

# **WATER-RESOURCES DATA FOR THE UMATILLA INDIAN RESERVATION, OREGON**

**By Kathleen A. McCarthy**  
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Dallas L. Peck, Director

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For additional information  
write to:

Oregon Office Chief  
U.S. Geological Survey  
10615 S.E. Cherry Blossom Drive  
Portland, OR 97216

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## CONVERSION FACTORS

For use of those readers who may prefer to use metric (International System) units rather than inch-pound units, the conversion factors for the terms used in this report are listed below:

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Multiply inch-pound units	by	To obtain metric units
<hr/>		
<u>Length</u>		
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
<u>Area</u>		
acre	4,047	square meter (m <sup>2</sup> )
square foot (ft <sup>2</sup> )	.09294	square meter (m <sup>2</sup> )
square mile (mi <sup>2</sup> )	2.590	square kilometer (km <sup>2</sup> )
<u>Volume</u>		
gallon (gal)	3.785	liter (L)
cubic foot (ft <sup>3</sup> )	.02832	cubic meter (m <sup>3</sup> )
<u>Flow</u>		
gallon per minute (gal/min)	.06308	liter per second (L/s)

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

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## ABSTRACT

This report presents hydrologic data that were collected and compiled during 1986-87 for the Umatilla Indian Reservation area in northeastern Oregon. The data will be used in conjunction with a subsequent analysis of the water resources of the Umatilla Indian Reservation.

## INTRODUCTION

The Umatilla Indian Reservation, in Umatilla County, is located in northeastern Oregon (fig. 1), and covers approximately 250 square miles. During 1986 and 1987, data were collected and compiled for a study of the water resources of the Umatilla Indian Reservation. Using available data, including data from previous studies in the area, a forthcoming study will assess the surface- and ground-water resources of the Reservation and will identify steps necessary for a more comprehensive evaluation of the Umatilla Indian Reservation water resources, associated water-supply problems and possible solutions to these problems. The purpose of this report is to present the data that were collected and compiled during 1986 and 1987 and will be used in the forthcoming study.

## Acknowledgments

I wish to thank the Confederated Tribes of the Umatilla Indian Reservation, tribal employees, and residents of the Umatilla Indian Reservation for their cooperation and assistance. Special thanks are extended to Mr. Aaron Skirvin of the Department of Natural Resources of the Confederated Tribes of the Umatilla Indian Reservation for his cooperation and assistance in the field, and to Dr. Ivan Barnes of the U.S. Geological Survey for his support, technical assistance and many hours of enlightening and invaluable discussion.

## Previous Investigations

Previous investigations include a study of the water resources of the Reservation by Gonthier and Harris (1977) and a description of geology and ground-water occurrence in the Umatilla Basin by Hogenson (1964).

Ongoing investigations include an evaluation of the Columbia Plateau regional aquifer system and an analysis of the aquifers of the Umatilla Basin, both by the U.S. Geological Survey.

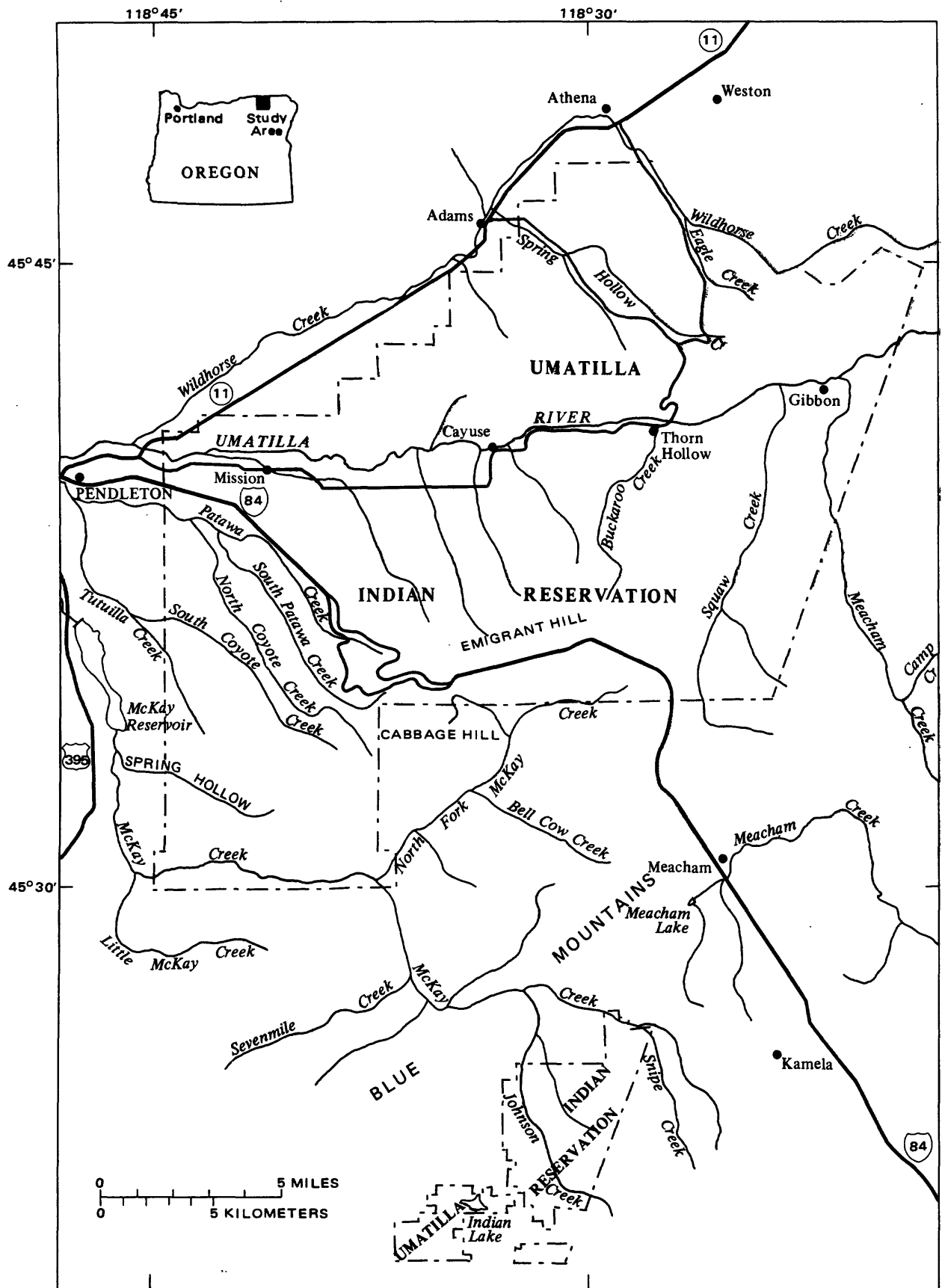


Figure 1.--Location of the Umatilla Indian Reservation.

# EXPLANATION OF DATA

## Site Identification System

**Streamflow stations**--The eight-digit numbers used in this report to identify streamflow stations are those assigned by the U.S. Geological Survey and used in water-data reports and water-supply papers of the Survey. The stations are numbered in downstream order along the Umatilla River; tributaries are numbered in the order in which they enter the Umatilla River.

**Wells and other data-collection sites**--The system used in this report for identifying sites is based on the rectangular system for subdivision of public land; figure 2 illustrates this method. The numbers and characters represent successively the township, range, section and location within the section by quarter section (160 acres), quarter-quarter section (40 acres), quarter-quarter-quarter section (10 acres), and quarter-quarter-quarter-quarter section (2.5 acres). Where necessary, serial numbers are added after the final letter to assure uniqueness of site identification numbers.

The locations of wells, streamflow stations and other data-collection sites are shown on plate 1.

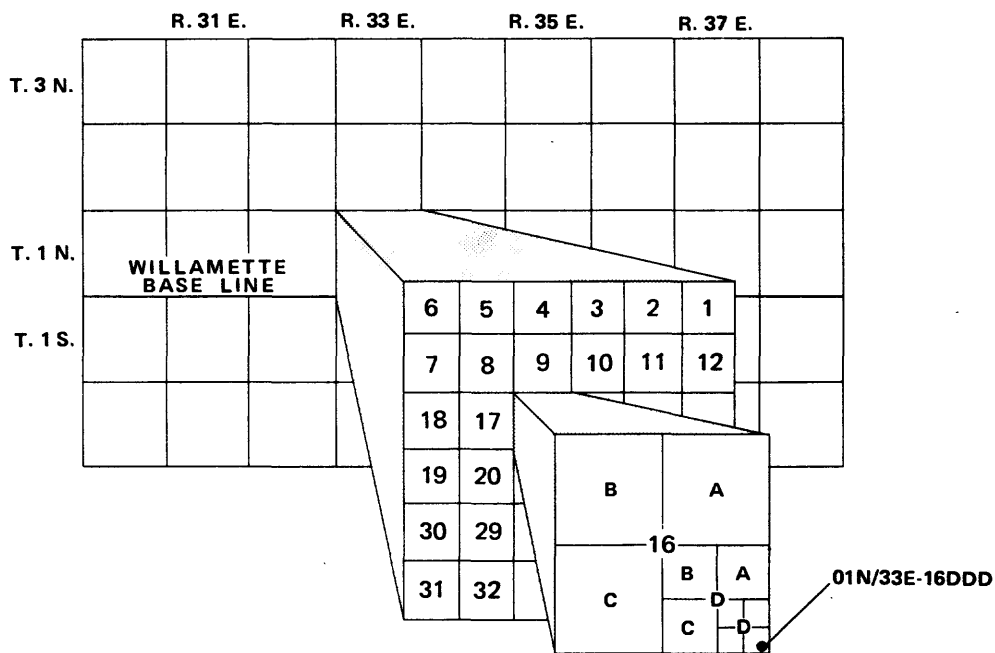


Figure 2.--Site-identification system for wells and springs.

### Well Data

A compilation of well data from all known wells within the boundary of the Umatilla Indian Reservation (excluding the McCoy tract) and from selected wells outside the Umatilla Indian Reservation boundary is shown in table 1.

The distribution of wells within the Umatilla Indian Reservation by water-use classification is shown in figure 3. The number of wells constructed within the Umatilla Indian Reservation by year are shown in figure 4.

Historical water-level data for selected wells are shown in table 2.

### Streamflow Data

A summary of available streamflow data from within the Umatilla Indian Reservation and from nearby streams is shown in table 3.

### Isotope Data

Results of deuterium and oxygen-18 analyses performed on ground-water, surface-water, precipitation and snowpack samples are shown in table 4.

Water samples for isotopic analyses were collected in 15-milliliter glass bottles which were filled to minimize headspace and immediately sealed with poly-seal caps. Snow samples for isotopic analyses were collected in 50-milliliter glass bottles, sealed and allowed to melt. The resulting melt water was transferred to 15-milliliter glass bottles within 1 hour of collection; the bottles were filled and immediately sealed with poly-seal caps. Following element extraction, isotopic analyses were performed on samples using mass spectrometry.

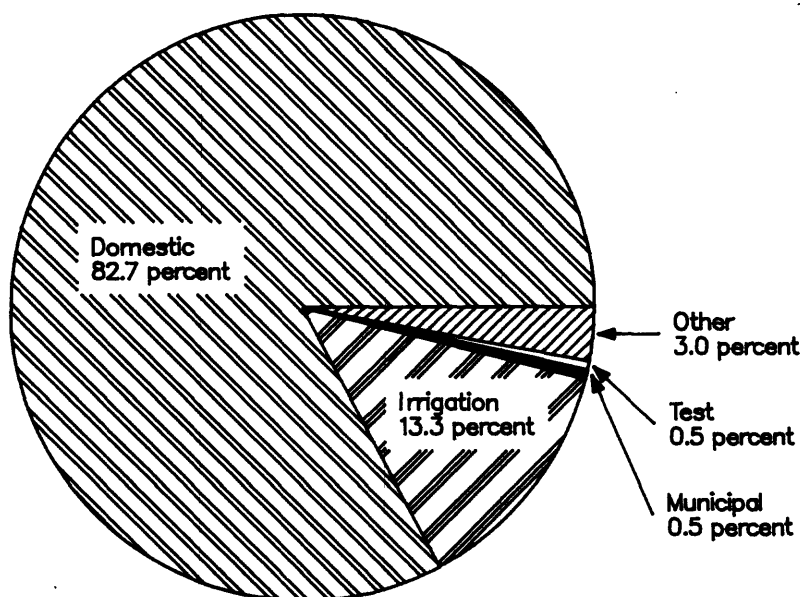


Figure 3.--Distribution of wells within the Umatilla Indian Reservation by water-use classification.



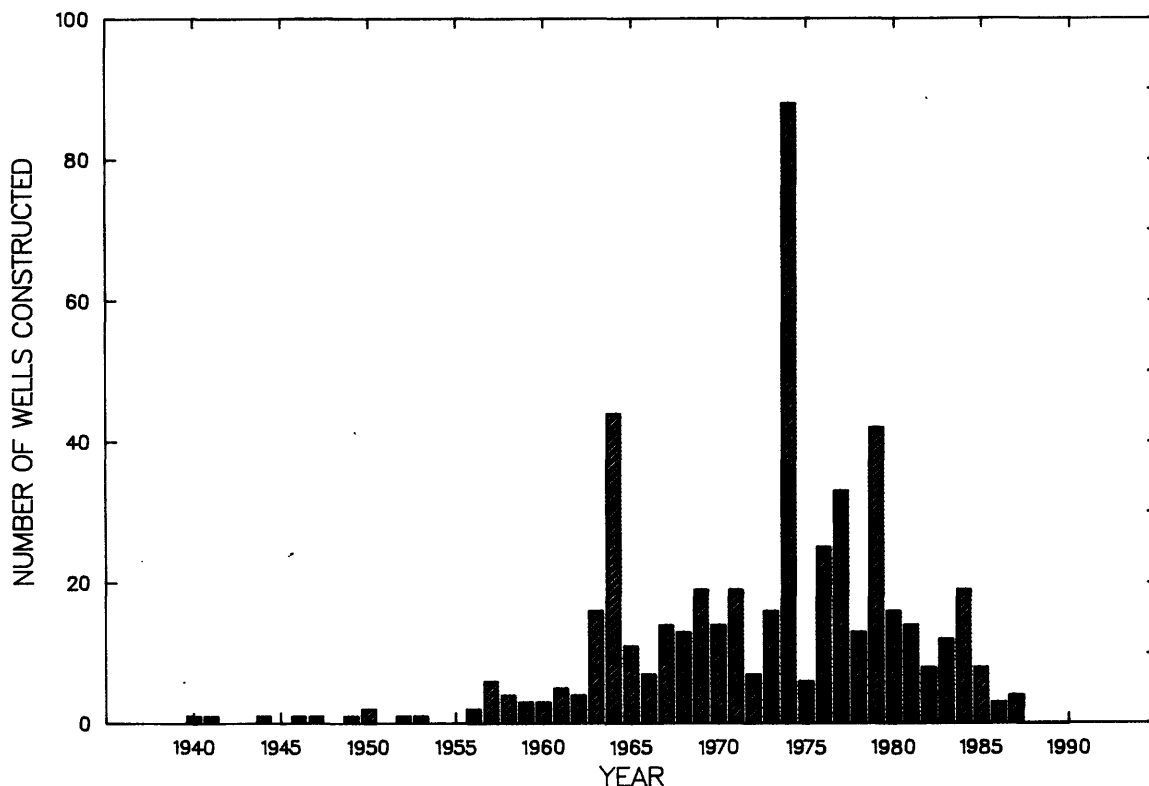


Figure 4.--Well construction within the Umatilla Indian Reservation.

An isotope is one of two or more forms of the same element having the same atomic number, but different atomic masses. The value of isotopes as an investigative tool in hydrology results from these mass differences. When water is subjected to evaporation or condensation, the different isotopes of hydrogen and oxygen fractionate in a predictable manner governed by mass-dependent thermodynamic properties, imparting different isotopic compositions to the vapor and liquid phases of the water. Once water has infiltrated beneath the surface and is no longer susceptible to evaporation or condensation, further changes in its isotopic composition may occur as a result of isotopic exchange with rock the water contacts along its subsurface flow path, provided temperatures are sufficiently high. Within the temperature range normally encountered in ground-water environments, however, alteration of water's isotopic composition is negligible after infiltration has occurred. Therefore, except under geothermal conditions, the isotopic composition of infiltrated water is considered a conservative property of the ground water, and may be used as a natural tracer to study subsurface flow systems.

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Table 1.--Records of selected wells in the Umatilla Indian Reservation area

Site Location Number: See "Site Identification System" section for explanation.

Owner: CTUIR indicates wells owned by the Confederated Tribes of the Umatilla Indian Reservation.

Date Drilled: \* indicates data of well deepening.

Well Diameter: Nominal inside diameter of well casing at land surface.

Altitude: Altitude of land surface at well, in feet above mean sea level, estimated from topographic maps.

Test Method: A, air lift; B, bailed; F, flowing; N, none; P, pumped; V, volumetric.

Water Level: Reported by well driller; "-" indicates feet of head above land surface.

Remarks: F, well location field checked by U.S. Geological Survey personnel; I, isotope data available in table 4; L, driller's log available at the U.S. Geological Survey, Portland, Oregon; W, historical water-level data available in table 2; "--" indicates information not available.

Abbreviations: ft = feet; in = inches; gpm = gallons per minute; hrs = hours.

