

06299980 TONGUE RIVER AT MONARCH, WY

LOCATION.--Lat 44°54'01", long 107°01'13" (NAD 27), in NW¹/₄ NW¹/₄ SE¹/₄ sec.20, T.57 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, on right bank at county bridge, 0.4 mi downstream from South Dry Creek, and 0.9 mi east of Monarch.

DRAINAGE AREA.--478 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 2004 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,620 ft above NGVD of 1929, from topographic map. U.S. Geological Survey data collection platform with satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Numerous diversions for irrigation upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	82	e64	e52	e62	46	52	112	748	438	92	73
2	70	68	e64	e54	e56	47	49	112	779	406	97	69
3	70	73	e70	e64	e60	48	59	110	704	383	95	64
4	66	84	e74	e62	e60	46	65	123	698	362	111	64
5	65	81	e72	e58	e62	46	65	159	686	341	97	55
6	63	81	e70	e62	e50	47	63	272	746	315	91	54
7	61	77	e68	e66	e52	46	63	590	840	287	89	53
8	56	76	e68	e70	e56	54	84	1,450	842	256	78	53
9	60	78	e68	e72	e60	52	141	747	755	229	61	52
10	59	82	e66	e72	e62	56	118	912	697	219	72	48
11	59	78	e72	e72	e58	54	90	2,660	650	227	163	49
12	62	70	e72	e70	e58	52	79	1,450	644	212	124	57
13	67	59	e60	e60	e60	57	75	877	822	194	125	69
14	73	62	e66	e54	e58	49	112	797	721	178	129	80
15	93	58	e70	e50	e46	47	112	803	705	169	122	76
16	96	55	e70	e54	e54	55	88	939	750	157	109	73
17	86	53	e70	e74	e54	58	99	1,210	850	146	105	71
18	87	59	e68	e70	e56	55	e180	1,190	934	141	123	73
19	87	58	e66	e70	e56	53	170	1,170	872	128	137	73
20	78	57	e66	e70	e56	52	157	1,410	815	116	132	73
21	82	e44	e66	e70	e54	54	155	1,840	765	114	102	68
22	97	e50	e64	e68	e48	54	146	1,710	710	103	100	69
23	89	e60	e50	e68	e49	52	153	1,620	669	103	97	71
24	84	e66	e66	e69	e48	53	183	1,610	658	102	97	76
25	81	e68	e62	e62	e49	50	250	1,300	598	100	96	87
26	70	e72	e60	e62	e49	49	223	1,080	555	134	92	82
27	80	e66	e60	e62	e46	49	188	927	570	140	90	77
28	81	e60	e58	e64	47	53	148	892	496	122	81	75
29	92	e46	e58	e62	---	58	130	891	517	110	75	76
30	93	e60	e56	e62	---	58	117	823	525	99	70	74
31	85	---	e54	e58	---	54	---	773	---	95	70	---
TOTAL	2,364	1,983	2,018	1,983	1,526	1,604	3,614	30,559	21,321	6,126	3,122	2,034
MEAN	76.3	66.1	65.1	64.0	54.5	51.7	120	986	711	198	101	67.8
MAX	97	84	74	74	62	58	250	2,660	934	438	163	87
MIN	56	44	50	50	46	46	49	110	496	95	61	48
AC-FT	4,690	3,930	4,000	3,930	3,030	3,180	7,170	60,610	42,290	12,150	6,190	4,030

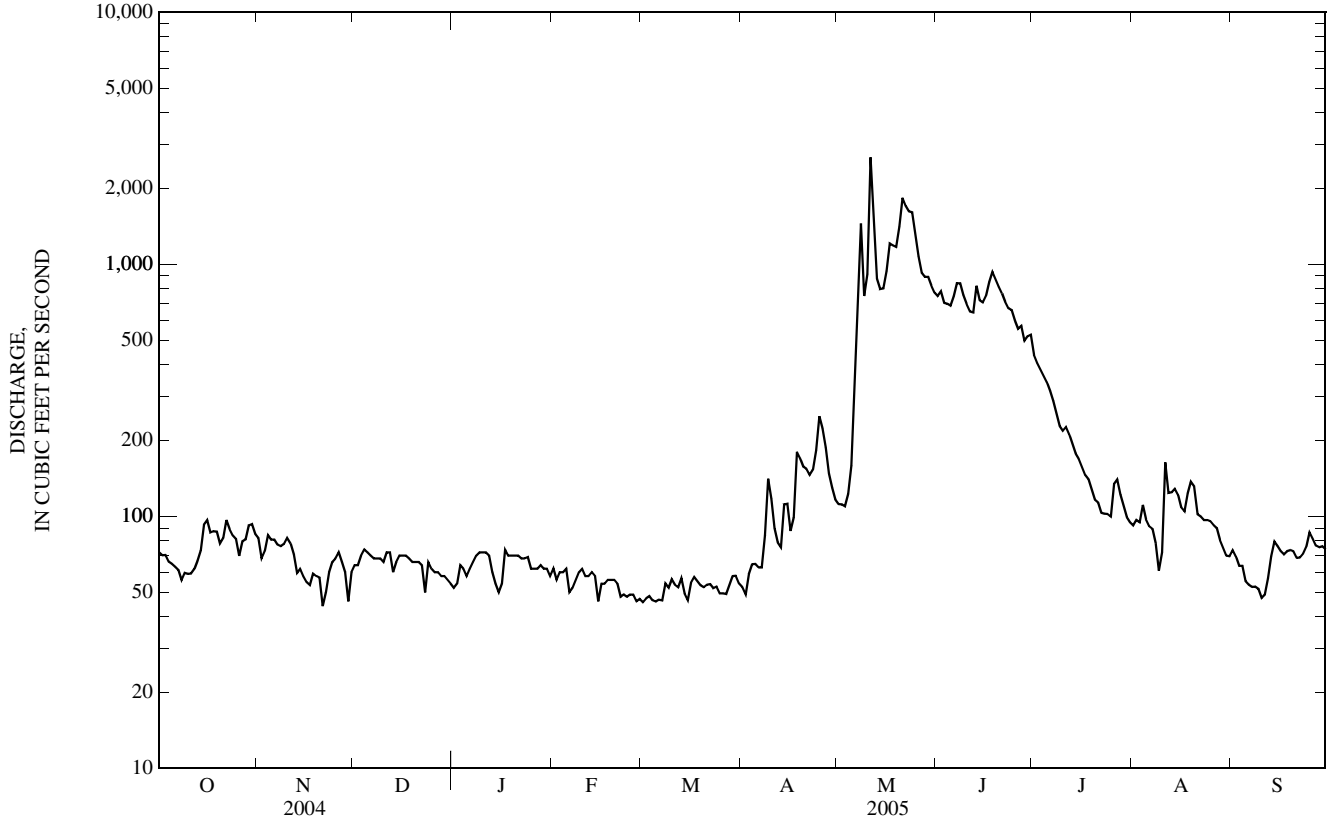
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)*

MEAN	76.3	66.1	65.1	64.0	54.5	51.7	120	580	434	151	70.4	59.1
MAX	76.3	66.1	65.1	64.0	54.5	51.7	120	986	711	198	101	67.8
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)
MIN	76.3	66.1	65.1	64.0	54.5	51.7	120	174	157	104	40.1	50.4
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2004)	(2004)	(2004)	(2004)

SUMMARY STATISTICS

	FOR 2005 WATER YEAR		WATER YEARS 2004 - 2005*	
ANNUAL TOTAL	78,254			
ANNUAL MEAN	214		214	
HIGHEST ANNUAL MEAN			214	2005
LOWEST ANNUAL MEAN			214	2005
HIGHEST DAILY MEAN	2,660	May 11	2,660	May 11, 2005
LOWEST DAILY MEAN	44	Nov 21	23	Sep 1, 2004
ANNUAL SEVEN-DAY MINIMUM	47	Feb 27	31	Aug 29, 2004
MAXIMUM PEAK FLOW	3,350	May 11	3,350	May 11, 2005
MAXIMUM PEAK STAGE	7.91	May 11	7.91	May 11, 2005
ANNUAL RUNOFF (AC-FT)	155,200		155,300	

*--For period of operation.
e--Estimated.



06299980 TONGUE RIVER AT MONARCH, WY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-80, 1982-83, 2004 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 2004 to current year (seasonal records).

INSTRUMENTATION.--Specific conductance probe installed in May 2004.

REMARKS.--The daily specific conductance record is rated good to excellent except for the period May 12-17, which is rated poor. Missing data on Apr. 18 due to equipment malfunction. Low-level mercury analysis on July 14; result is reported in nanograms per liter.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 582 microsiemens per centimeter ($\mu\text{S}/\text{cm}$) at 25.0°C, Sept. 4, 2004; minimum, 146 $\mu\text{S}/\text{cm}$ at 25.0°C, May 24, 2005.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE (seasonal records): Maximum, 455 microsiemens per centimeter ($\mu\text{S}/\text{cm}$) at 25.0°C, Sept.12; minimum, 146 $\mu\text{S}/\text{cm}$ at 25.0°C, May 24.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT													
13...	1700	69	673	11.3	116	8.5	432	14.0	11.0	230	51.0	24.1	1.52
NOV													
04...	1545	88	--	--	--	8.4	400	11.0	6.0	210	50.1	20.4	1.37
DEC													
02...	1630	E64	667	13.4	105	8.2	430	3.0	0.0	210	50.8	21.0	1.32
FEB													
09...	1345	E60	670	15.0	117	8.0	495	13.0	0.0	250	57.7	26.0	1.71
MAR													
09...	1105	52	667	11.6	107	8.3	430	21.0	6.0	220	49.7	22.2	1.53
APR													
06...	1030	60	676	10.4	102	8.3	406	17.0	9.0	210	47.5	21.1	1.36
20...	0815	161	670	9.7	86	7.9	286	2.5	5.0	140	35.1	12.5	1.75
MAY													
03...	1500	128	670	11.5	122	8.4	379	19.0	12.0	190	45.1	18.4	1.39
12...	1600	1,150	668	10.1	88	7.8	347	3.0	4.0	150	34.1	16.4	4.20
JUN													
09...	0930	781	667	9.6	96	7.8	200	13.0	9.5	93	24.5	7.71	.85
23...	0830	676	665	7.2	83	7.9	193	26.0	15.5	94	24.7	7.87	.72
JUL													
14...	1515	174	669	8.5	117	8.5	296	29.0	25.0	130	31.3	11.5	.82
AUG													
04...	1220	112	676	9.0	110	8.4	377	27.5	19.0	190	44.2	19.6	1.66
25...	0820	96	671	7.0	80	8.2	414	13.5	15.5	200	46.6	20.9	1.51

E--Estimated.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)
OCT 13...	.4	12.9	11	192	1.37	.2	6.64	48.2
NOV 04...	.3	10.4	10	180	1.33	.2	7.61	43.7
DEC 02...	.3	10.9	10	191	1.24	.2	8.58	47.6
FEB 09...	.4	14.1	11	212	1.85	.2	7.36	63.1
MAR 09...	.4	11.9	11	181	1.54	.2	4.37	52.9
APR 06...	.3	10.7	10	175	1.34	.2	4.37	44.9
20...	.2	6.07	9	120	1.11	.1	6.15	24.7
MAY 03...	.3	9.66	10	154	1.35	.2	4.84	39.5
12...	.5	13.4	16	112	2.31	.1	9.54	55.7
JUN 09...	.2	3.86	8	89	.71	.1	7.42	15.5
23...	.2	3.46	7	90	.60	E.1	7.70	11.9
JUL 14...	.2	5.05	8	136	.87	.1	4.84	22.2
AUG 04...	.3	8.82	9	167	1.11	.2	5.28	35.5
25...	.3	11.0	11	182	1.21	.2	6.88	44.3

Date	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Mercury water unfltrd ng/L (50286)	Mercury water, unfltrd recover -able, ug/L (71900)	Suspnd. sedi- ment, sieve diametr <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
OCT 13...	262	.36	48.7	--	<.01	83	11	2.0
NOV 04...	243	.33	57.8	--	--	80	10	2.4
DEC 02...	256	.35	E44.2	--	<.01	74	10	E1.73
FEB 09...	300	.41	E48.6	--	<.01	69	20	E3.24
MAR 09...	253	.34	35.5	--	--	78	5	.70
APR 06...				--	--	80	4	.65
20...	159	.22	69.2	--	--	92	6	2.6
MAY 03...	213	.29	73.5	--	--	92	6	2.1
12...	204	.28	634	--	--	97	266	826
JUN 09...	114	.15	240	--	--	93	48	101
23...	111	.15	202	--	--	90	40	73
JUL 14...	158	.21	74.2	1.30	--	97	15	7.0
AUG 04...	217	.29	65.5	--	--	94	19	5.7
25...	242	.33	62.8	--	--	99	22	5.7

E--Estimated.

