qva	--	--
15N/03W-11M02	I	NA	15	7.5	Qva	--	--
15N/03W-11M03	I	NA	14	8	Qva	--	--
15N/03W-11P01	I	NA	15	7.5	Qva	464740	1230131
15N/03W-11P03	I	NA	15	7.5	Qva	464740	1230130
15N/03W-12B01	I	NA	14	25.5	Qva	--	--
15N/03W-12B02	I	NA	14	30	Qva	464823	1225950
15N/03W-12B04	I	NA	16	15	Qva	--	--
15N/03W-12D01	I	NA	16	15	Qva	--	--
15N/03W-12F01	I	NA	14	21	Qva	--	--
15N/03W-13D01	I	NA	15	7.5	Qva	464725	1230040
15N/03W-13M02	I	NA	15	7.5	Qva	464706	1230033
15N/03W-14C01	P	136	2	20	Qva	--	--
15N/03W-14R01	I	NA	15	7.5	Qva	464655	1230100
15N/03W-23C01	I	NA	15	7.5	Qc	464638	1230131
15N/03W-23F01	I	NA	16	15	Qc	464630	1230130
15N/03W-23Q01	I	NA	15	7.5	Qvr	--	--
15N/03W-NEQT	P	1,726	4	190	Qva	464804	1230142
15N/03W-NWQT	P	906	4	100	Qva	464811	1230431
16N/01E-02G02	I	NA	16	15	Qc	465405	1223825
16N/01E-07K01	I	NA	15	7.5	Tb	465300	1224330
16N/01E-09E01	P	236	1	34	Qc	--	--
16N/01E-09F01	P	236	1	34	Qva	--	--
16N/01E-09F02	P	236	1	34	Qva	--	--
16N/01E-09K01	P	236	1	34	Qc	--	--
16N/01E-12F01	P	20	3	2.2	Qva	465313	1223724
16N/01E-12F02	P	5	3	0.56	Qva	465313	1223724
16N/01E-12K02	I	NA	16	15	Qva	465307	1223708
16N/01E-21K01	I	NA	16	15	Tb	465120	1224100
16N/01E-25D1&2	P	64	3	7.1	Qva	465055	1223750
16N/01E-NEQT	P	494	4	55	Qc	465324	1223754
16N/01E-NWQT	P	426	4	48	Qc	465340	1224235
16N/01E-SEQT	P	345	4	39	Qva	465043	1223848
16N/01E-SWQT	P	32	4	3.6	Qvr	465125	1224127
16N/01W-06L02	I	NA	16	15	Qva	465400	1225120
16N/01W-19C01	I	NA	15	7.5	Tb	465143	1225120
16N/01W-19G	P	730	1	130	Qva	465136	1225058
16N/01W-19G02	P	618	1	110	Qva	--	--
16N/01W-21D04	P	25	2	3.6	Qva	--	--

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geohydrologic unit	Latitude	Longitude
16N/01W-21D06	I	NA	15	7.5	Qva	465150	1224910
16N/01W-31G01	I	NA	16	15	Qva	464949	1225102
16N/01W-31G02	I	NA	16	15	Qva	464950	1225110
16N/01W-31F1&2	P	56	3	6.3	Qc	464950	1225125
16N/01W-31M01	I	NA	16	15	Qva	464938	1225145
16N/01W-NEQT	P	268	4	30	Qva	465331	1224507
16N/01W-NWQT	P	385	4	43	Qva	465402	1225102
16N/01W-SEQT	P	29	4	3.2	Qva	465126	1224755
16N/01W-SWQT	P	293	4	33	Qva	464935	1225120
16N/02E-02B01	I	NA	16	15	Qc	--	--
16N/02E-02F01	I	NA	16	15	Qc	465413	1223108
16N/02E-02G01	I	NA	16	15	TQu(A1)	--	--
16N/02E-04A02	I	NA	16	15	Qc	--	--
16N/02E-05A01	I	NA	16	15	Qvr	--	--
16N/02E-05C01	I	NA	16	15	Qva	--	--
16N/02E-05M01	I	NA	16	15	TQu(A1)	--	--
16N/02E-05Q01	I	NA	14	60	Qc	--	--
16N/02E-05R03	N	NA	7	8	Qc	465350	1223420
16N/02E-07Q01	I	NA	16	15	TQu(UN)	--	--
16N/02E-15E02	I	NA	16	15	Qva	465230	1223247
16N/02E-17P1&Q1	P	24	3	2.7	Qva	465200	1223500
16N/02E-21E1-E3	P	20	3	2.2	Qva	465136	1223405
16N/02E-21L1&2	P	55	3	6.1	Qva	465125	1223350
16N/02E-22D01	I	NA	16	15	Qc	465155	1223252
16N/02E-27B03	S	NA	4	6.2	Qc	465059	1223206
16N/02E-30R01	I	NA	16	15	Qvr	465015	1223545
16N/02E-34D01	P	149	3	17	Tb	465003	1223240
16N/02E-35K01	P	10	3	1.1	TQu(A1)	464940	1223059
16N/02E-35Q02	I	NA	15	7.5	TQu(A1)	464920	1223050
16N/02E-NEQT	P	34	4	3.8	TQu(A1)	465317	1223116
16N/02E-NWQT	P	700	4	78	Qva	465326	1223457
16N/02E-SWQT	P	119	4	13	TQu(A1)	465030	1223443
16N/02W-01P01	N	NA	7	8	Qva	465341	1225247
16N/02W-01P02	N	NA	7	8	Qva	465340	1225240
16N/02W-02R01	N	NA	6	16	Qva	465349	1225325
16N/02W-05R02	C	NA	6	16	Qc	--	--
16N/02W-07H01	I	NA	16	15	Qvr	465318	1225822
16N/02W-10Q03	I	NA	16	15	TQu(A1)	465250	1225450
16N/02W-20Q02	P	28	2	4.0	TQu(A1)	--	--
16N/02W-25E01	I	NA	16	15	TQu(A1)	465041	1225301

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geo-hydro-logic unit	Latitude	Longitude
16N/02W-25G01	I	NA	15	7.5	Tb	465049	1225224
16N/02W-25R01	I	NA	16	15	Qc	465015	1225202
16N/02W-26A01	I	NA	15	7.5	TQu(A1)	465050	1225320
16N/02W-26M	I	NA	13	2,250	Qva	465025	1225414
16N/02W-26M	S	NA	3	2.5	Qva	465025	1225414
16N/02W-27K01	I	NA	16	15	Qvr	465032	1225445
16N/02W-27Q01	I	NA	16	15	Qva	465011	1225500
16N/02W-29L01	I	NA	16	15	Qva	465030	1225740
16N/02W-29P01	I	NA	15	7.5	Qvr	465013	1225740
16N/02W-29P02	I	NA	15	7.5	Qc	465020	1225740
16N/02W-30C01	I	NA	16	15	TQu(A1)	465058	1225855
16N/02W-31A01	I	NA	16	15	Qva	--	--
16N/02W-31C01	I	NA	16	15	Qva	465004	1225901
16N/02W-31K02	I	NA	14	15	Qva	--	--
16N/02W-31K03	I	NA	14	48	Qva	--	--
16N/02W-31L01	I	NA	14	28	Qva	--	--
16N/02W-31N01	P	42	3	4.7	Qva	464925	1225915
16N/02W-32B01	I	NA	16	15	Qc	--	--
16N/02W-32F01	I	NA	16	15	Qva	--	--
16N/02W-32L01	I	NA	16	15	Qva	464940	1225755
16N/02W-32P01	I	NA	16	15	Qva	464920	1225750
16N/02W-32L02	N	NA	6	16	Qc	464940	1225740
16N/02W-33A01	I	NA	16	15	Qc	465007	1225544
16N/02W-33E01	I	NA	16	15	Qva	--	--
16N/02W-NEQT	P	344	4	39	TQu(A1)	465333	1225348
16N/02W-NWQT	P	310	4	35	TQu(A1)	465341	1225748
16N/02W-SEQT	P	427	4	48	Qva	465031	1225314
16N/02W-SWQT	P	513	4	57	Qva	465023	1225755
16N/03E-31P(2)	P	1,411	1	160	Qva	464923	1222845
16N/03W-02C02	S	NA	4	6.2	Qc	465429	1230131
16N/03W-9H	P	180	1	26	TQu(A1)	465320	1230323
16N/03W-12D01	I	NA	16	15	TQu(A1)	465337	1230031
16N/03W-16L01	I	NA	16	15	Qc	465220	1230400
16N/03W-16L02	I	NA	3	300	Qc	465220	1230400
16N/03W-16R01	I	NA	13	60	Qc	--	--
16N/03W-21F01	S	NA	1	77	Qc	--	--
16N/03W-29H02	N	NA	6	16	Qc	465040	1230440
16N/03W-29M01	I	NA	14	7.5	Qc	465030	1230542
16N/03W-30R01	Q	NA	1	4,200	Qc	465017	1230555
16N/03W-30R02D1	I	NA	15	7.5	Qc	465010	1230550