Site location number	Owner	Depth of well (ft)	Date drilled	Well dia- meter (in)	Depth of casing (ft)	Depth of seal (ft)	Latitude	Longitude	Altitude (ft)	Well performance			Water level			Remarks
										Test meth- od	Yield (gpm)	Draw- down (ft)	Test period (hrs)	Feet below Datum	Date	
01N/33E-03ABC	Thompson	800	--	8	74	--	45°35'57"	118°40'13"	1690	N	--	--	--	--	--	F
01N/33E-03DDD2	Straughan	1150	2/19/81*	10	26	26	45°35'19"	118°39'52"	1816	A	300	--	1	290	2/19/81	F,L,W
01N/33E-03DDD1	Straughan	126	--	10	20	--	45°35'16"	118°39'42"	1833	F	7	--	--	3	9/15/86	F,I,L,W
01N/33E-04ABB1	Patrick	170	3/19/64	6	162	5	45°36'05"	118°41'30"	1562	B	10	80	--	45	3/19/64	F,L
01N/33E-04ABB2	Motanic	185	4/ 8/84	6	128	120	--	--	--	P	15	57	2	43	4/ 8/84	L
01N/33E-04ACD	Motanic	215	9/19/74	6	120	120	45°35'47"	118°41'21"	1610	P	19	14	3	75	9/19/74	F,L
01N/33E-04DDD	Charlie	195	3/ 6/64	6	144	5	45°35'19"	118°41'03"	1682	B	15	5	--	130	3/ 6/64	F,L
01N/33E-05AAA	Van Pelt	120	1/29/84	6	98	98	--	--	--	A	40	--	2	24	1/29/84	L
01N/33E-05BAA1	Williams	120	4/ 2/84	6	79	75	45°36'06"	118°42'53"	1496	A	42	--	2	25	4/ 2/84	F,I,L,W
01N/33E-07BDC1	Cargill	160	--	--	--	--	45°34'51"	118°44'15"	1470	N	--	--	--	--	--	F
01N/33E-07BDD	Cargill	430	8/12/78	6	47	--	45°34'51"	118°44'12"	1470	A	25	--	1	50	8/12/78	F,L
01N/33E-08AAA1	Pattin	250	--	6	--	--	45°35'16"	118°42'13"	1614	N	--	--	--	--	--	F
01N/33E-09BAA	Unknown	77	--	48	8	--	45°35'15"	118°41'40"	1658	N	--	--	--	6	5/30/74	F,W
01N/33E-09BCC	Conner	210	3/29/84	6	75	75	--	--	--	P	20	15	4	112	3/29/84	F,L
01N/33E-10BB	Ghangraw	206	9/19/76	6	20	20	--	--	--	P	13	10	3	55	9/19/76	L
01N/33E-10BBC1	Unknown	41	--	48	8	--	45°35'05"	118°40'51"	1720	N	--	--	--	6	3/27/74	F,W
01N/33E-10BCC1	Grove	357	4/ 9/69	7	97	46	45°34'51"	118°40'55"	1765	A	25	--	3	100	4/ 9/69	F,L,W
01N/33E-10CCC1	Ghangraw	96	2/24/58	6	28	28	45°34'26"	118°40'53"	1819	B	8	90	1	26	2/24/58	F,L
01N/33E-11BBB	Tias	191	10/ 4/77	6	21	21	--	--	--	P	13	9	3	35	10/ 4/77	L
01N/33E-11BBC1	Tias	24	2/18/64	6	18	5	45°35'09"	118°39'34"	1867	B	8	14	--	9	2/18/64	F,L
01N/33E-11BBC2	Tias	222	7/11/74	6	40	39	45°35'09"	118°39'34"	1860	P	30	89	3	12	7/11/74	F,L
01N/33E-11DBB	Storie	100	7/30/68	6	30	30	45°33'48"	118°39'04"	1990	A	60	--	--	18	7/30/68	F,L
01N/33E-16AA	Koch	205	6/25/79	6	70	18	--	--	--	A	30	--	1	39	6/25/79	L
01N/33E-16DAA	Minthorn	130	--	6	--	--	--	--	--	P	23	--	--	42	3/12/84	--
01N/33E-16DDC1	Minthorn	36	--	--	--	--	45°33'33"	118°41'07"	1921	N	--	--	--	3	2/21/53	F
01N/33E-16DDC2	Minthorn	34	2/13/64	6	19	5	45°33'33"	118°41'07"	1921	B	8	5	--	17	2/13/64	F,L
01N/33E-16DDD	Patton	40	--	20	--	--	45°33'33"	118°41'05"	1930	N	--	--	--	--	--	F
01N/33E-18DAA	Horne	180	--	6	--	--	45°33'56"	118°43'29"	1580	N	--	--	--	125	1/21/53	F
01N/33E-28BBB	Windham	300	6/17/74	6	22	22	45°32'38"	118°42'07"	1850	A	20	--	1	120	6/17/74	F,L
01N/33E-28CBC	Anderson	420	7/18/78	8	18	18	45°32'02"	118°42'10"	1930	A	200	--	1	90	7/18/78	F,L
01N/33E-28CDC	Anderson	--	--	--	--	--	45°31'49"	118°41'47"	1958	V	181	--	--	--	--	F
01N/33E-28DDC	Huesties	180	3/27/84	6	44	44	45°31'48"	118°41'07"	2042	P	10	15	4	79	3/27/84	F,I,L,W
01N/33E-28DDD1	Burke	191	9/20/74	6	41	41	45°31'49"	118°41'05"	2055	P	17	52	3	10	9/20/74	F,L
01N/33E-29BDD1	McGough	434	12/11/67	6	80	80	45°32'17"	118°42'57"	1800	A	150	--	--	110	12/11/67	F,L
01N/33E-29DBA	Eagle	313	9/21/74	6	29	30	45°32'09"	118°42'39"	1855	P	22	51	3	44	9/21/74	F,L
01N/33E-30AAC1	Gilbert	15	--	36	--	--	45°32'30"	118°43'41"	1670	N	--	--	--	--	--	F
01N/33E-30CC	Murray	145	1/18/81	6	56	20	--	--	--	A	50	--	1	45	1/18/81	L
01N/33E-33AA	Kohn	156	6/26/78	6	20	20	--	--	--	A	18	--	4	42	6/26/78	L
01N/33E-33ABB	Jones	232	9/20/74	6	40	40	45°31'47"	118°41'31"	2000	P	16	10	3	131	9/20/74	F,L
01N/34E-01AB	Oregon State Hwy Department	629	7/11/69	--	--	--	--	--	--	P	1	130	4	451	7/11/69	L
01N/34E-01ADA	Curl	495	--	6	--	--	45°35'55"	118°29'48"	3600	N	--	--	--	261	7/ 1/74	F,W
01N/34E-01BAA	Oregon State Hwy Department	695	11/ 1/69	6	664	69	45°36'05"	118°30'25"	3580	P	22	365	11	216	11/ 1/69	F,I,L
01N/34E-01DAD	Winn	261	9/10/71	6	26	25	--	--	--	A	7	--	6	72	9/10/71	L
01N/34E-01DB	Grove	260	9/29/76	5	218	40	--	--	--	P	--	--	--	78	9/29/76	L
01N/34E-01DBD	Grilley	283	9/ 1/72	8	22	22	45°35'31"	118°30'10"	3520	A	20	--	1	98	9/ 1/72	F,L
01N/34E-01DC	Fuller	800	8/30/84*	8	18	18	--	--	--	A	25	--	1	--	--	L
01N/34E-03CBC	Olsen	500	7/17/76	6	21	21	45°35'32"	118°33'22"	3575	A	4	--	--	290	7/17/76	F,L
01N/34E-03CC	Ackerman	131	8/ 4/77	6	20	20	--	--	--	A	25	--	--	68	8/ 4/77	L
01N/34E-03CCA	Boltz	360	7/31/89	6	22	22	45°35'28"	118°33'14"	3575	A	13	--	2	320	7/31/89	F,L
01N/34E-05CBD	Wilson	400	2/27/74	6	20	20	45°35'32"	118°35'42"	3210	A	10	--	1	171	2/27/74	F,L
01N/34E-05DDC	Lieuallen	--	--	6	--	--	45°35'19"	118°34'57"	3440	N	--	--	--	--	--	F
01N/34E-07AAD	McCormack	380	--	8	--	--	45°35'07"	118°35'58"	3260	N	--	--	--	--	--	F
01N/34E-07BA	McCormack	300	8/28/77	8	25	25	--	--	--	A	1	--	1	190	8/28/77	L
01N/34E-07BAD	McCormack	850	9/18/67	6	110	33	45°35'06"	118°36'42"	3220	A	25	--	--	565	9/18/67	F,L
01N/34E-08ACC	Boltz	425	10/ 8/65	6	187	75	45°34'52"	118°35'16"	3355	B	10	5	2	345	10/ 8/65	F,L
01N/34E-09BC	Jones	200	7/19/76	6	132	18	--	--	--	P	60	40	1	120	7/19/76	L
01N/34E-09BCA	Barr	252	12/ 2/74	6	179	19	45°34'57"	118°34'26"	3285	A	60	--	1	150	12/ 2/74	F,L
01N/34E-09CB	Carnes	500	7/10/86	6	197	30	--	--	--	A	15	--	--	237	7/10/86	L
01N/34E-09CBA	Carnes	500	--	6	--	--	--	--	--	N	--	--	--	237	7/10/86	--
01N/34E-10BDD1	Stewart	427	7/21/74	6	20	20	45°34'52"	118°32'55"	3340	A	2	--	1	276	7/21/74	F,L

Table 1.--Records of selected wells in the Umatilla Indian Reservation area--Continued

Site location number	Owner	Depth of well (ft)	Date drilled	Well dia- meter (in)	Depth of casing (ft)	Depth of seal (ft)	Latitude	Longitude	Altitude (ft)	Well performance				Water level		
										Test meth- od	Yield (gpm)	Draw- down (ft)	Test period (hrs)	Feet below Datum	Date	Remarks
01N/34E-10BDD2	Stewart	710	--	6	--	--	--	--	--	N	--	--	--	478	7/30/82	
01N/35E-04CC	Burd	1000	7/25/76	8	18	18	--	--	--	N	--	--	--	802	7/25/76	L
01N/35E-04CCB	Hillis	450	4/15/74	6	18	18	45°35'24"	118°27'15"	3785	A	3	--	3	285	4/15/74	F,L
01N/35E-05DAD	Nielsen	320	9/14/57	8	33	--	45°35'31"	118°27'24"	3800	B	3	80	2	50	9/14/57	F,L
01N/35E-06ABC	Nordyke	300	8/ 9/74	6	27	27	45°35'59"	118°29'07"	3590	N	--	--	--	--	--	F,L
01N/35E-06ADD1	Lavadour	110	9/28/64	6	109	--	45°35'44"	118°28'32"	3635	B	4	--	--	60	9/28/64	F,L
01N/35E-06ADD2	Lavadour	283	11/25/74	6	19	19	45°35'45"	118°28'32"	3635	A	10	--	2	240	11/25/74	F,L
01N/35E-06CB	Garcia	375	7/24/79	8	20	20	--	--	--	A	8	--	1	195	7/24/79	L
01N/35E-08AAA	Meyer	430	7/29/82	8	18	18	--	--	--	A	6	--	1	250	7/29/82	L
01N/35E-08ABB	Oregon Treil Campfire Girls	421	6/ 5/70	6	68	68	45°35'11"	118°27'50"	3755	A	20	--	1	125	6/ 5/70	F,L
01N/35E-09BBB	Pederson	425	6/ 7/74	6	18	18	45°35'11"	118°27'13"	3700	A	5	--	1	167	6/ 7/74	F,L
01N/35E-09BBC	Pederson	705	9/11/72	6	20	18	45°35'08"	118°27'11"	3730	A	3	--	1	600	9/11/72	F,L
01N/35E-09BC	Helm- stetter	1105	6/24/80	8	18	18	--	--	--	N	--	--	--	--	--	L
01S/33E-01CDA	Minthorn	80	5/11/73	8	19	19	45°30'09"	118°37'27"	1860	A	20	--	2	15	5/11/73	F,L,W
01S/33E-01CDB1	Minthorn	55	12/13/85	6	39	39	45°30'10"	118°37'31"	1838	F	500	18	--	-18	12/13/85	F,I,L
01S/33E-01CDB2	Minthorn	50	12/24/85	6	27	27	45°30'10"	118°37'30"	1838	F	2	0	--	0	12/24/85	F,I,L
01S/33E-01DDC	Anderson	125	8/11/83	6	56	56	--	--	--	A	60	--	1	36	8/11/83	L
01S/33E-02DCB	Jones	75	8/16/74	6	44	44	45°30'09"	118°38'26"	1800	P	30	1	1	6	8/16/74	F,L
01S/33E-03CDB1	Farrow	181	10/14/77	6	26	26	45°30'11"	118°39'56"	1753	P	13	14	3	12	10/14/77	F,I,L,W
01S/33E-03DC	Joe	406	10/12/77	6	42	42	--	--	--	P	12	34	4	21	10/12/77	L
01S/33E-04CBB	McKay	103	7/ 3/74	6	50	50	45°30'20"	118°41'35"	1665	P	30	6	3	7	7/ 3/74	F,L
01S/33E-04CBB1	McKay	30	2/ 7/64	6	21	21	45°30'21"	118°41'37"	1665	B	15	--	--	--	--	F,L
01S/33E-05AC	Maznaritz	150	4/23/79	8	19	19	--	--	--	A	100	--	1	8	4/23/79	L
01S/33E-05ADC	Day	190	4/10/76	8	38	38	45°30'29"	118°41'48"	1640	A	500	--	1	33	4/10/76	F,L
01S/33E-05BDD2	Cripe	140	11/21/74	8	22	22	45°30'26"	118°42'22"	1640	F	75	28	--	-28	11/21/74	F,I,L
01S/33E-05BDD1	Duffy	88	9/21/74	6	32	32	--	--	--	P	16	0	3	2	9/21/74	L
01S/33E-05CAA	Stanhope	140	--	--	--	--	45°30'22"	118°42'21"	1640	N	--	--	--	1	11/21/74	F
01S/33E-05CB	Kordatsky	305	11/ 8/80	6	27	27	--	--	--	A	80	--	1	-23	11/ 8/80	L
01S/33E-06CAD1	Reeves	248	9/22/74	6	20	21	45°30'17"	118°43'58"	1570	P	30	0	3	-25	9/22/74	F,L
01S/33E-06CAD2	Reeves	250	2/19/84	6	25	25	45°30'17"	118°44'00"	1576	F	50	46	--	-46	2/19/84	F,I,L,W
01S/33E-06CBD	Stanhope	330	8/16/71	8	20	20	45°30'20"	118°44'22"	1550	F	--	--	--	-92	8/16/71	F,L
01S/33E-06CCB	Nez	211	9/23/74	6	20	20	45°30'10"	118°44'57"	1535	P	15	21	2	0	9/23/74	F,L
01S/35E-03ABB	Oregon State Hwy Department	350	--	6	--	--	45°30'49"	118°25'26"	3690	N	85	--	--	--	--	F,I
02N/33E-01CC	Haskie	1208	10/ 5/77	6	40	40	--	--	--	P	13	9	3	8	10/ 5/77	L
02N/33E-02CBC1	Phelps	105	1/29/74	6	24	20	45°40'45"	118°39'38"	1258	A	25	--	2	8	1/29/74	F,L
02N/33E-02CBC2	Comstock	99	4/12/74	6	19	19	45°40'46"	118°39'35"	1259	A	100	--	1	16	4/12/74	F,L
02N/33E-02CBD1	Been	346	7/10/70	6	23	23	45°40'45"	118°39'31"	1258	P	100	1	4	73	7/10/70	F,L
02N/33E-02CBD2	Been	359	1/24/74	6	20	19	45°40'45"	118°39'27"	1260	A	60	--	2	20	1/24/74	F,L
02N/33E-02CC	Halfmoon	80	8/24/79	8	26	26	--	--	--	A	75	--	1	27	8/24/79	L
02N/33E-02DAA1	Thompson	195	9/11/69	6	88	88	45°40'52"	118°38'31"	1305	A	10	--	2	57	9/11/69	F,L
02N/33E-02DAD	Thompson	132	2/20/84	6	31	31	--	--	--	A	58	--	2	32	2/20/84	L
02N/33E-02DBC	Taylor	120	2/24/84	6	32	32	--	--	--	P	10	47	4	25	2/24/84	L
02N/33E-02DBD1	Cowapoo	47	11/26/83	6	22	22	45°40'45"	118°38'47"	1288	B	8	11	--	14	11/26/83	F,L
02N/33E-02DBDC	Cowapoo	170	8/27/74	8	50	50	45°40'43"	118°38'54"	1287	P	10	64	3	39	8/27/74	F,L
02N/33E-02DD1	Williams	173	9/27/76	6	40	40	--	--	--	P	17	5	3	14	9/27/76	L
02N/33E-02DD2	Minthorn	231	10/ 6/77	6	84	84	--	--	--	P	15	0	4	35	10/ 6/77	L
02N/33E-02DD3	Speedis	144	10/17/77	6	40	40	--	--	--	P	14	10	3	10	10/17/77	L
02N/33E-02DD4	Bill	120	10/20/77	6	40	40	--	--	--	P	15	11	3	8	10/20/77	L
02N/33E-02DDC1	Bill	124	11/14/63	6	36	36	45°40'32"	118°38'44"	1270	B	30	24	--	16	11/14/63	F,L
02N/33E-03AD	Shiroyama	106	4/ 4/80	6	19	19	--	--	--	P	50	--	--	18	4/ 4/80	L
02N/33E-03CAC1	Broncheau	47	1/24/64	6	21	21	45°40'45"	118°40'39"	1221	B	9	25	--	11	1/24/64	F,L
02N/33E-03CAC2	Broncheau	165	5/27/74	6	60	60	45°40'45"	118°40'37"	1221	P	30	22	1	24	5/27/74	F,L
02N/33E-03CAD	Johnson	83	5/30/74	6	71	--	45°40'45"	118°40'22"	1226	P	30	3	1	15	5/30/74	F,L
02N/33E-03CBB1	Picard	481	9/27/71	6	66	86	45°40'53"	118°40'56"	1370	A	40	--	1	200	9/27/71	F,I,L
02N/33E-03CBD1	Wilkinson	125	4/12/68	6	22	20	45°40'44"	118°40'45"	1222	A	40	--	--	60	4/12/68	F,L
02N/33E-03CBD2	Hack	265	--	6	--	--	--	--	--	N	--	--	--	49	8/18/77	
02N/33E-03CCA1	Walker	205	10/11/74	8	26	26	45°40'37"	118°40'40"	1221	A	30	--	--	16	10/11/74	F,I,L
02N/33E-03CD1	Sterr	42	11/ 5/63	6	28	28	--	--	--	B	25	--	--	10	11/ 5/63	L
02N/33E-03CD2	Peterson	600	8/23/79	2	18	--	--	--	--	A	20	--	--	45	8/23/79	L
02N/33E-03CDA1	Jim	80	7/ 9/74	2	55	55	45°40'43"	118°40'29"	1225	P	20	36	3	12	7/ 9/74	F,L
02N/33E-03CDB	Shillal	100	2/ 1/85	6	34	34	--	--	--	P	10	36	3	12	2/ 1/85	L
02N/33E-03DAC1	Becker	410	7/12/79	8	18	18	45°40'49"	118°39'58"	1285	A	130	--	1	70	7/12/79	F,L
02N/33E-03DAD1	Shroll	350	8/24/76	6	20	20	45°40'45"	118°39'46"	1250	A	50	--	--	30	8/24/76	F,L
02N/33E-03DAD2	Van Mechlen	191	10/ 8/74	6	20	20	45°40'45"	118°39'46"	1249	P	25	10	2	16	10/ 8/74	F,L
02N/33E-04CAD	Johnson	92	5/15/58	6	13	13	45°40'44"	118°41'37"	1203	B	30	2	1	18	5/15/58	F,L
02N/33E-04CBD	Hart	252	7/ 2/70	8	65	19	45°40'46"	118°41'56"	1190	P	20	40	25	21	7/ 2/70	F,L
02N/33E-04DDA	Wilson	410	10/10/87	6	20	20	45°40'39"	118°41'00"	1215	A	28	--	--	10	10/10/87	F,L
02N/33E-05BCB	Clark	122	10/ 4/65	8	33	20	45°41'05"	118°43'27"	1372	B	15	25	16	80	10/ 4/65	F,L

Table 1.--Records of selected wells in the Umatilla Indian Reservation area--Continued