06299980 TONGUE RIVER AT MONARCH, WY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unfltrd by anal- ysis, mg/L (62855)	Alum- inum, water, fltrd, ug/L (01106)	Alum- inum, water, unfltrd recover- able, ug/L (01105)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover- able, ug/L (01007)
OCT 13...	<.010	<.016	<.002	<.006	.008	.10	<2	27	.4	<2	43	45
DEC 02...	<.010	.026	.002	<.006	.005	.11	<2	28	.2	<2	45	40
FEB 09...	E.007	.049	.002	<.006	.008	.16	<2	22	.3	<2	43	48
APR 06...	E.005	<.016	<.002	<.006	.014	.18	E1	36	.4	<2	48	46
MAY 12...	.044	.222	.004	.035	.256	1.21	5	2,810	.7	2	45	90
AUG 04...	<.010	<.016	<.002	<.006	.026	.22	<2	141	.5	<2	45	46
25...	E.005	E.008	E.001	<.006	.032	.25	3	228	.5	.60	42	49

Date	Beryll- ium, water, fltrd, ug/L (01010)	Beryll- ium, water, unfltrd recover- able, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, unfltrd recover- able, ug/L (01034)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover- able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover- able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover- able, ug/L (01051)
OCT 13...	<.06	<.06	38	<.04	<.04	<2	1.0	1.1	15	60	<.08	E.04
DEC 02...	<.06	<.06	33	<.04	<.04	<2	.7	1.7	E6	60	<.08	E.05
FEB 09...	<.06	<.06	37	<.04	<.04	E1	1.0	1.7	14	80	.08	.06
APR 06...	<.06	<.06	31	<.04	<.04	E1	--	1.0	29	90	--	.08
MAY 12...	<.06	.32	35	<.04	.12	3	1.6	6.9	31	2,450	E.08	5.43
AUG 04...	<.06	<.06	31	<.04	<.04	E1	1.0	1.3	16	280	.11	.29
25...	E.03	<.06	32	<.04	<.04	E1	1.8	1.0	17	350	.43	.42

Date	Lithium water, fltrd, ug/L (01130)	Mangan- ese, water, fltrd, ug/L (01056)	Mangan- ese, water, unfltrd recover- able, ug/L (01055)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover- able, ug/L (01067)	Selen- ium, water, fltrd, ug/L (01145)	Selen- ium, water, unfltrd ug/L (01147)	Stront- ium, water, fltrd, ug/L (01080)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover- able, ug/L (01092)
OCT 13...	11.6	1.8	3	1.59	1.36	E.3	.6	217	E.6	<2
DEC 02...	9.5	2.4	5	.23	1.16	E.2	E.3	203	E.6	<2
FEB 09...	11.6	2.5	5	1.09	.99	.4	.6	253	1.3	E1
APR 06...	10.0	9.7	13	--	.90	E.3	E.2	237	--	E1
MAY 12...	9.2	24.5	87	1.79	5.34	.8	1.2	164	1.1	19
AUG 04...	8.4	5.6	25	2.08	2.02	<.4	E.4	189	3.3	E1
25...	9.0	6.7	30	2.04	2.31	<.4	<.4	195	3.0	3

E--Estimated.

YELLOWSTONE RIVER BASIN

06299980 TONGUE RIVER AT MONARCH, WY—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
SEASON OCTOBER 2004 TO OCTOBER 2005

DAY	OCTOBER 2004			MARCH 2005			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	400	385	395	---	---	---	424	417	421	384	363	373
2	409	399	404	---	---	---	432	421	425	394	369	382
3	414	400	409	---	---	---	437	428	434	392	364	378
4	424	413	420	---	---	---	448	408	432	382	363	373
5	428	421	423	---	---	---	408	387	400	378	340	357
6	423	417	420	---	---	---	405	386	396	340	250	302
7	422	415	419	---	---	---	410	395	403	287	178	216
8	439	417	428	---	---	---	451	373	407	329	245	272
9	440	435	438	---	---	---	375	317	346	323	288	298
10	447	436	442	---	---	---	344	307	326	310	253	272
11	446	430	440	---	---	---	378	342	357	298	183	236
12	449	438	445	---	---	---	406	370	389	380	279	334
13	449	435	445	---	---	---	421	399	410	279	248	258
14	443	433	436	---	---	---	419	373	401	264	253	258
15	433	412	421	446	429	439	373	325	333	260	225	240
16	415	399	406	447	434	444	355	329	342	234	210	220
17	410	400	407	440	431	435	371	355	366	218	194	206
18	412	405	409	441	434	438	---	---	---	218	191	207
19	414	402	410	442	433	438	295	253	271	214	184	196
20	409	401	406	441	437	439	309	279	293	197	162	176
21	424	403	413	441	436	439	335	309	322	175	160	165
22	414	380	399	441	437	440	385	335	359	173	152	162
23	385	377	381	449	433	440	402	356	384	171	155	161
24	400	385	395	449	438	445	370	310	353	165	146	156
25	403	395	399	438	430	433	321	256	294	182	164	173
26	429	398	414	446	434	438	293	260	277	199	179	189
27	441	400	424	448	440	444	324	271	299	207	191	196
28	411	400	406	445	438	443	329	307	318	202	189	195
29	422	398	407	438	428	432	357	327	347	202	184	193
30	422	400	409	429	412	422	377	348	362	212	195	201
31	446	422	438	419	407	413	---	---	---	216	207	212
MONTH	449	377	416	---	---	---	---	---	---	394	146	244
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	217	201	212	241	232	238	392	377	384	436	426	430
2	216	200	208	259	239	250	389	377	382	434	427	431
3	215	209	212	255	244	250	391	378	385	437	430	434
4	216	198	206	261	247	255	389	377	383	434	425	430
5	210	196	204	260	248	256	414	389	402	433	424	429
6	205	181	192	263	254	259	411	402	406	441	427	436
7	190	172	180	264	256	260	416	401	407	432	421	426
8	212	181	205	272	256	264	421	402	414	429	418	423
9	211	200	205	280	269	276	446	411	428	430	420	423
10	214	206	209	282	277	279	446	427	439	437	429	432
11	216	207	211	284	275	280	435	378	411	451	436	440
12	213	202	208	289	281	286	428	423	425	455	424	439
13	207	191	200	300	288	296	429	424	427	433	421	426
14	209	200	204	301	299	300	437	423	429	426	409	421
15	211	194	202	308	301	304	434	424	430	414	404	409
16	201	186	192	327	305	311	449	431	440	421	406	414
17	193	166	179	332	314	320	450	438	443	419	410	416
18	176	154	165	326	318	321	442	406	429	418	408	414
19	176	163	170	331	323	327	420	406	413	428	407	414
20	184	166	177	343	327	338	406	389	396	425	409	413
21	185	176	180	350	340	344	420	394	413	417	405	412
22	193	182	188	352	341	346	425	414	421	414	406	411
23	198	188	193	361	345	354	441	422	435	410	402	407
24	201	197	198	363	349	357	433	415	427	417	403	410
25	210	201	206	364	342	355	420	408	415	424	410	418
26	219	210	215	366	346	360	431	408	416	415	407	411
27	218	207	213	365	348	356	419	408	413	421	407	416
28	225	215	223	363	350	359	419	408	414	423	413	418
29	243	225	233	375	363	370	436	417	426	414	406	411
30	232	226	229	380	369	375	434	427	429	448	404	412
31	---	---	---	394	371	383	440	431	434	---	---	---
MONTH	243	154	201	394	232	311	450	377	417	455	402	421

06299980 TONGUE RIVER AT MONARCH, WY—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS--CONTINUED
SEASON OCTOBER 2004 TO OCTOBER 2005

DAY	MAX	MIN	MEAN
OCTOBER 2005			
1	448	402	414
2	417	407	413
3	420	403	410
4	417	397	404
5	434	396	406
6	427	406	417
7	449	418	434
8	447	420	433
9	430	414	421
10	436	412	426
11	418	409	413
12	419	405	413
13	415	403	409
14	413	403	407
15	415	404	409
16	415	406	410
17	411	402	407
18	412	401	406
19	409	401	404
20	409	399	404
21	414	400	408
22	416	409	412
23	418	410	414
24	422	413	419
25	432	417	423
26	428	416	422
27	434	417	427
28	431	413	422
29	426	413	419
30	422	413	418
31	425	415	421
MONTH	449	396	415

YELLOWSTONE RIVER BASIN

06305700 GOOSE CREEK NEAR ACME, WY

LOCATION.--Lat 44°53'11", long 106°59'18" (NAD 27), in SE¹/₄ SE¹/₄ NE¹/₄ sec.28, T.57 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, on right bank 0.2 mi north of county road, 1.6 mi south of Acme, and 3.4 mi upstream from mouth.

DRAINAGE AREA.--413 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,620 ft above NGVD of 1929, from topographic map. U.S. Geological Survey data collection platform with satellite telemetry at station.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. Some regulation by many small reservoirs, combined capacity, about 15,000 acre-ft. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	81	e54	e40	e60	54	44	54	458	424	49	59
2	83	73	e52	e35	e56	55	41	49	436	366	59	54
3	70	72	e52	e43	e55	55	46	49	406	348	59	55
4	71	81	e57	e38	e56	54	45	48	390	320	68	54
5	66	76	e52	e36	e55	53	48	44	392	283	61	51
6	65	75	e54	e37	e50	53	51	39	455	253	49	52
7	58	76	e52	e40	e47	52	43	143	604	232	41	57
8	59	72	e52	e46	e44	57	45	749	683	218	40	53
9	56	72	e50	e40	e50	59	92	561	581	196	38	50
10	58	72	e48	e45	e55	61	79	642	503	177	50	43
11	57	74	e52	e45	e70	58	44	2,000	470	183	63	33
12	59	70	e49	e46	e60	55	34	1,610	458	174	65	40
13	58	66	e45	e45	e60	61	29	916	670	131	81	59
14	60	69	e40	e44	e55	57	24	771	654	97	87	57
15	80	69	e44	e37	e55	51	26	699	612	83	77	56
16	88	65	e45	e43	e52	55	26	696	709	87	72	55
17	77	64	e48	e50	e60	56	21	753	952	88	69	50
18	73	68	e50	e56	e60	55	22	801	1,220	78	66	55
19	76	66	e53	e65	e65	51	36	786	1,200	68	78	58
20	72	e67	e49	e60	e60	49	46	819	1,140	56	77	58
21	68	e54	e46	e57	e56	50	86	1,040	1,100	45	68	57
22	70	e60	e40	e53	e58	50	103	1,110	906	32	61	60
23	72	e56	e35	e65	e56	49	90	959	811	37	59	60
24	83	e57	e45	e75	e55	49	80	996	770	35	57	68
25	84	e60	e44	e66	e55	48	75	865	702	38	56	81
26	80	e56	e43	e60	57	47	75	719	602	77	65	88
27	82	e54	e40	e54	56	48	76	622	575	88	64	86
28	82	e50	e46	e60	55	51	74	565	472	63	63	87
29	86	e52	e42	e57	---	49	66	555	506	54	58	88
30	90	e54	e44	e54	---	50	60	509	497	46	55	88
31	84	---	e42	e58	---	47	---	475	---	41	59	---
TOTAL	2,256	1,981	1,465	1,550	1,573	1,639	1,627	20,644	19,934	4,418	1,914	1,812
MEAN	72.8	66.0	47.3	50.0	56.2	52.9	54.2	666	664	143	61.7	60.4
MAX	90	81	57	75	70	61	103	2,000	1,220	424	87	88
MIN	56	50	35	35	44	47	21	39	390	32	38	33
AC-FT	4,470	3,930	2,910	3,070	3,120	3,250	3,230	40,950	39,540	8,760	3,800	3,590

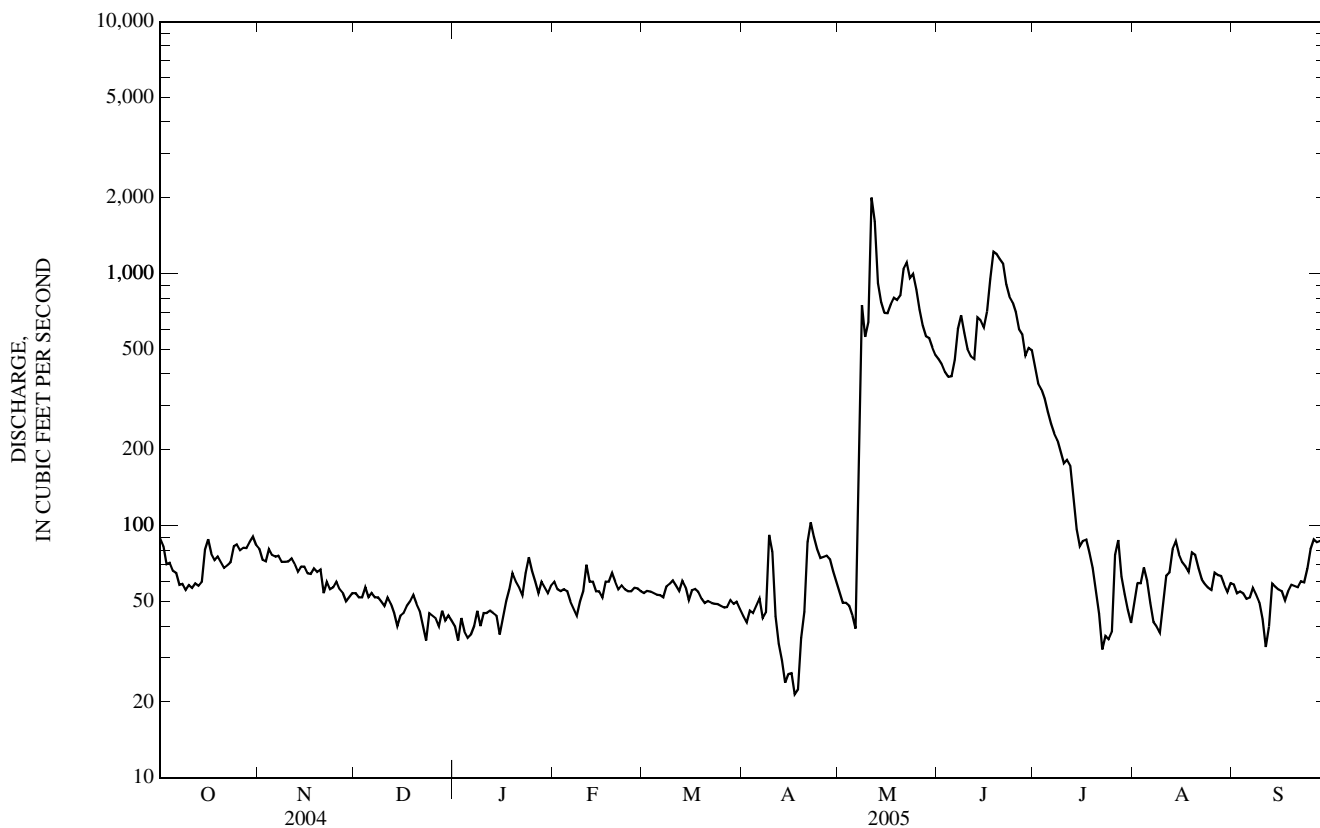
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2005, BY WATER YEAR (WY)

MEAN	95.8	89.3	74.0	67.3	80.6	95.2	126	379	549	141	57.6	81.5
MAX	156	144	107	109	137	185	195	891	1,592	547	157	158
(WY)	(1985)	(1999)	(1996)	(1990)	(1996)	(1994)	(1994)	(1984)	(1995)	(1995)	(1998)	(1998)
MIN	41.6	47.1	42.3	43.5	36.7	46.0	54.2	32.6	39.2	9.51	15.6	28.0
(WY)	(2002)	(2003)	(2002)	(2002)	(1989)	(2002)	(2005)	(2004)	(2001)	(2001)	(1988)	(2001)

06305700 GOOSE CREEK NEAR ACME, WY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1984 - 2005	
ANNUAL TOTAL	20,264.1		60,813			
ANNUAL MEAN	55.4		167		148	
HIGHEST ANNUAL MEAN					303	1995
LOWEST ANNUAL MEAN					50.4	2002
HIGHEST DAILY MEAN	176	Jul 6	2,000	May 11	3,040	Jun 17, 1995
LOWEST DAILY MEAN	7.5	May 11	21	Apr 17	3.0	Aug 24, 2001
ANNUAL SEVEN-DAY MINIMUM	10	May 5	26	Apr 12	4.3	Aug 22, 2001
MAXIMUM PEAK FLOW			2,930	May 11	3,330	Jun 17, 1995
MAXIMUM PEAK STAGE			7.02	May 11	a7.65	Feb 25, 1986
ANNUAL RUNOFF (AC-FT)	40,190		120,600		107,000	
10 PERCENT EXCEEDS	84		577		306	
50 PERCENT EXCEEDS	52		59		85	
90 PERCENT EXCEEDS	29		43		37	

a--From floodmarks, backwater from ice.
e--Estimated.