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geohydrologic unit	Latitude	Longitude
16N/03W-31A02	I	NA	16	15	Qc	464959	1230547
16N/03W-31P01	I	NA	14	12	Qva	464920	1230625
16N/03W-32E01	I	NA	16	15	Qva	--	--
16N/03W-33C01	I	NA	16	15	Qc	--	--
16N/03W-33G01	P	57	3	6.4	Qva	464947	1230337
16N/03W-33G02	P	38	3	4.2	Qva	464953	1230348
16N/03W-33G05	P	150	1	22	Qva	--	--
16N/03W-33M01	P	150	1	22	Qva	464940	1230420
16N/03W-33M02	P	150	1	22	Qva	--	--
16N/03W-33R01	I	NA	14	80	Qva	--	--
16N/03W-36J02	Q	NA	1	12,000	Qva	--	--
16N/03W-36K01	Q	NA	1	16,000	Qc	--	--
16N/03W-36P01	I	NA	15	7.5	Qva	464927	1230008
16N/03W-NEQT	P	512	4	57	Qc	465324	1230124
16N/03W-SEQT	P	566	4	63	Qva	464946	1230114
16N/03W-SWQT	P	862	4	97	Qva	465015	1230501
17N/01E-02C01S	Q	NA	3	1,800	Qc	--	--
17N/01E-05N01	I	NA	12	110	Qc	--	--
17N/01E-06J03D1	P	128	3	14	TQu(UN)	--	--
17N/01E-06N01	I	NA	16	15	TQu(A1)	465900	1224350
17N/01E-08L02	I	NA	16	15	TQu(A1)	--	--
17N/01E-13D04	P	75	2	11	Qc	--	--
17N/01E-13Q	I	NA	13	260	Qc	465720	1223710
17N/01E-14A04	I	NA	15	7.5	Qc	--	--
17N/01E-14K01D1	I	NA	16	15	Qc	465730	1223820
17N/01E-23H01	P	15	4	1.7	Qc	--	--
17N/01E-24B01	I	NA	16	15	Qc	465709	1223701
17N/01E-24F02	I	NA	16	15	TQu(A1)	465650	1223725
17N/01E-24Q01	I	NA	16	15	Qc	465620	1223710
17N/01E-24R01	I	NA	16	15	Qva	465624	1223647
17N/01E-25J01	I	NA	16	15	Qva	465546	1223643
17N/01E-34K02	J	NA	7	8	Qva	465450	1223940
17N/01E-34L02	I	NA	16	15	TQu(A1)	465455	1223951
17N/01E-35M03	I	NA	15	7.5	Qva	465450	1223900
17N/01E-NEQT	P	411	4	46	Qc	465739	1223842
17N/01E-NWQT	P	555	4	62	Qc	465846	1224312
17N/01E-SEQT	P	916	4	100	Qva	465550	1223819
17N/01E-SWQT	P	66	4	7.4	Qva	465532	1224209
17N/01W-01B01	P	42	2	6.2	Qc	--	--
17N/01W-01G01	I	NA	?	25	Qc	--	--

Table B3. Water-use data—Continued

Site identifier	Type of water use	Popula-tion served	Method	Use (acre-feet per year)	Geo-hydro-logic unit	Latitude	Longitude
17N/01W-01G02	I	NA	?	25	Qc	--	--
17N/01W-01H02	I	NA	?	25	Qc	--	--
17N/01W-01H03	I	NA	?	25	Qc	--	--
17N/01W-01J03	P	85	2	12	Qc	--	--
17N/01W-01Q01	P	38	2	5.5	Qva	--	--
17N/01W-01Q02	I	NA	16	15	Qva	465905	1224440
17N/01W-01Q04	P	38	2	5.5	Qva	--	--
17N/01W-02A03	P	75	1	12	TQu(UN)	--	--
17N/01W-02A04	P	210	1	30	TQu(UN)	--	--
17N/01W-02E04	P	150	2	22	TQu(UN)	--	--
17N/01W-02G02	J	NA	6	16	TQu(UN)	465930	1224550
17N/01W-02Q02	P	8	3	0.84	Qva	465905	1224605
17N/01W-02Q03	I	NA	?	110	Qva	--	--
17N/01W-02R02	I	NA	13	11	Qvr	--	--
17N/01W-02R02	I	NA	13	30	Qvt	--	--
17N/01W-02R02	I	NA	13	19	Qva	--	--
17N/01W-02R02	I	NA	13	15	Qc	--	--
17N/01W-03A04	I	NA	15	7.5	Qva	465945	1224710
17N/01W-03D01	I	NA	15	7.5	Qva	--	--
17N/01W-03E01	I	NA	?	110	Qvr	--	--
17N/01W-03E02	I	NA	?	110	Qvr	--	--
17N/01W-03Q01	I	NA	16	15	Qva	--	--
17N/01W-04A02	P	262	3	29	Qc	465936	1224813
17N/01W-04C01	I	NA	15	7.5	Qvr	465932	1224850
17N/01W-04D01	I	NA	15	7.5	Qvr	465932	1224911
17N/01W-04E01	I	NA	16	15	Qvr	--	--
17N/01W-04E02	CN	NA	1	390	Qva	--	--
17N/01W-04E02	P	9,459	1	1,200	Qva	--	--
17N/01W-04F01	I	NA	16	15	Qvr	--	--
17N/01W-04G01	I	NA	12	97	Qva	--	--
17N/01W-04G01	I	NA	12	97	Qc	--	--
17N/01W-05J02	I	NA	14	150	Qvr	465917	1224938
17N/01W-05K01	I	NA	16	15	TQu(UN)	465915	1224945
17N/01W-06C02	P	90	3	10	Qc	465943	1225123
17N/01W-06P01	N	NA	1	21	Qva	465906	1225121
17N/01W-07F02	P	92	2	13	Qc	--	--
17N/01W-07R02	I	NA	16	15	Qc	465814	1225038
17N/01W-08L03	P	45	3	5.0	Qc	465822	1225008
17N/01W-11K05	P	212	1	36	TQu(A1)	--	--
17N/01W-11M01	P	212	1	36	TQu(UN)	--	--

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geohydrologic unit	Latitude	Longitude
17N/01W-12B02	I	NA	?	61	Qva	--	--
17N/01W-12B02	I	NA	?	39	Qc	--	--
17N/01W-12B02	I	NA	?	8.7	Qvt	--	--
17N/01W-12C01	I	NA	?	110	Qva	--	--
17N/01W-12D02	I	NA	?	93	Qva	--	--
17N/01W-12D02	I	NA	?	15	Qc	--	--
17N/01W-12J02	P	210	1	30	Qc	--	--
17N/01W-15F02	P	140	2	20	Qc	--	--
17N/01W-28H01	P	188	2	27	Tb	--	--
17N/01W-29H01	P	95	2	14	Qvr	465600	1224931
17N/01W-30K01	I	NA	15	7.5	Qva	465550	1225110
17N/01W-32C01	P	125	2	18	Qc		
17N/01W-NEQT	P	745	4	83	Qva	465856	1224548
17N/01W-SEQT	P	39	4	4.4	Qc	465605	1224516
17N/01W-SWQT	P	821	4	92	Qva	465548	1225046
17N/02E-17L(4)	P	945	1	130	TQu(UN)	465733	1223457
17N/02E-18A01	P	28	3	3.1	TQu(UN)	465752	1223529
17N/02E-18B01	P	95	1	13	TQu(A1)	465754	1223548
17N/02E-18E03	I	NA	15	7.5	Qva	465740	1223630
17N/02E-19C04	N	NA	6	16	Qc	465700	1223610
17N/02E-19G02	I	NA	14	19	Qvr	465645	1223547
17N/02E-19H03	I	NA	16	15	Qva	--	--
17N/02E-19L01	N	NA	6	16	Qva	--	--
17N/02E-19M03	I	NA	16	15	Qc	--	--
17N/02E-19N01	P	838	1	150	Qva	--	--
17N/02E-19N01	N	NA	1	16	Qva	--	--
17N/02E-19N02	P	838	1	150	Qva	--	--
17N/02E-19R01	I	NA	14	30	Qvr	465622	1223526
17N/02E-19R02	I	NA	14	48	Qvr	465620	1223521
17N/02E-20N02	I	NA	16	15	Qvr	465620	1223515
17N/02E-28L03	N	NA	7	8	Qva	465540	1223340
17N/02E-28Q1&2	P	30	3	3.4	Qc	465529	1223316
17N/02E-29E03	I	NA	16	15	Qc	--	--
17N/02E-29L04	I	NA	16	15	Qva	--	--
17N/02E-29N01	I	NA	16	15	Qva	--	--
17N/02E-29P02	I	NA	16	15	Qva	--	--
17N/02E-29P03	I	NA	16	15	Qva	--	--
17N/02E-29Q01	I	NA	16	15	Qva	--	--
17N/02E-30A01	I	NA	16	15	Qvr	465610	1223530
17N/02E-30B01	I	NA	16	15	Qvr	465610	1223543

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geo-hydro-logic unit	Latitude	Longitude
17N/02E-30H03	I	NA	16	15	Qc	465600	1223530
17N/02E-31B01	P	25	3	2.8	Qc	465520	1223550
17N/02E-33D03	P	188	3	21	Qva	465516	1223354
17N/02E-33P01	I	NA	16	15	Qva	--	--
17N/02E-33R01	I	NA	16	15	Qva	--	--
17N/02E-NWQT	P	989	4	110	Qc	465744	1223600
17N/02E-SEQT	P	115	4	13	TQu(A1)	465451	1223149
17N/02E-SWQT	P	58	4	6.5	Qva	465553	1223447
17N/02W-02R01	P	37	1	8.8	Qva	--	--
17N/02W-02R02	P	37	1	8.8	Qva	--	--
17N/02W-02R03	P	55	1	7.1	Qva	--	--
17N/02W-04G01	P	65	3	7.3	Qvr	465923	1225609
17N/02W-04J02	P	17	3	1.9	Qva	465917	1225545
17N/02W-04L03	P	64	3	7.1	Qvr	465910	1225629
17N/02W-04M	P	123	1	16	Qc	465917	1225648
17N/02W-04P02	P	78	2	11	Qva	--	--
17N/02W-05AH(2)	P	183	1	27	Qva	465933	1225705
17N/02W-08E01	P	88	1	12	TQu(A1)	--	--
17N/02W-08H01	I	NA	16	15	Qva	465833	1225709
17N/02W-08H02	I	NA	16	15	Qva	465836	1225709
17N/02W-08J01D1	I	NA	16	15	Qva	465820	1225710
17N/02W-09A02	P	12	4	1.3	Qva	--	--
17N/02W-09B02	I	NA	15	7.5	Qva	465845	1225616
17N/02W-09C02	P	38	1	6.5	Qva	--	--
17N/02W-09E03	I	NA	16	15	Qva	--	--
17N/02W-09F03	I	NA	15	7.5	Qva	465837	1225621
17N/02W-09G02	P	40	2	5.8	Qva	--	--
17N/02W-09Q01	I	NA	13	38	Qva	--	--
17N/02W-10B01	N	NA	1	320	Qva	--	--
17N/02W-10B02	N	NA	1	320	Qva	--	--
17N/02W-11G09	C	NA	6	16	Qvr	--	--
17N/02W-11H01	I	NA	14	150	TQu(A1)	465829	1225309
17N/02W-11J01	C	NA	7	8	Qvr	--	--
17N/02W-11R01	I	NA	16	15	Qc	--	--
17N/02W-12L02	P	525	1	50	Qc	--	--
17N/02W-12N02	I	NA	16	15	TQu(A1)	465813	1225307
17N/02W-13Q02	P	198	2	29	Qvt	--	--
17N/02W-14M04	I	NA	14	5	Qva	465728	1225422
17N/02W-14N01	I	NA	16	15	Qva	465711	1225421
17N/02W-14Q01	P	50	2	7.3	Qva	--	--