Site location number	Owner	Depth of well (ft)	Date drilled	Well diameter (in)	Depth of casing (ft)	Depth of seal (ft)	Latitude	Longitude	Altitude (ft)	Well performance				Water level		
										Test method	Yield (gpm)	Drawdown (ft)	Test period (hrs)	Feet below datum	Date	Remarks
02N/33E-06CD	Montgomery	156	6/ 9/77	6	21	21	--	--	--	A	60	--	--	28	6/ 9/77	L
02N/33E-06CDD	McPherson	143	8/21/72	6	40	40	45°40'34"	118°44'15"	1138	A	60	--	1	40	8/21/72	F,L
02N/33E-07AA	Caney	541	10/ 7/76	6	20	20	--	--	--	A	20	--	--	80	10/ 7/76	L
02N/33E-07AAC1	Boltz	500	--	8	18	--	45°40'21"	118°43'45"	1142	N	--	--	--	--	--	F
02N/33E-07ABD1	McKey	54	10/21/63	6	18	18	45°40'21"	118°43'50"	1143	B	13	--	--	20	10/21/63	F,L
02N/33E-07ABD2	Sweeney	75	9/11/84	6	36	36	--	--	--	P	10	37	3	20	9/11/84	L
02N/33E-07AC	Canaday	105	3/30/59	8	18	--	--	--	--	B	18	45	1	60	3/30/59	L
02N/33E-07ACA1	Grubbe	67	1956	6	20	--	45°40'13"	118°43'50"	1150	N	--	--	--	--	--	F
02N/33E-07ACA2	Grubbe	68	1956	6	17	--	--	--	--	N	--	--	--	--	--	--
02N/33E-07ACA3	White	556	7/15/79	6	20	20	--	--	--	P	40	7	3	257	7/15/79	L
02N/33E-07ACC1	Johnson	575	9/ 3/81*	6	--	--	--	--	--	A	50	--	1	330	9/ 3/81	L
02N/33E-07ACD	Kuns	253	8/20/79*	7	39	--	--	--	--	N	--	--	--	98	8/20/79	L
02N/33E-07AD1	Alexander	48	7/ 2/65	6	22	20	--	--	--	B	15	13	1	17	7/ 2/65	L
02N/33E-07AD2	Thomas	100	8/ 1/67*	6	--	20	--	--	--	B	20	60	3	25	8/ 1/67	L
02N/33E-07ADA1	Watchman	53	10/25/63	6	18	18	45°40'16"	118°43'35"	1164	B	20	--	--	16	10/25/63	F,L
02N/33E-07ADA2	Hubbard	47	7/ 7/65	6	20	20	45°40'13"	118°43'37"	1178	B	15	13	1	16	7/ 7/65	F,L
02N/33E-07ADA3	Watchman	334	8/24/74	6	70	70	45°40'16"	118°43'35"	1163	P	15	18	3	252	8/24/74	F,L
02N/33E-07ADA4	Young	305	10/30/79	8	78	18	--	--	--	A	100	--	1	39	10/30/79	L
02N/33E-07ADA5	Jones	335	3/ 3/80	6	--	--	--	--	--	A	90	--	1	90	3/ 3/80	L
02N/33E-07ADA6	Jones	540	8/23/83	6	338	338	45°40'13"	118°43'30"	1168	A	300	--	1	305	8/23/83	F,I,L
02N/33E-07ADA7	Bowman	340	11/11/79	6	160	18	--	--	--	A	75	--	1	77	11/11/79	L
02N/33E-07ADA8	Hubbard	175	4/ 5/79	8	19	19	--	--	--	A	55	--	1	57	4/ 5/79	L
02N/33E-07ADA9	Bevis	320	3/ 1/84	6	24	24	45°40'14"	118°43'38"	1168	P	20	0	4	35	3/ 1/84	F,I,L,W
02N/33E-07ADB	English	500	6/13/77	6	20	20	45°40'14"	118°43'46"	1161	A	50	--	--	106	6/13/77	F,L
02N/33E-07ADC1	Barnum	164	6/22/70	6	40	40	45°40'06"	118°43'44"	1240	B	32	5	2	62	6/22/70	F,L
02N/33E-07ADC2	Barnum	155	6/ 9/70	6	29	29	45°40'09"	118°43'43"	1289	B	30	4	2	40	6/ 9/70	F,L
02N/33E-07ADC3	Swezey	540	5/11/82*	7	--	--	--	--	--	A	60	--	--	300	5/11/82	L
02N/33E-07ADC4	Cartie	555	10/11/78	8	57	57	--	--	--	A	60	--	1	330	10/11/78	L
02N/33E-07ADC5	Kites	350	6/21/79*	6	--	--	--	--	--	A	20	--	1	90	6/21/79	L
02N/33E-07ADC6	Kinonon	190	6/28/83	8	21	21	--	--	--	A	40	--	1	72	6/28/83	L
02N/33E-07ADD1	Abell	457	7/31/73*	6	30	30	45°40'06"	118°43'30"	1195	A	30	--	1	133	7/31/73	F,L
02N/33E-07ADD2	Barnum	82	--	6	26	--	--	--	--	A	100	--	--	18	8/23/68	--
02N/33E-07ADD3	Keener	530	8/ 6/73	8	56	56	45°40'08"	118°43'31"	1220	A	45	--	1	178	8/ 6/73	F,L
02N/33E-07ADD4	Greenfield	525	8/28/77*	6	--	--	45°40'08"	118°43'31"	1172	A	75	--	--	314	8/28/77	F,L
02N/33E-07ADD5	Wood	516	7/31/80*	6	26	19	--	--	--	A	40	--	1	--	--	L
02N/33E-07ADD6	Ascuna	243	7/28/73	6	30	30	--	--	--	A	100	--	--	50	7/28/73	L
02N/33E-07ADD7	McKee	268	7/25/73*	6	--	--	--	--	--	A	60	--	--	60	7/25/73	L
02N/33E-07ADD8	Thames	310	--	6	20	--	--	--	--	A	14	--	--	80	5/28/69	--
02N/33E-07ADD9	Barnum	96	--	6	30	--	--	--	--	A	35	--	--	28	5/31/70	--
02N/33E-07ADD10	Barnum	82	--	6	28	--	--	--	--	A	50	--	--	19	8/23/68	--
02N/33E-07ADD11	Barnum	103	6/30/70	6	52	52	45°40'08"	118°43'31"	1220	B	35	3	2	29	6/30/70	F,L
02N/33E-07BAA2	Speiss	500	--	10	60	--	45°40'31"	118°44'10"	1138	B	30	0	1	157	11/ 5/56	F
02N/33E-07BAA3	Spless	120	4/30/70	6	19	19	45°40'28"	118°44'08"	1139	A	60	--	1	15	4/30/70	F,L
02N/33E-07BAB	Telford	142	--	7	45	--	--	--	--	N	--	--	--	37	3/17/72	--
02N/33E-07BCB	Hall	165	--	6	--	--	45°40'11"	118°44'37"	1128	N	--	--	--	17	8/31/78	F
02N/33E-07BCC1	Hall	400	8/ 9/68	6	40	40	45°40'11"	118°44'36"	1128	A	40	--	--	20	8/ 9/68	F,L
02N/33E-07BCC2	Oregon State Game Commission	250	8/18/59	8	16	16	45°40'09"	118°44'36"	1142	P	50	45	2	15	8/18/59	F,L
02N/33E-07BCD	Delamarter Nursing Home	310	7/13/57	8	21	21	45°40'06"	118°44'27"	1152	B	30	--	1	250	7/13/57	F,L
02N/33E-07BD1	Nagele	102	5/16/61	8	22	--	--	--	--	B	30	20	1	60	5/16/61	L
02N/33E-07BD2	Stephens	265	5/26/79	6	18	18	--	--	--	A	75	--	1	--	--	L
02N/33E-07BDC	Sparhawk	475	4/28/67	6	26	26	45°40'05"	118°44'17"	1228	A	30	--	--	275	4/28/67	F,L
02N/33E-07BDD1	Jones	280	9/ 4/79	6	18	18	--	--	--	A	6	--	1	45	9/ 4/79	L
02N/33E-07BDD2	Thompson	460	7/24/85	8	52	52	--	--	--	A	80	--	1	282	7/24/85	L
02N/33E-07BDD3	Kellas	506	--	6	40	--	--	--	--	N	--	--	--	196	6/29/78	--
02N/33E-08AA3	Kreger	550	7/29/81*	6	--	--	--	--	--	A	45	--	1	300	7/29/81	L
02N/33E-08AAC1	Berland	143	9/ 9/73	6	21	21	45°40'18"	118°42'30"	1168	A	60	--	1	60	9/ 9/73	F,L
02N/33E-08AAC2	Davidson	156	9/ 1/76	6	20	20	--	--	--	A	25	--	--	38	9/ 1/76	L
02N/33E-08AAD1	Davis	60	2/15/62	6	43	19	45°40'23"	118°42'14"	1180	B	8	49	1	8	2/15/62	F,L
02N/33E-08AAD2	Miller	134	10/27/78	6	26	26	--	--	--	A	32	--	1	47	10/27/78	L
02N/33E-08AADD	Christensen	655	10/ 5/83*	6	85	480	45°40'19"	118°42'16"	1177	A	400	--	1	144	10/ 5/83	F,I,L,W
02N/33E-08AB	Minthorn	256	10/ 1/77	6	20	20	--	--	--	P	13	37	4	61	10/ 1/77	L
02N/33E-08ABD1	Williams	210	5/25/74	6	44	44	45°40'20"	118°42'36"	1165	P	25	71	1	73	5/25/74	F,L
02N/33E-08AC	Kilby	72	9/12/62	8	26	25	--	--	--	B	15	20	1	22	9/12/62	L
02N/33E-08ACA1	Purchase	30	--	10	13	--	45°40'12"	118°42'34"	1184	P	50	--	--	--	--	F,L
02N/33E-08ACA2	Johnson	28	11/ 1/64	6	20	5	45°40'16"	118°42'34"	1169	P	60	5	--	5	11/ 1/64	F,L
02N/33E-08ACA3	Johnson	131	9/26/76	6	20	20	--	--	--	P	14	2	3	77	9/26/76	L
02N/33E-08ACB1	Larsen	180	5/ 7/71	8	38	38	45°40'13"	118°42'44"	1170	A	40	--	1	60	5/ 7/71	F,L
02N/33E-08ACB2	Bargen	96	9/ 7/57	6	21	--	--	--	--	B	20	45	--	5	9/ 7/57	L
02N/33E-08ACB3	Bledsoe	170	4/29/74	8	18	18	45°40'15"	118°42'50"	1162	A	100	--	1	2	4/29/74	F,L
02N/33E-08ACB4	Kaufman	125	3/29/61	6	39	39	45°40'13"	118°42'47"	1167	F	60	16	--	-16	3/29/61	F

Table 1.--Records of selected wells in the Umatilla Indian Reservation area--Continued

Site location number	Owner	Depth of well (ft)	Date drilled	Well dia- meter (in)	Depth of casing (ft)	Depth of seal (ft)	Latitude	Longitude	Altitude (ft)	Well performance				Water level		Remarks
										Test meth-	Yield (gpm)	Draw down (ft)	Test period (hrs)	Feet below Datum	Date	
02N/33E-08ACC1	Oylear	156	9/30/67	6	29	29	45°40'06"	118°42'44"	1162	A	60	--	1	49	9/30/67	F,L
02N/33E-08ACC2	Oylear	--	--	6	--	--	45°40'07"	118°42'50"	1180	N	--	--	--	--	--	F
02N/33E-08ACD	Lytton	107	1/14/67	8	18	18	45°40'09"	118°42'38"	1170	F	12	--	--	0	1/14/67	F,L
02N/33E-08ADA	Minthorn	370	5/28/74	6	66	66	45°40'13"	118°42'16"	1179	P	4	266	2	50	5/28/74	F,L
02N/33E-08ADC1	Antoine	72	11/ 1/63	6	18	18	45°40'10"	118°42'31"	1176	B	6	--	--	13	11/ 1/63	F,L
02N/33E-08ADC2	Craig	206	9/26/76	6	20	20	--	--	--	P	14	2	3	86	9/26/76	L
02N/33E-08BAD	Duff	410	12/20/74	8	72	72	45°40'19"	118°42'59"	1157	A	300	--	1	150	12/20/74	F,L
02N/33E-08BBD1	Hart	435	1/30/82	6	28	20	45°40'20"	118°43'15"	1155	A	50	--	1	285	1/30/82	F,L
02N/33E-08BBD2	Kregor	80	4/25/75	6	19	19	--	--	--	A	60	--	1	11	4/25/75	L
02N/33E-08BCD1	Bowman	115	3/28/89	6	28	27	45°40'10"	118°43'18"	1195	A	70	--	2	13	3/28/89	F,L
02N/33E-08BCD2	Bowman	451	8/11/77	8	28	28	45°40'09"	118°43'18"	1185	A	200	--	--	--	--	F,L
02N/33E-08BCD3	Kilby	405	9/ 5/79	8	18	18	--	--	--	A	100	--	1	310	9/ 5/79	L
02N/33E-08BCD4	Hart	225	--	--	--	--	45°40'09"	118°43'15"	1155	N	--	--	--	--	--	F
02N/33E-08BD1	Kilby	200	4/14/76	8	22	22	--	--	--	A	50	--	--	23	4/14/76	L
02N/33E-08BD2	Keown	--	--	8	--	--	45°40'12"	118°43'00"	1180	N	--	--	--	--	--	F
02N/33E-08BDA1	Herburger	--	--	8	--	--	45°40'13"	118°42'56"	1170	N	--	--	--	--	--	F
02N/33E-08BDA2	Eng	375	10/ 3/81*	6	--	--	--	--	--	A	30	--	1	270	10/ 3/81	L
02N/33E-08BDB	Hathaway	250	10/15/80*	6	22	22	45°40'11"	118°43'04"	1180	A	40	--	1	75	10/15/80	F,L
02N/33E-08BDC1	Kilby	101	8/14/63	8	26	26	45°40'07"	118°43'07"	1194	B	45	0	1	17	6/14/63	F,L
02N/33E-08BDD	Hina	125	4/23/75	6	20	20	--	--	--	A	100	--	1	28	4/23/75	L
02N/33E-08CAB1	Edwards	431	7/25/79	6	59	59	45°40'00"	118°43'08"	1204	P	80	4	3	237	7/25/79	F,L
02N/33E-08CAC1	Dean	260	--	--	--	--	45°39'55"	118°43'05"	1234	N	--	--	--	57	8/30/78	F
02N/33E-08CAD1	Bowman	50	--	8	--	--	45°39'56"	118°42'58"	1185	N	--	--	--	24	8/31/78	F
02N/33E-08CAD2	Fetsch	470	--	6	55	--	--	--	--	A	75	--	--	27	2/20/75	L
02N/33E-08CAD3	Bowman	262	8/26/68	8	80	--	45°39'57"	118°42'54"	1205	A	120	--	2	90	8/26/68	F,L
02N/33E-08CB	Lebsock	377	10/28/74	8	--	--	--	--	--	P	100	228	1	149	10/28/74	L
02N/33E-08CBA1	Smith	122	9/ 2/71	6	26	18	45°39'59"	118°43'16"	1208	A	60	--	3	87	9/ 2/71	F,L
02N/33E-08CBA2	Schuening	448	8/28/71	6	37	37	45°40'01"	118°43'18"	1208	A	50	--	4	310	8/28/71	F,L
02N/33E-08CBB1	Newson	160	5/21/69*	6	57	40	45°40'00"	118°43'25"	1220	A	90	--	3	33	5/21/69	F,L
02N/33E-08CBB2	Fanning	375	10/11/71	8	48	18	45°40'00"	118°43'22"	1218	A	150	--	--	104	10/11/71	F,L
02N/33E-08CBB3	Newson	170	9/ 1/71	6	93	93	--	--	--	A	28	--	4	53	9/ 1/71	L
02N/33E-08CBB4	Bissinger	106	6/ 3/68	8	48	21	45°40'00"	118°43'23"	1238	B	75	7	1	30	6/ 3/68	F,L
02N/33E-08CBC	Lovitt	575	4/10/75	6	42	38	45°39'54"	118°43'27"	1260	A	20	--	1	175	4/10/75	F,L
02N/33E-08CBD1	Unknown	200	--	--	--	--	45°39'54"	118°43'09"	1239	N	--	--	--	48	8/30/78	F
02N/33E-08CBD2	Been	135	2/17/87	6	68	38	45°39'53"	118°43'19"	1230	B	39	15	2	45	2/17/87	F,L
02N/33E-08CBD3	Gentner	102	9/ 3/70	6	45	45	45°39'55"	118°43'11"	1212	A	60	--	5	36	9/ 3/70	F,L
02N/33E-08CDB	Clark	535	7/13/79*	6	--	--	45°39'48"	118°43'05"	1219	P	50	70	1	337	7/13/79	F,L
02N/33E-08DAC1	Purchase	779	1949	8	96	--	45°39'54"	118°42'28"	1208	P	100	--	--	19	1949	F,I,L,W
02N/33E-08DBD3	Purchase	968	1953	12	64	--	45°39'56"	118°42'40"	1205	P	750	60	4	23	1959	F,L
02N/33E-09AAA	Smartlowit	90	2/26/84	6	24	24	--	--	--	P	20	16	4	11	2/26/84	L
02N/33E-09AAD	Showaway	120	7/ 1/74	6	60	80	45°40'19"	118°41'00"	1212	P	8	9	1	28	7/ 1/74	F,L
02N/33E-09ABC1	Hisey	114	8/30/59	8	19	--	45°40'22"	118°41'27"	1202	B	35	74	1	20	8/30/59	F,L
02N/33E-09ABC2	Newtson	72	6/ 7/65	8	18	18	45°40'21"	118°41'30"	1204	B	15	45	2	12	6/ 7/65	F,L
02N/33E-09AC	Alexander	231	10/ 2/77	6	40	40	--	--	--	P	13	29	4	29	10/ 2/77	L
02N/33E-09ACA1	Alexander	125	1958	6	43	43	45°40'11"	118°41'21"	1205	B	15	102	2	14	5/ 5/58	F,I,L,W
02N/33E-09ACA2	Alexander	300	8/20/86	8	38	38	45°40'13"	118°41'24"	1203	A	20	--	1	125	8/20/86	F,I,L,W
02N/33E-09ACC3	CTUIR	220	8/22/81	8	118	18	45°40'04"	118°41'27"	1226	A	12	--	1	147	8/22/81	F,I,L,W
02N/33E-09ACC1	Alexander	117	5/ 6/58	6	32	32	45°40'08"	118°41'30"	1201	B	20	11	1	4	5/ 6/58	F,L
02N/33E-09ACC2	Alexander	150	10/ 8/74	6	58	58	45°40'08"	118°41'30"	1202	P	14	0	2	20	10/ 8/74	F,L
02N/33E-09ACD	Alexander	204	7/ 2/74	6	63	63	45°40'05"	118°41'21"	1205	P	20	15	3	134	7/ 2/74	F,L
02N/33E-09AD1	Minthorn	208	10/ 3/74	8	20	20	--	--	--	P	14	3	3	34	10/ 3/74	L
02N/33E-09AD2	Yellow Hawk Health Svc	200	7/18/79	6	--	--	--	--	--	A	20	--	1	152	7/18/79	L
02N/33E-09ADA1	CTUIR	25	5/ 4/79	6	25	--	45°40'14"	118°41'01"	1213	N	--	--	--	6	5/ 4/79	F,I,L,W
02N/33E-09ADA2	CTUIR	255	5/ 9/79	8	80	--	45°40'14"	118°41'01"	1213	N	--	--	--	12	5/ 9/79	F,I,L,W
02N/33E-09ADB	Minthorn	232	8/26/74	6	57	57	45°40'11"	118°41'12"	1209	P	15	23	3	49	8/26/74	F,L
02N/33E-09ADC	Minthorn	50	2/ 4/64	6	48	48	45°40'09"	118°41'14"	--	B	20	15	--	10	2/ 4/64	F,L
02N/33E-09ADC2	Shippentower	110	4/11/84	6	44	47	--	--	--	P	10	47	3	10	4/11/84	L
02N/33E-09BA1	Scott	131	10/14/76	6	31	31	--	--	--	N	--	--	--	21	10/14/76	L
02N/33E-09BA2	Clarke	225	7/ 7/76*	6	--	--	--	--	--	A	45	--	1	147	7/ 7/76	L
02N/33E-09BAC	Spurlish	343	7/30/73	6	21	21	45°40'18"	118°41'45"	1190	B	15	170	1	150	7/30/73	F,L
02N/33E-09BEC	Thomas	80	8/25/61	8	41	--	45°40'23"	118°42'11"	1180	B	8	44	1	8	8/25/61	F,L
02N/33E-09BEC	Cox	90	9/13/60	8	26	--	--	--	--	B	8	75	1	15	9/13/60	L
02N/33E-09BCA1	Rogers Construction	152	8/20/68	6	98	32	45°40'15"	118°42'02"	1185	A	40	--	1	70	8/20/68	F,L
02N/33E-09BECB1	Rogers Construction	190	7/ 3/69	6	178	178	45°40'15"	118°42'09"	1182	A	20	--	1	84	7/ 3/69	F,L,W
02N/33E-09BECB	Spino	180	2/ 7/84	6	98	98	--	--	--	P	20	59	2	17	2/ 7/84	L
02N/33E-09DA	Phipps	360	9/26/79	6	25	25	--	--	--	A	75	--	--	150	9/26/79	L
02N/33E-09DAA1	Wannassay	252	10/29/74	6	24	24	45°40'01"	118°40'59"	1214	P	14	3	1	18	10/29/74	F,L
02N/33E-09DAA2	Stanhope	260	5/31/74	6	25	25	45°40'00"	118°41'08"	1213	A	100	--	--	107	5/31/74	F,I,L
02N/33E-09DAB	Goad	89	8/29/60	8	24	24	45°40'02"	118°41'09"	1214	B	20	68	2	12	8/29/60	F,L
02N/33E-09DAB2	Goad	256	--	6	20	--	--	--	--	P	25	--	--	153	7/ 3/78	L

Table 1.--Records of selected wells in the Umatilla Indian Reservation area--Continued