06305700 GOOSE CREEK NEAR ACME, WY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983-89, 2004 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 2004 to current year (seasonal records).

INSTRUMENTATION.--Specific conductance probe installed in April 2004.

REMARKS.--Daily specific conductance records are rated good to excellent except for the period May 28 to June 29, which is rated fair to poor. Low-level mercury sample taken on July 14; results in nanograms per liter. Several unpublished observations of specific conductance and water temperature were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 996 microsiemens per centimeter ($\mu\text{S}/\text{cm}$) at 25.0°C, May 11, 2004; minimum, 132 $\mu\text{S}/\text{cm}$ at 25.0°C, June 21, 2005.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE (seasonal records): Maximum, 958 microsiemens per centimeter ($\mu\text{S}/\text{cm}$) at 25.0°C, Mar. 25; minimum, 132 $\mu\text{S}/\text{cm}$ at 25.0°C, June 21.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, $\mu\text{S}/\text{cm}$ 25 deg C (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO_3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	
OCT	14...	0815	58	669	6.0	62	8.1	772	15.0	10.5	410	76.2	52.6	3.61
DEC	02...	1545	E52	667	15.9	125	8.3	700	4.5	0.0	350	70.3	42.9	2.57
FEB	09...	1220	E50	671	14.0	109	8.0	771	4.5	0.0	390	74.8	49.1	2.96
MAR	09...	1000	57	669	13.1	122	8.4	704	17.0	6.5	360	68.7	45.0	2.72
APR	06...	1130	50	676	12.6	129	8.5	569	15.0	11.0	280	54.4	34.6	2.30
	20...	0915	37	671	9.9	89	8.2	749	1.0	5.5	350	67.0	45.1	3.51
MAY	03...	1400	43	669	14.4	156	8.7	716	19.0	13.0	320	54.3	43.8	3.74
	12...	1455	1,350	670	11.1	98	7.9	423	4.0	4.5	190	36.3	23.6	4.60
JUN	09...	1050	580	667	9.4	97	7.8	217	15.0	10.5	88	17.9	10.6	1.05
	22...	1730	891	675	9.4	109	8.0	130	30.0	16.5	57	13.2	5.76	.83
JUL	14...	1330	100	669	11.1	154	8.5	588	39.0	25.0	260	52.3	32.1	2.48
AUG	04...	1045	69	676	7.5	92	8.2	566	18.0	19.0	280	54.1	34.5	3.46

E--Estimated.

06305700 GOOSE CREEK NEAR ACME, WY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--CONTINUED

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT 14...	.6	30.0	297	6.45	.4	5.80	141	495	.67	77.6	43	23	3.6
DEC 02...	.6	24.9	274	5.22	.4	11.2	123	447	.61	E62.8	64	60	E8.4
FEB 09...	.7	30.5	284	11.0	.3	10.2	141	493	.67	E66.6	77	26	E3.5
MAR 09...	.6	27.6	252	7.33	.3	4.75	135	443	.60	68.1	75	6	.92
APR 06...	.6	22.0	211	5.97	.3	7.76	99.1	E353	.48	E47.7	86	13	1.8
APR 20...	.7	31.0	238	9.46	.3	6.83	148	453	.62	45.3	96	8	.80
MAY 03...	1	48.2	219	5.01	.4	1.55	168	457	.62	53.0	89	12	1.4
MAY 12...	.5	14.6	126	3.86	.2	11.4	78.5	251	.34	914	88	216	787
JUN 09...	.3	6.36	78	1.45	.1	8.49	29.7	123	.17	192	86	35	55
JUN 22...	.2	3.96	50	.88	E.1	7.96	13.8	77	.10	184	82	50	120
JUL 14...	.5	19.8	202	6.39	.2	5.62	112	352	.48	95.2	95	7	1.9
AUG 04...	.5	20.2	194	6.37	.3	6.69	100	343	.47	63.9	96	21	3.9

Date	Time	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Aluminum, water, fltrd, ug/L (01106)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover-able, ug/L (01007)
OCT 14...	0815	E.005	.024	.003	.33	.098	.122	<2	13	.6	<2	60	60
DEC 02...	1545	.010	.276	.004	.64	.077	.146	<2	156	.4	<2	56	59
FEB 09...	1220	.017	.521	.005	.88	.115	.194	E1	118	.4	<2	50	61
APR 06...	1130	.027	.150	.007	.57	.108	.18	2	101	.6	<2	48	52
MAY 12...	1455	.044	.407	.006	1.32	.053	.112	6	2,090	.7	E2	42	68
JUL 14...	1330	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	1045	<.010	<.016	<.002	.55	.072	.161	<2	230	.9	<2	50	54

E--Estimated.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--CONTINUED

Date	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Cadmium, water, fltrd, ug/L (01025)	Cadmium, water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover-able, ug/L (01051)	Lithium, water, fltrd, ug/L (01130)
OCT 14...	<.06	<.06	115	<.04	<.04	<2	1.5	2.0	36	70	E.06	.09	21.8
DEC 02...	<.06	<.06	80	<.04	<.04	<2	1.3	3.7	16	410	E.04	.44	22.1
FEB 09...	<.06	<.06	87	<.04	E.03	E2	1.3	2.7	27	430	E.06	.42	18.6
APR 06...	<.06	<.06	68	<.04	<.04	2	2.2	3.4	30	350	.17	.41	15.7
MAY 12...	<.06	.22	46	E.02	.10	4	2.0	6.7	37	3,180	.24	3.53	9.4
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	<.06	<.06	82	<.04	<.04	E2	1.8	1.8	12	470	E.07	.78	12.7

Date	Manganese, water, fltrd, ug/L (01056)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury, water, unfltrd ng/L (50286)	Mercury, water, unfltrd recover-able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, fltrd, ug/L (01145)	Selenium, water, unfltrd ug/L (01147)	Strontium, water, fltrd, ug/L (01080)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover-able, ug/L (01092)
OCT 14...	6.7	9	--	E.01	2.14	2.58	.5	.8	505	2.5	4
DEC 02...	12.5	57	--	<.01	.57	2.16	.7	.6	454	2.0	5
FEB 09...	34.2	73	--	<.01	1.91	2.15	.6	.8	504	4.0	6
APR 06...	67.1	97	--	--	--	1.55	.5	.7	434	--	5
MAY 12...	35.3	118	--	--	2.23	5.21	1.3	1.6	228	4.3	17
JUL 14...	--	--	.92	--	--	--	--	--	--	--	--
AUG 04...	15.6	59	--	--	2.95	3.09	E.4	.4	365	3.1	5

E--Estimated.

06305700 GOOSE CREEK NEAR ACME, WY—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
SEASON OCTOBER 2004 TO OCTOBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	694	614	659	---	---	---	650	630	637	701	670	685
2	706	677	697	---	---	---	664	650	657	719	693	703
3	721	669	698	---	---	---	664	631	651	735	694	712
4	710	680	696	---	---	---	635	614	623	742	703	723
5	725	688	707	---	---	---	614	587	599	823	721	739
6	734	687	713	---	---	---	587	560	578	790	722	754
7	727	694	710	---	---	---	601	579	586	803	450	734
8	743	710	725	---	---	---	623	601	612	590	392	483
9	747	711	728	---	---	---	615	539	572	400	382	391
10	752	721	736	---	---	---	586	551	567	410	374	393
11	762	726	744	---	---	---	641	586	613	456	376	411
12	762	733	751	---	---	---	680	641	657	423	407	418
13	765	740	752	---	---	---	716	680	696	424	398	415
14	782	748	770	---	---	---	740	716	730	398	362	371
15	766	632	703	925	671	756	746	735	740	368	326	338
16	765	668	738	713	667	693	739	728	735	332	280	298
17	765	733	747	708	683	695	758	732	746	290	252	263
18	738	719	729	700	671	686	774	758	766	257	225	239
19	743	684	709	697	677	690	782	761	776	241	217	227
20	738	711	727	699	683	692	761	705	733	226	186	198
21	745	682	726	704	682	695	731	670	715	191	152	162
22	743	706	727	709	691	700	743	622	701	160	148	153
23	736	705	724	705	694	699	764	736	748	158	144	150
24	738	683	717	702	688	694	785	750	770	152	139	144
25	743	720	733	958	690	782	751	731	742	173	147	160
26	745	700	725	705	689	698	734	684	709	184	165	175
27	721	659	691	693	679	685	684	616	651	191	173	180
28	711	684	699	691	681	687	648	631	640	193	179	186
29	707	675	691	718	678	697	656	633	648	203	189	195
30	708	681	697	678	657	663	670	655	663	210	200	204
31	710	678	693	657	634	643	---	---	---	226	210	216
MONTH	782	614	718	---	---	---	785	539	675	823	139	368
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	237	221	227	241	221	232	751	713	742	654	636	648
2	248	232	238	261	241	252	733	678	712	660	641	653
3	243	236	240	267	259	264	684	665	678	649	640	645
4	247	231	240	271	262	265	665	571	637	659	630	649
5	259	233	247	296	270	284	679	654	661	663	630	648
6	238	209	222	318	296	308	718	679	702	649	612	636
7	216	168	188	335	318	326	742	711	728	648	608	635
8	201	169	184	348	335	341	770	742	756	660	596	635
9	222	187	203	373	344	356	782	764	769	658	621	642
10	223	203	213	401	373	387	769	728	752	667	623	647
11	224	215	219	426	400	411	728	560	649	694	653	677
12	230	215	225	435	420	426	700	677	689	724	684	706
13	238	227	233	543	434	484	684	666	673	713	611	677
14	261	235	245	634	542	586	681	651	668	699	662	681
15	252	214	232	708	634	672	673	650	661	677	642	659
16	227	194	207	730	704	718	668	650	660	695	661	673
17	197	158	175	706	680	697	668	642	652	716	695	710
18	160	151	156	680	638	652	670	645	653	732	716	725
19	153	145	148	673	650	664	656	604	635	740	722	733
20	154	142	148	703	666	683	656	623	643	745	736	741
21	144	132	138	740	698	726	663	624	648	754	726	744
22	147	142	145	784	739	757	673	639	656	727	660	704
23	152	142	147	812	783	794	669	646	655	683	669	678
24	147	132	136	828	801	813	669	655	661	676	650	663
25	158	135	143	841	817	826	694	663	679	673	650	665
26	185	158	171	819	581	696	686	664	675	667	626	646
27	183	170	176	716	639	671	669	646	652	636	619	626
28	205	183	195	661	638	648	646	626	635	640	624	633
29	218	199	208	677	656	668	635	623	627	645	635	641
30	221	204	211	717	677	696	625	615	620	650	634	642
31	---	---	---	748	716	734	644	612	630	---	---	---
MONTH	248	132	195	841	221	550	782	560	673	754	596	669

YELLOWSTONE RIVER BASIN

06305700 GOOSE CREEK NEAR ACME, WY—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS--CONTINUED
SEASON OCTOBER 2004 TO OCTOBER 2005

DAY	MAX	MIN	MEAN
OCTOBER 2005			
1	660	637	645
2	678	647	662
3	704	678	690
4	727	674	709
5	736	660	702
6	754	736	747
7	770	754	762
8	781	770	777
9	790	763	780
10	791	776	788
11	790	783	787
12	784	772	777
13	783	776	780
14	779	767	774
15	778	766	770
16	768	742	759
17	742	662	688
18	710	679	691
19	701	640	670
20	681	644	664
21	680	662	671
22	681	652	668
23	675	641	658
24	670	638	656
25	679	642	662
26	679	641	662
27	678	653	666
28	682	656	668
29	686	657	671
30	686	658	672
31	686	664	675
MONTH	791	637	708

445700106563101 ASH CREEK AT MOUTH, NEAR ACME, WY

LOCATION.--Lat 44°57'00", long 106°56'31" (NAD 27), SE 1/4NW1/4NW1/4 sec.1, T.57N., R.84W., Sheridan County, WY, Hydrologic Unit 10090101, at mouth of Ash Creek on Tongue River, approximately 3.5 mi northeast of Acme, WY and 11 mi northeast of Sheridan, WY.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--September 2005.

GAGE.--None. Elevation at sampling site is 3,540 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)
SEP 28...	1140	.10	1,700	11.0	770	123	112	18.3	1	95.0	21	325

Date	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)
SEP 28...	33.2	.7	27.4	522	1,130	1.53	.30	<5	<.20	.44	50

Date	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)
SEP 28...	<.06	251	E.02	.07	.18	E.34	<.08	81.1	72.7	2.2	.81

Date	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Thallium, water, fltrd, ug/L (01057)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	Uranium natural water, fltrd, ug/L (22703)
SEP 28...	.94	<.2	728	<.04	.57	21.6	8.85

E--Estimated.