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geo-hydro-logic unit	Latitude	Longitude
17N/02W-15C02	C	NA	7	8	Qva	--	--
17N/02W-15C03	C	NA	7	8	Qva	--	--
17N/02W-15D01	P	229	3	26	Qva	465752	1225529
17N/02W-15P01	I	NA	14	40	Qva	465717	1225531
17N/02W-15R01	I	NA	16	15	Qva	465717	1225431
17N/02W-16R01	I	NA	14	40	Qva	465713	1225555
17N/02W-17J01	I	NA	13	9.2	Qva	--	--
17N/02W-17R03	I	NA	13	9.2	Qva	--	--
17N/02W-17R04	I	NA	13	9.2	Qva	--	--
17N/02W-18H03	P	18	4	2.0	Qf	--	--
17N/02W-18K01	I	NA	16	15	Qva	465735	1225838
17N/02W-20B01	I	NA	14	24	Qvr	465708	1225732
17N/02W-20B02	I	NA	15	7.5	Qva	465709	1225721
17N/02W-20B05	I	NA	13	16	Qva	--	--
17N/02W-20B06	I	NA	13	16	Qva	--	--
17N/02W-20C/F	I	NA	13	6.2	Qva	465700	1225740
17N/02W-20G01	I	NA	13	16	Qva	465650	1225723
17N/02W-20G05	I	NA	13	16	Qva	465650	1225720
17N/02W-20G06	I	NA	13	16	Qva	465650	1225720
17N/02W-20H01	I	NA	13	10	Qva	465651	1225658
17N/02W-20H02	I	NA	13	16	Qva	--	--
17N/02W-20H03	I	NA	13	10	Qva	465650	1225710
17N/02W-22B04	P	128	2	19	Qva	--	--
17N/02W-22E02	C	NA	6	16	Qva	--	--
17N/02W-22E03	C	NA	6	16	Qvt	--	--
17N/02W-22J01	I	NA	14	16	Qva	465633	1225441
17N/02W-22J02	I	NA	15	7.5	Qva	465632	1225426
17N/02W-26F01	P	55	1	8.4	TQu(UN)	465600	1225400
17N/02W-27B01	I	NA	14	75	Qvr	465616	1225447
17N/02W-29L01	I	NA	16	15	Qvr	465547	1225748
17N/02W-30E02	P	88	3	9.8	Tb	--	--
17N/02W-30P02	I	NA	13	45	Qc	--	--
17N/02W-32C01	I	NA	16	15	Qvr	465523	1225738
17N/02W-32D01	I	NA	16	15	Qvr	465522	1225757
17N/02W-33K02	P	1,125	1	190	Qc	--	--
17N/02W-34J02	C	NA	7	8	Qc	--	--
17N/02W-NEQT	P	4,198	4	470	Qva	465801	1225403
17N/02W-NWQT	P	2,721	4	300	Qva	465826	1225707
17N/02W-SEQT	P	624	4	70	Qva	465645	1225417
17N/02W-SWQT	P	632	4	71	Qva	465605	1225751

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geo-hydro-logic unit	Latitude	Longitude
17N/03W-02J01	P	150	2	22	TQu(A1)	--	--
17N/03W-02J02	I	NA	16	15	TQu(A1)	--	--
17N/03W-02K04	P	126	1	29	Qva	--	--
17N/03W-02K05	P	126	1	29	Qva	--	--
17N/03W-12A02	P	243	1	28	Qc	--	--
17N/03W-12A03	P	243	1	28	Qc	--	--
17N/03W-12A04	P	243	1	28	Qc	--	--
17N/03W-25D01	P	62	2	9.1	Qc	--	--
17N/03W-35B01	I	NA	16	15	Qva	465520	1230115
17N/03W-35L01	I	NA	16	15	Qva	465450	1230130
17N/03W-NEQT	P	644	4	72	Qva	465832	1230104
17N/03W-SEQT	P	701	4	79	Qc	465551	1230059
18N/01E-05L01	I	NA	16	15	TQu(A1)	470420	1224230
18N/01E-06N01	P	18	4	2.0	Qc	--	--
18N/01E-07F01S	Q	NA	1	810	Qvr	--	--
18N/01E-07F02S	Q	NA	1	400	Qvr	--	--
18N/01E-08C	I	NA	13	92	Qc	470358	1224221
18N/01E-08D03	I	NA	12	2.8	Qc	--	--
18N/01E-08R01	I	NA	16	15	Qc	470323	1224150
18N/01E-09M01	CN	NA	1	0.2	Qc	--	--
18N/01E-09M01	P	273	1	81	Qc	--	--
18N/01E-09M02	CN	NA	1	2	Qc	--	--
18N/01E-09M02	P	27	1	7.9	Qc	--	--
18N/01E-17C08	N	NA	7	8	Qvr	470303	1224224
18N/01E-17M	I	NA	13	26	Qc	470250	1224250
18N/01E-17M	S	NA	1	0.12	Qc	470240	1224250
18N/01E-17Q01	C	NA	7	8	Qc	--	--
18N/01E-18A02	I	NA	13	27	Qc	--	--
18N/01E-18G01	Q	NA	1	180	Qc	--	--
18N/01E-18H01	I	NA	16	15	Qc	--	--
18N/01E-19Q01S	CN	NA	1	1,900	Qvr	--	--
18N/01E-19Q01S	P	28,833	1	5,600	Qvr	--	--
18N/01E-21N01	P	45	2	6.6	TQu(UN)	--	--
18N/01E-21P01	P	88	1	12	Qc	--	--
18N/01E-21P03	P	88	1	12	Qc	--	--
18N/01E-28M01	N	NA	1	37	Qc	--	--
18N/01E-28N01	P	15	4	1.7	Qc	--	--
18N/01E-30N01	P	74	1	11	Qc	--	--
18N/01E-30N02	P	74	1	11	Qc	--	--
18N/01E-31F01	P	5	4	0.56	Qc	--	--

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geohydrologic unit	Latitude	Longitude
18N/01E-31H02	P	12	4	1.3	Qc	--	--
18N/01E-31J01	P	25	2	3.6	Qc	--	--
18N/01E-31M01	P	65	1	9.9	Qc	--	--
18N/01E-31M02	P	65	1	9.9	Qc	--	--
18N/01E-31Q01D1	P	25	2	3.6	TQu(UN)	--	--
18N/01E-32H02	P	88	2	13	Qc	--	--
18N/01E-32N03	P	28	2	4.0	Qc	--	--
18N/01E-34F03	P	62	2	9.1	Qc	--	--
18N/01E-34F04	P	62	2	9.1	Qc	--	--
18N/01E-35N01S	Q	NA	3	5,800	Qc	--	--
18N/01E-NWQT	P	1,423	4	160	Qc	470345	1224400
18N/01W-01H02	P	83	1	12	Qc	--	--
18N/01W-02G02	N	NA	1	0.57	Qc	--	--
18N/01W-02H02	N	NA	1	56	TQu(A1)	--	--
18N/01W-02J01	N	NA	6	16	Qc	470430	1224540
18N/01W-03B02	P	168	2	24	Qva	--	--
18N/01W-03H02	P	110	2	16	Qc	--	--
18N/01W-06C01	I	NA	14	17	Qva	470455	1225125
18N/01W-07A07	P	10	4	1.1	Qva	470400	1225040
18N/01W-07H04	P	25	2	3.6	Qc	--	--
18N/01W-07P02	P	12	4	1.3	Qva	--	--
18N/01W-08K01	I	NA	14	38	Qva	470335	1224945
18N/01W-08L01	P	25	2	3.6	Qf	--	--
18N/01W-08L04	P	25	2	3.6	Qva	--	--
18N/01W-09G01	P	20	4	2.2	TQu(A1)	--	--
18N/01W-09K03	P	90	1	11	Qva	--	--
18N/01W-09K04	P	90	1	11	Qva	--	--
18N/01W-09K05	P	90	1	11	Qva	--	--
18N/01W-10F01	K	NA	8	120	Qf	--	--
18N/01W-11A01	N	NA	1	7.4	TQu(UN)	--	--
18N/01W-11L01	N	NA	6	16	Qc	470339	1224612
18N/01W-11P02	P	110	3	12	Qf	470319	1224617
18N/01W-11P05	C	NA	7	8	Qva	--	--
18N/01W-11Q01	P	150	3	17	Qva	470318	1224557
18N/01W-12F01	CN	NA	1	6	TQu(UN)	--	--
18N/01W-12F01	P	150	1	20	TQu(UN)	--	--
18N/01W-12L04	P	22	4	2.5	Qva	--	--
18N/01W-12M01D1	P	90	2	13	Qc	--	--
18N/01W-13A02	CN	NA	1	6	Qc	--	--
18N/01W-13A02	P	150	1	20	Qc	--	--