Site location number	Owner	Depth of well (ft)	Date drilled	Well diameter (in)	Depth of casing (ft)	Depth of seal (ft)	Latitude	Longitude	Altitude (ft)	Well performance				Water level		
										Test method	Yield (gpm)	Drawdown (ft)	Test period (hrs)	Feet below datum	Date	Remarks
02N/33E-09DAD	Stanhope	165	--	--	--	--	45°39'51"	116°41'07"	1250	N	--	--	--	--	--	F,I
02N/33E-09DBA	Bergen	139	3/20/64	8	39	20	45°40'03"	118°41'17"	1210	B	20	90	2	12	3/20/64	F,L
02N/33E-10AAC	Minthorn	95	9/ 2/64	6	73	73	45°40'18"	118°40'00"	1239	B	5	50	--	40	9/ 2/64	F,L
02N/33E-10AAC1	Wocatsie	100	8/14/74	6	52	52	45°40'19"	118°40'01"	1236	P	30	13	2	9	8/14/74	F,L
02N/33E-10ABC	Parr	191	8/27/74	6	27	27	45°40'22"	118°40'19"	1230	P	15	130	5	18	8/27/74	F,L
02N/33E-10ABD1	Reich	63	8/13/64	6	38	38	45°40'21"	118°40'07"	1234	B	15	--	--	--	--	F,L
02N/33E-10ABD2	Rieck	100	7/ 1/74	6	63	63	45°40'20"	118°40'08"	1234	P	20	64	3	10	7/ 1/74	F,L
02N/33E-10AC	Parr	130	1/15/64	6	18	18	--	--	--	B	8	116	--	16	1/15/64	L
02N/33E-10BAD	Campbell	130	7/31/79	8	23	23	--	--	--	A	150	--	1	60	7/31/79	L
02N/33E-10BBA	Stark	275	1/13/79	8	33	33	--	--	--	B	10	40	1	12	1/13/79	L
02N/33E-10BBB	Jenner	120	10/20/67	6	18	18	45°40'25"	118°40'57"	1213	A	1	--	--	8	10/20/67	F,L
02N/33E-10BBC	Ludeman	255	6/22/79	8	36	36	--	--	--	A	100	--	1	114	6/22/79	L
02N/33E-10BC1	Lassen	280	7/16/79*	6	--	--	--	--	--	N	--	--	--	159	7/16/79	L
02N/33E-10BC2	Wood	--	6/ 4/79	6	--	--	--	--	--	N	--	--	--	75	8/ 4/79	L
02N/33E-10BC3	Armer	227	5/29/87	--	--	--	--	--	--	A	20	--	1	14	5/29/87	L
02N/33E-10BCB1	Laughlin	252	--	6	--	--	45°40'12"	118°40'57"	1215	B	30	2	--	37	11/30/74	F,L
02N/33E-10BCC	Kelly	264	--	--	--	--	45°40'09"	116°40'52"	1219	N	--	--	--	95	8/29/78	F
02N/33E-10BCC1	Graves	235	6/16/57	8	16	16	45°40'04"	118°40'57"	1215	P	95	--	5	135	6/16/57	F,L
02N/33E-10BCC2	Wood	158	4/27/72	6	33	33	45°40'05"	118°40'48"	1219	A	100	--	1	40	4/27/72	F,L
02N/33E-10BCC3	Morris	275	1/25/57	6	19	105	45°40'09"	118°40'52"	1219	P	40	6	10	17	1/25/57	F,L
02N/33E-10BCD	Want	85	12/29/61	6	35	--	45°40'05"	118°40'46"	1220	B	12	70	1	5	12/29/61	F,L
02N/33E-10BDA	Winkler	270	9/ 6/84	6	29	29	--	--	--	P	10	196	3	93	9/ 6/84	L
02N/33E-10CAB	Elk	49	11/29/63	6	35	35	45°39'59"	118°40'34"	1221	B	25	20	--	4	11/29/63	F,L
02N/33E-10CAB2	Elk	175	7/ 1/74	6	64	63	45°39'59"	116°40'34"	1220	P	5	60	5	82	7/ 1/74	F,L
02N/33E-10CB	Wood	340	4/19/79*	6	--	--	--	--	--	A	60	--	1	75	4/19/79	L
02N/33E-10CBA4	Adventist Indian Center	400	7/25/85*	6	74	74	45°40'02"	118°40'42"	1220	A	30	--	1	174	7/25/85	F,I,L,W
02N/33E-10CBA1	Logan	210	4/21/61	8	42	--	45°40'02"	118°40'41"	1221	B	30	180	1	190	4/21/61	F,L
02N/33E-10CBA2	Jones	111	7/26/67	8	18	18	45°40'01"	118°40'46"	1219	B	20	75	1	8	7/26/67	F,L
02N/33E-10CBA3	Carpenter	90	4/11/68	6	40	40	45°40'03"	116°40'47"	1220	A	90	--	--	15	4/11/68	F,L
02N/33E-10DA1	CTUIR	190	8/25/78	8	21	21	45°39'58"	118°39'49"	1236	P	312	16	4	16	8/25/78	F,I,L,W
02N/33E-10DAD1	CTUIR	300	9/21/79	8	198	80	45°39'51"	118°39'45"	1245	P	460	20	16	12	9/21/79	F,I,L
02N/33E-10DAD2	CTUIR	315	9/24/79	8	198	60	45°39'51"	118°39'44"	1245	A	500	--	1	12	9/24/79	F,I,L
02N/33E-10DBC1	CTUIR	182	8/26/81	8	104	18	45°39'54"	118°40'16"	1226	A	20	--	1	6	8/26/81	F,I,L,W
02N/33E-11AAA	Williams	57	11/21/63	6	54	54	45°40'29"	118°38'34"	1277	B	25	13	--	11	11/21/63	F,L
02N/33E-11AD	Lavadour	251	10/22/77	6	40	40	--	--	--	P	14	27	4	21	10/22/77	L
02N/33E-11ADB	Cable	128	10/ 6/62	8	34	32	--	--	--	B	5	96	1	27	10/ 6/62	L
02N/33E-11ADB2	Picknell	174	8/ 5/83	8	73	40	45°40'10"	118°38'47"	1275	A	50	--	1	33	8/ 5/83	F,I,L,W
02N/33E-11ADC1	James	50	8/27/64	8	44	20	45°40'08"	118°38'39"	1278	B	60	20	--	12	8/27/64	F,L
02N/33E-11ADC2	Baker	160	8/ 9/73	6	55	55	45°40'06"	118°38'44"	1279	A	35	--	1	20	8/ 9/73	F,L
02N/33E-11ADD1	Marker	--	--	--	--	--	45°40'07"	118°38'31"	--	N	--	--	--	--	--	F
02N/33E-11ADD2	Briggs	10	--	--	--	--	45°40'08"	118°38'37"	--	N	--	--	--	--	--	F
02N/33E-11BBA	Sandoz	100	9/ 5/84	6	32	32	--	--	--	P	10	34	3	16	9/ 5/84	L
02N/33E-11BCC	Elk	44	12/ 4/63	6	30	30	45°40'05"	116°39'39"	1253	B	12	8	--	16	12/ 4/63	F,L
02N/33E-11BCD1	Allen	15	--	2	15	--	45°40'05"	118°39'25"	1256	N	--	--	--	--	--	F
02N/33E-11BCD1	Crane	45	12/ 5/63	6	35	35	45°40'06"	118°39'21"	1257	B	15	9	--	21	12/ 5/63	F,L
02N/33E-11BDD1	Penny	12	4/16/68	5	66	--	45°40'05"	118°39'11"	1261	A	25	--	--	7	4/16/68	F,L
02N/33E-11BDD2	Lacourse	60	2/25/66	5	62	20	45°40'05"	118°39'07"	1265	B	25	--	--	7	2/25/66	F,L
02N/33E-11CAB1	Case	15	--	36	--	--	45°39'59"	118°39'16"	1260	B	45	--	--	13	11/23/74	F,I,W
02N/33E-11DAA	Sohappy	72	12/26/63	6	20	20	45°40'03"	118°36'37"	1280	B	15	12	--	16	12/26/63	F,L
02N/33E-11DAB1	Shippen-tower	59	12/18/63	6	18	18	45°40'02"	118°36'44"	1275	B	20	--	--	14	12/18/63	F,L
02N/33E-11DB	Crawford	29	12/ 9/63	6	27	27	--	--	--	B	20	3	--	10	12/ 9/63	L
02N/33E-11DBC	Andrews	315	10/19/77	8	25	25	45°39'54"	118°39'01"	1268	N	100	--	--	28	10/19/77	F,L
02N/33E-11DDA	Haguewood	514	6/24/82	10	25	25	--	--	--	A	286	--	1	0	6/24/82	L
02N/33E-11DDD1	Haguewood	375	11/13/80	10	26	26	--	--	--	P	300	80	4	0	11/13/80	L
02N/33E-12AC	Patrick	106	10/ 7/77	6	20	20	--	--	--	P	13	6	3	13	10/ 7/77	L
02N/33E-12ACA1	Huesties	65	12/ 4/73	6	21	20	45°40'13"	118°37'34"	1305	A	25	--	2	2	12/ 4/73	F,L
02N/33E-12ACA2	Patrick	85	8/30/74	6	30	30	45°40'15"	118°37'39"	1301	P	20	2	2	1	8/30/74	F,L
02N/33E-12ACB	Pond	49	7/23/68	6	45	44	--	--	--	F	100	--	--	-5	7/23/68	L
02N/33E-12ACB1	Lavadour	130	8/30/74	6	32	32	45°40'12"	118°37'49"	1302	P	25	4	2	9	8/30/74	F,L
02N/33E-12BCA1	Cowapoo	23	11/18/63	6	20	20	45°40'16"	118°36'14"	1290	B	3	--	--	16	11/18/63	F,L
02N/33E-12BCC1	Andrews	15	--	--	--	--	45°40'05"	118°38'27"	1281	N	--	--	--	--	--	F
02N/33E-12CBB	CTUIR	150	2/25/72	6	59	59	45°40'03"	118°38'27"	1285	F	2	5	--	-5	2/25/72	F,L
02N/33E-12CCC1	Bronson	210	6/19/69	6	72	21	45°39'39"	118°38'23"	1386	F	2	3	--	-3	6/19/69	F,L
02N/33E-12CCC2	Bronson	120	1/26/84	6	25	24	--	--	--	P	10	23	1	2	1/26/84	L
02N/33E-13AA	Minthorn	231	10/ 7/77	6	80	80	--	--	--	P	13	8	3	38	10/ 7/77	L
02N/33E-13AD	Burnside	256	10/ 7/77	6	80	80	--	--	--	P	12	6	3	71	10/ 7/77	L
02N/33E-13BBB1	Wahsise	--	--	--	--	--	45°39'35"	118°38'23"	--	P	8	35	2	11	7/20/74	F
02N/33E-13BBB2	Shoeships	82	1/30/84	8	38	36	45°39'36"	118°38'26"	1394	B	7	70	--	6	1/30/84	F,L
02N/33E-13CCA1	Haguewood	--	--	6	--	--	45°38'56"	118°38'16"	1515	N	--	--	--	9	8/29/78	F
02N/33E-13CCA2	Haguewood	--	--	6	--	--	45°38'54"	118°38'17"	1520	N	--	--	--	10	8/29/78	F

Table 1.--Records of selected wells in the Umatilla Indian Reservation area--Continued

Site location number	Owner	Depth of well (ft)	Date drilled	Well die-meter (in)	Depth of casing (ft)	Depth of seal (ft)	Latitude	Longitude	Altitude (ft)	Well performance				Water level		
										Test meth-od	Yield (gpm)	Draw-down (ft)	Test period (hrs)	Feet below Datum	Date	Remarks
02N/33E-13CCB	Haguewood	230	3/ 3/78	10	18	18	45°38'52"	118°38'22"	1530	A	600	--	1	96	3/ 3/78	F,L,W
02N/33E-13DCD	Shippen-tower	28	--	--	--	--	45°38'46"	118°37'38"	1565	N	--	--	--	9	8/31/53	F
02N/33E-14DAC	City of Pendleton	800	2/10/72*	12	157	157	45°39'04"	118°38'45"	1467	P	1500	276	22	29	2/10/72	F,I,L,W
02N/33E-17BBC	Campbell	290	5/18/78	8	18	18	--	--	--	A	30	--	1	150	5/18/78	L
02N/33E-18DAA1	Dumont	273	10/25/74	6	105	105	45°39'12"	118°43'29"	1347	P	23	15	2	82	10/25/74	F,L
02N/33E-18DCC	Curl	565	4/ 7/76	8	138	20	45°38'48"	118°44'04"	1260	A	300	--	1	36	4/ 7/76	F,L
02N/33E-19ADD1	Ghangraw	127	4/ 8/64	6	22	22	45°38'24"	118°43'32"	1310	B	15	32	--	42	4/ 8/64	F,L
02N/33E-20ACA	Cimmiyotiti	175	8/ 8/75	8	30	30	--	--	--	A	350	--	1	-5	8/ 8/75	L
02N/33E-20BBB1	Umberger	997	11/ 4/70*	12	82	22	45°38'42"	118°43'25"	1281	P	800	146	4	18	11/ 4/70	F,L,W
02N/33E-20BBC1	Umberger	472	--	8	9	--	45°38'35"	118°43'27"	1287	N	--	--	--	--	--	F,W
02N/33E-20BBC2	Umberger	635	8/30/74	6	23	23	45°38'33"	118°43'25"	1290	A	75	--	1	34	8/30/74	F,L
02N/33E-20DDC1	Jones	55	7/23/64	6	28	28	45°37'54"	118°42'29"	1363	B	12	18	2	18	7/23/64	F,L
02N/33E-20DDC2	Burke	145	1/16/84	6	58	58	--	--	--	P	10	12	3	2	1/16/84	L
02N/33E-21ADA1	Curl	--	--	8	--	--	45°38'28"	118°41'01"	1389	N	2	--	--	--	--	F
02N/33E-21CDD	Curl	51	10/26/62	8	47	20	45°37'54"	118°41'43"	1391	B	12	26	2	12	10/26/62	F,L
02N/33E-22BBC	Bonbright	142	12/31/69	8	84	84	45°38'34"	118°40'53"	1414	P	--	--	--	40	12/31/69	F,L
02N/33E-22BCA	Rohde	260	11/ 7/79	10	20	20	45°38'31"	118°40'45"	1403	A	2000	--	1	18	11/ 7/79	F,L
02N/33E-22BCB	Rohde	155	9/15/69	8	40	20	45°38'30"	118°40'55"	1390	A	75	--	1	25	9/15/69	F,L
02N/33E-22CD1	Thompson	55	--	8	--	--	45°37'57"	118°40'42"	--	N	--	--	--	--	--	F
02N/33E-22CD2	Thompson	34	--	--	--	--	--	--	--	N	--	--	--	--	--	--
02N/33E-23CAD	Nash	360	7/21/80	10	40	40	--	--	--	A	150	--	1	81	7/21/80	L
02N/33E-23DBD1	Birrer	290	7/30/79	6	150	26	45°38'07"	118°38'51"	1577	A	100	--	1	84	7/30/79	F,L
02N/33E-24BAB	Jemes	112	9/12/74	6	41	41	45°38'44"	118°38'07"	1575	P	22	22	3	42	9/12/74	F,L
02N/33E-24DDD	St. Andrews School	58	10/ 2/67	6	20	18	45°37'57"	118°37'19"	1760	A	100	--	--	30	10/ 2/67	F,L
02N/33E-25BBB	Kash Kash	182	2/ 2/65	6	43	--	45°37'50"	118°38'19"	1695	B	30	5	--	20	2/ 2/65	F,L
02N/33E-25BC	Dallman	195	5/30/78	8	26	26	--	--	--	A	100	--	1	--	--	L
02N/33E-25DD	Smith	180	3/19/81	6	103	24	--	--	--	A	17	--	1	39	3/19/81	L
02N/33E-25DDC	Grubbs	135	5/28/74	6	18	18	--	--	--	A	30	--	1	67	5/26/74	L
02N/33E-26DAA	Hobby	10	--	--	10	--	--	--	--	N	--	--	--	--	--	--
02N/33E-27ABB1	Lawyer	193	12/ 9/69	6	95	40	45°37'49"	118°40'17"	1458	A	15	--	1	98	12/ 9/69	F,L
02N/33E-27ABC	Whitesell	145	5/11/73	6	115	20	45°37'44"	118°40'12"	1480	A	12	--	--	40	5/11/73	F,L
02N/33E-27AC	Farrow	231	10/10/77	6	113	113	--	--	--	P	13	22	4	40	10/10/77	L
02N/33E-27DA	Loland	110	4/11/79	6	100	37	--	--	--	A	80	--	1	15	4/11/79	L
02N/33E-28ABB	Bill	211	10/28/74	6	92	93	45°37'47"	118°41'37"	1413	P	15	49	2	22	10/28/74	F,L
02N/33E-28BAA	McDonald	--	--	6	--	--	45°37'47"	118°41'38"	1410	N	--	--	--	13	8/29/78	F
02N/33E-28BC1	Wells	105	3/11/71	6	80	34	--	--	--	A	90	--	2	18	3/11/71	L
02N/33E-28BC2	Wells	85	3/12/71	6	61	60	--	--	--	A	100	--	2	28	3/12/71	L
02N/33E-28BC3	Wells	210	3/16/71	6	67	87	--	--	--	A	90	--	2	67	3/16/71	L
02N/33E-28BC4	Wells	95	3/17/71	6	59	59	--	--	--	A	90	--	2	17	3/17/71	L
02N/33E-28BC5	Wells	105	3/18/71	6	83	33	--	--	--	A	75	--	2	20	3/18/71	L
02N/33E-28BC6	Wells	155	3/19/71	6	63	63	--	--	--	A	105	--	2	16	3/19/71	L
02N/33E-28BC7	Wells	155	3/22/71	6	57	57	--	--	--	A	95	--	2	17	3/22/71	L
02N/33E-28BC8	Murray	155	9/ 5/74*	6	--	--	--	--	--	A	75	--	1	28	9/ 5/74	L
02N/33E-28BC9	Stratton	325	7/ 2/76*	6	--	--	--	--	--	A	100	--	1	12	7/ 2/76	L
02N/33E-28BC10	Wells	200	3/ 9/71	6	55	55	--	--	--	A	60	--	2	18	3/ 9/71	L
02N/33E-28BC11	Bliss	105	5/10/74	8	--	--	--	--	--	A	75	--	1	10	5/10/74	L
02N/33E-28BCB	Murray	218	9/ 5/74*	6	--	--	--	--	--	A	40	--	1	28	9/ 5/74	L
02N/33E-28BCC	Unknown	--	--	6	--	--	45°37'33"	118°42'10"	1406	F	--	--	--	--	--	F
02N/33E-28BCD	Duby	--	--	--	--	--	45°37'32"	118°41'58"	1425	N	--	--	--	--	--	F
02N/33E-28BDB	Tucker	430	7/ 1/65	12	110	110	45°37'34"	118°41'49"	1410	F	8	--	--	-12	7/ 1/65	F,L
02N/33E-28CBC	Thorne	315	7/23/81	10	74	74	--	--	--	A	500	--	1	18	7/23/81	L
02N/33E-28CDD	Badroads	170	9/18/74	6	59	80	45°37'03"	118°41'44"	1463	P	25	33	3	18	9/18/74	F,L
02N/33E-28DA	Spencer	181	10/18/77	6	108	108	--	--	--	P	13	11	3	35	10/18/77	L
02N/33E-28DAA	Sampson	109	10/19/76	6	91	91	45°37'25"	118°41'00"	1469	P	12	38	3	18	10/19/76	F,L
02N/33E-28DAD	Spencer	120	--	6	120	--	--	--	--	N	38	--	--	25	3/ 7/84	--
02N/33E-28DCD	Wells	238	4/27/70	8	151	151	45°37'01"	118°41'22"	1493	F	25	--	--	-58	4/27/70	F,L
02N/33E-28DCD2	Shenandoah	469	8/18/83	8	184	185	45°37'01"	118°41'18"	1494	A	300	--	2	30	8/18/83	F,I,L,W
02N/33E-28DDA1	Harley	450	1/25/77	8	148	28	45°37'07"	118°41'07"	1497	A	100	--	1	40	1/25/77	F,I,L,W
02N/33E-28DDA2	Bealer	700	2/ 4/81	10	59	20	45°37'07"	118°41'07"	1496	F	30	32	--	-32	2/ 4/81	F,I,L,W
02N/33E-29AA	Indian Health Svc	340	9/10/79	6	42	42	--	--	--	F	30	46	--	-46	9/10/79	L
02N/33E-29AAD	Umberger	328	1/14/80	8	43	42	--	--	--	A	200	--	1	--	--	L
02N/33E-29AB	Umberger	315	7/ 4/79	8	20	18	--	--	--	A	250	--	1	11	7/ 4/79	L
02N/33E-29ABD	Jordan	190	11/ 3/72	6	29	29	45°37'41"	118°42'39"	1375	A	30	--	1	30	11/ 3/72	F,L
02N/33E-29ABD1	Umberger	12	--	--	--	--	--	--	--	N	--	--	--	--	--	--
02N/33E-29ACD	Minthorn	231	--	8	83	--	--	--	--	N	15	0	--	0	10/ 6/77	--
02N/33E-29BA	Tutuilla Mission	--	--	--	--	--	45°37'51"	118°42'57"	--	N	--	--	--	--	--	F
02N/33E-29BAA	Patrick	155	10/13/80	8	18	18	--	--	--	A	150	--	1	45	10/13/80	L
02N/33E-29DA1	Burd	208	8/24/87	8	83	83	--	--	--	A	100	--	1	14	6/24/87	L
02N/33E-29DA2	Burd	225	8/29/87	6	78	78	--	--	--	A	100	--	1	14	6/29/87	L
02N/33E-29DAA1	Johnson	200	--	8	40	--	--	--	--	A	20	--	--	2	9/20/83	--



Table 1.--Records of selected wells in the Umatilla Indian Reservation area--Continued