YELLOWSTONE RIVER BASIN

450137106595101 YOUNGS CREEK NEAR RESERVATION BOUNDARY, NEAR DECKER, MT

LOCATION.--Lat 44°01'37", long 106°59'51" (NAD 27), SE¹/₄ NW¹/₄ SE¹/₄sec. 25, T.9s., R.83e., Bighorn County, Hydrologic Unit 10090101, at dirt road crossing about 7 mi upstream from Wyoming Highway 338, 1.5 mi northeast of Pearl School, and 6.5 mi west of Decker.

DRAINAGE AREA.--21.5 mi².

PERIOD OF RECORD.--October 2002 to current year.

GAGE.--None. Elevation at sampling site is 3,780 ft (NGVD 29).

REMARKS.--Biology samples (aquatic macroinvertebrates and fish) were collected and a habitat assessment was made in conjunction with the water-quality sample. Biology and habitat results were unavailable in time for publication in this report, but will be published at a future date.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 correctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
JUN 14...	1600	2.3	62	665	7.6	95	8.3	675	24.0	19.0	290	55.1	38.2

Date	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat fltrd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)
JUN 14...	4.61	.3	12.8	8	293	1.97	.6	13.8	53.2	356	.48	2.20

445832106551401 YOUNGS CREEK ABOVE MOUTH, NEAR DECKER, MT

LOCATION.--Lat 44°58'32", long 106°55'14" (NAD 27), SW¹/₄ NW¹/₄ sec. 30, T.58N., R.83W., Sheridan County, WY, Hydrologic Unit 10090101, at Wyoming Highway 338, 1.2 mi upstream from mouth, near Decker.

DRAINAGE AREA.--62.3 mi².

PERIOD OF RECORD.--October 2002 to current year.

GAGE.--None. Elevation at sampling site is 3,570 ft (NGVD 29).

REMARKS.--Biology samples (aquatic macroinvertebrates and fish) were collected and a habitat assessment was made in conjunction with the water-quality sample. Biology and habitat results were unavailable in time for publication in this report, but will be published at a future date.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 correctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
JUN 14...	0830	.99	33	671	8.1	86	8.4	1,690	27.5	12.0	880	108	149

Date	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, water fltrd end lab, mg/L as CaCO ₃ (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/acre-ft (70303)	Residue water, fltrd, tons/d (70302)
JUN 14...	14.9	2	112	21	422	4.05	.8	14.8	623	1,280	1.74	3.42

445817106544601 YOUNGS CREEK AT MOUTH, NEAR DECKER, MT

LOCATION.--Lat 44°58'17", long 106°54'46" (NAD 27), NW¹/₄ SE¹/₄ SE¹/₄ sec. 30, T.58N., R.83W., Sheridan County, Hydrologic Unit 10090101, at mouth, approximatley 4 mi southwest of Decker, and 14 mi northeast of Sheridan, WY.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--September 2005.

GAGE.--None. Elevation at sampling site is 3,505 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)
SEP 27...	1030	.27	1,260	10.0	620	83.8	99.5	11.9	1	54.5	16	380

Date	Fluoride, water, fltrd, mg/L (00950)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic, water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)
SEP 27...	.7	5.41	16.9	333	835	1.14	.61	<5	E.13	1.3	78

Date	Chromium, water, fltrd, ug/L (01030)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium, water, fltrd, ug/L (01025)	Cobalt, water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Lead, water, fltrd, ug/L (01049)	Lithium, water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)
SEP 27...	.07	<.06	165	E.03	.230	2.5	<.08	52.3	22.2	2.8	1.34

Date	Zinc, water, fltrd, ug/L (01090)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Thallium, water, fltrd, ug/L (01057)	Vanadium, water, fltrd, ug/L (01085)	Uranium natural water, fltrd, ug/L (22703)
SEP 27...	1.6	1.2	<.2	878	<.04	3.3	5.01

E--Estimated.

445957106524701 TONGUE RIVER BELOW YOUNGS CREEK, NEAR DECKER, MT

LOCATION.--Lat 44°59'57", long 106°52'47" (NAD 27), in NE¹/₄NE¹/₄SW¹/₄ sec. 31, T.9 S., R.40 E., Big Horn County, Hydrologic Unit 10090101, 0.20 mi downstream of Montana-Wyoming state line, about 3 mi below the mouth of Youngs Creek, and about 2 miles south of Decker.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--August 2005.

GAGE.--None. Elevation of site is 4,680 ft (NGVD 29).

REMARKS.--Biology samples (aquatic macroinvertebrates and fish) were collected and a habitat assessment was made in conjunction with the water-quality sample. Biology and habitat results were unavailable in time for publication in this report, but will be published at a future date.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 correctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
AUG 15...	1150	171	48	677	8.2	100	7.8	544	26.5	19.0	270	56.9	31.9

Date	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat fltrd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue, water, fltrd, sum of constituents mg/L (70301)	Residue, water, fltrd, tons/acre-ft (70303)	Residue, water, fltrd, tons/d (70302)
AUG 15...	2.77	.5	20.2	14	210	3.35	.3	8.54	83.3	334	.45	154

445949106524801 DISCHARGE FROM COAL-BED METHANE PRODUCTION FACILITIES, PERMIT NO. MT-0030457-009

LOCATION.--Lat 44°59'49", long 106°52'48" (NAD 27), SE¹/₄SE¹/₄SW¹/₄ sec. 31, T.9S., R.40E., Bighorn County, Hydrologic Unit 10090101 discharge on Tongue River, 2 mi downstream of the Montana-Wyoming border, 2.75 mi upstream of Squirrel Creek, and 1.5 mi southwest of Decker.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--September 2005.

GAGE.--None. Elevation at sampling site is 3,480 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, wat unfiltered, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)
SEP 27...	1315	.26	2,050	18.0	24	5.89	2.19	6.21	42	471	97
Date	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)
SEP 27...	1,130	20.9	4.1	10.6	6.0	1,210	1.64	.83	5	<.20	.26
Date	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium, water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt, water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Lead, water, fltrd, ug/L (01049)	Lithium, water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)
SEP 27...	319	<.06	90	.06	.07	E.02	<.40	<.08	129	7.0	<.4
Date	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Thallium, water, fltrd, ug/L (01057)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	Uranium natural water, fltrd, ug/L (22703)			
SEP 27...	.07	.09	<.2	236	<.04	<.10	E.43	<.04			

E--Estimated.

450011106522501 DISCHARGE FROM COAL-BED METHANE PRODUCTION FACILITIES, PERMIT NO. MT-0030457-004

LOCATION.--Lat 45°00'10", long 106°52'25" (NAD 27), NW¹/₄ NE¹/₄ SE¹/₄ sec. 31, T.9S., R.40E., Bighorn County, Hydrologic Unit 10090101 discharge on Tongue River, approximately 2 mi upstream of Squirrel Creek and .75 mi southwest of Decker.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--September 2005.

GAGE.--None. Elevation at sampling site is 3,480 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)
SEP 27...	1415	.03	1,960	16.5	15	3.70	1.31	5.01	53	467	98	1,090

Date	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)
SEP 27...	20.0	3.4	9.27	3.8	1,170	1.59	.11	4	<.20	E.06	386

Date	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)
SEP 27...	<.06	78	.04	.08	E.03	<.40	<.08	130	3.0	E.2	.25

Date	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Thallium, water, fltrd, ug/L (01057)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	Uranium natural water, fltrd, ug/L (22703)
SEP 27...	E.06	<.2	234	<.04	<.10	E.41	<.04

E--Estimated.

YELLOWSTONE RIVER BASIN

06306100 SQUIRREL CREEK NEAR DECKER, MT

LOCATION.--Lat 45°03'05", long 106°55'36" (NAD 27), in NE¹/₄ NW¹/₄ NW¹/₄ sec. 14, T. 9 S., R. 39 E., Bighorn County, Hydrologic Unit 10090101, on left bank 0.4 mi upstream from Powers Cormack ditch, 0.5 mi northwest of CX Ranch, and 4 mi northwest of Decker.

DRAINAGE AREA.--33.6 mi².

PERIOD OF RECORD.--October 1975 to June 1985, June 2005.

GAGE--None. Elevation at site is 3,660 ft (NGVD 29).

REMARKS.--Biology samples (aquatic macroinvertebrates and fish) were collected and a habitat assessment was made in conjunction with the water-quality sample. Biology and habitat results were unavailable in time for publication in this report, but will be published at a future date.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 correctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
JUN 16...	0900	.12	2.1	667	7.7	85	7.8	1,570	20.0	14.0	760	99.5	124

Date	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat fltrd end lab, mg/L as CaCO ₃ (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/acre-ft (70303)	Residue water, fltrd, tons/d (70302)
JUN 16...	9.24	1	77.8	18	470	3.49	.6	21.1	409	1,030	1.40	.33

450047106514201 SQUIRREL CREEK ABOVE MOUTH, AT DECKER, MT

LOCATION.--Lat 45°00'47", long 106°51'42" (NAD 27), NW¹/₄ SE¹/₄ SW¹/₄ sec. 29, T.9S., R.40E., Bighorn County, Hydrologic Unit 10090101 at Montana Highway 314, 2 mi north of Montana-Wyoming state line, 0.7 mi upstream from mouth, and at Decker.

DRAINAGE AREA.--49.3 mi².

PERIOD OF RECORD.--October 2002 to current year.

GAGE.--None. Elevation at sampling site is 3,510 ft (NGVD 29).

REMARKS.--Biology samples (aquatic macroinvertebrates and fish) were collected and a habitat assessment was made in conjunction with the water-quality sample. Biology and habitat results were unavailable in time for publication in this report, but will be published at a future date.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 correctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
JUN 13...	1000	.17	6.8	671	9.7	107	8.3	5,940	21.0	13.0	2,300	153	463

Date	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue, water, fltrd, sum of constituents mg/L (70301)	Residue, water, fltrd, tons/ acre-ft (70303)	Residue, water, fltrd, tons/d (70302)
JUN 13...	20.0	8	835	44	590	12.7	.7	7.68	3,330	5,180	7.04	2.38

445955106515801 DISCHARGE FROM COAL-BED METHANE PRODUCTION FACILITIES, PERMIT NO. MT-0030457-005

LOCATION.--Lat 44°59'54", long 106°51'57" (NAD 27), NW¹/₄SW¹/₄ sec. 32, T.9S., R.83W., Bighorn County, Hydrologic Unit 10090101 discharge on Tongue River, approximately 3 mi upstream of Prairie Dog Creek and 1 mi south of Decker.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--September 2005.

GAGE.--None. Elevation at sampling site is 3,460 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)
SEP 27...	1515	.02	1,750	16.0	15	3.65	1.25	4.77	48	417	98	961

Date	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic, water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)
SEP 27...	22.1	2.7	8.47	28.7	1,070	1.45	.06	4	<.20	<.12	362

Date	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium, water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt, water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Lead, water, fltrd, ug/L (01049)	Lithium, water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)
SEP 27...	<.06	71	.04	.05	<.04	<.40	<.08	125	3.2	<.4

Date	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Thallium, water, fltrd, ug/L (01057)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	Uranium natural water, fltrd, ug/L (22703)
SEP 27...	<.06	E.05	<.2	227	<.04	<.10	<.60	<.04

06306250 PRAIRIE DOG CREEK NEAR ACME, WY

LOCATION.--Lat 44°59'02", long 106°50'21" (NAD 27), in NE¹/₄SW¹/₄ sec. 23, T.58 N., R.83 W., Sheridan County, Hydrologic Unit 10090101, on right bank 600 ft upstream from county bridge, 0.9 mi upstream from mouth, 2.8 mi downstream from Coutant Creek, and 7.6 mi northeast of Acme.

DRAINAGE AREA.--358 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to September 1979, June 2000 to current year. Records for May 1965 to September 1970 in files of Wyoming State Engineer's Office.

GAGE.--Water-stage recorder. Elevation of gage is 3,450 ft above NGVD of 1929, from topographic map. U.S. Geological Survey data collection platform with satellite telemetry at station.