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geo-hydro-logic unit	Latitude	Longitude
18N/01W-13A03	CN	NA	1	12	Qc	--	--
18N/01W-13A03	P	279	1	35	Qc	--	--
18N/01W-13G02	P	495	1	44	Qc	--	--
18N/01W-13G03	P	255	1	23	Qc	--	--
18N/01W-13J01D1	P	378	1	55	TQu(UN)	--	--
18N/01W-13J03	P	378	1	55	TQu(A1)	--	--
18N/01W-13N01	P	222	1	26	Qc	--	--
18N/01W-14H04	I	NA	14	24	Qc	--	--
18N/01W-14H05	I	NA	16	15	Qva	470250	1224546
18N/01W-14R01	P	222	1	26	Qc	--	--
18N/01W-15D01S	Q	NA	1	4,500	Qvr	--	--
18N/01W-16A01S	P	-	1	320	Qvr	--	--
18N/01W-16Q03	I	NA	16	15	Qf	--	--
18N/01W-17H05	P	100	2	15	Qva	--	--
18N/01W-19F02	P	22	4	2.5	Qva	--	--
18N/01W-19H02	P	70	1	10	Qva	--	--
18N/01W-19K02	I	NA	14	24	Qva	470146	1225103
18N/01W-20A02	I	NA	14	16	Qvr	470216	1224922
18N/01W-20K01	I	NA	14	30	Qva	470157	1224945
18N/01W-20K02	I	NA	15	7.5	Qva	470157	1224944
18N/01W-21B04	P	312	1	56	Qva	--	--
18N/01W-21B06	CN	NA	1	0.008	TQu(UN)	--	--
18N/01W-21B06	P	0	1	.023	TQu(UN)	--	--
18N/01W-21H01	I	NA	16	15	Qc	470202	1224805
18N/01W-21P02D1	CN	NA	1	0.6	Qc	--	--
18N/01W-21P02D1	CN	NA	1	0.6	TQu(UN)	--	--
18N/01W-21P02D1	P	11	1	1.6	Qc	--	--
18N/01W-21P02D1	P	11	1	1.6	TQu(UN)	--	--
18N/01W-22K/L	S	NA	3	6.1	Qva	470145	1224720
18N/01W-24A02	P	378	1	55	TQu(UN)	--	--
18N/01W-24A03	P	378	1	55	Qva	--	--
18N/01W-25B01	P	150	1	22	Qc	--	--
18N/01W-25P02	I	NA	16	15	Qva	470050	1224501
18N/01W-26F01	I	NA	15	7.5	Qva	470111	1224615
18N/01W-26G01	P	118	2	17	Qva	--	--
18N/01W-27M01	I	NA	16	15	Qvr	470055	1224743
18N/01W-28E01	CN	NA	1	50	Qc	--	--
18N/01W-28E01	P	1,223	1	150	Qc	--	--
18N/01W-28M01	CN	NA	1	120	Qc	--	--
18N/01W-28M01	P	2,853	1	360	Qc	--	--

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geo-hydro-logic unit	Latitude	Longitude
18N/01W-28M02	CN	NA	1	48	Qc	--	--
18N/01W-28M02	P	1,158	1	140	Qc	--	--
18N/01W-30A01	CN	NA	1	46	TQu(UN)	--	--
18N/01W-30A01	P	651	1	140	TQu(UN)	--	--
18N/01W-30L02	P	125	2	18	Qva	--	--
18N/01W-31N02	I	NA	16	15	Qva	465957	1225146
18N/01W-31Q02	I	NA	14	24	Qva	465948	1225111
18N/01W-31R02	P	588	3	66	Qc	--	--
18N/01W-31R03	I	NA	16	15	Qc	465950	1225040
18N/01W-31SE1D1	I	NA	16	15	TQu(A1)	470000	1225050
18N/01W-32P01	CN	NA	1	120	Qvr	--	--
18N/01W-32P01	P	1,716	1	360	Qvr	--	--
18N/01W-32P04	CN	NA	1	160	Qvr	--	--
18N/01W-32P04	P	858	1	180	Qvr	--	--
18N/01W-33B01	I	NA	12	5.1	Qva	--	--
18N/01W-33N01	CN	NA	1	16	TQu(A1)	--	--
18N/01W-33N01	P	386	1	49	TQu(UN)	--	--
18N/01W-33P01	CN	NA	1	240	Qc	--	--
18N/01W-33P01	P	5,770	1	720	Qc	--	--
18N/01W-33SE1	I	NA	15	7.5	Qvr	470000	1224820
18N/01W-34F02	I	NA	15	7.5	Qvr	470018	1224743
18N/01W-34M02	I	NA	15	7.5	Qva	470007	1224745
18N/01W-34Q01	P	25	2	3.6	Qva	--	--
18N/01W-35B02	P	45	2	6.6	Qva	--	--
18N/01W-36J01	P	308	1	39	TQu(A1)	--	--
18N/01W-36N01	P	210	1	30	Qc	--	--
18N/01W-36N02	P	210	1	30	Qc	--	--
18N/01W-NEQT	P	8,704	4	980	Qc	470407	1224645
18N/01W-NWQT	P	4,962	4	560	Qva	470354	1224936
18N/02W-02C01	I	NA	15	7.5	Qc	470452	1225352
18N/02W-03	I	NA	16	15	TQu(UN)	470430	1225520
18N/02W-05D03	P	40	1	3.7	Qva	--	--
18N/02W-04F02	P	94	3	10	TQu(A1)	--	--
18N/02W-06N01	P	12	4	1.3	Qc	--	--
18N/02W-09D02	P	42	2	6.2	Qvt	--	--
18N/02W-07D01	P	20	1	1.0	Qc	--	--
18N/02W-07M01	P	10	4	1.1	Qc	470340	1225910
18N/02W-12G05	N	NA	5	410	Qc	--	--
18N/02W-14E01	N	NA	7	8	TQu(UN)	470258	1225407
18N/02W-14E02	N	NA	7	8	TQu(UN)	470255	1225408

Table B3. Water-use data—Continued

Site identifier	Type of water use	Popula-tion served	Method	Use (acre-feet per year)	Geo-hydro-logic unit	Latitude	Longitude
18N/02W-17B02	P	62	2	9.1	Qva	--	--
18N/02W-17B03	P	62	2	9.1	Qva	--	--
18N/02W-17B04	CN	NA	1	38	Qva	--	--
18N/02W-17B04	P	543	1	110	Qva	--	--
18N/02W-17C04	P	20	4	2.2	Qva	470310	1225744
18N/02W-17H02	I	NA	15	7.5	Qva	--	--
18N/02W-17H03	I	NA	15	7.5	Qva	--	--
18N/02W-18L01S	Q	NA	2	2,200	Qva	--	--
18N/02W-26	I	NA	13	20	Qva	470110	1225350
18N/02W-26L01	I	NA	16	15	Qc	470100	1225356
18N/02W-31P02	P	110	2	16	Qc	--	--
18N/02W-31P03	P	70	2	10	Qc	--	--
18N/02W-31Q01	P	4	3	0.50	Qc	465956	1225848
18N/02W-32N01	P	37	3	4.1	Qc	465955	1225800
18N/02W-34N01	I	NA	15	7.5	Qvr	465948	1225521
18N/02W-35B02	N	NA	1	365	Qc	--	--
18N/02W-35B04	N	NA	1	291	Qc	--	--
18N/02W-35B04	N	NA	1	74	Qc	--	--
18N/02W-35B05	N	NA	1	365	Qc	--	--
18N/02W-35F06	N	NA	1	251	Qf	--	--
18N/02W-35F06	N	NA	1	114	Qc	--	--
18N/02W-35F08	N	NA	1	365	Qva	--	--
18N/02W-35F11	N	NA	1	365	Qva		--
18N/02W-35F12	N	NA	1	365	Qva	--	--
18N/02W-35K01	I	NA	16	15	TQu(UN)	--	--
18N/02W-35K02	I	NA	16	15	TQu(UN)	--	--
18N/02W-35K03	N	NA	1	365	TQu(A1)	--	--
18N/02W-35M01	P	934	1	140	Qva	--	--
18N/02W-35M02	P	934	1	140	Qva	--	--
18N/02W-35M03	P	934	1	140	Qva	--	--
18N/02W-35M04	P	934	1	140	Qva	--	--
18N/02W-35M05	P	934	1	140	Qva	--	--
18N/02W-35M06	P	934	1	140	Qva	--	--
18N/02W-35M08	P	934	1	140	Qva	--	--
18N/02W-36D01	I	NA	12	240	Qc	--	--
18N/02W-NWQT	P	4,510	4	510	Qva	470359	1225714
18N/02W-SWQT	P	3,285	4	370	Qva	470110	1225705
18N/03W-02G01	P	68	3	7.6	Qva	470445	1230110
18N/03W-02H02	P	38	2	5.5	Qc	--	--
18N/03W-12H01	P	15	1	1.6	TQu(A1)	--	--

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geo-hydro-logic unit	Latitude	Longitude
18N/03W-12H03	P	15	1	1.6	Qva	--	--
18N/03W-14G01	P	8	4	0.84	Qva	470250	1230110
18N/03W-24H02	P	18	4	2.0	Qc	--	--
18N/03W-36R(2)	P	195	1	28	Qc	465950	1225935
18N/03W-NEQT	P	753	4	84	Qc	470315	1230021
18N/03W-SEQT	P	350	4	39	Qc	470105	1230016
19N/01E-30E01	C	NA	5	21	Qc	--	--
19N/01E-SWQT	P	100	4	11	TQu(A1)	470533	1224402
19N/01W-04D03	P	155	2	23	Qc	--	--
19N/01W-07A01	P	43	1	5.2	Qc	--	--
19N/01W-07R01	P	20	4	2.2	TQu(UN)	--	--
19N/01W-16L02	P	10	4	1.1	Qc	470800	1224850
19N/01W-20G01	P	42	2	5.7	Qc	--	--
19N/01W-20L01	P	28	2	4.0	TQu(UN)	--	--
19N/01W-23N01	P	15	4	1.7	Qva	--	--
19N/01W-25P01	P	750	1	74	Qva	--	--
19N/01W-25P02	P	750	1	23	Qva	--	--
19N/01W-27A01	P	42	2	6.2	Qva	--	--
19N/01W-27N02	P	67	1	11	Qva	--	--
19N/01W-28L03	P	15	3	1.7	TQu(A1)	470613	1224846
19N/01W-29A02	P	28	3	3.0	Qc	470637	1224922
19N/01W-29B02	P	28	3	3.0	Qc	470637	1224948
19N/01W-31H02	I	NA	15	7.5	Qva	470533	1225036
19N/01W-31K04	P	28	1	3.9	Qvt	--	--
19N/01W-33K03	P	67	1	11	Qva	--	--
19N/01W-33K04	P	67	1	11	Qc	--	--
19N/01W-34B01	P	108	2	16	Qva	--	--
19N/01W-34Q01	P	240	3	27	Qva	470505	1224710
19N/01W-NEQT	P	116	4	13	Qc	470815	1224746
19N/01W-NWQT	P	786	4	88	Qc	470855	1224843
19N/01W-SWQT	P	1,408	4	160	Qc	470612	1225002
19N/02W-08C02	P	50	2	7.3	TQu(A1)	--	--
19N/02W-09G01	P	45	2	6.6	TQu(A1)	--	--
19N/02W-09H01	P	45	2	6.6	TQu(A1)	[--	--
19N/02W-09R01	P	75	2	11	TQu(UN)	--	--
19N/02W-12H01	P	74	3	8.3	Qc	470900	1225200
19N/02W-12N03	I	NA	16	15	Qc	470832	1225258
19N/02W-14H03	P	450	1	73	Qvt	--	--
19N/02W-16A01	P	100	2	15	TQu(UN)	--	--
19N/02W-16K02D1	P	42	2	6.2	TQu(UN)	--	--