Site location number	Owner	Depth of well (ft)	Date drilled	Well diameter (in)	Depth of casing (ft)	Depth of seal (ft)	Latitude	Longitude	Altitude (ft)	Well performance				Water level		
										Test method	Yield (gpm)	Drawdown (ft)	Test period (hrs)	Feet below datum	Date	Remarks
02N/33E-29DAA2	Burd	212	--	6	63	--	--	--	--	N	--	--	--	0	12/ 3/86	
02N/33E-29DAC	Thorne	258	4/ 1/75	8	23	22	45°37'15"	118°42'26"	1425	A	200	--	1	10	4/ 1/75	F,L
02N/33E-29DC	Bill	131	10/27/77	6	49	49	--	--	--	P	13	10	3	18	10/27/77	L
02N/33E-29DCD1	Cree	68	3/27/64	6	58	5	45°37'05"	118°42'33"	1425	B	20	30	--	16	3/27/64	F,L
02N/33E-29DCD2	Cree	110	7/ 3/74	6	77	77	45°37'05"	118°42'33"	1428	P	30	78	3	11	7/ 3/74	F,L
02N/33E-29DDD	Burd	575	7/15/80	8	80	80	--	--	--	A	300	--	1	36	7/15/80	L
02N/33E-30ADD	Ghangraw	360	11/30/79	8	18	18	--	--	--	P	300	225	1	75	11/30/79	L
02N/33E-31AAA	Pond	543	12/15/69	6	24	24	45°36'59"	118°43'30"	1462	A	8	--	1	350	12/15/69	F,L
02N/33E-31CC	Thurman	400	6/14/77	6	--	--	--	--	--	A	50	--	1	72	6/14/77	L
02N/33E-31CCA	Allister	110	5/10/74	6	21	20	45°36'15"	118°44'28"	1385	A	20	--	1	0	5/10/74	F,L
02N/33E-31CCC1	Bowman	610	4/ 9/82	8	18	18	--	--	--	A	225	--	1	152	4/ 9/82	L
02N/33E-31CDA	Chandler	475	--	8	62	--	--	--	--	A	50	--	--	18	10/11/85	
02N/33E-31CDC1	Kubin	245	4/18/74	8	22	18	45°36'10"	118°44'16"	1403	A	50	--	1	10	4/18/74	F,L
02N/33E-31CDC2	Wagner	525	1/ 7/81	8	71	71	45°36'12"	118°44'15"	1397	A	75	--	1	23	1/ 7/81	F,I,L
02N/33E-31CDC3	Bowman	380	4/15/82	8	18	18	--	--	--	A	40	--	1	15	4/15/82	L
02N/33E-31CDD	Simmons	292	8/21/74	6	23	23	45°36'09"	118°44'08"	1415	A	35	--	2	18	8/21/74	F,L
02N/33E-32AAA1	Diggins	450	2/23/81	10	69	89	45°36'58"	118°42'22"	1440	A	500	--	1	25	2/23/81	F,L
02N/33E-32CBD1	Umberger	965	1/ 8/80*	12	125	125	45°36'20"	118°43'10"	1465	P	1585	252	7	-12	1/ 8/80	F,I,L,W
02N/33E-32CCA1	Umberger	925	--	--	--	--	45°36'20"	118°43'09"	1465	N	--	--	--	--	--	F
02N/33E-33AAA	Minthorn	107	9/18/74	6	107	95	45°36'59"	118°41'00"	1517	P	25	24	3	8	9/18/74	F,L
02N/33E-33BBB	Becker	140	5/29/71	8	53	28	45°36'59"	118°42'09"	1445	B	70	--	6	42	5/29/71	F,L
02N/33E-33CCA	Kinzer	310	2/ 7/52	12	75	--	45°36'17"	118°42'01"	1520	F	456	205	2	--	--	F,L
02N/33E-34BB	Rhine	260	3/27/79	8	18	18	--	--	--	A	50	--	1	84	3/27/79	L
02N/34E-01ACD2	Lloyd	85	5/22/64	6	23	22	45°40'59"	118°30'05"	1495	B	6	80	--	1	5/22/64	F,L
02N/34E-01ACD1	Williams	67	1/26/67	6	21	21	45°40'58"	118°30'06"	1495	A	7	--	--	1	1/26/67	F,L
02N/34E-01ACD3	Lloyd	135	6/26/74	6	59	59	--	--	--	P	20	77	1	0	6/26/74	L
02N/34E-01ADC	Smith	10	--	--	--	--	45°40'57"	118°29'54"	1500	N	--	--	--	5	9/16/86	F,I
02N/34E-01ADD1	Smith	73	4/30/65	8	19	19	45°40'59"	118°29'51"	1505	B	7	63	16	0	4/30/65	F,I,L
02N/34E-01ADD2	Smith	150	--	6	37	37	45°40'58"	118°29'51"	1505	P	55	203	--	-203	10/28/74	F,I
02N/34E-01BDC1	Johnson	27	5/21/64	6	25	25	45°40'59"	118°30'34"	1482	B	60	12	--	0	5/21/64	F,L
02N/34E-02AD	Morrow	80	12/11/80	8	18	18	--	--	--	A	20	--	1	-5	12/11/80	L
02N/34E-02ADB	Morrow	223	7/19/73	6	30	30	45°41'07"	118°31'08"	1517	A	30	--	1	10	7/19/73	F,L
02N/34E-02CBB1	Dick	61	3/10/66	8	24	24	45°40'53"	118°32'09"	1448	F	30	--	--	--	--	F,L
02N/34E-02CBB2	Dick	171	9/11/74	6	26	25	45°40'53"	118°32'04"	1460	P	25	0	3	10	9/11/74	F,L
02N/34E-03ADD1	Shippentower	22	5/11/64	6	35	35	45°40'56"	118°32'13"	1445	B	20	20	--	0	5/11/64	F,L
02N/34E-03BBB1	Mann	25	--	36	--	--	45°41'16"	118°33'18"	1875	N	--	--	--	10	1/ 1/ 1	F
02N/34E-03CCC1	Jackson	47	3/16/64	6	18	18	45°40'33"	118°33'24"	1405	B	23	36	4	0	3/16/64	F,L
02N/34E-03CCC2	Kirk	51	--	6	23	23	45°40'31"	118°33'19"	1413	P	26	6	1	--	--	F
02N/34E-03CCC3	Lavadoir	81	3/ 9/64	8	19	19	45°40'34"	118°33'21"	1411	B	8	78	--	1	3/ 9/64	F,L
02N/34E-03CCD2	Hines	97	8/27/74	6	35	30	45°40'36"	118°33'18"	1413	F	200	--	--	-46	8/27/74	F,I,L
02N/34E-03CCD1	Hines	70	4/27/64	6	20	20	45°40'36"	118°33'15"	1410	B	4	--	--	1	4/27/64	F,L
02N/34E-03CDB1	Hoptowit	80	4/30/64	5	51	51	45°40'36"	118°33'07"	1415	F	60	39	--	-39	4/30/64	F,L
02N/34E-03CDB2	Shoeships	123	6/27/74	6	87	66	45°40'42"	118°33'05"	1455	P	30	12	2	2	6/27/74	F,L
02N/34E-03DB	McCarty	175	1/ 5/78	8	34	34	--	--	--	A	75	--	1	10	1/ 5/78	L
02N/34E-04CB	Suiste	431	9/28/76	6	25	25	--	--	--	P	10	76	3	27	9/28/76	L
02N/34E-04CCB1	Dickerson	462	--	6	36	33	45°40'42"	118°34'40"	1375	F	10	69	--	-69	2/13/73	F
02N/34E-04CCC2	Farrow	280	7/ 1/74	6	55	55	45°40'31"	118°34'36"	1380	P	6	231	2	10	7/ 1/74	F,L
02N/34E-04CD	Bealer	130	6/ 4/80	8	18	18	--	--	--	A	45	--	1	18	6/ 4/80	L
02N/34E-04CDC	Picard	325	12/16/83	6	38	38	45°40'31"	118°34'19"	1390	A	8	--	1	22	12/16/83	F,I,L,W
02N/34E-04CDC1	Silman	363	8/13/73	6	105	105	45°40'31"	118°34'22"	1388	F	15	92	--	-92	8/13/73	F,L
02N/34E-04CDD1	Picard	242	7/23/73	6	30	30	45°40'31"	118°34'05"	1422	A	30	--	1	0	7/23/73	F,L
02N/34E-04DDA2	CTUIR	13	5/ 1/79	8	13	--	45°40'40"	118°33'35"	1405	N	--	--	--	7	5/ 1/79	F,I,L,W
02N/34E-04DDA3	CTUIR	103	5/ 2/79	8	23	--	45°40'40"	118°33'35"	1405	F	--	--	--	-39	5/ 2/79	F,I,L,W
02N/34E-04DDA1	Shippentower	200	7/18/74	8	40	40	45°40'40"	118°33'32"	1407	P	12	134	2	0	7/18/74	F,L
02N/34E-04DDD1	Union Pacific Railroad	85	1941	8	40	--	45°40'36"	118°33'31"	1410	P	30	26	--	4	1941	F,L
02N/34E-05AC	Webb	178	7/ 9/75	6	53	53	--	--	--	A	40	--	1	12	7/ 9/75	L
02N/34E-05DCD1	Sloan	58	6/ 8/65	6	30	18	45°40'31"	118°35'02"	1370	B	25	35	2	11	8/ 8/65	F,L
02N/34E-05DD1	Clarey	42	11/12/65	6	18	18	45°40'36"	118°34'44"	1375	B	10	32	2	10	11/12/65	F,L
02N/34E-05DD2	Sohappy	150	9/11/74	6	20	20	45°40'31"	118°34'45"	1375	P	15	59	3	12	9/11/74	F,L
02N/34E-07AA	Case	80	2/12/81	8	32	32	--	--	--	A	150	--	1	--	--	L
02N/34E-07CDB1	Temple	13	--	48	13	--	45°39'44"	118°36'49"	1390	N	--	--	--	2	8/31/53	F
02N/34E-08AB1	Case	10	--	36	10	--	45°40'27"	118°35'30"	1357	N	--	--	--	7	8/31/53	F
02N/34E-08AD1	Keller	124	7/25/65	8	20	20	45°40'23"	118°35'22"	1358	B	80	20	2	9	7/25/65	F,L
02N/34E-08BD	Keller	98	4/ 8/80	6	23	23	--	--	--	A	40	--	--	16	4/ 8/80	L
02N/34E-08CDC1	Day	120	5/28/70	6	22	20	45°39'38"	118°35'36"	1500	A	60	--	7	19	5/28/70	F,L
02N/34E-09BAB1	Bronson	295	5/27/68	6	34	34	45°40'28"	118°34'13"	1388	F	150	--	--	--	--	F,L
02N/34E-10CD	Ledbetter	--	6/20/78	8	26	26	--	--	--	N	--	--	--	--	--	L
02N/34E-12CCC1	Harrison	555	1/24/67	6	20	20	45°39'40"	118°30'56"	2040	A	8	--	--	470	1/24/67	F,L
02N/34E-12CCC2	Harrison	223	5/15/64	6	60	60	45°39'40"	118°30'56"	2040	B	3	--	--	--	--	F,L
02N/34E-15BAD1	Price	400	6/ 7/70*	6	26	18	45°39'30"	118°32'54"	1722	A	100	--	4	60	8/ 7/70	F,L

Table 1.--Records of selected wells in the Umatilla Indian Reservation area--Continued

Site location number	Owner	Depth of well (ft)	Date drilled	Well diameter (in)	Depth of casing (ft)	Depth of seal (ft)	Latitude	Longitude	Altitude (ft)	Well performance				Water level			Remarks
										Test meth-	Yield (gpm)	Draw down (ft)	Test period (hrs)	Feet below Datum	Date		
02N/34E-16ADC1	Waters	146	6/28/74	6	54	53	45°39'13"	116°33'36"	1740	P	20	2	1	122	6/28/74	F,L	
02N/34E-16DAD	Burke	225	9/ 3/85	6	39	39	--	--	--	A	15	--	1	84	9/ 3/85	L	
02N/34E-17AAA1	Guyer	12	--	48	12	--	45°39'32"	118°34'42"	1550	N	--	--	--	9	8/31/53	F	
02N/34E-17AAA2	Guyer	47	2/21/64	6	41	41	45°39'32"	118°34'42"	1550	P	10	25	2	12	2/21/64	F,L	
02N/34E-17BB	Demauro	161	10/24/78	6	54	54	--	--	--	A	22	--	--	49	10/24/78	L	
02N/34E-17DCC1	Fowler	750	4/20/71	10	24	24	45°38'46"	116°35'14"	1710	F	20	5	--	-5	4/20/71	F,L	
02N/34E-16BAD1	Liberty	74	2/ 9/64	6	61	61	45°39'29"	118°36'37"	1442	B	30	15	--	7	2/ 9/64	F,L	
02N/34E-16DAB1	Lloyd	120	7/ 1/74	6	46	46	45°39'10"	118°36'08"	1538	P	30	1	1	56	7/ 1/74	F,L	
02N/34E-18DAB2	Lloyd	84	9/17/64	6	18	18	45°39'10"	118°36'09"	1538	B	4	55	--	25	9/17/64	F,L	
02N/34E-18DBB1	Wilson	57	2/17/64	6	33	34	45°39'10"	118°36'28"	1498	B	12	16	--	16	2/17/64	F,L	
02N/34E-18DC	Gordon	181	10/21/77	6	20	20	--	--	--	P	13	10	3	9	10/21/77	L	
02N/34E-18DD	Lloyd	156	10/16/77	6	20	20	--	--	--	P	12	13	3	17	10/16/77	L	
02N/34E-19DAD1	Tucker	247	12/14/70	8	23	23	45°38'11"	118°36'05"	1875	A	60	--	--	100	12/14/70	F,L	
02N/34E-25CC	McEntire	665	12/ 2/77	8	18	18	--	--	--	A	8	--	1	102	12/ 2/77	L	
02N/34E-34CA	Dumont	406	9/21/76	6	20	20	--	--	--	P	10	86	3	144	9/21/76	L	
02N/35E-01BBC1	Farrow	106	9/28/76	6	30	30	45°41'06"	118°23'34"	1797	P	15	20	3	9	9/28/76	F,I,L,W	
02N/35E-03BCC1	Cahill	115	8/ 6/73	6	40	40	45°40'59"	118°25'57"	1618	A	45	--	1	2	8/ 6/73	F,L	
02N/35E-03BCC3	Cahill	15	--	--	--	--	45°40'59"	118°25'58"	1618	N	--	--	--	--	--	F,I	
02N/35E-03BCD1	Cahill	12	--	36	12	--	45°41'00"	118°25'53"	1616	N	--	--	--	9	10/10/74	F	
02N/35E-03BDA1	Weathers	244	10/31/74	6	34	35	45°41'06"	118°25'33"	1630	P	27	5	2	13	10/31/74	F,L	
02N/35E-04ADB1	Kidder	106	6/24/57	8	42	--	45°41'03"	118°26'21"	1620	B	10	60	1	30	6/24/57	F,L	
02N/35E-04ADD1	Weathers	82	8/ 6/73	6	38	36	45°40'59"	118°26'10"	1618	F	75	2	--	-2	8/ 6/73	F,L	
02N/35E-04BBC1	Wishart	60	9/24/64	6	30	30	45°41'11"	118°27'14"	1576	F	1	1	--	-1	9/24/64	F,I,L	
02N/35E-04BCA1	Phillips	100	6/17/69	6	26	26	45°41'02"	118°27'09"	1575	F	4	3	--	-3	6/17/69	F,L	
02N/35E-04BCB1	Herbig	110	7/15/85	8	36	36	45°41'01"	118°27'16"	1575	A	32	--	1	-2	7/15/85	F,I,L	
02N/35E-04CAB1	Shippen-tower	120	7/18/74	6	45	45	45°40'54"	118°26'59"	1568	P	20	38	1	3	7/18/74	F,L	
02N/35E-05ACA1	Webb	40	7/ 7/64	6	34	18	45°41'03"	118°27'40"	1565	B	12	--	--	--	--	F,L	
02N/35E-05ADC1	Clark	30	6/16/64	6	29	18	45°41'01"	118°27'29"	1575	B	50	5	--	9	6/16/64	F,L	
02N/35E-05ADD	Davis	90	6/10/69	6	228	22	45°41'01"	118°27'25"	1575	F	75	8	--	-8	6/10/69	F,L	
02N/35E-05BDC1	Lavadoir	60	6/17/64	6	18	20	45°41'00"	118°28'14"	1640	B	4	35	--	18	6/17/64	F,L	
02N/35E-05DA	Bronson	67	7/20/63	8	24	24	--	--	--	B	5	30	4	47	7/20/63	L	
02N/35E-05DAC1	Sam	110	7/22/74	6	55	55	45°40'48"	118°27'36"	1605	P	20	15	1	38	7/22/74	F,L	
02N/35E-05DAC2	Sam	74	6/29/64	6	35	--	45°40'48"	118°27'36"	1610	B	6	31	--	33	6/29/64	F,L	
02N/35E-05DC	Reed	112	5/ 4/64	6	22	22	--	--	--	F	4	23	--	-23	5/ 4/64	L	
02N/35E-06AC	Reed	220	8/ 7/79	6	22	22	--	--	--	F	15	12	--	-12	8/ 7/79	L	
02N/35E-06ACA3	CTUIR	18	5/14/79	6	18	--	45°41'04"	118°28'59"	1529	N	--	--	--	7	5/14/79	F,I,L,W	
02N/35E-06ACA4	CTUIR	52	5/21/79	8	28	--	45°41'04"	118°28'59"	1529	F	--	--	--	-3	5/21/79	F,I,L,W	
02N/35E-06ACA1	Reed	75	6/10/69	8	18	18	45°41'07"	118°28'55"	1524	F	15	17	--	-17	6/10/69	F,L	
02N/35E-06ACC1	Hackney	--	--	6	--	--	45°40'59"	118°29'07"	1530	P	6	29	2	0	9/ 9/99	F	
02N/35E-06BD1	Luke	156	10/25/77	6	40	40	--	--	--	P	14	25	3	12	10/25/77	L	
02N/35E-06BD2	Sheoships	55	10/29/77	6	40	40	--	--	--	P	15	3	3	10	10/29/77	L	
02N/35E-06BDA1	Minthorn	56	7/18/74	6	40	40	45°41'03"	118°29'12"	1518	P	10	3	2	14	7/18/74	F,L	
02N/35E-06BDA2	Minthorn	60	10/17/83	6	33	33	--	--	--	A	20	--	2	1	10/17/83	L	
02N/35E-06BDC1	Thompson	52	5/29/64	6	24	24	45°40'58"	118°29'23"	1518	B	24	30	--	10	5/29/64	F,L	
02N/35E-11DCA1	Thubbs	70	6/ 9/69	6	31	31	45°39'48"	118°23'59"	1900	A	50	--	--	10	6/ 9/69	F,L	
02N/35E-14ABA1	Kitson	10	--	36	10	--	45°39'34"	118°23'59"	1930	N	--	--	--	--	--	F	
02N/35E-14ABA2	Kittson	109	10/18/74	6	20	20	45°39'34"	118°23'59"	1930	P	13	0	2	0	10/18/74	F,L	
03N/34E-02BCC1	Lieuallen	150	--	6	--	--	45°46'06"	118°32'16"	1600	N	--	--	--	--	--	F	
03N/34E-02BCC2	Lieuallen	275	12/13/73	6	178	178	45°46'08"	118°32'14"	1605	A	35	--	1	190	12/13/73	F,L	
03N/34E-03BAC	Davis	1263	3/24/72*	12	60	60	45°46'25"	118°33'09"	1544	P	912	33	8	--	--	F,L,W	
03N/34E-03DDD	Lieuallen	980	4/10/78	12	560	18	--	--	--	P	1500	162	8	278	4/10/78	I,L	
03N/34E-04DAA1	City of Adams	650	1/15/60	10	32	32	--	--	--	P	60	30	1	--	--	F,I,L	
03N/34E-11AAC	Davis	1030	10/29/68*	8	341	100	45°45'26"	118°31'19"	1659	P	185	235	3	107	10/29/68	F,L,W	
03N/34E-11AB	Stanley	260	7/26/78	8	18	18	--	--	--	A	60	--	1	120	7/26/78	L	
03N/34E-11CD1	Bearcham	381	10/12/77	6	40	40	--	--	--	P	12	36	4	286	10/12/77	L	
03N/34E-11CDC1	Johnson	130	10/ 7/83	6	53	53	--	--	--	P	20	23	4	41	10/ 7/83	L	
03N/34E-11CDD	Pierce	20	--	--	--	--	--	--	--	N	--	--	--	17	8/28/53		
03N/34E-11CDD1	Bearcham	120	8/25/64	6	50	5	45°44'48"	116°31'43"	1740	B	7	55	--	40	8/25/64	F,L	
03N/34E-12BCB1	Allen	27	--	--	--	--	45°45'21"	118°30'57"	1685	N	--	--	--	20	8/29/53	F	
03N/34E-12BCB2	Tucker	300	8/25/74	6	60	60	45°45'21"	118°30'57"	1675	P	5	106	2	132	8/25/74	F,L	
03N/34E-12CDD	Betts	140	--	6	--	--	45°44'50"	118°30'33"	1715	N	--	--	--	--	--	F	
03N/34E-13CAD	Barnett Ranch	1910	11/ 6/67	8	1117	460	45°44'09"	118°30'29"	1610	P	330	285	8	195	11/ 6/67	F,L	
03N/34E-14DCD	Rondeau	35	--	--	--	--	45°43'58"	118°31'21"	1767	N	--	--	--	--	--	F	
03N/34E-16DAC1	Burke	285	6/18/60	8	147	--	45°44'15"	118°33'49"	1538	B	5	80	1	40	6/18/60	F,L	
03N/34E-18CBB2	Rothrock	785	12/13/74	6	35	35	45°44'21"	118°37'12"	1455	A	200	--	1	40	12/13/74	F,I,L	
03N/34E-20BCB	Haynes	155	--	8	7	--	45°43'43"	118°36'02"	1490	N	--	--	--	14	8/28/53	F,I	
03N/34E-20DDC	Lafave	136	12/14/66	6	19	19	45°43'04"	118°35'07"	1538	A	20	--	--	42	12/14/66	F,L	
03N/34E-22DBC	Mann	315	5/ 8/44	8	63	--	45°43'19"	118°32'50"	1630	B	40	30	--	18	5/ 8/44	F,L	
03N/34E-23ABB1	Barnett Ranch	660	3/ 8/68	10	22	22	45°43'52"	118°31'38"	1780	A	150	--	--	48	3/ 8/68	F,L,W	
03N/34E-23ABB2	Barnett Ranch	936	5/22/76*	10	28	28	45°43'53"	118°31'39"	1780	P	650	313	12	60	4/12/68	F,L,W	