REMARKS.--Water-discharge records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of about 13,600 acres upstream from station, of which about 60 acres are downstream from station. Flow supplemented by 3 transbasin diversions from North Piney Creek and South Piney Creek via Prairie Dog Creek ditch, Piney and Cruse ditch, and Mead-Coffeen ditch.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	21	18	e13	e16	e14	11	14	33	46	8.1	38
2	34	20	e18	e13	e16	14	10	13	30	44	13	40
3	36	19	e17	e12	e16	14	10	12	27	38	22	31
4	33	18	e19	e12	e15	14	10	12	26	33	26	26
5	32	18	e17	e11	e15	14	9.7	7.3	23	33	33	27
6	31	18	e16	e11	e15	14	9.5	8.4	22	33	36	29
7	29	19	e14	e12	e14	14	9.0	17	22	33	30	31
8	29	19	e15	e12	e13	14	8.6	41	30	29	31	31
9	29	19	e16	e13	e12	15	9.4	99	40	27	33	32
10	27	19	e17	e15	e13	15	10	122	43	24	35	31
11	25	22	e19	e16	e15	15	15	230	45	22	37	31
12	24	20	e17	e15	e16	15	7.2	354	43	17	36	32
13	23	17	e14	e14	e15	15	4.4	298	50	14	34	34
14	22	16	10	e13	e16	15	3.7	202	64	12	46	35
15	23	e16	e14	e11	e16	14	3.6	152	64	8.6	52	35
16	25	e16	e19	e13	e15	13	4.9	122	60	6.8	50	33
17	27	16	e16	e15	e12	16	5.1	100	60	5.5	49	31
18	25	16	e16	e17	e12	14	6.9	91	57	4.5	46	32
19	23	16	e16	e19	e15	14	9.0	84	55	4.8	46	33
20	22	16	e17	e21	e17	14	13	77	45	5.1	47	35
21	22	e14	e15	e19	e18	14	17	71	44	6.2	47	35
22	21	e13	e12	e18	e17	14	21	66	43	3.8	43	36
23	21	e14	7.7	e22	e17	14	21	62	42	2.2	35	33
24	21	e16	8.0	e25	e16	14	22	58	40	0.95	34	30
25	22	17	e15	e30	e16	13	23	52	40	1.7	41	29
26	22	17	e20	e25	e16	13	19	50	40	3.7	48	30
27	21	e16	e17	e20	e15	14	15	46	43	8.1	50	31
28	20	e13	e15	e16	e15	14	14	41	41	23	46	31
29	21	e12	e17	e19	---	14	14	37	42	14	41	29
30	20	9.9	e15	e17	---	13	14	32	43	8.3	39	30
31	21	---	e15	e17	---	12	---	30	---	6.2	36	---
TOTAL	783	502.9	481.7	506	424	436	350.0	2,600.7	1,257	518.45	1,170.1	961
MEAN	25.3	16.8	15.5	16.3	15.1	14.1	11.7	83.9	41.9	16.7	37.7	32.0
MAX	36	22	20	30	18	16	23	354	64	46	52	40
MIN	20	9.9	7.7	11	12	12	3.6	7.3	22	0.95	8.1	26
AC-FT	1,550	998	955	1,000	841	865	694	5,160	2,490	1,030	2,320	1,910

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2005, BY WATER YEAR (WY)*

MEAN	35.5	26.9	21.7	17.4	30.5	68.0	52.6	75.7	33.6	18.7	25.7	37.4
MAX	59.5	43.6	32.3	26.7	82.7	167	101	384	86.2	45.0	45.7	79.0
(WY)	(1974)	(1974)	(1976)	(1974)	(1974)	(1972)	(1971)	(1978)	(1978)	(1975)	(1978)	(1973)
MIN	15.5	12.3	10.9	8.55	9.49	14.1	11.7	5.75	3.09	4.39	3.00	13.4
(WY)	(2002)	(2002)	(2002)	(2002)	(2003)	(2005)	(2005)	(2004)	(2002)	(2001)	(2001)	(2001)

YELLOWSTONE RIVER BASIN

06306250 PRAIRIE DOG CREEK NEAR ACME, WY—Continued

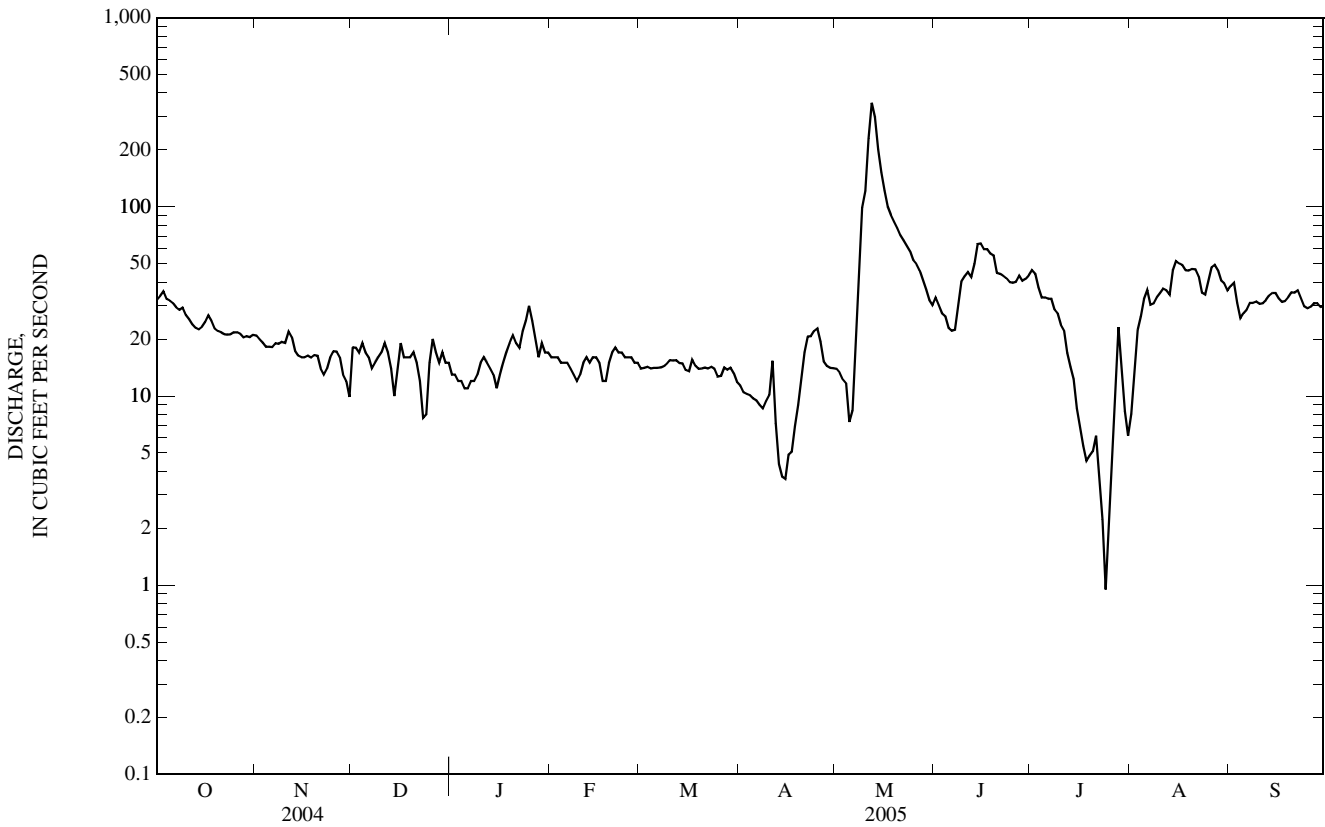
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1971 - 2005*	
ANNUAL TOTAL	5,606.0		9,990.85			
ANNUAL MEAN	15.3		27.4		37.1	
HIGHEST ANNUAL MEAN					72.8	1978
LOWEST ANNUAL MEAN					15.0	2004
HIGHEST DAILY MEAN	36	Oct 3	354	May 12	3,090	May 19, 1978
LOWEST DAILY MEAN	1.0	Jun 9	0.95	Jul 24	0.48	Jul 7, 2001
ANNUAL SEVEN-DAY MINIMUM	1.3	Jun 4	3.4	Jul 20	0.70	Jul 5, 2001
MAXIMUM PEAK FLOW			395	May 12	a3,940	May 18, 1978
MAXIMUM PEAK STAGE			5.80	May 12	b12.60	May 18, 1978
ANNUAL RUNOFF (AC-FT)	11,120		19,820		26,900	
10 PERCENT EXCEEDS	27		46		63	
50 PERCENT EXCEEDS	14		19		26	
90 PERCENT EXCEEDS	4.9		10		10	

*--For period of operation.

a--From rating curve extended above 760 ft³/s on basis of slope-area determination of peak flow.

b--From floodmarks.

e--Estimated.



06306250 PRAIRIE DOG CREEK NEAR ACME, WY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 2003 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 2004 to current year (seasonal records).

INSTRUMENTATION.--Specific conductance probe installed Apr. 20, 2004.

REMARKS.--Daily specific conductance records are rated good to excellent except for the period May 3 to July 14 and Sept. 7 to Oct. 18, which are rated fair to poor. Low-level mercury sample taken on July 14; results reported in nanograms per liter. Several unpublished observations of specific conductance and water temperature were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 2,510 microsiemens per centimeter ($\mu\text{S}/\text{cm}$) at 25.0°C, June 10, 2004; minimum, 702 $\mu\text{S}/\text{cm}$ at 25.0°C, June 14, 2005.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE (seasonal records): Maximum, 2,220 microsiemens per centimeter ($\mu\text{S}/\text{cm}$) at 25.0°C, July 25; minimum, 702 $\mu\text{S}/\text{cm}$ at 25.0°C, June 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT													
13...	1545	23	679	11.2	112	8.4	1,160	15.5	10.0	600	123	70.5	5.79
NOV													
03...	1600	19	686	12.3	110	8.3	1,340	13.0	6.0	700	139	85.4	7.23
DEC													
02...	1430	E18	670	14.5	113	8.1	1,430	8.0	0.0	750	151	89.5	7.08
FEB													
09...	0900	E12	677	12.0	93	7.8	1,720	-5.0	0.0	890	174	110	8.55
MAR													
08...	1700	14	675	11.5	109	8.4	1,580	12.5	7.5	840	160	106	8.67
APR													
06...	0815	9.8	682	10.3	94	8.3	1,460	3.5	6.5	720	130	94.2	7.40
19...	1545	9.0	675	10.8	105	8.3	1,600	3.0	8.5	800	155	99.6	8.17
MAY													
03...	1210	12	673	12.6	124	8.4	1,790	14.5	9.0	880	160	116	9.23
17...	0830	102	656	7.5	89	8.1	980	15.5	16.0	440	84.5	56.5	7.22
JUN													
07...	1700	23	665	7.8	91	8.1	1,400	12.0	16.0	660	124	85.7	7.38
22...	1600	44	680	7.9	107	8.2	902	33.0	24.5	420	81.5	52.7	4.89
JUL													
14...	1030	13	673	7.4	99	8.3	1,400	39.0	23.0	620	123	76.1	6.64
AUG													
10...	0835	35	675	7.7	94	8.1	807	20.0	19.0	360	74.8	41.8	4.41

E--Estimated.

06306250 PRAIRIE DOG CREEK NEAR ACME, WY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT 13...	1	54.9	294	3.03	.3	14.6	343	794	1.13	51.4	92	208	13
NOV 03...	1	67.7	307	4.11	.3	14.2	443	945	1.33	50.3	88	78	4.0
DEC 02...	1	61.0	356	3.85	.3	15.8	450	995	1.43	E45.9	82	74	E3.6
FEB 09...	2	108	396	5.34	.3	15.8	632	1,300	1.84	E32.2	52	52	E1.7
MAR 08...	1	97.1	331	4.79	.3	11.3	589	1,180	1.72	47.7	97	85	3.2
APR 06...	1	84.7	328	4.45	.3	10.0	513	1,040	1.48	28.8	82	57	1.5
APR 19...	2	104	306	4.66	.3	10.6	592	1,160	1.69	30.3	62	26	.63
MAY 03...	2	115	326	5.28	.4	9.28	690	1,300	1.77	42.1	82	53	1.7
MAY 17...	1	48.4	220	4.02	.3	13.0	303	651	.95	193	90	431	119
JUN 07...	1	81.0	298	4.04	.3	15.2	501	997	1.47	67.0	92	118	7.3
JUN 22...	.9	43.6	214	2.48	.2	13.9	274	602	.87	75.9	95	229	27
JUL 14...	1	79.2	277	3.97	.3	14.4	508	978	1.33	34.3	91	120	4.2
AUG 10...	.8	34.3	201	2.08	.2	12.3	234	526	.72	49.7	96	223	21

Date	Time	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Aluminum, water, fltrd, ug/L (01106)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover-able, ug/L (01007)
OCT 13...	1545	.012	.127	E.001	.68	.013	.159	<2	1,310	1.0	E1	34	52
DEC 02...	1430	.020	.314	.002	.69	E.005	.035	<2	233	.6	<2	41	38
FEB 09...	0900	.086	.493	.005	.83	.012	.026	<2	59	.8	<2	44	49
APR 06...	0815	E.009	<.016	E.001	.29	<.006	.020	2	94	.7	<2	40	40
MAY 17...	0830	.017	.282	.003	1.48	.020	.33	2	3,890	1.1	3	41	101
JUL 14...	1030	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	0835	.012	.191	.002	.87	.021	.23	3	2,300	.9	E2	27	65

E--Estimated.

06306250 PRAIRIE DOG CREEK NEAR ACME, WY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Cadmium, water, fltrd, ug/L (01025)	Cadmium, water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover-able, ug/L (01051)	Lithium, water, fltrd, ug/L (01130)
OCT 13...	<.06	.13	112	<.04	.06	E2	2.5	6.5	8	3,210	<.08	2.02	25.7
DEC 02...	<.06	<.06	132	<.04	E.03	<2	2.5	9.0	7	480	<.08	.34	32.4
FEB 09...	<.06	<.06	130	<.04	<.04	3	3.3	6.0	15	200	<.08	.14	43.5
APR 06...	<.06	<.06	127	<.04	<.04	4	4.6	9.9	E6	240	.13	.14	42.7
MAY 17...	<.06	.33	81	<.04	.18	9	5.1	14.6	7	8,170	E.06	6.54	20.5
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	<.06	.28	70	<.04	.10	5	3.2	6.5	E5	4,880	.33	3.55	21.4

Date	Manganese, water, fltrd, ug/L (01056)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury, water, unfltrd ng/L (50286)	Mercury, water, unfltrd recover-able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, fltrd, ug/L (01145)	Selenium, water, unfltrd ug/L (01147)	Strontium, water, fltrd, ug/L (01080)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover-able, ug/L (01092)
OCT 13...	34.9	249	--	<.01	3.54	5.79	1.1	1.3	1,400	1.2	11
DEC 02...	53.3	83	--	<.01	1.46	4.00	1.4	1.5	1,780	1.6	8
FEB 09...	85.4	88	--	<.01	2.70	4.22	1.7	1.8	2,090	2.5	3
APR 06...	95.7	118	--	--	3.55	6.76	1.3	1.4	1,940	E1.6	11
MAY 17...	24.2	537	--	--	2.98	10.9	1.2	2.0	946	2.2	27
JUL 14...	--	--	2.06	--	--	--	--	--	--	--	--
AUG 10...	16.0	402	--	--	3.80	7.62	.7	1.2	920	15.9	16

06306250 PRAIRIE DOG CREEK NEAR ACME, WY—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
SEASON OCTOBER 2004 TO OCTOBER 2005