Table B3. Water-use data—Continued

Site identifier	Type of water use	Population served	Method	Use (acre-feet per year)	Geo-hydro-logic unit	Latitude	Longitude
19N/02W-20E02	P	18	4	2.0	TQu(A1)	--	--
19N/02W-21J02	P	100	3	11	TQu(A1)	470705	1225611
19N/02W-21R02	P	18	4	2.0	Qc	--	--
19N/02W-22D02	P	200	2	29	TQu(A1)	--	--
19N/02W-22M03	P	45	3	5.0	Qc	470701	1225523
19N/02W-22M06	P	68	2	9.8	TQu(UN)1	--	--
19N/02W-25P	N	NA	1	0.3	Qc	470550	1225234
19N/02W-25P(2)	P	95	1	6.4	Qc	470558	1225242
19N/02W-26Q05	P	275	1	13	TQu(UN)	--	--
19N/02W-28J01	P	28	2	4.0	TQu(UN)	--	--
19N/02W-30L03	P	50	2	7.3	TQu(A1)	--	--
19N/02W-32H03	P	35	1	6.4	Qc	--	--
19N/02W-33B01	P	81	3	9.1	TQu(A1)	470550	1225610
19N/02W-33G01	N	NA	6	16	Qc	470528	1225607
19N/02W-33Q01	P	411	3	46	TQu(UN)	--	--
19N/02W-33Q03	P	125	2	18	TQu(UN)	--	--
19N/02W-NEQT	P	666	4	75	Qc	470838	1225235
19N/02W-NWQT	P	723	4	81	TQu(UN)	470908	1225655
19N/02W-SEQT	P	1,433	4	160	Qc	470639	1225226
19N/02W-SWQT	P	1,362	4	150	Qc	470649	1225850
19N/03W-12Q01	P	32	2	4.7	TQu(A1)	--	--
19N/03W-13Q01	I	NA	16	15	TQu(A1)	470743	1225959
19N/03W-26J01	I	NA	16	15	Qc	470610	1230045
19N/03W-27E03	P	94	3	11	Qc	--	--
19N/03W-27L01	I	NA	14	60	TQu(A1)	--	--
19N/03W-34K01	P	80	2	12	Qc	--	--
19N/03W-34K02	P	80	2	12	Qc	--	--
19N/03W-NEQT	P	36	4	4.0	Qc	470820	1225945
19N/03W-SEQT	P	784	4	88	Qc	470603	1230044
19N/03W-SWQT	P	66	4	7.4	Qc	470611	1230339
20N/01W-SWQT	P	158	4	18	Qc	471022	1224901
20N/02W-28P01	P	32	2	4.7	TQu(A1)	--	--
20N/02W-33Q01	P	150	1	34	TQu(UN)	--	--
20N/02W-33Q02	P	150	1	34	TQu(UN)	--	--
20N/02W-SEQT	P	889		100	TQu(UN)	471023	1225544

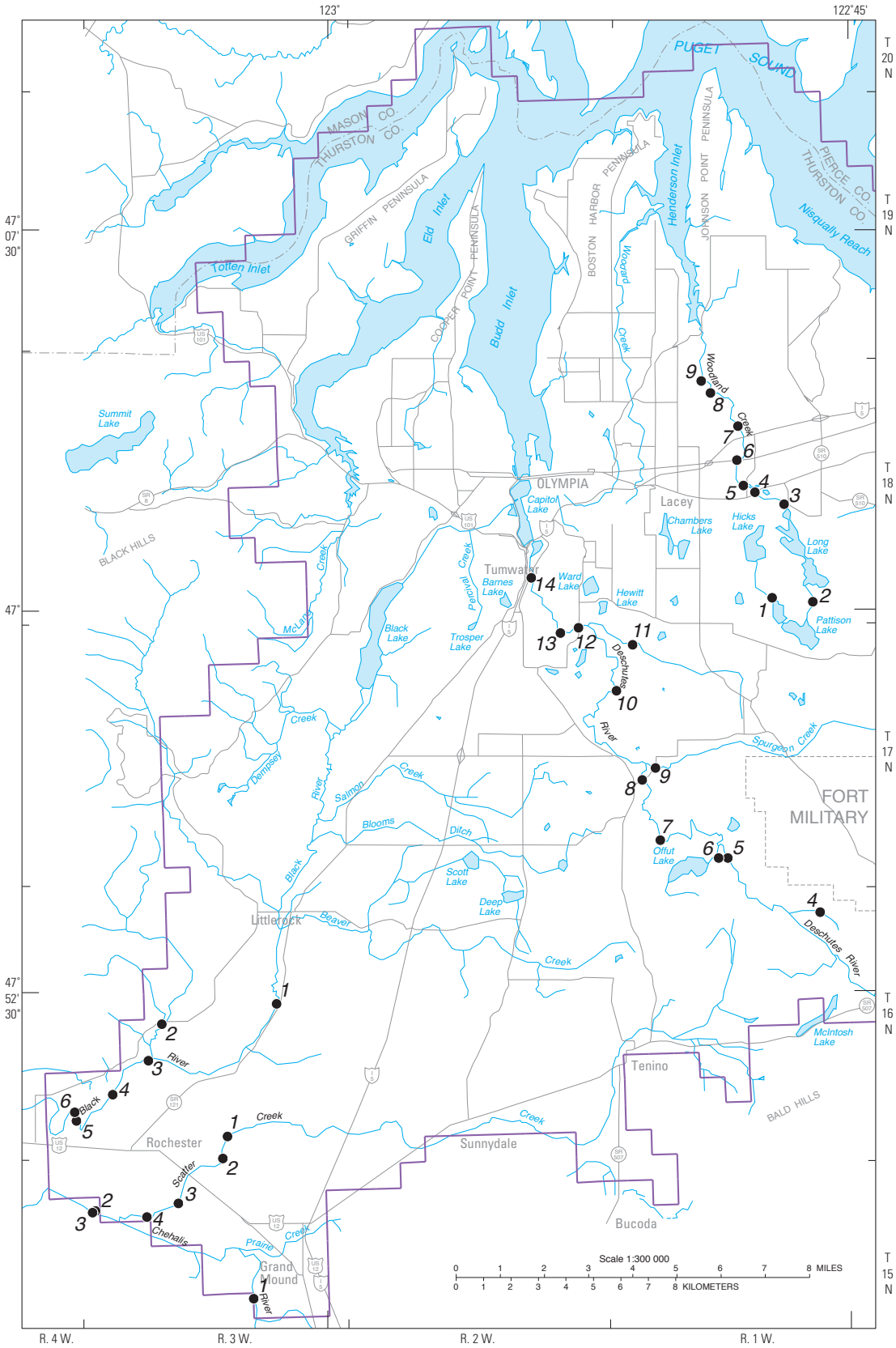

Figure B1. Seepage study sites in the study area.

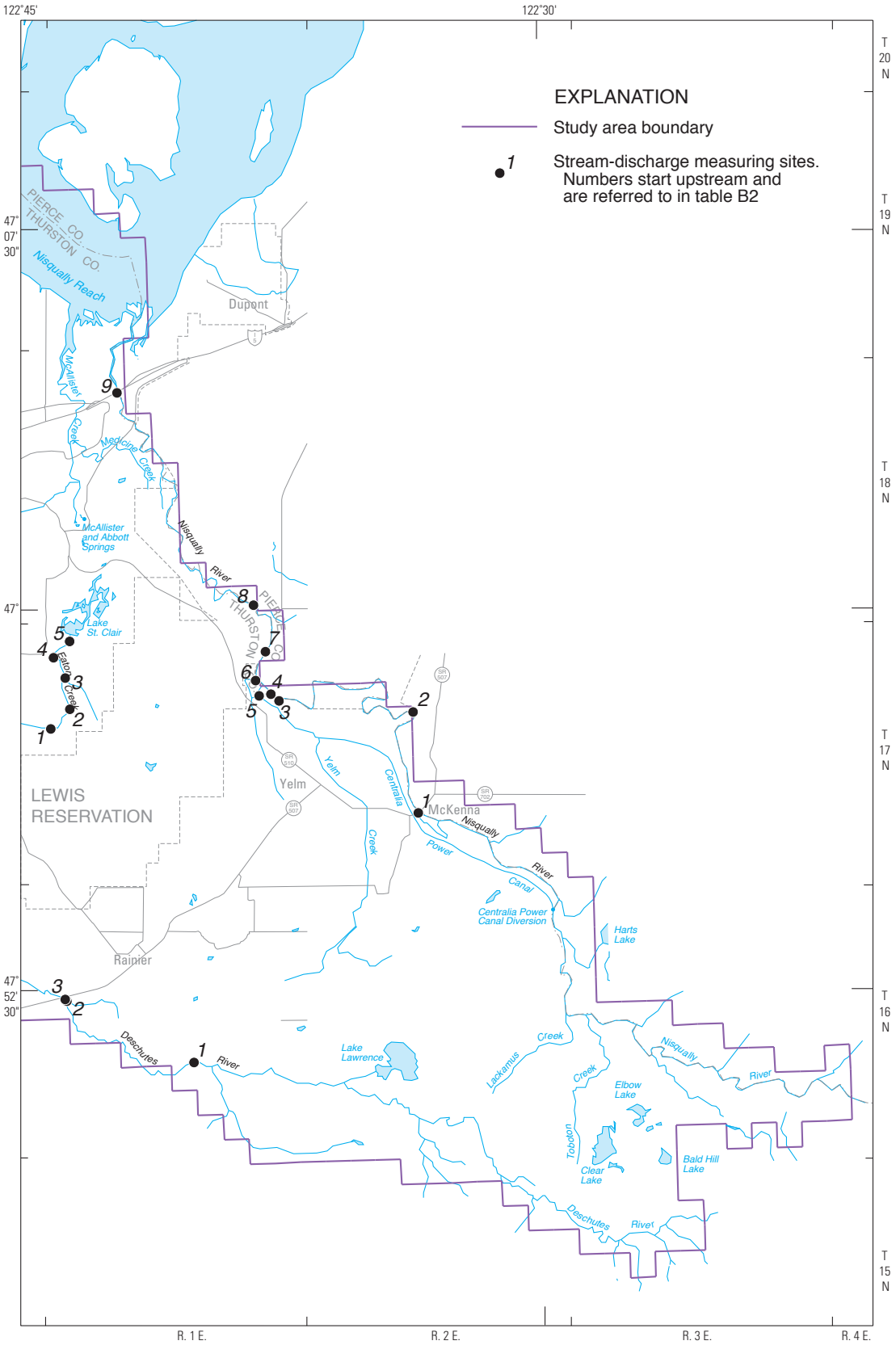

Figure B1. continued.