Table 1.--Records of selected wells in the Umatilla Indian Reservation area--Continued

Site location number	Owner	Depth of well (ft)	Date drilled	Well dis- meter (in)	Depth of casing (ft)	Depth of seal (ft)	Latitude	Longitude	Altitude (ft)	Well performance			Water level			Remarks
										Test meth- od	Yield (gpm)	Draw- down (ft)	Test period (hrs)	Feet below Datum	Date	
03N/34E-25ABB1	Curl	26	--	--	16	--	45°43'01"	118°30'21"	1850	N	--	--	--	15	8/28/53	F
03N/34E-25ABB2	Curl	305	1940	8	86	--	45°42'57"	118°30'26"	1860	B	15	175	--	125	1940	F,L
03N/34E-26BBB	Tubbs	590	9/10/74	6	21	19	45°43'01"	118°32'16"	1685	A	75	--	--	80	9/10/74	F,L
03N/34E-32BBB	Maloney	159	--	8	54	--	45°42'10"	118°35'59"	1540	B	30	70	--	48	8/28/53	F,L
03N/34E-33AB	Lawyer	20	--	48	8	--	--	--	--	N	--	--	--	16	8/28/53	
03N/34E-33ABC	Burke	200	4/ 2/64	6	18	18	45°42'00"	118°34'03"	1660	B	4	148	--	50	4/ 2/64	F,L
03N/34E-33ACB	Burke	252	9/11/74	6	30	30	45°41'57"	118°34'06"	1640	P	21	17	3	51	9/11/74	F,L
03N/34E-33CBD	Mann	54	--	6	--	--	45°41'33"	118°34'33"	1562	N	--	--	--	--	--	F
03N/34E-33DA1	Minthorn	190	--	6	23	--	--	--	--	B	28	22	--	--	--	L
03N/34E-35BAA	Lavinia	110	4/10/64	6	44	44	45°42'08"	118°31'46"	1798	B	1	39	--	70	4/10/64	F,L
03N/35E-04BB1	Bell	18	--	48	--	--	45°46'28"	118°27'11"	--	N	--	--	--	-1	9/ 3/53	F
03N35E-04CBD	Smith & Beamer	1103	12/14/66	16	27	27	45°45'54"	118°27'05"	2068	P	890	162	4	318	12/14/66	F,L
03N/35E-07AAA	Davis Ranch	1787	9/23/70	12	584	115	45°45'39"	118°28'39"	1984	P	1022	240	15	237	9/23/70	F,I,L
03N/35E-07CDD1	Davis	--	--	36	84	--	45°44'53"	118°29'16"	1842	N	--	--	--	0	9/ 3/53	F
03N/35E-08AD	Davis	298	--	6	--	--	--	--	--	N	--	--	--	287	9/ 2/53	
03N/35E-09DA	Wernsing	550	3/17/76	6	24	24	--	--	--	A	5	--	1	204	3/17/76	L
03N/35E-09DB	Foster	481	1950	--	--	--	--	--	--	N	--	--	--	--	--	L
03N/35E-11DDD	Mawhin	77	7/ 8/68	6	32	30	45°44'47"	118°23'46"	--	P	1	38	1	35	7/ 8/68	F,L
03N/35E-15BCA	Adams	100	--	8	38	--	45°44'32"	118°25'55"	2340	B	70	--	--	--	--	F,L
03N/35E-17CBD	Unknown	--	--	--	--	--	45°44'10"	118°28'22"	--	N	--	--	--	--	--	F
03N/35E-17CC	Vawter	380	4/16/80	6	18	18	--	--	--	A	20	--	1	138	4/16/80	L
03N/35E-18ADD	Williams	176	1947	6	--	--	45°44'23"	118°28'39"	1905	B	5	--	--	0	1947	F,L
03N/35E-18CC	Tubbs Ranch Inc	700	5/27/87	8	68	68	--	--	--	A	50	--	1	242	5/27/87	L
03N/35E-19ACC1	Barnett	200	--	6	18	--	45°43'29"	118°29'09"	1875	N	--	--	--	--	--	F
03N/35E-19DBB1	Barnett	968	1946	8	22	--	45°43'27"	118°29'13"	1878	N	--	--	--	275	9/ 2/53	F,L
03N/35E-20BBC	Bafus	48	--	36	--	--	45°43'43"	118°28'35"	1971	N	--	--	--	25	9/ 2/53	F,W
03N/35E-20DAA	Thompson	470	--	6	--	--	45°43'25"	118°27'23"	2050	N	--	--	--	--	--	F
03N/35E-21CCA	Lent	30	--	10	--	--	45°43'10"	118°27'08"	--	N	--	--	--	--	--	F
03N/35E-21DCA	Barnett- Rugg Inc	558	4/ 9/68	6	60	40	45°43'11"	118°26'29"	2198	N	--	--	--	--	--	L,W
03N/35E-28DBC1	Sheoships	603	4/23/82	6	24	24	45°42'28"	118°26'36"	2245	A	18	--	2	150	4/23/82	F,I,L
03N/35E-28DBD1	Sheoships	100	10/10/83	6	32	32	--	--	--	P	20	24	4	28	10/10/83	I,L
03N/35E-29ADC1	Hall	65	3/31/66	6	21	21	45°42'37"	118°27'34"	2290	A	60	--	--	35	3/31/66	F,I,L
03N/35E-32DDD1	Sams	74	7/17/64	6	60	--	45°41'21"	118°27'22"	1600	B	7	--	--	28	7/17/64	F,L
03N/35E-35AC	Reed	124	6/ 7/76	6	45	45	--	--	--	A	100	--	1	4	6/ 7/76	L
03N/35E-35ACC1	Simpson	60	--	6	--	--	45°41'45"	118°24'06"	1658	N	--	--	--	--	--	F
03N/35E-35ACC2	MacGregor	92	5/23/71	8	27	27	45°41'49"	118°24'06"	1680	A	100	--	5	0	5/23/71	F,L
03N/35E-35ACC3	Simpson	89	10/30/74	6	36	36	45°41'44"	118°24'06"	1798	P	25	3	2	11	10/30/74	F,L
03N/35E-35AD	Hill	45	3/21/77	8	41	41	--	--	--	A	190	--	1	4	3/21/77	L
03N/35E-35ADB	Heise	80	6/14/69	6	21	21	45°41'54"	118°23'53"	1685	F	15	3	--	-3	6/14/69	F,L
03N/35E-35ADC	Dow	46	--	--	--	--	45°41'46"	118°23'51"	1710	N	--	--	--	--	--	F
03N/35E-35CCAB	Hampton	102	7/22/86	6	55	55	45°41'30"	118°24'38"	1655	A	20	--	1	9	7/22/86	F,I,L,W
03N/35E-36AAC1	Smith	100	6/12/69	6	42	42	45°41'59"	118°22'37"	1735	F	20	3	--	-3	6/12/69	F,L
03N/35E-36BAD	Black	12	--	--	--	--	45°42'00"	118°23'07"	1710	N	--	--	--	10	11/10/74	F
03N/35E-36BC	Ballita	115	8/ 8/78	6	19	19	--	--	--	A	50	--	1	6	8/ 8/78	L
03N/35E-36BCA	Williams	75	6/ 8/84	6	26	26	--	--	--	A	100	--	1	6	6/ 8/84	L
03N/35E-36BDB1	Shippen- tower	75	10/13/83	6	25	25	--	--	--	A	109	--	2	5	10/13/83	L
03N/36E-21CDD	Lavadour	140	1/23/83	6	69	69	45°43'07"	118°19'26"	1880	P	7	59	2	0	1/23/83	F,I,L,W
03N/36E-21DBC1	Hawkins	236	5/20/82	8	66	65	45°43'20"	118°19'09"	1885	F	600	162	--	-162	5/20/82	F,I,L,W
03N/36E-28BBA	Duffy	245	8/15/79	6	65	65	45°43'00"	118°19'45"	1867	F	100	212	--	-212	8/15/79	F,I,L
03N/36E-29AAC1	Duffy	123	6/25/74	6	37	37	45°42'53"	118°20'12"	1835	P	30	24	2	8	6/25/74	F,L
03N/36E-29AAC2	McBean	100	6/25/74	6	42	42	45°42'51"	118°20'10"	1835	P	60	0	1	0	6/25/74	F,L
03N/36E-29AB	Duffy	130	9/ 4/81	6	55	20	--	--	--	A	100	--	1	--	--	L
03N/36E-29ACB1	Gray	46	8/ 1/64	6	29	--	45°42'48"	118°20'28"	1830	B	8	--	--	12	8/ 1/64	F,L
03N/36E-29ACB2	Gray	92	6/26/74	6	40	40	45°42'47"	118°20'27"	1823	P	30	21	3	12	6/26/74	F,L
03N/36E-29BDC	Kirksey	143	9/29/76	6	20	20	45°42'36"	118°20'43"	1829	P	15	7	3	7	9/29/76	F,I,L,W
03N/36E-29BDD1	McBean	78	8/ 4/74	6	30	30	45°42'37"	118°20'39"	1835	P	30	0	1	-48	8/ 4/74	F,L
03N/36E-29CAB1	Gibbon	60	1950	6	--	--	45°42'31"	118°20'43"	1821	N	--	--	--	--	--	F,L
03N/36E-29CAB2	Brouillard	83	5/29/74	6	34	34	45°42'32"	118°20'45"	1820	P	20	7	2	20	5/29/74	F,L
03N/36E-29CAC1	Picard	88	8/ 4/64	6	43	--	45°42'29"	118°20'45"	1820	B	10	--	--	25	8/ 4/64	F,L
03N/36E-29CAC2	Picard	150	10/16/74	6	34	35	45°42'29"	118°20'45"	1820	P	27	7	2	17	10/16/74	F,L
03N/36E-31ABD	Reed	115	7/18/74	6	40	40	45°42'02"	118°21'29"	1755	P	30	30	1	0	7/18/74	F,L
03N/36E-31BAC1	Union Pacific Railroad	80	--	8	56	--	45°42'00"	118°22'01"	--	N	--	--	--	8	1/ 1/99	F
03N/36E-31BC	Hoskins	215	9/22/77	8	88	88	--	--	--	A	200	--	--	90	9/22/77	L
03N/36E-32BCB1	Quasempts	29	7/29/64	6	24	--	45°41'55"	118°21'01"	1780	B	10	--	--	10	7/29/64	F,L
03N/36E-32BCB2	Quasempts	109	10/15/74	6	33	33	45°41'55"	118°21'01"	1780	P	80	0	2	--	--	F,L
03N/36E-32BCD	Franklin	164	10/16/74	6	19	19	45°41'51"	118°20'58"	1820	P	27	4	2	35	10/16/74	F,L
04N/35E-22DCD	City of Weston	1147	5/18/81	12	25	25	45°48'19"	118°25'12"	2010	A	450	--	4	310	5/18/81	F,I,L
04N/35E-30BDD	City of Athana	746	6/ 4/70	8	520	24	45°47'51"	118°29'13"	1885	P	554	215	17	185	6/ 4/70	F,I,L
04N/35E-35BAC	Smith & Beamer	1125	10/25/66	12	22	22	45°47'13"	118°24'22"	2060	P	800	17	6	336	10/25/66	F,I,L

Table 2.--Historical water-level data for selected wells in the Umatilla Indian Reservation area

Well location number: See "Site Identification System" section for explanation.

Water Level: Water levels were measured by the Geological Survey, the Oregon State Water Resources Department or the Confederated Tribes of the Umatilla Indian Reservation, except as indicated. D, water level reported by well driller; O, water level reported by well owner; P, pump in operation; R, water level recovering from pumping; N, new gage installed; - indicates feet of head above land surface.

Well- location number	Well depth (ft)	Date of measurement	Water level (feet below land surface)	Remarks	Well- location number	Well depth (ft)	Date of measurement	Water level (feet below land surface)	Remarks
01N/33E-03DDD2	255	3/26/71	29.00 (D)	Unused through 1975	01N/33E-28DDC	180	3/26/84	79.00 (D)	Deepened since previous water-level measurement
		1/31/74	4.10				9/17/86	88.60	
		2/28/74	4.30		01N/34E-01ADA	165 495	8/ 2/53	36.00 (O)	
		3/27/74	4.57				4/24/74	281.93	
		7/30/74	5.17				5/30/74	281.85	
		10/10/74	6.20				7/ 1/74	281.00	
		1/ 7/75	6.67		01S/33E-01CDA	80	5/11/73	15.00 (D)	
		2/ 3/75	5.37				3/28/74	17.60	
		3/16/75	3.40				4/30/74	17.42	
		5/23/75	4.33				5/30/74	17.50	
	675	1/22/81	300.00 (D)	Deepened since previous water-level measurement			7/ 1/74	17.17	
	1150	2/19/81	280.00 (D)	Deepened since previous water-level measurement			7/30/74	17.13	
		4/30/82	270.00 (D)				9/ 4/74	22.34 (P)	
							9/30/74	26.68 (P)	
							11/ 5/74	17.35	
01N/33E-03DDD1	126	1/31/74	33.25		01S/33E-03CDB1	181	10/14/77	12.00 (D)	
		2/28/74	30.40				9/17/86	14.00	
		3/27/74	13.50		01S/33E-06CAD2	250	2/19/84	-46.00 (D)	
		4/30/74	3.00				3/19/85	-41.50	
		7/30/74	70.00		02N/33E-07ADA9	320	3/ 1/84	35.00 (D)	
		11/ 5/74	52.43				3/ 7/84	18.90	
		12/ 3/74	38.00				9/15/86	27.30	
		1/ 7/75	30.20		02N/33E-08AADD	480	8/25/77	22.00 (D)	
		2/ 3/75	26.00				9/20/83	83.00	
		3/18/75	10.25	Unused after 1975	02N/33E-08AADD	655	10/26/83	144.00 (D)	Deepened since previous water-level measurement
							9/15/88	167.00	
		6/10/82	1.08		02N/33E-08DAC1	779	1949	19.00 (D)	
		4/16/84	2.85				2/27/74	44.50	
		6/18/84	1.00				3/27/74	44.30	
		7/19/84	1.10				4/30/74	44.90	
		8/ 2/84	1.42				5/30/74	179.00 (P)	
		9/ 7/84	2.75		02N/33E-08DAC1		5/30/74	129.00 (R)	
		11/ 2/84	4.42				7/ 7/74	229.00	
		11/29/84	6.20				7/31/74	363.00 (P)	
		2/ 1/85	2.00				7/31/74	347.00 (R)	
		7/16/85	3.93				11/ 6/74	71.60 (R)	
		8/ 8/85	5.31		02N/33E-09ACA1	125	12/ 3/74	50.30	
		9/16/85	7.07				1/ 7/75	47.00	
		12/10/85	10.94				2/ 3/75	49.00 (R)	
		3/28/86	4.28				3/18/75	45.60	
		4/11/86	1.10				5/ 5/58	14.00 (O)	
01N/33E-05BAA1	120	4/ 2/84	25.00 (D)		02N/33E-09ACA1	125	8/29/74	12.00	
		2/20/85	12.60				5/ 1/86	26.10 (R)	
		9/17/86	19.80		02N/33E-09ACA2	300	8/22/86	117.00	Tribal observation well; unused
							9/15/86	142.20	
	77	2/21/53	5.00		02N/33E-09ACC3	220	8/17/81	147.00 (D)	
		3/27/74	6.00				10/14/81	71.42	
		5/30/74	6.18				11/10/81	43.12	
		5/30/74	6.00				12/10/81	35.94	
		7/ 1/74	7.52				1/10/82	35.67	
01N/33E-09BAA		7/30/74	8.42	Unused			2/10/82	32.22	
		9/ 4/74	10.21				3/10/82	32.02	
		9/30/74	12.70				4/10/82	31.87	
		11/ 5/74	18.74				5/10/82	34.32	
		12/ 2/74	18.87				6/ 2/82	68.42	
		1/ 6/75	24.96				7/12/82	84.32	
		2/ 3/75	4.58				8/ 5/82	144.00	
		3/18/75	5.58				9/10/82	141.75	
		7/ 9/75	9.37				10/10/82	51.60	
		8/ 7/75	10.76				11/10/82	35.25	
01N/33E-10BCC1	41	2/21/53	1.60	Unused			12/10/82	34.17	
		3/27/74	5.80				1/10/83	33.45	
		4/30/74	5.46				2/10/83	33.25	
		5/30/74	5.83				3/10/83	31.35	
		7/ 1/74	6.09				4/10/83	32.00	
		7/30/74	7.90				5/10/83	32.45	
		9/ 4/74	9.19				6/10/83	103.14	
		9/30/74	10.27				7/10/83	99.88	
		11/ 5/74	12.10				8/11/83	144.94	
		12/ 2/74	13.55				9/11/83	120.75	
		1/ 7/75	14.11				10/13/83	48.65	
		2/ 3/75	5.50				11/10/83	34.01	
		3/18/75	5.75				12/10/83	32.88	
		7/ 9/75	8.32				1/10/84	33.05	
		8/ 7/75	9.91				2/10/84	32.44	
01N/33E-10BCC1	357	4/ 9/69	100.00 (D)	Unused			3/10/84	31.75	
		2/28/74	139.50				4/10/84	31.70	
		3/28/74	139.50				5/10/84	63.60	
		4/30/74	139.80				6/10/84	34.90	
		5/30/74	138.10				7/10/84	41.27	
		7/ 1/74	138.85				8/10/84	163.08	
		9/ 4/74	138.70				9/ 7/84	58.75	
		11/ 5/74	139.40						
		12/ 2/74	139.00						
		1/ 7/75	139.00						
		3/16/75	138.35						

Table 2.--Historical water-level data for selected wells in the Umatilla Indian Reservation area--Continued