DAY	OCTOBER 2004			MARCH 2005			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1,110	1,090	1,110	---	---	---	1,590	1,560	1,570	1,690	1,670	1,680
2	1,110	1,040	1,100	---	---	---	1,610	1,460	1,550	1,740	1,690	1,700
3	1,080	1,010	1,040	---	---	---	1,460	1,440	1,450	1,820	1,720	1,760
4	1,130	1,050	1,090	---	---	---	1,460	1,440	1,450	2,160	1,700	1,840
5	1,130	1,080	1,120	---	---	---	1,480	1,440	1,460	1,980	1,770	1,820
6	1,080	1,020	1,060	---	---	---	1,450	1,430	1,440	1,780	1,670	1,770
7	1,030	1,020	1,030	---	---	---	1,500	1,440	1,480	1,670	1,150	1,360
8	1,050	1,030	1,040	---	---	---	1,590	1,490	1,510	1,460	1,200	1,230
9	1,060	1,030	1,050	---	---	---	1,500	1,440	1,480	1,240	1,060	1,170
10	1,080	1,050	1,070	---	---	---	1,440	1,400	1,420	1,160	1,080	1,130
11	1,100	1,080	1,090	---	---	---	1,400	1,060	1,200	1,080	903	971
12	1,130	1,100	1,110	---	---	---	1,370	1,130	1,260	913	795	845
13	1,160	1,120	1,140	---	---	---	1,530	1,370	1,470	942	794	863
14	1,140	1,090	1,120	---	---	---	1,780	1,530	1,620	1,000	942	970
15	1,090	1,050	1,070	1,600	1,550	1,580	1,930	1,780	1,870	1,020	1,000	1,010
16	1,070	1,050	1,060	1,760	1,540	1,650	1,830	1,650	1,770	1,020	975	1,000
17	1,070	1,040	1,060	1,620	1,480	1,550	1,820	1,680	1,770	976	848	919
18	1,100	1,040	1,070	1,550	1,500	1,530	1,830	1,640	1,730	848	770	798
19	1,140	1,100	1,120	1,560	1,470	1,510	1,640	1,510	1,590	776	766	771
20	1,190	1,140	1,170	1,620	1,510	1,560	1,540	1,440	1,490	805	770	784
21	1,210	1,190	1,200	1,540	1,480	1,510	1,450	1,340	1,390	856	805	830
22	1,210	1,200	1,210	1,550	1,510	1,530	1,460	1,330	1,380	857	838	849
23	1,230	1,210	1,220	1,570	1,530	1,560	1,400	1,290	1,350	858	834	847
24	1,230	1,210	1,220	1,540	1,490	1,520	1,470	1,360	1,440	858	849	854
25	1,210	1,200	1,210	1,600	1,520	1,560	1,430	1,330	1,370	900	857	877
26	1,230	1,210	1,220	1,660	1,570	1,600	1,510	1,340	1,430	920	900	909
27	1,230	1,220	1,220	1,660	1,500	1,580	1,620	1,510	1,540	923	888	906
28	1,260	1,230	1,250	1,560	1,520	1,540	1,680	1,590	1,630	979	923	950
29	1,270	1,240	1,260	1,550	1,520	1,530	1,660	1,580	1,630	1,020	979	1,000
30	1,280	1,260	1,260	1,580	1,550	1,570	1,670	1,580	1,630	1,050	1,020	1,030
31	1,290	1,260	1,280	1,590	1,550	1,570	---	---	---	1,100	1,050	1,080
MONTH	1,290	1,010	1,140	---	---	---	1,930	1,060	1,510	2,160	766	1,110
	JUNE			JULY			AUGUST			SEPTEMBER		
1	1,110	1,090	1,100	913	894	903	1,580	1,430	1,500	815	797	806
2	1,140	1,100	1,120	919	891	905	1,430	1,140	1,290	798	781	789
3	1,210	1,140	1,170	960	916	933	1,140	926	1,010	850	780	812
4	1,260	1,210	1,230	1,000	959	983	940	901	928	883	850	869
5	1,340	1,260	1,290	1,010	996	1,000	901	843	863	890	874	884
6	1,400	1,340	1,370	998	984	990	843	816	824	874	840	852
7	1,410	1,320	1,390	985	959	968	855	819	831	878	844	861
8	1,330	964	1,180	1,030	969	995	854	839	847	893	859	872
9	1,120	936	986	1,060	1,020	1,040	840	815	830	874	831	846
10	936	893	911	1,120	1,060	1,090	815	762	793	867	856	861
11	895	834	862	1,190	1,120	1,150	832	799	815	870	850	858
12	852	833	845	1,300	1,190	1,220	841	800	823	889	870	880
13	888	758	842	1,400	1,300	1,340	882	841	858	883	854	869
14	871	702	808	1,490	1,380	1,420	868	830	846	862	837	853
15	789	705	754	1,710	1,490	1,610	864	794	827	855	819	840
16	813	774	797	1,830	1,710	1,760	795	768	782	878	851	868
17	779	762	770	1,960	1,830	1,910	808	777	792	882	860	869
18	775	760	766	2,070	1,960	2,010	806	791	801	884	865	873
19	768	747	754	2,090	2,040	2,070	791	777	784	866	836	853
20	878	768	822	2,040	1,960	2,010	804	788	794	836	812	821
21	891	860	875	1,980	1,900	1,940	798	779	789	832	812	821
22	899	843	879	1,940	1,870	1,900	810	787	795	829	811	817
23	861	832	840	2,110	1,940	2,050	857	809	831	909	816	862
24	857	839	847	2,210	2,110	2,150	884	856	870	969	903	931
25	853	840	848	2,220	2,030	2,170	886	860	880	1,000	969	988
26	841	832	836	2,030	1,880	1,910	860	812	823	1,000	966	983
27	846	813	824	1,960	1,280	1,710	817	762	789	966	954	959
28	886	846	868	1,280	808	915	768	751	758	976	961	968
29	888	864	873	1,050	814	911	799	768	779	987	972	980
30	906	883	894	1,330	1,050	1,190	806	798	801	985	962	970
31	---	---	---	1,610	1,330	1,480	816	800	806	---	---	---
MONTH	1,410	702	945	2,220	808	1,440	1,580	751	863	1,000	780	877

06306250 PRAIRIE DOG CREEK NEAR ACME, WY—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS--CONTINUED
SEASON OCTOBER 2004 TO OCTOBER 2005

DAY	MAX	MIN	MEAN
OCTOBER 2005			
1	991	972	979
2	990	959	977
3	981	958	970
4	982	960	968
5	1,020	944	977
6	969	945	960
7	1,060	959	1,010
8	1,110	1,050	1,090
9	1,110	1,090	1,100
10	1,130	1,100	1,110
11	1,140	1,090	1,120
12	1,160	1,090	1,110
13	1,220	1,150	1,190
14	1,220	1,210	1,210
15	1,230	1,200	1,210
16	1,230	1,210	1,220
17	1,220	1,170	1,200
18	1,170	1,050	1,140
19	1,140	1,030	1,090
20	1,110	1,030	1,060
21	1,060	1,000	1,020
22	1,020	988	1,000
23	992	982	986
24	1,000	985	995
25	1,000	993	996
26	997	969	988
27	999	962	979
28	1,020	983	996
29	995	932	959
30	936	929	933
31	938	931	934
MONTH	1,230	929	1,050

451607106372801 TONGUE RIVER AT PRAIRIE DOG CREEK, NEAR BIRNEY, MT

LOCATION.--Lat 45°16'07", long 106°37'28" (NAD 27), SE¹/₄NE¹/₄SE¹/₄ sec. 31, T.6S., R.42E., Rosebud County, Hydrologic Unit 10090102 at mouth of Prairie Dog Creek, 7 mi southwest of Birney, and at river mile 176.1.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--November 1977, November 1978, July 2005.

GAGE.--None. Elevation at sampling site is 3,200 ft (NGVD 29).

REMARKS.--Biology samples (aquatic macroinvertebrates and fish) were collected and a habitat assessment was made in conjunction with the water-quality sample. Biology and habitat results were unavailable in time for publication in this report, but will be published at a future date.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity white light, det ang 90+/-30 correctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
AUG 16...	0945	408	13	679	8.0	99	8.0	363	27.0	20.0	160	37.2	17.0

Date	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat fltrd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue, water, fltrd, sum of constituents mg/L (70301)	Residue, water, fltrd, tons/acre-ft (70303)	Residue, water, fltrd, tons/d (70302)
AUG 16...	1.92	.5	14.7	16	130	1.46	.2	3.61	54.4	209	.28	230

450017106494001 DISCHARGE FROM COAL-BED METHANE PRODUCTION FACILITIES, PERMIT NO. MT-0030457-015

LOCATION.--Lat 45°00'17", long 106°49'40" (NAD 27), NE¹/₄ SE¹/₄.NE¹/₄ sec. 33, T.9S., R.40E., Bighorn County, Hydrologic Unit 10090101 discharge on Tongue River, 3 mi downstream of Prairie Dog Creek and 0.5 mi upstream of station 06306300 Tongue River at state line, near Decker.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--September 2005.

GAGE.--None. Elevation at sampling site is 3,440 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)
SEP 27...	1800	2.0	2,440	19.0	20	4.59	1.84	6.41	58	581	98	E1,470

Date	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)
SEP 27...	15.2	3.2	11.3	E.7	E1,500	E2.05	E8.1	11	<.20	.12	658

Date	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)
SEP 27...	<.06	125	E.03	.07	.05	<.40	<.08	187	3.5	E.3

Date	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Thallium, water, fltrd, ug/L (01057)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	Uranium natural water, fltrd, ug/L (22703)
SEP 27...	.24	E.06	<.2	389	<.04	<.10	1.1	E.02

E--Estimated.

450007106495201 DISCHARGE FROM COAL-BED METHANE PRODUCTION FACILITIES, PERMIT NO. MT-0030457-013

LOCATION.--Lat 45°00'07", long 106°49'51" (NAD 27), NW¹/₄NE¹/₄SE¹/₄ sec. 33, T.9S., R.40E., Bighorn County, Hydrologic Unit 10090101 discharge on Tongue River, 2.5 mi downstream of Prairie Dog Creek and .75 mi upstream of station 06306300 Tongue River at state line, near Decker.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--September 2005.

GAGE.--None. Elevation at sampling site is 3,440 ft (NGVD 29).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)
SEP 27...	1740	.04	1,970	19.0	15	3.55	1.28	5.72	59	512	98
Date	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)
SEP 27...	1,180	19.6	3.1	12.0	<.9	E1,270	E1.72	E.14	10	<.20	<.12
Date	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium, water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt, water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Lead, water, fltrd, ug/L (01049)	Lithium, water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)
SEP 27...	594	<.06	154	.06	.08	E.02	<.40	<.08	147	1.5	<.4
Date	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Thallium, water, fltrd, ug/L (01057)	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	Uranium natural water, fltrd, ug/L (22703)			
SEP 27...	.10	<.08	<.2	272	<.04	<.10	.61	<.04			

E--Estimated.

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT

LOCATION.--Lat 45°00'32", long 106°50'08" (NAD 27), in NW¹/₄ NW¹/₄ NE¹/₄ sec.33, T.9 S., R.40 E., Big Horn County, Hydrologic Unit 10090101, on left bank 1 mi north of Wyoming-Montana State line, 1.4 mi southeast of Decker, 1.6 mi upstream from Badger Creek, and at river mile 200.9.

DRAINAGE AREA.--1,453 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1960 to current year. Records published as "near Decker" May 1928 to September 1938, not equivalent owing to intervening drainage area.

REVISED RECORDS.--WDR MT-04-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,429.14 ft (NGVD 29) (levels by U.S. Army Corps of Engineers).

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. Flow regulated by many small reservoirs in Wyoming, combined capacity, about 15,000 acre-ft. Diversions for irrigation of about 64,300 acres upstream from station. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	169	e120	e100	e100	122	117	154	1,330	1,100	136	168
2	173	159	e150	e90	e95	120	112	148	1,330	963	131	175
3	169	147	e140	e80	e90	121	108	144	1,260	863	142	166
4	161	155	e140	e70	e90	121	119	145	1,180	801	148	154
5	157	165	e140	e80	e90	120	122	145	1,160	733	167	152
6	152	161	e130	e90	e85	120	123	164	1,180	654	164	143
7	148	160	e120	e90	e80	119	123	313	1,370	588	154	141
8	139	158	e130	e90	e75	121	118	1,370	1,700	529	144	141
9	137	156	e140	e80	e65	130	145	1,470	1,580	472	134	139
10	133	157	e150	e90	e65	131	208	1,210	1,420	422	127	132
11	134	159	e140	e90	e65	133	172	2,580	1,290	396	158	128
12	132	159	e130	e90	e70	128	133	4,740	1,220	395	225	120
13	136	147	e110	e90	e70	128	115	2,520	1,410	358	199	139
14	138	136	e100	e90	e70	134	106	1,860	1,660	304	212	162
15	153	140	e100	e90	e80	123	124	1,670	1,480	261	223	175
16	179	135	e110	e90	e90	117	122	1,710	e1,500	244	209	168
17	182	132	e110	e90	e90	130	110	1,940	e1,800	235	196	161
18	171	131	e110	e90	e80	132	109	2,140	e2,000	229	190	159
19	165	137	e110	e100	e80	126	177	2,060	e2,200	223	213	161
20	164	136	e110	e110	e80	123	183	2,190	e2,100	206	232	167
21	155	e110	e110	e100	e90	124	190	2,590	e2,000	188	223	164
22	157	e90	e100	e100	e90	123	225	3,070	e1,900	176	198	162
23	164	e110	e100	e110	e90	123	212	2,820	1,830	163	183	161
24	161	e125	e90	e110	e100	123	210	2,760	1,750	157	180	165
25	166	143	e90	e100	e100	119	233	2,620	1,660	154	182	180
26	159	145	e100	e100	e100	116	246	2,180	1,480	155	186	195
27	154	e130	e100	e100	e110	118	230	1,850	1,400	193	193	197
28	160	e110	e100	e100	e120	118	204	1,680	1,260	225	195	191
29	165	e110	e100	e100	---	124	181	1,600	1,130	196	187	188
30	178	e90	e100	e100	---	123	166	1,530	1,240	166	177	192
31	173	---	e100	e100	---	122	---	1,430	---	146	166	---
TOTAL	4,880	4,162	3,580	2,910	2,410	3,832	4,743	52,803	45,820	11,895	5,574	4,846
MEAN	157	139	115	93.9	86.1	124	158	1,703	1,527	384	180	162
MAX	182	169	150	110	120	134	246	4,740	2,200	1,100	232	197
MIN	132	90	90	70	65	116	106	144	1,130	146	127	120
AC-FT	9,680	8,260	7,100	5,770	4,780	7,600	9,410	104,700	90,880	23,590	11,060	9,610