APPENDIX C. Specified Head Values and Drain- and River-Cell Input Values Used in the Calibrated Steady-State Model

Table C1. Specified-head values used in the calibrated steady-state model

		Specified-head (feet)							
Row	Column	Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Layer 6	Layer 7	Layer 9
43	1	88	87	86	85	84	83	82	81
44	1	89	88	87	86	85	84	83	82
44	18	224	223	222	221	220	219	218	216
45	1	95	94	93	92	91	90	89	88
45	18	224	223	222	221	220	219	218	216
46	1	100	99	98	97	96	95	94	93
47	1	102	101	100	99	98	97	96	95
52	9	142	141	140	139	138	137	136	135
52	10	144	143	142	141	140	139	138	137
52	11	146	145	144	143	142	141	140	139

Table C2. Drain-cell locations, altitudes, and conductances used in the calibrated steady-state model

Layer	Row	Column	Altitude (feet)	Conductance (square feet per day)	Layer	Row	Column	Altitude (feet)	Conductance (square feet per day)
1	14	27	78.00	3,000	1	29	43	270.00	3,000
1	16	11	125.00	3,000	1	29	44	270.00	30,000
1	16	12	15.00	3,000	1	29	45	270.00	30,000
1	16	27	70.00	3,000	1	29	46	270.00	3,000
1	17	13	136.00	3,000	1	30	29	235.00	3,000
1	18	12	47.00	3,000	1	30	30	205.00	3,000
1	18	14	66.00	3,000	1	30	31	205.00	3,000
1	18	35	100.00	100,000	1	30	32	207.00	3,000
1	19	12	114.00	3,000	1	30	33	215.00	3,000
1	19	14	110.00	3,000	1	30	34	210.00	3,000
1	19	29	75.00	7,500	1	30	44	280.00	3,000
1	19	35	95.00	100,000	1	30	47	230.00	3,000
1	19	37	7.00	100,000	1	31	26	195.00	3,000
1	20	13	15.00	3,000	1	31	45	300.00	3,000
1	20	36	7.00	100,000	1	31	46	310.00	30,000
1	20	38	7.00	100,000	1	31	48	266.00	3,000
1	21	13	20.50	3,000	1	32	48	299.00	3,000
1	21	19	169.00	3,000	1	33	48	309.00	3,000
1	21	20	117.00	3,000	1	34	49	304.00	30,000
1	21	21	87.00	3,000	1	35	50	357.00	3,000
1	21	35	25.00	100,000	1	36	50	349.00	3,000
1	21	36	22.00	100,000	1	37	47	380.00	3,000
1	21	38	10.00	200,000	1	37	52	427.00	3,000
1	22	13	25.00	3,000	1	38	32	295.00	3,000
1	22	20	67.00	3,000	1	41	36	320.00	30,000
1	22	35	25.00	100,000	1	43	54	437.00	3,000
1	22	36	30.00	50,000	1	43	55	444.00	3,000
1	22	39	25.00	200,000	1	43	57	391.00	3,000
1	23	13	110.00	3,000	1	44	7	190.00	3,000
1	23	26	188.00	3,000	1	44	56	390.00	30,000
1	23	39	35.00	200,000	1	44	58	389.00	3,000
1	24	13	170.00	3,000	1	45	17	213.00	3,000
1	24	25	199.00	3,000	1	45	59	527.00	3,000
1	24	30	165.00	30,000	1	45	60	453.00	3,000
1	24	40	65.00	100,000	1	46	61	563.00	3,000
1	25	25	186.00	3,000	1	46	62	613.00	3,000
1	25	40	90.00	100,000	1	46	63	620.00	3,000
1	26	21	156.00	3,000	1	46	64	628.00	3,000
1	26	25	172.00	3,000	1	46	65	675.00	3,000
1	26	41	120.00	100,000	1	48	4	120.00	3,000
1	26	42	120.00	100,000	1	48	6	140.00	3,000
1	27	35	75.00	20,000	2	12	33	125.00	280
1	27	42	165.00	100,000	2	37	50	445.00	280
1	28	35	185.00	3,000	3	6	29	30.00	6,200
1	28	42	169.00	100,000	3	7	15	31.00	6,000
1	29	35	205.00	3,000	3	8	16	75.00	6,000

Table C2. Drain-cell locations, altitudes, and conductances used in the calibrated steady-state model—Continued

Layer	Row	Column	Altitude (feet)	Conductance (square feet per day)	Layer	Row	Column	Altitude (feet)	Conductance (square feet per day)
3	9	16	43.00	6,000	3	29	46	245.00	6,200
3	9	30	73.00	6,200	3	30	44	255.00	6,200
3	10	16	55.00	6,000	3	30	47	220.00	6,200
3	10	30	71.00	6,200	3	31	45	286.00	6,200
3	11	31	81.00	6,200	3	31	46	285.00	62,000
3	12	18	10.00	1,080	3	31	48	259.00	6,200
3	13	14	15.00	6,000	3	32	48	289.00	6,200
3	13	34	85.00	6,200	3	33	48	291.00	6,200
3	14	12	52.00	6,000	3	34	49	300.00	62,000
3	14	35	95.00	800	3	35	50	316.00	6,200
3	15	11	117.00	6,000	3	36	50	310.00	6,200
3	15	35	105.00	800	3	37	51	374.00	6,200
3	16	11	118.00	1,080	3	37	52	402.00	6,200
3	16	35	105.00	800	3	37	53	414.00	6,200
3	17	11	246.00	1,080	3	38	54	365.00	6,200
3	17	19	45.00	1,080	3	43	54	417.00	6,200
3	17	35	105.00	800	3	43	55	424.00	6,200
3	18	12	27.00	1,080	3	43	57	389.00	6,200
3	18	14	30.00	1,080	3	44	56	366.00	62,000
3	18	20	51.00	1,080	3	44	58	388.00	6,200
3	18	35	95.00	8,000	3	45	59	462.00	6,200
3	19	14	10.00	10,800	3	45	60	451.00	6,200
3	19	20	59.00	1,080	3	45	61	448.00	6,200
3	19	35	90.00	8,000	3	45	62	473.00	6,200
3	20	13	8.50	1,080	3	45	63	490.00	6,200
3	20	14	0.00	1,080	3	45	64	491.00	6,200
3	20	20	64.00	1,080	3	45	65	491.00	6,200
3	20	35	40.00	8,000	5	2	18	1.10	88,400
3	21	19	105.00	1,080	5	3	18	0.00	5,000
3	21	20	80.00	1,080	5	3	19	0.55	274,000
3	21	35	10.00	8,000	5	3	28	0.55	288,000
3	21	36	2.00	6,200	5	4	18	0.00	5,000
3	21	38	5.00	124,000	5	4	20	0.55	29,900
3	22	35	13.00	31,000	5	4	28	0.00	5,000
3	22	36	10.00	15,500	5	4	29	0.55	328,000
3	22	39	15.00	124,000	5	5	17	2.00	5,000
3	23	39	25.00	124,000	5	5	20	0.33	231,000
3	24	40	50.00	124,000	5	5	25	0.00	5,000
3	25	40	70.00	124,000	5	5	26	0.33	675,000
3	26	41	100.00	62,000	5	5	27	0.55	865,000
3	26	42	100.00	62,000	5	5	28	0.00	5,000
3	27	42	150.00	62,000	5	5	29	0.33	180,000
3	28	42	155.00	62,000	5	5	30	0.33	55,800
3	29	43	245.00	6,200	5	6	14	0.33	334,000
3	29	44	245.00	62,000	5	6	23	0.55	176,000
3	29	45	245.00	62,000	5	6	24	0.00	5,000

Table C2. Drain-cell locations, altitudes, and conductances used in the calibrated steady-state model—Continued