Well- location number	Well depth (ft)	Date of measurement	Water level (feet below land surface)	Remarks	Well- location number	Well depth (ft)	Date of measurement	Water level (feet below land surface)	Remarks
02N/33E-08ACC3 (cont.)		10/12/84	75.61		02N/33E-08ADA1 (cont.)		8/10/84	10.76	
		11/ 6/84	60.40				9/ 7/84	10.63	
		12/11/84	34.09				10/12/84	10.46	
		1/ 9/85	33.53				11/ 8/84	9.70	
		2/ 6/85	33.06				12/11/84	8.18	
		3/13/85	32.38				1/ 9/85	7.74	
		4/10/85	66.85				2/ 6/85	7.47	
		5/15/85	41.22				3/13/85	6.63	
		8/12/85	45.74				4/10/85	7.20	
		7/10/85	58.22				5/10/85	8.24	
		8/ 7/85	49.23				8/10/85	8.74	
		9/11/85	140.75				7/10/85	9.70	
		10/10/85	92.88				8/10/85	11.32	
		11/ 6/85	43.05				9/10/85	11.43	
		2/28/86	32.64				10/10/85	10.40	
		4/11/86	66.68				11/10/85	9.45	
		5/16/86	106.65				2/28/86	2.55	
		6/ 4/86	108.42				4/11/86	7.03	
		6/18/86	143.06				5/16/86	8.82	
		7/ 3/86	145.44				6/ 4/86	9.23	
		8/ 6/86	157.27				6/18/86	9.96	
		9/ 3/86	160.65				7/ 3/86	10.45	
		9/15/86	184.60				8/ 6/86	11.04	
		9/15/86	164.62				9/ 3/86	10.85	
		10/ 8/86	39.61				9/15/86	11.40	
		11/ 3/86	53.82				9/15/86	11.41	
		12/ 4/86	37.36				10/ 8/86	10.90	
		1/ 8/87	35.25				11/ 3/86	9.99	
		2/ 9/87	33.34				12/ 4/86	8.47	
		3/11/87	33.09				1/ 8/87	8.09	
		3/18/87	33.00				2/ 9/87	7.13	
		4/22/87	45.44				3/11/87	7.81	
		5/12/87	99.04				3/18/87	7.00	
		6/11/87	49.49				4/30/87	6.75	
		7/13/87	158.54				5/12/87	9.01	
02N/33E-08ADA1	25	5/ 4/79	6.25 (D)	Tribal observation well; unused	02N/33E-08ADA2	255	6/11/87	9.66	
		12/13/79	8.57				7/13/87	14.61	
		1/10/80	8.11				5/ 9/79	12.00 (D)	Tribal observation well; unused
		2/10/80	6.64				1/10/80	11.26	
		3/10/80	5.49				2/10/80	8.33	
		4/10/80	6.39				3/10/80	8.61	
		5/10/80	8.31				4/10/80	9.44	
		6/10/80	8.87				5/10/80	11.78	
		7/10/80	9.79				6/12/80	54.83	
		8/10/80	11.06				7/27/80	145.88	
		9/10/80	11.19				10/10/80	40.37	
		10/10/80	10.71				11/10/80	20.54	
		11/10/80	10.17				12/10/80	2.54	
		12/10/80	6.92				1/10/81	11.76	
		1/10/81	8.44				2/10/81	11.71	
		2/10/81	8.21				3/10/81	9.80	
		3/10/81	6.19				4/10/81	8.47	
		4/10/81	5.19				5/10/81	21.92	
		5/10/81	7.76				6/10/81	13.40	
		6/10/81	8.19				7/ 9/81	80.54	
		7/10/81	9.36				8/10/81	158.46	
		8/13/81	10.27				9/ 9/81	160.81	
		9/ 9/81	10.22				10/10/81	59.28	
		10/10/81	10.33				11/10/81	18.18	
		11/10/81	9.49				12/10/81	12.04	
		12/10/81	8.19				1/10/82	10.92	
		1/10/82	6.93				2/10/82	8.71	
		2/10/82	5.20				3/10/82	8.28	
		3/10/82	4.83				4/10/82	9.74	
		4/10/82	6.87				5/ 9/82	11.58	
		5/10/82	7.69				6/16/82	97.64	
		6/ 9/82	8.82				7/22/82	90.96	
		7/10/82	9.60				8/ 6/82	155.29	
		8/10/82	10.45				9/18/82	101.54	
		9/10/82	10.69				10/10/82	30.00	
		10/10/82	9.93				11/10/82	12.60	
		11/10/82	8.78				12/10/82	12.00	
		12/10/82	8.25				1/10/83	11.70	
		1/10/83	7.42				2/10/83	11.79	
		2/10/83	7.22				3/11/83	7.50	
		3/10/83	4.48				4/ 8/83	8.90	
		4/10/83	5.90				5/10/83	11.00	
		5/10/83	7.65				6/10/83	105.04	
		6/10/83	9.29				7/ 9/83	98.54	
		7/10/83	9.86				8/11/83	146.45	
		8/10/83	10.24				9/10/83	114.52	
		9/10/83	10.59				10/10/83	33.00	
		10/10/83	10.25				11/10/83	12.80	
		11/11/83	9.13				12/10/83	12.28	
		12/10/83	8.48				1/10/84	9.75	
		1/10/84	6.35				2/10/84	10.50	
		2/10/84	6.55				3/10/84	9.75	
		3/10/84	6.31				4/10/84	9.50	
		4/10/84	6.25				5/12/84	75.77	
		5/10/84	8.17				6/10/84	13.50	
		6/10/84	9.17				7/13/84	125.63	
		7/10/84	9.80						

Table 2.--Historical water-level data for selected wells in the Umatilla Indian Reservation area--Continued

Well- location number	Well depth (ft)	Date of measurement	Water level (feet below land surface)	Remarks	Well- location number	Well depth (ft)	Date of measurement	Water level (feet below land surface)	Remarks
02N/33E-08ADA2 (cont.)		8/10/84	171.71		02N/33E-10DBC1 (cont.)		6/10/83	5.96	
		9/ 7/84	167.76				7/10/83	5.36	
		10/12/84	51.00				8/10/83	7.14	
		11/ 8/84	33.17				9/10/83	5.31	
		12/11/84	12.37				10/10/83	2.21	
		1/ 9/85	12.22				11/10/83	0.96	
		2/14/85	4.91				12/10/83	0.34	
		3/13/85	5.89				1/10/84	-0.22	
		4/10/85	70.86				2/10/84	0.74	
		5/19/85	57.50				3/10/84	0.73	
		6/12/85	47.71				4/10/84	0.06	
		7/10/85	47.61				5/10/84	1.00	
		8/ 7/85	47.71				6/10/84	1.37	
		9/11/85	126.81				7/10/84	6.47	
		10/10/85	74.14				8/ 9/84	8.94	
		11/ 6/85	20.74				9/10/84	4.32	
		2/28/86	6.84				10/10/84	4.25	
		4/11/86	70.40				11/10/84	2.65	
		5/16/86	118.17				12/10/84	0.92	
		6/ 4/86	127.29				1/10/85	1.33	
		6/18/86	142.96				2/10/85	1.81	
		7/ 3/86	143.92				3/10/85	1.06	
		8/ 6/86	161.05				4/10/85	2.39	
		9/ 3/86	164.30				5/ 8/85	3.07	
		9/15/86	172.70				6/10/85	3.36	
		10/ 6/86	71.95				7/10/85	10.60	
		11/ 3/86	32.41				8/10/85	8.83	
		12/ 4/86	9.96				9/10/85	5.43	
		1/ 8/87	12.41				10/10/85	2.57	
		2/ 9/87	11.61				11/ 6/85	1.32	
		3/11/87	11.44				2/20/86	-0.70	
		3/18/87	10.00				4/10/86	0.93	
		4/30/87	59.76				5/14/86	2.62	
		5/12/87	85.66				6/ 4/86	6.46	
		6/11/87	54.11				6/18/86	9.30	
		7/13/87	171.21				7/ 3/86	13.27	
02N/33E-09BCB1	190	7/ 3/69	84.00 (D)				8/ 6/86	10.87	
		5/30/74	8.90 (P)				9/ 3/86	4.19	
		7/ 1/74	95.55 (R)				9/15/86	6.80	
		7/31/74	116.13				9/15/86	6.97	
		9/ 5/74	124.15				10/ 6/86	-0.94	
		10/ 2/74	47.30				11/ 3/86	0.93	
		11/ 6/74	14.24				12/ 4/86	-1.41	
		2/ 4/75	-15.00				1/ 8/87	-0.82	
		3/18/75	-16.00				3/11/87	-1.67	
		5/22/75	-10.80				3/18/87	-2.00	
		3/16/84	-69.00				4/22/87	-0.21	
02N/33E-10CBA4	220	4/22/83	11.70				5/12/87	2.09	
		5/ 6/83	11.20				6/11/87	3.70	
		7/ 8/85	180.00				7/13/87	7.74	
		7/15/85	165.00				5/12/87	2.09	
	400	7/25/85	174.00 (D)	Deepened since previous water-level measurement			6/11/87	3.70	
		3/28/86	19.80				7/13/87	7.74	
		9/15/86	174.00				8/ 5/83	33.00 (D)	
		10/16/86	66.50				4/17/85	29.60	
		3/18/87	17.30				7/ 9/86	49.10	
							9/16/86	33.30	
02N/33E-10DAA1	190	3/28/85	10.10				10/23/74	13.20	
		9/27/85	10.10				12/12/84	10.80	
		9/16/86	20.20				9/16/86	7.50	
02N/33E-10DBC1	182	8/26/81	6.00 (D)	Tribal observation well; unused			3/ 3/78	96.00 (D)	
		11/18/81	-2.99				7/11/78	127.10	
		11/25/81	-3.48				8/29/78	143.20	
		12/ 2/81	-3.69				2/11/80	119.40	
		12/ 9/81	-3.90				3/ 3/80	96.00	
		12/16/81	-3.90				2/10/81	128.53	
		12/22/81	-3.89				2/22/82	138.25	
		12/29/81	-3.84				2/ 7/83	135.30	
		1/ 6/82	-3.86				7/27/83	102.98	
		1/13/82	-3.74				2/14/84	129.00	
		1/13/82	-3.74				7/19/84	138.00	
		1/20/82	-3.96				2/15/85	125.23	
		1/27/82	-4.03				2/20/86	126.05	
		2/ 3/82	-3.82				02N/33E-14DAC	452	4/21/86
		2/16/82	-3.57						1.00 (D)
		2/16/82	-3.57				800	2/10/72	29.00
		2/17/82	-2.65					6/ 7/74	40.00
		2/24/82	-2.90					11/ 6/74	51.90
		3/ 3/82	-2.94					12/ 3/74	50.85
		3/10/82	-2.94					1/ 7/75	49.90
		3/17/82	-2.94					1/ 7/75	49.74
		4/ 7/82	-2.44					2/ 4/75	321.00
		5/12/82	-0.96					3/18/75	325.75 (P)
		6/ 9/82	0.69					5/22/75	49.10
		7/10/82	0.49					7/ 7/75	45.94 (P)
		8/10/82	3.56					7/ 7/78	124.19
		9/10/82	1.97					8/10/78	156.00
		10/10/82	-1.50					8/25/78	148.74
		12/17/82	-3.11					8/28/78	156.00
		1/27/83	-2.57					10/18/78	150.00
		2/25/83	-3.19					7/31/79	160.00
		3/24/83	-1.57					9/19/79	146.00
		4/15/83	-0.80					1/ 9/80	108.00
		5/10/83	-1.02						

Table 2.--Historical water-level data for selected wells in the Umatilla Indian Reservation area--Continued

Well- location number	Well depth (ft)	Date of measurement	Water level (feet below land surface)	Remarks	Well- location number	Well depth (ft)	Date of measurement	Water level (feet below land surface)	Remarks
02N/33E-14DAC	(cont.)	3/ 2/80	85.00		02N/34E-04DDA2	(cont.)	8/10/83	9.60	
		3/ 4/80	140.00				9/10/83	9.74	
		3/10/80	128.00				10/10/83	9.57	
		7/ 9/80	52.83				11/10/83	9.18	
		7/19/84	72.90				12/10/83	8.92	
02N/33E-20BBB1	608	12/ 5/88	24.00 (D)				1/10/84	7.95	
	784	4/20/70	14.00 (D)	Deepened since previous water-level measurement			2/10/84	8.28	
	997	11/ 4/70	18.00 (D)	Deepened since previous water-level measurement			3/10/84	7.33	
		3/ 1/74	29.70				4/10/84	8.30	
							5/ 9/84	6.40	
		3/28/74	28.30				8/10/84	6.25	
		4/30/74	28.50				7/10/84	8.25	
		5/30/74	30.75				8/10/84	8.52	
		9/ 5/74	48.40				9/ 7/84	8.84	
		10/ 2/74	35.70				10/11/84	8.70	
		11/ 6/74	28.75				11/10/84	9.10	
		12/ 3/74	27.48				12/11/84	8.10	
		1/ 7/75	26.04				1/ 9/85	8.28	
		2/ 4/75	23.72				2/14/85	7.62	
		3/18/75	21.28				3/13/85	7.18	
							4/10/85	5.50	
02N/33E-20BBB1	472	8/22/53	9.00 (O)				5/10/85	7.75	
		3/ 1/74	60.20				6/10/85	8.28	
		3/28/74	78.00				7/10/85	9.15	
		3/28/74	89.00 (F)				8/10/85	9.45	
		4/30/74	70.00 (R)						
		5/30/74	48.60				9/10/85	9.82	
		10/ 2/74	97.80				10/10/85	9.25	
		11/ 6/74	67.80				11/10/85	8.44	
		12/ 3/74	66.50				2/28/86	4.69	
		1/ 7/75	58.00 (R)				4/11/86	7.46	
		2/ 4/75	72.00 (R)				5/12/86	7.92	
		3/18/75	57.80				6/ 4/86	8.11	
							6/18/86	8.35	
02N/33E-28DCD2	489	8/18/83	39.00 (D)				7/ 3/86	8.55	
		8/28/84	-15.00				8/ 6/86	9.20	
		11/ 2/84	-32.30				9/ 3/88	9.08	
		11/29/84	-32.30				9/16/86	9.00	
		2/ 1/85	-36.90				9/16/86	8.99	
							10/ 6/86	9.01	
02N/33E-28DDA1	450	1/27/77	48.00 (D)				11/ 3/86	8.98	
		9/15/86	27.68				12/ 4/86	8.28	
02N/33E-28DDA2	700	2/ 4/81	-32.30 (D)				1/ 8/87	8.26	
		9/15/88	-30.00				2/ 9/87	7.79	
02N/33E-32CDD1	750	11/30/79	-8.90 (D)				3/18/87	7.00	
	965	1/ 6/80	-11.50 (D)	Deepened since previous water-level measurement			4/30/83	8.23	
		9/17/86	-30.00				5/12/87	8.75	
							6/11/87	8.88	
							7/13/87	9.44	
02N/34E-04CDC	325	12/16/83	22.00 (D)						
		4/ 9/84	-36.90		02N/34E-04DDA3	103	5/ 2/79	39.20 (D)	Tribal observation well; unused
02N/34E-04DDA2	13	5/ 1/79	7.30 (D)	Tribal observation well; unused			12/13/79	-43.54	
		12/10/79	8.80				1/10/80	-43.54	
		1/18/80	8.51				2/ 8/80	-45.85	
		2/10/80	8.38				3/13/80	-48.16	
		3/10/80	7.96				4/10/80	-48.16	
		4/10/80	8.10				5/ 8/80	-49.32	
		5/10/80	8.27				6/12/80	-49.32	
		6/10/80	8.41				7/10/80	-48.16	
		7/10/80	8.84				8/ 7/80	-48.16	
		8/10/80	9.17				9/11/80	-48.16	
		9/10/80	9.40				10/10/80	-48.16	
		10/10/80	9.60				11/13/80	-50.47	
		11/10/80	9.20				12/11/80	-50.47	
		12/10/80	8.79				1/ 7/81	-50.47	
		1/10/81	8.90				2/11/81	-50.47	
		2/10/81	8.75				3/11/81	-48.16	
		3/10/81	8.48				4/ 8/81	-50.47	
		4/10/81	8.20				5/13/81	-50.47	
		5/10/81	8.53				8/10/81	-50.47	
		6/10/81	8.89				7/ 8/81	-51.82	
		7/10/81	9.31				8/13/81	-52.78	
		8/10/81	9.84				9/16/81	-52.78	
		9/ 9/81	9.79				10/ 7/81	-55.09	
		10/10/81	9.70				11/12/81	-50.47	
		11/10/81	9.23				12/ 9/81	-50.47	
		12/10/81	8.21				1/14/82	-48.16	
		1/10/82	8.41				2/10/82	-48.16	
		2/10/82	8.05				3/10/82	-48.16	
		3/10/82	8.98				4/14/82	-49.32	
		4/10/82	7.86				5/12/82	-50.47	
		5/10/82	7.26				6/ 9/82	-50.47	
		6/ 9/82	8.14				7/ 7/82	-49.32	
		7/10/82	8.49				8/11/82	-48.16	
		8/10/82	8.75				9/ 2/82	-48.16	
		9/10/82	9.35				11/12/82	-48.16	
		10/10/82	9.24				12/10/82	-48.16	
		11/ 5/82	9.08				1/ 6/83	-49.32	
		12/10/82	8.59				2/12/83	-48.16	
		1/10/83	6.80				3/11/83	-48.16	
		2/10/83	8.50				4/ 8/83	-48.16	
		3/10/83	8.81				5/ 9/83	-48.16	
		4/10/83	7.72				6/ 9/83	-48.16	
		5/10/83	7.92				7/ 9/83	-48.16	
		6/10/83	8.74						
		7/10/83	9.05						

Table 2.--Historical water-level data for selected wells in the Umatilla Indian Reservation area--Continued

Well- location number	Well depth (ft)	Date of measurement	Water level (feet below land surface)	Remarks	Well- location number	Well depth (ft)	Date of measurement	Water level (feet below land surface)	Remarks
02N/34E-04DDA3 (cont.)		8/11/83	-48.16		02N/35E-06ACA3 (cont.)		7/10/83	10.87	
		9/ 8/83	-48.16				8/10/83	11.38	
		10/13/83	-49.32				9/10/83	11.45	
		11/11/83	-50.47				10/10/83	11.17	
		12/ 8/83	-50.47				11/10/83	10.47	
		1/ 7/84	-50.47				12/ 7/83	7.20	
		2/10/84	-47.24 (N)				1/10/84	6.18	
		3/14/84	-47.58				2/10/84	7.23	
		4/11/84	-47.61				3/10/84	7.18	
		5/12/84	-48.16				4/10/84	8.20	
		6/ 6/84	-48.39				5/10/84	9.60	
		7/13/84	-47.58				6/ 6/84	7.84	
		8/10/84	-47.35				7/10/84	10.82	
		9/ 7/84	-47.12				8/10/84	11.40	
		10/11/84	-47.47				9/ 7/84	11.46	
		11/14/84	-47.24				10/11/84	11.49	
		12/11/84	-47.24				11/14/84	6.98	
		1/ 9/85	-46.66				12/11/84	6.02	
		2/ 6/85	-46.89				1/ 9/85	6.90	
		3/13/85	-47.24				2/ 8/85	7.30	
		4/10/85	-47.47				3/13/85	7.32	
		5/ 8/85	-47.70				4/10/85	7.05	
		6/12/85	-47.24				5/10/85	9.97	
		7/10/85	-46.31				6/12/85	10.30	
		8/ 7/85	-46.08				7/10/85	11.37	
		9/11/85	-45.85				8/ 7/85	11.59	
		10/10/85	-47.00				9/11/85	11.85	
		11/ 6/85	-47.00				10/10/85	11.44	
		4/11/86	-47.35				11/ 6/85	10.23	
		5/12/86	-47.35				2/28/86	7.75	
		6/ 4/86	-47.24				4/11/86	9.93	
		8/18/86	-46.31				5/12/86	10.39	
		7/ 3/86	-46.31				6/ 4/86	10.84	
		8/ 6/86	-46.31				6/18/86	11.45	
		9/ 3/86	-46.08				7/ 3/86	11.32	
		9/15/86	-46.08				8/ 6/86	11.96	
		9/16/86	-46.00				9/ 3/86	12.05	
		10/ 6/86	-46.77				9/16/86	11.88	
		11/ 3/86	-46.31				10/ 6/86	10.84	
		12/ 4/86	-46.77				11/ 3/86	11.45	
		1/ 8/87	-47.00				12/ 4/86	6.51	
		2/ 9/87	-47.00				1/ 8/87	8.15	
		3/18/87	-43.90				2/ 9/87	6.57	
		4/30/87	-47.70				3/18/87	6.80	
		5/12/87	-47.70				4/30/87	10.24	
		6/11/87	-47.24				5/12/87	10.64	
		7/13/87	-46.31				6/11/87	11.21	
							7/13/87	11.80	
02N/35E-01BBC1	106	9/28/76	9.00 (D)		02N/35E-06ACA4	52	5/21/79	-3.20 (D)	Tribal observation well; unused
		9/16/86	5.50				12/13/79	-3.07	
02N/35E-06ACA3	18	5/14/79	7.30 (D)	Tribal observation well; unused			1/10/80	-2.78	
		12/13/79	6.38				2/ 8/80	-2.64	
		1/10/80	7.45				3/13/80	-3.38	
		2/10/80	6.55				4/10/80	-3.14	
		3/10/80	5.98				5/ 6/80	-2.38	
		4/10/80	7.43				6/12/80	-3.41	
		5/ 8/80	9.50				7/10/80	-2.03	
		6/10/80	7.12				8/ 7/80	-2.45	
		7/10/80	11.14				9/11/80	-1.99	
		8/10/80	9.45				10/10/80	-1.88	
		9/11/80	12.15				11/13/80	-2.78	
		10/10/80	12.10				12/11/80	-4.34	
		11/10/80	11.27				1/ 7/81	-4.68	
		12/10/80	6.09				2/11/81	-5.16	
		1/10/81	7.07				3/11/81	-5.57	
		2/10/81	9.23				4/ 8/81	-6.55	
		3/10/81	8.35				5/13/81	-6.72	
		4/10/81	7.18				7/ 9/81	-6.09	
		5/10/81	8.95				8/13/81	-5.86	
		6/10/81	9.05				9/16/81	-5.41	
		7/10/81	9.80				10/ 7/81	-5.84	
		8/10/81	11.03				11/12/81	-5.55	
		9/ 9/81	11.17				12/ 9/81	-6.66	
		10/10/81	10.15				1/20/82	-6.36	
		11/10/81	10.74				2/10/82	-6.09	
		12/10/81	7.97				6/ 9/82	-6.64	
		1/10/82	10.08				7/ 7/82	-6.59	
		2/10/82	9.81				8/11/82	-5.76	
		3/10/82	7.34				9/ 2/82	-5.03	
		4/10/82	10.44				11/12/82	-5.97	
		5/12/82	9.33				12/10/82	-6.30	
		6/ 9/82	9.64				1/14/83	-6.01	
		7/10/82	10.72				2/12/83	-5.97	
		8/10/82	11.49				3/11/83	-6.43	
		9/10/82	11.75				4/ 8/83	-6.47	
		10/10/82	11.25				6/ 9/83	-5.43	
		11/12/82	7.23				7/ 9/83	-5.26	
		12/10/82	5.73				8/11/83	-4.93	
		1/10/83	8.72				9/ 8/83	-4.72	
		2/10/83	7.33				10/13/83	-4.80	
		3/10/83	7.19				11/11/83	-5.80	
		4/10/83	6.54				12/ 8/83	-6.47	
		5/10/83	8.07				4/11/84	-7.16	
		6/10/83	10.49						