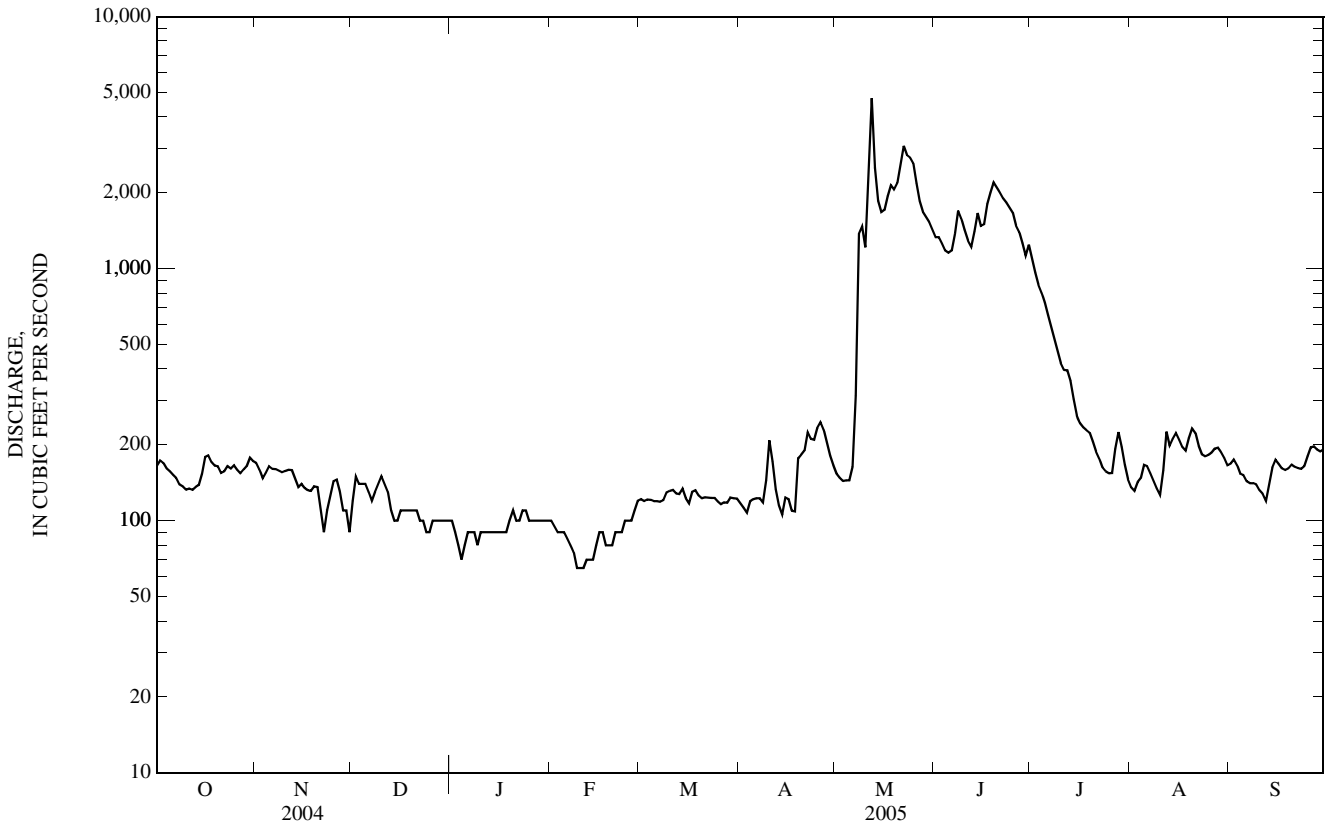
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2005, BY WATER YEAR (WY)

MEAN	247	219	176	173	222	299	345	1,124	1,595	448	171	213
MAX	403	324	271	330	672	855	676	3,283	3,570	1,674	475	615
(WY)	(1969)	(1974)	(1976)	(1974)	(1971)	(1972)	(1977)	(1978)	(1978)	(1975)	(1968)	(1968)
MIN	116	126	102	78.7	79.8	88.5	124	192	176	54.7	13.1	73.3
(WY)	(1961)	(2002)	(1985)	(2002)	(2002)	(2002)	(1961)	(2004)	(2001)	(2001)	(2001)	(2001)

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1961 - 2005	
ANNUAL TOTAL	52,095		147,455			
ANNUAL MEAN	142		404		436	
HIGHEST ANNUAL MEAN					862	1978
LOWEST ANNUAL MEAN					138	2002
HIGHEST DAILY MEAN	313	Jul 6	4,740	May 12	15,400	May 19, 1978
LOWEST DAILY MEAN	47	Aug 19	65	Feb 9	5.4	Aug 24, 1961
ANNUAL SEVEN-DAY MINIMUM	49	Aug 16	69	Feb 8	7.2	Aug 22, 1961
MAXIMUM PEAK FLOW			5,440	May 12	17,500	May 12, 1978
MAXIMUM PEAK STAGE			9.19	May 12	14.25	May 12, 1978
INSTANTANEOUS LOW FLOW					3.0	Aug 23, 1961
ANNUAL RUNOFF (AC-FT)	103,300		292,500		315,800	
10 PERCENT EXCEEDS	193		1,450		1,030	
50 PERCENT EXCEEDS	146		150		230	
90 PERCENT EXCEEDS	73		90		110	

e--Estimated.



06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1965 to September 1976, November 1980 to December 1986 (observer daily samples), August 2000 to current year (seasonal electronic records).

WATER TEMPERATURE: October 1965 to September 1976.

INSTRUMENTATION: Specific conductance probe installed Aug. 21, 2000.

REMARKS.--Specific conductance record is rated good to excellent except for periods of ice cover or extreme cold when accuracy is rated fair. Missing conductance data for Nov. 22-23 due to ice conditions and May 14-June 1 and June 16-22 due to electrical problems associated with a severe thunderstorm. Several unpublished observations of specific conductance and water temperature were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,490 microsiemens per centimeter ($\mu\text{S}/\text{cm}$) at 25.0°C, Aug. 12, 1966, Jan. 11, 1972; minimum, 161 $\mu\text{S}/\text{cm}$ at 25.0°C, May 30 and June 1, 2003.

WATER TEMPERATURE: Maximum, 30.5°C, July 16, 1966; minimum, 0.0°C on many days during winter.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 904 microsiemens per centimeter ($\mu\text{S}/\text{cm}$) at 25.0°C, Nov. 16; minimum, 188 $\mu\text{S}/\text{cm}$ at 25.0°C, June 23. A lower minimum may have occurred during the high-flow period on missing days of record in June.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd $\mu\text{S}/\text{cm}$ 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO_3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT													
13...	1400	137	681	10.4	105	8.5	707	13.0	10.5	340	66.5	42.0	3.07
NOV													
04...	1330	159	*	*	*	8.5	690	15.0	6.0	330	66.8	38.8	2.84
DEC													
02...	1245	E150	674	14.8	115	8.3	775	8.0	0.0	370	75.5	43.8	3.10
FEB													
09...	1030	E65	678	14.1	108	8.0	792	4.0	0.0	370	73.9	44.4	3.25
MAR													
09...	0830	128	675	10.8	96	8.3	735	7.0	5.0	350	68.4	43.2	3.13
21...	1515	125	670	11.7	121	8.5	757	14.0	11.0	360	69.5	44.3	3.05
APR													
06...	1315	122	680	9.3	100	8.5	661	15.5	13.5	300	57.9	38.6	2.67
20...	1145	181	675	11.6	107	8.3	455	4.0	6.5	210	45.0	22.8	2.28
MAY													
03...	0840	149	678	9.4	89	8.4	633	9.0	7.5	300	60.9	35.8	2.69
12...	1030	5,430	668	9.7	88	7.7	406	7.0	5.5	170	33.5	20.7	7.34
JUN													
08...	1545	1,730	667	9.5	103	8.0	236	17.5	13.0	100	22.2	10.8	1.17
22...	1400	E1,900	675	8.8	106	8.1	186	34.0	18.5	83	20.1	7.84	1.00
JUL													
14...	0915	306	675	5.6	76	8.4	465	37.0	24.0	210	46.0	23.4	1.79
27...	0900	185	676	6.7	80	8.2	553	19.0	18.0	250	51.5	28.5	2.35
AUG													
10...	1025	125	674	7.6	99	8.3	659	23.0	22.0	280	57.7	32.6	3.04
24...	1720	181	670	6.9	90	8.7	629	25.0	22.0	280	55.5	33.5	2.84
SEP													
08...	1030	137	675	9.7	116	8.4	675	24.0	18.0	280	54.2	35.7	2.92
19...	1145	162	676	9.9	106	8.3	634	23.5	13.0	310	62.9	36.6	2.80
**26...	1700	198	--	--	--	--	621	--	--	290	56.5	35.6	2.81
**26...	1900	198	--	--	--	--	623	--	--	290	57.4	34.9	2.88
**26...	2100	198	--	--	--	--	624	--	--	280	56.1	34.5	2.80
**26...	2300	198	--	--	--	--	626	--	--	280	56.3	34.4	2.77
**27...	0100	195	--	--	--	--	629	--	--	280	56.7	34.4	2.81
**27...	0300	198	--	--	--	--	632	--	--	290	57.9	34.6	2.81
**27...	0500	198	--	--	--	--	636	--	--	300	60.2	35.1	2.85
**27...	0700	201	--	--	--	--	638	--	--	290	58.4	34.9	2.88
**27...	0900	201	--	--	--	--	636	--	--	290	59.2	35.0	2.83
**27...	1100	201	--	--	--	--	635	--	--	290	59.7	34.9	2.97
**27...	1300	198	--	--	--	--	630	--	--	290	58.5	35.0	2.84
**27...	1500	198	--	--	--	--	627	--	--	290	56.9	34.9	2.79

*--Equipment problems.

**--Samples collected by an automated pumping sampler as part of a special study.

E--Estimated.

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT 13...	.8	33.1	235	3.84	.3	5.17	139	434	.60	163	71	44	16
NOV 04...	.7	30.9	237	3.80	.3	6.51	134	426	.59	186	64	32	14
DEC 02...	.8	36.0	270	4.81	.3	8.43	150	485	.68	E196	66	31	E12.6
FEB 09...	1	42.5	276	5.67	.3	6.68	166	510	.71	E89.5	52	27	E4.74
MAR 09...	.9	39.4	248	4.56	.3	2.80	166	476	.71	181	87	12	4.1
21...	.9	38.5	243	5.14	.3	3.75	167	478	.65	161	85	18	6.1
APR 06...	1	38.6	234	4.46	.3	2.37	138	E423	E.58	E140	78	35	12
20...	.5	17.9	156	2.42	.2	4.50	76.0	265	.38	137	85	11	5.4
MAY 03...	.8	32.1	207	3.59	.3	3.15	131	394	.54	158	85	30	12
12...	.6	17.5	108	3.05	.2	9.83	85.1	244	.33	3,580	92	697	10,200
JUN 08...	.3	7.68	84	1.23	.1	8.27	30.7	133	.18	620	92	90	420
22...	.3	5.74	73	.83	.1	7.90	20.5	108	.15	E554	93	61	E313
JUL 14...	.6	19.8	170	2.60	.2	5.47	78.7	280	.38	231	97	20	17
27...	.8	27.4	194	3.19	.2	3.09	97.7	330	.47	174	92	37	18
AUG 10...	.8	32.1	221	3.44	.3	6.62	132	401	.54	135	92	58	20
24...	.8	31.1	197	3.13	.3	6.14	120	371	.52	187	78	66	32
SEP 08...	.8	30.8	208	3.53	.3	4.89	136	393	.57	155	79	49	18
19...	.7	29.0	204	3.44	.3	4.96	126	389	.56	180	86	35	15
**26...	.7	25.7	185	3.48	--	--	121	356	.48	191	--	--	--
**26...	.7	26.0	210	3.51	--	--	121	372	.51	199	--	--	--
**26...	.7	27.3	211	3.55	--	--	120	371	.50	198	--	--	--
**26...	.7	27.4	204	3.54	--	--	119	367	.50	196	--	--	--
**27...	.7	27.5	207	3.72	--	--	125	375	.51	197	--	--	--
**27...	.7	27.6	226	3.59	--	--	120	383	.52	205	--	--	--
**27...	.7	27.9	213	3.60	--	--	121	379	.51	202	--	--	--
**27...	.7	27.4	219	3.62	--	--	121	380	.52	206	--	--	--
**27...	.7	25.7	194	3.60	--	--	122	364	.50	198	--	--	--
**27...	.7	26.0	202	3.61	--	--	121	370	.50	201	--	--	--
**27...	.7	25.5	210	3.61	--	--	122	375	.51	200	--	--	--
**27...	.7	25.6	188	3.58	--	--	123	360	.49	192	--	--	--

**--Samples collected by an automated pumping sampler as part of a special study.

E--Estimated.