Layer	Row	Column	Altitude (feet)	Conductance (square feet per day)	Layer	Row	Column	Altitude (feet)	Conductance (square feet per day)
5	6	26	0.00	5,000	5	11	11	0.00	5,200
5	6	29	0.00	5,000	5	11	16	5.00	1,180
5	6	30	0.55	307,000	5	11	17	0.55	22,500,000
5	7	12	0.33	8,440,000	5	11	18	11.0	1,180
5	7	13	5.00	5,200	5	11	19	0.55	196,000
5	7	14	0.00	5,200	5	11	20	0.55	472,000
5	7	22	0.33	88,000	5	11	21	0.55	232,000
5	7	23	0.00	5,000	5	11	27	0.00	5,000
5	7	26	0.00	5,000	5	11	33	0.55	134,000
5	7	27	0.33	533,000	5	11	34	0.22	69,600
5	7	29	0.00	5,000	5	11	37	3.30	48,200
5	7	30	0.55	129,000	5	11	38	3.30	50,700
5	7	31	1.10	66,500	5	12	14	0.00	1,180
5	8	12	0.55	873,000	5	12	15	0.00	1,180
5	8	13	0.00	5,200	5	12	16	0.00	1,180
5	8	18	0.55	310,000	5	12	17	1.10	128,000
5	8	19	0.00	5,000	5	12	18	0.00	1,180
5	8	20	1.10	200,000	5	12	19	0.55	140,000
5	8	21	0.55	128,000	5	12	20	0.77	685,000
5	8	22	0.00	5,000	5	12	21	0.55	726,000
5	8	25	0.00	5,000	5	12	22	0.00	5,000
5	8	26	0.22	456,000	5	12	33	0.00	1,180
5	8	27	0.22	1,780,000	5	12	34	0.22	472,000
5	8	31	0.55	248,000	5	12	35	0.22	2,050,000
5	9	12	0.22	912,000	5	12	36	0.22	533,000
5	9	13	0.00	1,180	5	12	37	1.10	244,000
5	9	17	0.55	163,000	5	12	38	1.10	164,000
5	9	18	0.00	5,000	5	13	14	0.33	1,320,000
5	9	19	1.10	375,000	5	13	15	0.55	436,000
5	9	20	1.10	424,000	5	13	16	0.55	1,060,000
5	9	21	0.00	5,000	5	13	19	0.55	145,000
5	9	25	0.00	5,000	5	13	20	0.55	665,000
5	9	26	0.22	218,000	5	13	21	0.55	767,000
5	9	27	0.00	1,180	5	13	22	0.00	5,000
5	10	10	0.22	767,000	5	13	36	0.33	2,010,000
5	10	11	0.22	730,000	5	13	37	0.33	16,900,000
5	10	12	0.00	1,180	5	14	14	0.33	27,000,000
5	10	18	0.00	1,180	5	14	19	0.33	675,000
5	10	19	0.55	150,000	5	14	20	0.55	978,000
5	10	20	0.55	435,000	5	15	12	0.33	20,300,000
5	10	21	0.55	163,000	5	15	13	0.33	964,000
5	10	27	0.00	5,000	5	15	19	0.55	425,000
5	10	33	0.55	266,000	5	15	20	0.33	813,000
5	11	8	0.00	5,200	5	15	21	0.22	208,000
5	11	9	0.00	5,200	5	16	12	0.00	5,200
5	11	10	0.22	504,000	5	16	20	0.44	328,000

Table C2. Drain-cell locations, altitudes, and conductances used in the calibrated steady-state model—Continued

Layer	Row	Column	Altitude (feet)	Conductance (square feet per day)	Layer	Row	Column	Altitude (feet)	Conductance (square feet per day)
5	16	21	0.00	1,180	6	5	29	1.10	907
5	17	12	0.00	5,200	6	5	30	1.10	344
5	17	19	5.00	1,180	6	6	13	0.55	10,300
5	17	20	0.55	177,000	6	6	14	0.55	4,440
5	17	21	5.00	1,180	6	6	15	0.55	3,750
5	17	35	0.00	1,180	6	6	16	0.55	1,790
5	18	12	3.00	5,200	6	6	19	1.10	2,020
5	18	20	22.00	5,200	6	6	20	1.65	846
5	18	35	0.00	11,800	6	6	23	1.65	926
5	19	12	40.0	5,200	6	6	24	1.65	798
5	21	36	0.00	11,000	6	6	27	0.55	2,680
5	21	38	0.00	110,000	6	6	30	1.10	357
5	20	36	0.00	11,000	6	7	12	0.55	113,000
5	20	38	0.00	110,000	6	7	13	0.55	45,000
5	22	35	6.50	100,000	6	7	15	0.33	3,210
5	22	36	6.60	55,000	6	7	18	1.10	2,670
5	25	40	50.00	220,000	6	7	19	1.10	1,570
5	26	41	75.00	220,000	6	7	20	1.65	3,080
5	26	42	50.00	220,000	6	7	21	1.10	718
5	27	42	100.00	110,000	6	7	22	1.10	1,800
5	28	42	100.00	110,000	6	7	27	0.55	1,210
5	29	43	148.00	940	6	7	30	1.10	358
5	29	44	145.00	940	6	7	31	1.65	342
5	29	45	155.00	940	6	8	12	0.55	20,500
5	29	46	195.00	940	6	8	17	1.10	3,210
5	30	47	195.00	940	6	8	18	1.65	1,990
5	31	48	233.50	940	6	8	19	1.65	1,270
6	2	17	1.10	22,500	6	8	20	1.10	3,210
6	2	18	1.65	889	6	8	26	0.44	696
6	3	17	1.65	2,090	6	8	27	0.44	1,720
6	3	18	1.10	875	6	8	31	1.65	846
6	3	19	0.55	1,170	6	9	16	0.55	896
6	3	28	1.10	915	6	9	17	0.55	1,470
6	4	16	1.10	879	6	9	20	1.65	758
6	4	17	1.10	1,130	6	9	26	0.44	815
6	4	20	1.10	879	6	9	27	0.33	1,640
6	4	26	1.10	2,570	6	9	31	1.65	2,640
6	4	27	1.10	4,000	6	9	32	1.65	549
6	4	29	1.10	872	6	10	16	0.55	1,800
6	5	15	0.55	4,290	6	10	17	0.55	2,300
6	5	16	1.10	2,280	6	10	27	0.44	840
6	5	17	1.10	1,010	6	10	31	0.33	900
6	5	20	1.10	856	6	10	32	1.10	2,510
6	5	25	1.10	728	6	10	33	1.65	911
6	5	26	0.77	547	6	10	34	1.10	360
6	5	27	0.77	825	6	11	16	0.55	1,800

Table C2. Drain-cell locations, altitudes, and conductances used in the calibrated steady-state model—Continued

Layer	Row	Column	Altitude (feet)	Conductance (square feet per day)	Layer	Row	Column	Altitude (feet)	Conductance (square feet per day)
6	11	17	0.55	1,790	7	11	37	4.40	11,300,000
6	11	27	0.33	1,150	7	11	38	4.40	315,000
6	11	33	1.10	949	8	3	28	3.30	252,000
6	11	34	0.55	2,890	8	3	29	4.95	296,000
6	11	35	0.55	1,340	8	3	30	6.05	296,000
6	11	36	1.10	2,370	8	4	26	2.75	251,000
6	11	37	3.85	2,500	8	4	29	4.40	268,000
6	11	38	3.85	865	8	4	30	6.05	296,000
6	12	27	0.33	2,500	8	4	31	6.60	297,000
6	12	34	0.33	603	8	5	21	1.65	204,000
6	12	35	0.33	962	8	5	22	1.10	204,000
6	12	36	0.33	821	8	5	30	4.40	297,000
7	2	17	1.65	175,000	8	5	31	6.60	297,000
7	2	19	0.55	877,000	8	5	32	4.40	297,000
7	3	17	2.20	456,000	8	6	21	3.30	160,000
7	3	28	1.65	281,000	8	6	22	3.30	205,000
7	4	16	1.65	641,000	8	6	30	4.40	252,000
7	4	17	1.65	577,000	8	6	31	5.50	296,000
7	4	26	1.10	111,000	8	6	32	5.50	294,000
7	4	29	1.10	288,000	8	7	20	2.75	159,000
7	5	16	1.65	33,800,000	8	7	21	3.30	163,000
7	5	20	2.20	649,000	8	7	22	3.30	162,000
7	5	21	1.65	407,000	8	7	30	3.30	250,000
7	5	23	1.65	1,520,000	8	7	31	4.40	248,000
7	5	24	1.65	295,000	8	7	32	4.40	279,000
7	5	25	2.20	74,800	8	7	33	4.95	293,000
7	5	29	1.65	279,000	8	8	31	3.85	248,000
7	5	30	1.65	112,000	8	8	32	4.40	248,000
7	6	20	2.20	744,000	8	8	33	4.40	250,000
7	6	21	2.20	151,000	8	8	34	4.40	251,000
7	6	22	2.20	233,000	8	9	31	2.75	249,000
7	6	23	2.20	310,000	8	9	32	3.30	251,000
7	6	30	2.20	54,400	8	9	33	3.85	251,000
7	7	20	2.20	157,000	8	9	34	3.85	251,000
7	7	21	2.20	126,000	8	9	35	3.85	252,000
7	7	22	1.65	91,800	8	9	36	3.85	248,000
7	7	30	2.20	112,000	8	10	32	2.20	252,000
7	7	31	2.20	110,000	8	10	33	3.30	251,000
7	8	31	2.20	304,000	8	10	34	3.30	251,000
7	9	31	2.20	175,000	8	10	35	2.20	252,000
7	9	32	2.20	118,000	8	10	36	2.75	247,000
7	10	32	1.65	176,000	8	10	37	1.10	238,000
7	10	33	2.20	270,000	8	11	34	2.20	252,000
7	10	34	2.20	157,000	8	11	35	2.75	254,000
7	11	34	1.65	99,300	8	11	36	3.30	246,000
7	11	35	1.65	287,000	8	11	37	4.40	239,000
7	11	36	2.20	367,000	8	11	38	4.40	230,000

Table C3. River-cell locations, stages, conductances,and bottom altitudes used in the calibrated steady-state model--Cont.