Table 2.--Historical water-level data for selected wells in the Umatilla Indian Reservation area--Continued

Well- location number	Well depth (ft)	Date of measurement	Water level (feet below land surface)	Remarks	Well- location number	Well depth (ft)	Date of measurement	Water level (feet below land surface)	Remarks
02N/35E-06ACA4 (cont.)		5/12/84	-6.93		03N/34E-03BAC (cont.)		5/ 7/75	59.50	
		6/ 6/84	-7.68				8/ 6/75	159.00	
		7/13/84	-6.30				2/11/76	90.00	
		8/10/84	-6.14				5/12/76	66.50	
		9/ 7/84	-6.18				12/ 7/76	121.50	
		10/11/84	-6.09				2/11/77	89.50	
		11/14/84	-7.68				12/ 6/77	124.50	
		12/11/84	-7.68				2/ 1/78	105.70	
		1/ 9/85	-7.68				2/16/78	105.50	
		2/ 6/85	-7.68				5/ 1/78	85.60	
		3/13/85	-7.68				5/11/76	85.50	
		4/25/85	-7.68				12/ 1/78	124.30	
		5/15/85	-7.43				12/ 1/79	124.10	
		6/12/85	-7.43				3/ 1/81	101.70	
		7/10/85	-6.59				12/ 1/81	131.50	
		8/ 7/85	-6.68				2/ 1/82	102.40	
		9/11/85	-6.61				12/ 1/82	126.20	
		4/11/86	-7.34				2/ 1/83	93.30	
		5/12/86	-7.29				2/ 1/84	73.70	
		6/ 4/86	-5.43		03N/34E-11AAC	340	1940	30.00 (O)	
		6/18/86	-6.59			1030	10/29/88	107.00 (D)	Deepened since previous water-level measurement
		7/ 3/86	-6.43		03N/34E-11AAC (cont.)		3/ 1/74	129.90	
		8/ 6/86	-6.26				3/28/74	128.10	
		9/ 3/86	-5.93				4/30/74	135.60	
		9/15/86	-8.11				5/30/74	122.10	
		9/16/86	-8.40				7/ 7/74	121.80	
		10/ 6/86	-6.34				9/17/74	124.90	
		11/ 3/86	-5.93				10/ 1/74	124.90	
		12/ 4/86	-7.68				11/ 6/74	126.20	
		1/ 8/87	-7.26				12/ 3/74	127.35	
		2/ 9/87	-7.68				1/ 7/75	127.60	
03N/34E-03BAC 298		4/30/87	-7.43				2/ 4/75	127.20	
		5/12/87	-7.26		03N/34E-23ABB1	860	3/ 8/68	48.00 (D)	
		6/11/87	-6.76				9/ 6/78	62.90	
		7/13/87	-6.18				2/20/86	60.60	
		9/ 2/53	5.00		03N/34E-23ABB2	880	4/12/68	60.00 (D)	
		12/16/53	9.00				9/ 6/78	382.00	Deepened since previous water-level measurement
		1/20/54	9.00				2/11/80	287.91	
		3/ 2/54	8.00				7/ 7/80	293.50	
		3/30/54	8.00				2/10/81	283.30	
		5/12/54	19.00		03N/35E-20BBC	48	2/20/88	301.80	
		6/ 4/54	23.00				9/ 2/53	25.00	Unused
		7/ 8/54	35.00				3/28/74	15.00	
		8/ 7/54	46.00				4/30/74	16.15	
		9/20/55	60.00				5/30/74	17.20	
		12/10/55	18.00				7/ 2/74	17.98	
		4/14/56	10.50				7/31/74	18.88	
		9/23/56	44.00				9/ 5/74	19.90	
		5/21/57	11.50				10/ 1/74	20.75	
		9/26/57	50.00				11/ 6/74	21.67	
		11/16/57	18.00				12/ 3/74	22.52	
		1/ 9/58	12.00				1/ 7/75	23.08	
		8/ 1/58	54.00				2/ 4/75	21.71	
		1/ 3/62	14.00				3/20/75	21.25	
		3/31/62	11.00				5/27/75	22.62	
		4/11/62	11.50				8/ 7/75	24.38	
		9/25/62	52.00		03N/35E-21DCA	558	3/26/74	293.87	
		11/15/62	21.00				5/30/74	288.55	
		2/ 5/63	13.00				7/ 7/74	264.00	
		5/ 8/63	11.00				9/17/74	261.90	
		11/ 8/63	40.00				10/ 1/74	259.00	
		8/11/64	80.50		03N/35E-35CCAB	102	11/ 6/74	257.90	
		11/18/64	45.00				12/ 3/74	255.00	
		2/16/65	16.00				1/ 7/75	257.30	
		5/ 5/65	23.50				3/18/75	260.15	
		11/17/65	41.00				12/ 3/74	254.80	
		2/15/66	19.50		03N/36E-21CDD	140	7/22/86	9.00 (D)	
		5/ 5/66	58.00				7/24/86	9.60	
		2/ 8/67	67.50				9/16/86	8.40	
		5/ 3/67	37.50		03N/36E-21DBC1	236	1/23/83	0.00 (D)	
		2/ 7/86	92.00				5/11/83	4.80	
		5/ 8/88	119.50				9/18/86	14.00	
		5/ 6/89	71.50		03N/36E-29BDC	143	5/20/82	161.50 (D)	
		5/ 6/70	46.00				9/16/86	164.00	
		10/27/70	130.50				9/28/76	7.00 (D)	
1263		2/22/71	78.00				9/16/86	11.70	
		11/15/72	86.00	Deepened since previous water-level measurement					
		2/21/73	85.50						
		5/ 8/74	58.50						
		2/12/75	64.00						

Table 3.--Streamflow data collected at sites in and near the Umatilla Indian Reservation

Station number: See "Site-identification System" section for explanation.

Period of record: \* indicates currently active stations for which 1986 and 1987 data will be published at a later date.

Station number	Latitude	Longitude	Description	Drainage area (square miles)	Period of record	Data available
14020000	45°43'11"	118°19'20"	Umatilla River above Meacham Creek near Gibbon	131.00	1933-85*	Daily, monthly, annual discharge measurements
14020280	45°38'50"	118°21'38"	Meacham Creek below Line Creek at east boundary	165.00	1973-75	Intermittent discharge measurements
14020290	45°41'05"	118°21'42"	Boston Canyon Creek at east boundary	5.30	1973-75	Intermittent discharge measurements
14020300	45°41'20"	118°21'20"	Meacham Creek at Gibbon	176.00	1975-85*	Daily, monthly, annual discharge measurements
14020500	45°42'04"	118°23'26"	Umatilla River at Gibbon	310.00	1896-99, 1092-11	Monthly, annual discharge measurements (discontinuous)
14020510	45°34'26"	118°26'09"	Squaw Creek at South boundary	8.80	1973-75	Intermittent discharge measurements
14020700	45°40'57"	118°31'15"	Umatilla River near Cayuse	384.00	1968-75	Daily, monthly, annual discharge measurements
14020800	45°38'05"	118°37'18"	Mission Creek at St. Andrews Mission	4.45	1958, 1963-79	Annual peak discharge measurements
14020900	45°45'56"	118°26'35"	Wildhorse Creek 100 feet upstream from Eagle Creek	15.50	1966-78	Daily, monthly, annual discharge measurements
14020910	45°45'56"	118°26'38"	Eagle Creek near Athena	3.10	1973-75	Intermittent discharge measurements
14020940	45°46'08"	118°32'49"	Spring Hollow Creek near Adams	18.00	1973-75	Intermittent discharge measurements
14021000	45°40'20"	118°47'30"	Umatilla River at Pendleton	637.00	1891-92, 1903-05, 1934-85*	Daily, monthly, annual discharge measurements
14021910	45°35'39"	118°44'39"	Tutuilla Creek at west boundary	8.00	1973-75	Intermittent discharge measurements
14021920	45°36'28"	118°44'39"	South Coyote Creek at west boundary	6.80	1973-75	Intermittent discharge measurements
14021980	45°39'10"	118°44'37"	Patawa Creek at west boundary	30.00	1973-75	Intermittent discharge measurements
14022000	45°40'20"	118°50'00"	Umatilla River above McKay Creek near Pendleton	700.00	1921-34	Monthly, annual discharge measurements (discontinuous)
14022190	45°30'10"	118°37'19"	McKay Creek above North Fork at east boundary	100.00	1973-75	Intermittent discharge measurements
14022200	45°30'24"	118°36'57"	North Fork McKay Creek near Pilot Rock	48.60	1973-85*	Daily, monthly, annual discharge measurements
14022280	45°30'14"	118°44'58"	McKay Creek at west boundary	168.00	1973-75	Intermittent discharge measurements
14022500	45°32'57"	118°46'24"	McKay Creek near Pilot Rock	180.00	1921, 1925-85*	Daily, monthly, annual discharge measurements
14022510	45°32'54"	118°45'53"	Spring Hollow Creek at west boundary	4.80	1973-75	Intermittent discharge measurements
14023500	45°36'34"	118°47'55"	McKay Creek near Pendleton	186.00	1918-85*	Daily, monthly, annual discharge measurements

Table 4.--Isotope data for selected water sources in the Umatilla Indian Reservation area

Site Location Number: See "Site Identification System" section for explanation.

Sample Source: IG, infiltration gallery; PR, precipitation; SN, snow; SP, spring; ST, stream; WE, well.

Deuterium: Deuterium values are given as permil differences relative to Standard Mean Ocean Water (SMOW),

$$\text{Deuterium (permil)} = \left[ \frac{(\text{Deuterium/Hydrogen})_{\text{sample}}}{(\text{Deuterium/Hydrogen})_{\text{SMOW}}} - 1 \right] \times 10^3$$

Oxygen-18: Oxygen-18 values are given as permil differences relative to SMOW,

$$\text{Oxygen-18 (permil)} = \left[ \frac{(\text{Oxygen-18/Oxygen-16})_{\text{sample}}}{(\text{Oxygen-18/Oxygen-16})_{\text{SMOW}}} - 1 \right] \times 10^3$$

Site-location number	Sample source	Date of sample collection	Deuterium (permil)	Oxygen-18 (permil)	Site-location number	Sample source	Date of sample collection	Deuterium (permil)	Oxygen-18 (permil)
01N/33E-03DDDD1	WE	9/15/1986	-99.8	-12.1	02N/34E-04CDC	WE	9/16/1986	-113.4	-14.4
01N/33E-03DDDD1	ST	3/19/1987	-108.0	-13.9	02N/34E-04DDA2	WE	9/16/1986	-99.2	-11.6
01N/33E-05BAA1	WE	9/17/1986	-105.4	-13.5	02N/34E-04DDA2	WE	3/18/1987	-104.0	-13.1
01N/33E-28DDC	WE	9/17/1986	-100.6	-12.3	02N/34E-04DDA3	WE	9/16/1986	-113.2	-13.8
01N/34E-01BAA	WE	9/18/1986	-109.9	-14.7	02N/34E-04DDA3	WE	3/18/1987	-119.0	-14.0
01N/34E-01BAA	SN	3/21/1987	-92.0	-12.5	02N/34E-07BDD	SP	9/16/1986	-101.6	-12.1
01N/34E-01BAA	WE	3/21/1987	-108.0	-14.7	02N/35E-01BEC1	WE	9/16/1986	-107.7	-14.8
01N/35E-09CBA	SN	3/21/1987	-99.0	-13.7	02N/35E-03BCC3	WE	9/16/1986	-106.3	-14.4
01N/35E-27CDC	SN	3/21/1987	-96.0	-13.3	02N/35E-04BEC1	WE	9/16/1986	-101.6	-13.8
01N/35E-33ADA	SN	3/21/1987	-100.0	-14.0	02N/35E-04BEC1	WE	9/16/1986	-106.4	-13.5
01S/33E-01CDB1	WE	9/17/1986	-109.4	-14.4	02N/35E-06ACA2	IG	9/19/1986	-108.2	-14.4
01S/33E-01CDB1	WE	3/19/1987	-107.0	-14.2	02N/35E-06ACA3	WE	9/16/1986	-106.2	-13.9
01S/33E-01CDB2	WE	3/19/1987	-106.0	-13.8	02N/35E-06ACA3	WE	3/18/1987	-106.0	-14.1
01S/33E-03CDB1	WE	9/17/1986	-100.9	-12.1	02N/35E-06ACA4	WE	9/16/1986	-107.8	-13.9
01S/33E-03CDB1	WE	3/19/1987	-99.0	-12.1	02N/35E-06ACA4	WE	3/18/1987	-109.0	-14.0
01S/33E-04CBB	ST	3/19/1987	-104.0	-14.6	02N/35E-06BC	ST	9/19/1986	-108.6	-14.9
01S/33E-05BDD2	WE	9/16/1986	-113.7	-14.4	02N/37E-04CBD	SN	3/21/1987	-107.0	-15.3
01S/33E-06CAD2	WE	9/17/1986	-108.0	-13.0	02N/37E-13BEC	SN	3/21/1987	-107.0	-14.5
01S/33E-06CAD2	WE	3/19/1987	-108.0	-13.5	02N/37E-13BEC	ST	3/21/1987	-110.0	-15.3
01S/35E-03ABB	WE	3/21/1987	-108.0	-14.7	02N/37E-13BEC	SN	3/21/1987	-107.0	-14.8
02N/33E-03BCC	ST	9/15/1986	-101.9	-12.7	03N/34E-03DDD	WE	9/17/1986	-112.3	-14.4
02N/33E-03BCC	ST	3/18/1987	-105.0	-12.8	03N/34E-04DAA1	WE	9/16/1986	-124.5	-16.4
02N/33E-03CBB1	WE	9/15/1986	-106.4	-13.8	03N/34E-04DAA1	WE	3/19/1987	-124.0	-15.8
02N/33E-03CBB1	WE	9/15/1986	-107.1	-13.9	03N/34E-04DAA1	WE	3/20/1987	-122.0	-18.3
02N/33E-03CBB1	WE	3/18/1987	-106.0	-13.2	03N/34E-07AAB	ST	10/17/1986	-113.8	-14.9
02N/33E-03CCA1	WE	9/15/1986	-109.8	-14.5	03N/34E-07AAB	ST	3/19/1987	-112.0	-13.8
02N/33E-04DBD	SP	9/15/1986	-88.6	-9.6	03N/34E-07CD	ST	10/17/1986	-112.7	-13.7
02N/33E-04DBD	SP	3/18/1987	-102.0	-12.0	03N/34E-07CD	ST	3/19/1987	-111.0	-13.9
02N/33E-07ADA6	WE	9/15/1986	-110.2	-13.6	03N/34E-18CBB2	WE	9/18/1986	-124.2	-15.4
02N/33E-07ADA9	WE	9/15/1986	-103.4	-13.4	03N/34E-18CBB2	WE	3/18/1987	-118.0	-15.5
02N/33E-08AADD	WE	9/15/1986	-114.4	-14.4	03N/34E-18CBC	FR	9/15/1986	-82.1	-10.2
02N/33E-08DAC1	WE	9/15/1986	-110.6	-13.6	03N/34E-18CBD	SP	10/18/1986	-102.9	-12.3
02N/33E-09AAAA	ST	9/15/1986	-105.0	-14.2	03N/34E-20BCB	WE	10/19/1986	-112.3	-14.0
02N/33E-09AAAA	ST	3/18/1987	-110.0	-14.8	03N/34E-20BCB	WE	3/19/1987	-112.0	-13.5
02N/33E-09ACA1	WE	9/15/1986	-103.7	-13.2	03N/35E-03DADB	SP	3/20/1987	-102.0	-13.1
02N/33E-09ACA2	WE	9/15/1986	-113.7	-14.7	03N/35E-07AAA	WE	9/16/1986	-117.6	-14.6
02N/33E-09ACC3	WE	9/15/1986	-121.1	-15.4	03N/35E-28DBC1	WE	9/16/1986	-99.6	-13.3
02N/33E-09ACC3	WE	3/18/1987	-120.0	-15.7	03N/35E-28DBD1	WE	9/16/1986	-100.1	-13.2
02N/33E-09ADA1	WE	9/15/1986	-104.7	-13.8	03N/35E-28ADC1	WE	9/16/1986	-103.7	-13.3
02N/33E-09ADA1	WE	3/18/1987	-107.0	-14.1	03N/35E-28ADC1	WE	3/23/1987	-101.0	-13.1
02N/33E-09ADA2	WE	9/15/1986	-107.0	-14.5	03N/35E-33CCD	SP	9/16/1986	-96.6	-12.5
02N/33E-09ADA2	WE	3/18/1987	-106.0	-14.8	03N/35E-35CCAB	WE	9/16/1986	-108.2	-14.5
02N/33E-09DAA2	WE	9/15/1986	-107.2	-13.9	03N/35E-35CCAC	SP	9/16/1986	-97.6	-13.1
02N/33E-09DAD	WE	9/15/1986	-103.0	-12.8	03N/35E-36CCA	ST	9/16/1986	-106.0	-14.2
02N/33E-10CBA4	WE	9/15/1986	-111.3	-14.3	03N/35E-36CCA	ST	3/21/1987	-107.0	-14.4
02N/33E-10CBA4	WE	3/18/1987	-108.0	-14.1	03N/38E-21CDC	SU	3/18/1987	-72.0	-9.4
02N/33E-10DAA1	WE	9/16/1986	-111.9	-14.8	03N/36E-21CDD	WE	9/16/1986	-114.0	-14.7
02N/33E-10DAD1	WE	9/16/1986	-109.7	-13.9	03N/36E-21CDD	WE	3/18/1987	-113.0	-15.0
02N/33E-10DAD2	WE	9/16/1986	-111.0	-13.8	03N/36E-21DBC1	WE	9/16/1986	-108.5	-14.3
02N/33E-10DBC1	WE	9/15/1986	-113.9	-14.9	03N/36E-28BBA	WE	9/16/1986	-114.0	-14.8
02N/33E-10DBC1	WE	3/18/1987	-114.0	-15.2	03N/36E-29BDC	WE	9/16/1986	-109.5	-15.2
02N/33E-10DBC2	FR	3/1/1987	-54.0	-6.9	03N/36E-29BDC	WE	3/18/1987	-110.0	-14.4
02N/33E-10DBC2	FR	5/1/1987	-129.0	-16.9	03N/37E-18ADA	SP	3/21/1987	-109.0	-13.8
02N/33E-10DBC2	FR	5/12/1987	-88.0	-8.9	03N/37E-22BCA	ST	3/21/1987	-108.0	-14.7
02N/33E-10DBC2	FR	6/18/1987	-38.0	-2.5	03N/37E-22CBD	ST	3/21/1987	-108.0	-14.7
02N/33E-11ADB2	WE	9/16/1986	-112.6	-14.8	04N/35E-22DCD	WE	3/20/1987	-107.0	-13.3
02N/33E-11CAB1	WE	9/16/1986	-107.0	-14.3	04N/35E-25BAD	SP	3/20/1987	-105.0	-13.5
02N/33E-14DAC	WE	9/19/1986	-107.0	-13.2	04N/35E-25CAC	SP	3/20/1987	-104.0	-13.8
02N/33E-28DCD2	WE	9/15/1986	-112.6	-13.9	04N/35E-30BDD	WE	3/20/1987	-118.0	-15.3
02N/33E-28DDA1	WE	9/15/1986	-108.4	-13.4	04N/35E-35BAC	WE	3/20/1987	-107.0	-13.4
02N/33E-28DDA2	WE	9/15/1986	-107.5	-13.4	04N/37E-26DDC	ST	3/21/1987	-110.0	-15.0
02N/33E-31CDC2	WE	9/17/1986	-106.0	-13.6	04N/37E-35AAD	SP	3/21/1987	-108.0	-14.9
02N/33E-32CBD1	WE	9/17/1986	-114.2	-14.6	04N/38E-31AAD	SN	3/21/1987	-90.0	-12.3
02N/33E-32CBD1	WE	3/19/1987	-113.0	-14.7	04N/38E-31AAD	SN	3/21/1987	-130.0	-17.4
02N/33E-32CCA	FR	9/17/1986	-56.2	-5.8	04N/38E-31AAD	SN	3/21/1987	-110.0	-15.1
02N/34E-01ADC	WE	9/16/1986	-104.5	-14.1					
02N/34E-01ADD1	WE	9/16/1986	-106.9	-13.8					
02N/34E-01ADD2	WE	9/16/1986	-106.9	-14.0					
02N/34E-03CCD2	WE	9/16/1986	-110.1	-13.8					
02N/34E-03CCD3	ST	9/16/1986	-110.1	-15.4					