Layer	Row	Column	Stage (feet)	Altitude (feet)	Conductance (square feet per day)
1	14	24	105.0	753.9	104
1	14	28	10.0	1,517.0	9
1	15	24	122.0	500.4	121
1	15	25	124.0	364.3	123
1	15	27	15.0	1,641.0	14
1	16	24	128.0	267.5	127
1	16	25	129.0	466.9	128
1	16	28	38.0	1,856.0	37
1	17	25	132.0	861.1	131
1	17	29	55.0	1,556.0	54
1	18	25	138.0	757.4	137
1	18	29	71.00	1,681.0	70
1	19	25	145.0	820.4	144
1	20	25	155.0	963.4	154
1	20	29	147.0	48,700.0	146
1	21	30	158.0	23,500.0	157
1	22	29	162.0	3,485.0	144
1	22	31	158.0	3,833.0	146
1	23	29	162.0	3,098.0	144
1	23	31	158.0	3,833.0	146
1	24	15	131.0	186,200.0	112
1	24	32	158.0	7,986.0	146
1	24	36	73.0	24,900.0	41
1	25	14	131.0	931,100.0	112
1	25	30	158.0	3,279.0	144
1	25	31	158.0	38,100.0	157
1	25	36	73.0	1,769.0	41
1	26	14	131.0	931,100.0	112
1	26	23	137.0	121,500.0	135
1	26	31	158.0	4,215.0	144
1	26	35	73.0	31.3	41
1	27	14	131.0	809,600.0	112
1	27	23	142.0	44,050.0	139
1	27	24	147.0	104,500.0	145
1	28	11	135.0	8,293.0	134
1	28	12	130.0	14,280.0	129
1	28	23	152.0	80,000.0	149
1	28	24	150.0	56,500.0	147
1	29	10	140.0	21,240.0	139
1	29	12	144.0	41,000.0	143
1	29	13	128.0	54,900.0	127
1	29	22	162.0	55,000.0	159
1	29	23	157.0	119,500.0	154
1	30	10	160.0	23,770.0	159
1	30	12	127.0	68,000.0	125
1	30	23	170.0	134,500.0	167
1	31	12	126.0	78,500.0	124
1	31	14	170.0	5,995.0	169
1	31	15	180.0	7,413.0	179
1	31	16	185.0	3,292.0	184
1	31	21	200.0	4,987.0	199
1	31	24	174.0	94,500.0	171
1	31	25	179.0	158,500.0	176
1	32	12	125.0	68,400.0	123
1	32	13	150.0	6,764.0	149
1	32	16	185.0	3,511.0	184
1	32	17	190.0	1,274.0	189
1	32	18	190.0	9,695.0	189
1	32	20	190.0	6,147.0	189
1	32	21	200.0	3,720.0	199
1	32	25	180.0	21,900.0	177
1	33	12	124.0	108,000.0	122
1	33	13	175.0	3,467.0	174
1	33	14	180.0	5,845.0	179
1	33	15	180.0	5,845.0	179
1	33	16	185.0	4,168.0	184
1	33	17	190.0	4,987.0	189
1	33	19	190.0	42.6	189
1	33	25	185.0	29,00.0	182
1	34	7	240.0	34,14.0	239
1	34	11	123.0	1,080,00.0	122
1	34	13	170.0	4,722.0	169
1	34	15	185.0	5,314.0	184
1	34	17	190.0	7,084.0	189
1	34	18	188.0	90,170.0	177
1	34	19	200.0	6,016.0	199
1	34	25	190.0	140,000.0	187
1	34	26	200.0	302,000.0	197
1	34	27	210.0	206,000.0	207
1	34	28	220.0	381,000.0	217
1	35	8	190.0	32,140.0	189
1	35	9	160.0	29,670.0	159
1	35	11	122.0	68,500.0	120
1	35	15	185.0	12,120.0	184
1	35	16	188.0	6,028.0	187
1	35	17	190.0	7,121.0	189
1	35	20	205.0	9,223.0	204
1	35	21	205.0	71,630.0	204
1	35	26	230.0	186,700.0	215
1	35	27	230.0	871,200.0	215
1	35	28	230.0	235,000.0	229
1	36	9	140.0	13,930.0	139

Table C3. River-cell locations, stages, conductances,and bottom altitudes used in the calibrated steady-state model--Cont.

Layer	Row	Column	Stage (feet)	Altitude (feet)	Conductance (square feet per day)
1	36	10	121.0	107,000.0	119
1	36	14	180.0	7,943.0	179
1	36	28	240.0	80,500.0	237
1	36	29	250.0	180,000.0	247
1	37	10	120.0	111,000.0	119
1	37	11	160.0	6,528.0	159
1	37	12	165.0	6,606.0	164
1	37	13	170.0	6,141.0	169
1	37	16	185.0	7,940.0	184
1	37	29	255.0	110,000.0	252
1	37	30	260.0	295,000.0	259
1	38	10	112.0	45,800.0	110
1	38	14	175.0	42,530.0	174
1	38	15	180.0	26,770.0	179
1	38	19	200.0	45,330.0	199
1	38	23	220.0	24,710.0	219
1	38	24	225.0	18,370.0	224
1	38	31	270.0	192,000.0	267
1	39	10	106.0	57,800.0	104
1	39	32	280.0	352,000.0	277
1	39	33	285.0	46,300.0	282
1	40	10	104.0	152,000.0	102
1	40	33	290.0	252,000.0	287
1	40	34	295.0	85,200.0	292
1	41	9	102.0	123,500.0	100
1	41	34	300.0	1,600.0	297
1	42	4	96.0	118,000.0	94
1	42	5	97.0	191,000.0	95
1	42	6	98.0	58,500.0	96
1	42	8	101.0	155,000.0	99
1	42	35	312.0	1,972.0	309
1	42	36	317.0	1,481.0	314
1	43	3	94.0	253,500.0	92
1	43	4	95.0	50,500.0	93
1	43	6	99.0	71,000.0	97
1	43	7	100.0	127,500.0	98
1	43	37	330.0	2,175.0	327
1	44	2	90.0	235,500.0	88
1	44	3	92.0	92,500.0	90
1	44	39	360.0	975.0	357
1	44	40	365.0	41,600.0	362
1	44	41	380.0	24,300.0	377
1	44	42	390.0	25,200.0	387
1	44	43	395.0	27,900.0	392
1	44	44	402.0	24,000.0	399
1	44	45	405.0	23,400.0	402
1	44	47	428.0	95,830.0	415
1	44	48	428.0	95,830.0	415
1	45	8	170.0	3,367.0	169
1	45	46	415.0	25,200.0	412
1	45	47	430.0	34,100.0	427
1	45	48	435.0	11,400.0	432
1	46	7	160.0	4,454.0	159
1	46	48	440.0	33,900.0	437
1	46	49	445.0	36,700.0	442
1	46	50	450.0	140,000.0	447
1	46	51	455.0	60,000.0	452
1	47	6	140.0	3,458.0	139
1	47	51	470.0	118,000.0	467
1	48	3	110.0	425,000.0	109
1	48	5	120.0	3,279.0	119
1	48	51	485.0	151,000.0	482
1	49	5	115.0	357,000.0	110
1	49	52	500.0	176,000.0	497
1	49	53	520.0	228,000.0	519
1	49	54	525.0	3,790.0	522
1	50	7	120.0	487,000.0	115
1	50	8	125.0	604,000.0	120
1	50	9	126.0	616,000.0	125
1	50	54	530.0	31,800.0	527
1	51	8	127.0	168,000.0	122
1	51	9	127.0	198,000.0	122
1	51	55	570.0	30,700.0	567
1	51	56	595.0	54,300.0	592
2	10	24	10.0	99.8	9
2	11	24	30.0	172.6	29
2	12	24	80.0	187.5	79
2	13	24	90.0	182.6	89
3	24	20	98.0	606.0	95
3	24	21	100.0	472.8	97
3	24	23	126.0	1,737.0	93
3	24	36	73.0	6,226.0	41
3	25	21	105.0	912.8	102
3	25	22	115.0	351.4	112
3	25	23	128.0	1,236.0	100
3	25	36	73.0	1,769.0	41
3	26	22	110.0	351.6	107
3	26	35	73.0	31.3	41
4	14	38	0.0	13,800.0	-5
4	15	37	0.0	36,400.0	-5
4	16	37	0.0	30,900.0	-5
4	17	35	0.0	322.0	-1

Table C3. River-cell locations, stages, conductances,and bottom altitudes used in the calibrated steady-state model--Cont.

Layer	Row	Column	Stage (feet)	Altitude (feet)	Conductance (square feet per day)
4	17	36	2.0	439.0	1
4	17	37	3.0	17,000.0	-2
4	18	35	2.0	437.0	1
4	18	37	5.0	4,100.0	0
4	18	38	6.0	21,700.0	1
5	19	35	3.0	315,900.0	2
5	19	36	3.0	315,900.0	2
5	19	37	3.0	315,900.0	2
5	19	38	10.0	185,700.0	5
5	19	39	10.0	756,900.0	5
5	20	20	3.0	943,000.0	0
5	20	35	4.0	186,300.0	3
5	20	39	14.0	140,400.0	9
5	21	20	3.0	106,000.0	0
5	21	35	5.0	503,100.0	4
5	21	39	17.0	115,300.0	12
5	22	39	15.0	102,400.0	10
5	23	39	35.0	540,900.0	30
5	23	40	40.0	544,000.0	35
5	24	40	50.0	147,600.0	45
5	24	41	60.0	737,800.0	55
5	25	41	70.0	240,800.0	65
5	25	42	80.0	235,800.0	75
5	26	43	85.0	418,500.0	80
5	27	43	90.0	191,700.0	85
6	37	54	335.0	3,570.0	330
6	38	54	340.0	4,720.0	335
6	39	54	340.0	3,950.0	339
6	40	54	340.0	3,730.0	339
6	41	54	345.0	2,740.0	340
6	42	55	360.0	4,690.0	355
6	42	56	360.0	2,830.0	355
6	42	57	365.0	2,900.0	360
6	43	57	370.0	3,800.0	369
6	43	58	380.0	1,880.0	375
6	44	58	380.0	6,380.0	375
6	44	59	390.0	2,920.0	385
6	44	60	400.0	3,580.0	395
6	45	60	410.0	1,220.0	405
6	45	61	420.0	4,380.0	415
6	45	62	430.0	2,700.0	425
6	45	63	440.0	3,340.0	435
6	45	64	460.0	4,560.0	455
6	45	65	480.0	4,640.0	475
7	28	42	95.0	660,300.0	90
7	28	43	100.0	157,500.0	95
7	28	45	140.0	419,400.0	135
7	28	47	180.0	262,500.0	175
7	29	43	110.0	785,300.0	105
7	29	44	120.0	443,900.0	115
7	29	45	130.0	416,900.0	125
7	29	46	160.0	419,400.0	155
7	29	47	200.0	105,800.0	195
7	29	48	190.0	262,500.0	185
7	30	47	215.0	328,500.0	210
7	30	48	230.0	876,000.0	225
7	30	49	235.0	262,500.0	230
7	31	48	250.0	406,500.0	245
7	32	48	260.0	416,100.0	255
7	33	48	275.0	414,400.0	270
7	34	49	285.0	107,700.0	280
7	34	50	290.0	465,800.0	285
7	34	51	295.0	86,000.0	290
7	35	51	300.0	535,000.0	295
7	36	52	320.0	462,300.0	315
7	36	53	320.0	413,100.0	315