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Time	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitro- gen, wat unfltrd by anal ysis, mg/L (62855)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Alum- inum, water, fltrd, ug/L (01106)	Alum- inum, water, unfltrd recover- able, ug/L (01105)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover- able, ug/L (01007)
OCT													
13...	1400	E.007	<.016	<.002	.22	<.006	.029	<2	131	.6	<2	44	47
DEC													
02...	1245	.015	.056	.003	.28	.013	.033	<1	87	.4	<2	57	58
FEB													
09...	1030	.040	.080	.002	.29	E.003	.019	<1	18	.4	<2	54	59
APR													
06...	1315	.011	<.016	E.001	.38	E.003	.044	E1	129	.6	<2	57	60
MAY													
12...	1030	.062	.306	.009	1.99	.057	.53	4	5,810	.9	3	47	155
AUG													
24...	1720	E.005	<.016	E.001	.33	<.006	.049	3	283	.6	.76	50	57
SEP													
**26...	1700	--	--	--	--	--	--	--	--	--	--	--	--
**26...	1900	--	--	--	--	--	--	--	--	--	--	--	--
**26...	2100	--	--	--	--	--	--	--	--	--	--	--	--
**26...	2300	--	--	--	--	--	--	--	--	--	--	--	--
**27...	0100	--	--	--	--	--	--	--	--	--	--	--	--
**27...	0300	--	--	--	--	--	--	--	--	--	--	--	--
**27...	0500	--	--	--	--	--	--	--	--	--	--	--	--
**27...	0700	--	--	--	--	--	--	--	--	--	--	--	--
**27...	0900	--	--	--	--	--	--	--	--	--	--	--	--
**27...	1100	--	--	--	--	--	--	--	--	--	--	--	--
**27...	1300	--	--	--	--	--	--	--	--	--	--	--	--
**27...	1500	--	--	--	--	--	--	--	--	--	--	--	--

Date	Beryll- ium, water, fltrd, ug/L (01010)	Beryll- ium, water, unfltrd recover- able, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, unfltrd recover- able, ug/L (01034)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover- able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover- able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover- able, ug/L (01051)	Lithium water, fltrd, ug/L (01130)
OCT													
13...	<.06	<.06	77	<.04	<.04	<2	1.5	2.1	13	290	<.08	.22	20.4
DEC													
02...	<.06	<.06	77	<.04	<.04	<2	1.3	3.3	12	180	<.08	.14	22.8
FEB													
09...	<.06	<.06	69	.05	<.04	E2	1.2	2.2	19	70	<.08	E.06	23.4
APR													
06...	<.06	<.06	67	<.04	<.04	3	2.2	3.8	30	310	E.07	.27	21.8
MAY													
12...	<.06	.75	53	<.04	.35	7	1.7	15.2	43	7,530	E.08	10.8	11.8
JUL													
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
24...	<.06	<.06	62	<.04	<.04	E2	1.5	1.4	9	530	.16	.46	15.6
SEP													
**26...	--	--	64	--	--	--	1.4	--	--	--	--	--	--
**26...	--	--	66	--	--	--	1.1	--	--	--	--	--	--
**26...	--	--	66	--	--	--	.75	--	--	--	--	--	--
**26...	--	--	66	--	--	--	.70	--	--	--	--	--	--
**27...	--	--	67	--	--	--	.73	--	--	--	--	--	--
**27...	--	--	67	--	--	--	.66	--	--	--	--	--	--
**27...	--	--	67	--	--	--	.68	--	--	--	--	--	--
**27...	--	--	68	--	--	--	.64	--	--	--	--	--	--
**27...	--	--	67	--	--	--	.65	--	--	--	--	--	--
**27...	--	--	68	--	--	--	.65	--	--	--	--	--	--
**27...	--	--	67	--	--	--	1.2	--	--	--	--	--	--
**27...	--	--	67	--	--	--	1.2	--	--	--	--	--	--

**--Samples collected by an automated pumping sampler as part of a special study.

E--Estimated.

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Mangan- ese, water, fltred, ug/L (01056)	Mangan- ese, water, unfltred recover- able, ug/L (01055)	Mercury water, unfltred ng/L (50286)	Mercury water, unfltred recover- able, ug/L (71900)	Nickel, water, fltred, ug/L (01065)	Nickel, water, unfltred recover- able, ug/L (01067)	Selen- ium, water, fltred, ug/L (01145)	Selen- ium, water, unfltred ug/L (01147)	Stront- ium, water, fltred, ug/L (01080)	Zinc, water, fltred, ug/L (01090)	Zinc, water, unfltred recover- able, ug/L (01092)
OCT 13...	9.2	29	--	<.01	2.13	2.43	.5	1.1	525	4.8	9
DEC 02...	9.5	22	--	<.01	.22	2.22	.5	.5	530	1.8	3
FEB 09...	12.7	14	--	<.01	2.05	1.99	.5	.6	567	1.8	E2
APR 06...	32.7	60	--	--	3.06	1.71	.6	.5	524	--	2
MAY 12...	27.8	290	--	--	2.56	12.1	1.0	1.6	219	1.3	44
JUL 14..	--	--	1.3	--	--	--	--	--	--	--	--
AUG 24...	5.3	50	--	--	2.18	2.42	E.3	<.4	425	3.6	3
SEP **26...	.5	--	--	--	.64	--	--	--	464	.81	--
**26...	.5	--	--	--	.63	--	--	--	458	1.5	--
**26...	.4	--	--	--	.65	--	--	--	452	.67	--
**26...	.4	--	--	--	.65	--	--	--	447	.68	--
**27...	.4	--	--	--	.64	--	--	--	460	.68	--
**27...	.5	--	--	--	.64	--	--	--	461	.81	--
**27...	.5	--	--	--	.64	--	--	--	464	.66	--
**27...	.5	--	--	--	.67	--	--	--	461	.85	--
**27...	.6	--	--	--	.66	--	--	--	464	.65	--
**27...	.9	--	--	--	.68	--	--	--	461	.67	--
**27...	1.2	--	--	--	.66	--	--	--	462	E.59	--
**27..	1.2	--	--	--	.62	--	--	--	457	E.55	--

** - Samples collected by an automated pumping sampler as part of a special study.
E--Estimated.

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO OCTOBER 2005

DAY	OCTOBER 2004			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	648	633	642	712	689	701	851	789	822	748	698	722
2	653	634	637	721	696	706	797	768	781	840	721	784
3	672	645	658	776	715	733	787	746	766	881	814	859
4	695	661	675	739	691	711	761	706	734	889	823	869
5	698	674	684	708	693	698	775	692	717	848	817	831
6	709	676	691	721	701	709	714	686	704	859	821	846
7	702	678	689	719	696	706	740	699	720	846	814	833
8	726	684	696	717	688	701	770	703	738	819	778	799
9	742	702	716	749	687	710	764	691	731	785	760	769
10	754	714	729	748	683	709	741	689	717	763	732	747
11	795	708	733	725	702	710	721	688	704	734	717	726
12	798	729	742	727	704	719	704	688	696	721	708	716
13	742	712	727	747	723	733	757	653	723	724	705	715
14	746	718	735	871	724	778	748	653	713	728	712	723
15	755	711	729	860	731	768	749	692	734	738	718	727
16	747	688	697	904	734	793	729	659	705	758	724	740
17	703	677	691	855	734	777	786	648	723	741	718	731
18	708	679	695	851	735	767	710	596	674	725	689	712
19	717	698	710	840	732	777	674	543	632	711	683	696
20	708	687	700	808	745	768	703	668	686	691	657	684
21	726	694	711	#854	#745	#785	712	690	698	790	649	708
22	750	687	722	---	---	---	731	693	717	653	590	620
23	751	695	723	---	---	#795	800	722	764	625	618	622
24	744	675	706	791	745	761	844	787	808	644	625	632
25	742	685	715	784	755	764	865	772	826	664	641	652
26	738	691	714	791	749	766	802	729	755	676	656	665
27	787	713	745	753	713	739	778	726	754	687	662	678
28	812	705	754	778	710	729	755	694	727	699	670	686
29	780	694	723	830	720	758	724	674	702	707	674	691
30	705	675	689	880	800	833	701	658	679	710	674	695
31	696	674	684	---	---	---	731	672	707	716	676	696
MONTH	812	633	705	904	683	742	865	543	728	889	590	728
	FEBRUARY			MARCH			APRIL			MAY		
1	719	675	698	807	673	743	777	762	771	651	620	632
2	757	682	716	783	733	748	775	757	766	658	640	649
3	737	670	717	756	742	749	774	745	758	700	638	664
4	730	680	713	760	746	752	747	717	730	699	654	680
5	740	704	716	767	752	757	735	719	726	699	622	653
6	743	728	736	777	755	765	724	693	711	646	602	618
7	772	731	756	778	759	769	697	675	686	625	428	540
8	864	734	792	782	767	774	692	661	683	447	390	423
9	810	768	794	775	759	769	680	624	652	452	409	434
10	803	750	774	780	760	771	630	556	586	456	387	436
11	836	757	794	779	761	770	603	556	584	420	366	388
12	820	745	783	800	776	788	609	558	579	479	414	449
13	778	685	741	798	769	786	608	551	574	540	479	505
14	731	675	701	783	763	773	605	571	589	---	---	---
15	728	649	696	788	737	772	607	554	582	---	---	---
16	755	677	718	798	763	774	590	530	562	---	---	---
17	826	698	760	812	770	790	598	511	563	---	---	---
18	886	708	808	806	770	781	611	583	596	---	---	---
19	865	715	785	778	752	765	613	490	550	---	---	---
20	859	688	750	778	763	770	510	455	479	---	---	---
21	795	679	742	774	751	763	541	506	523	---	---	---
22	771	685	727	775	756	767	632	540	561	---	---	---
23	748	675	722	798	766	785	676	617	647	---	---	---
24	786	665	710	799	779	789	715	645	680	---	---	---
25	804	644	699	789	772	781	718	633	677	---	---	---
26	776	663	711	809	776	786	648	554	597	---	---	---
27	755	672	709	825	786	805	559	542	549	---	---	---
28	792	669	725	829	795	814	568	545	553	---	---	---
29	---	---	---	800	786	793	604	565	587	---	---	---
30	---	---	---	799	779	790	621	599	606	---	---	---
31	---	---	---	785	756	766	---	---	---	---	---	---
MONTH	886	644	739	829	673	774	777	455	624	700	366	544

#--Value computed from partial day with greater than 50 percent of day recorded.

YELLOWSTONE RIVER BASIN

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2004 TO OCTOBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	285	269	277	656	626	646	651	628	640
2	287	277	282	310	285	295	657	628	645	639	627	633
3	297	278	290	321	310	315	657	629	642	653	632	639
4	297	288	294	327	318	322	651	637	642	664	651	658
5	289	284	286	345	327	337	638	620	627	675	656	667
6	284	259	279	366	345	356	628	617	621	673	647	662
7	259	225	246	378	366	371	643	617	629	679	654	667
8	246	219	228	394	377	384	650	631	640	673	659	667
9	257	244	252	417	394	403	659	640	649	685	666	677
10	265	250	261	433	417	423	670	633	656	694	672	685
11	278	265	273	439	422	432	678	632	657	691	683	687
12	276	269	272	451	429	438	669	637	648	715	691	704
13	276	266	270	467	445	454	639	629	632	705	657	688
14	273	257	267	483	467	474	644	630	638	660	635	652
15	265	252	260	500	483	491	645	634	640	657	638	647
16	---	---	#245	513	500	506	649	644	647	647	634	642
17	---	---	---	522	501	510	650	642	647	647	633	640
18	---	---	---	559	522	545	656	643	651	647	633	640
19	---	---	---	578	550	568	648	631	642	642	623	635
20	---	---	---	591	568	574	635	616	625	639	615	628
21	---	---	---	646	576	608	621	613	617	642	623	631
22	---	---	*186	621	571	597	637	620	626	646	628	639
23	196	188	192	605	586	595	651	637	646	648	633	642
24	199	192	195	589	561	576	657	631	648	654	643	649
25	207	198	203	575	555	561	656	625	641	654	639	645
26	231	206	218	593	573	582	632	612	624	648	619	634
27	240	227	231	620	538	574	618	601	612	640	625	631
28	256	231	242	646	593	619	632	618	626	645	625	635
29	263	256	261	600	582	588	641	621	633	638	622	630
30	270	262	266	610	588	595	653	627	642	639	618	628
31	---	---	---	626	608	615	648	633	641	---	---	---
MONTH	297	188	253	646	269	483	678	601	638	715	615	651
OCTOBER 2005												
1	633	618	627									
2	635	625	630									
3	632	619	625									
4	619	591	608									
5	591	565	577									
6	611	577	590									
7	662	611	637									
8	673	662	667									
9	675	668	671									
10	677	663	669									
11	664	651	656									
12	671	663	667									
13	674	667	670									
14	672	651	663									
15	665	654	660									
16	668	649	659									
17	664	653	658									
18	661	633	649									
19	656	632	643									
20	651	636	642									
21	654	634	645									
22	653	633	642									
23	651	639	645									
24	657	640	649									
25	659	640	649									
26	654	638	647									
27	659	642	652									
28	666	648	657									
29	663	642	652									
30	648	631	641									
31	650	635	642									
MONTH	677	565	645									

#--Value computed from partial day with greater than 50 percent of day recorded.

*--Instantaneous value from USGS sample.

06307000 TONGUE RIVER RESERVOIR NEAR DECKER, MT

LOCATION.--Lat 45°07'48", long 106°46'13" (NAD 27), in SE¹/₄ SE¹/₄ NE¹/₄ sec.13, T.8 W., R.40 E., Big Horn County, Hydrologic Unit 10090101, at dam on Tongue River, 4 mi upstream from Post Creek, 7 mi northeast of Decker, and at river mile 189.1.

DRAINAGE AREA.--1,770 mi².

PERIOD OF RECORD.--December 1938 to current year. Record prior to September 1939, published only in WSP 1309 and those for January, February 1956, published only in WSP 1729.

GAGE.--Nonrecording gage read most days. Elevation of gage is 3,374.40 ft (NGVD29) (levels by Bureau of Reclamation) New capacity table effective September 1, 1996.

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway completed in May 1939. Total capacity, 79,070 acre-ft between elevation 3,374.4 ft, bottom of outlet, and 3,428.4 ft, spillway crest. Prior to October 1947, usable contents was 73,950 acre-ft at same elevations, due to sedimentation study. Dead storage, 711 acre-ft below elevation, 3,374.4 ft. Figures given herein represent usable contents. Water is used for irrigation. Records furnished by Montana Department of Natural Resources and Conservation.

REVISED RECORDS.--WSP 1309: 1947-50. WSP 1729: 1951, drainage area.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 79,500 acre-ft, June 21, 1999 and June 30, 2003, elevation, 3,428.70 ft; no storage October 1939 to February 1940.

EXTREMES FOR CURRENT YEAR.--Maximum monthend contents, 78,740 acre-ft, May 31, elevation, 3,428.50 ft; minimum monthend contents, 26,620 acre-ft, Oct. 1, elevation, 3,409.30 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, SEPTEMBER 2004 TO SEPTEMBER 2005

Date	Elevation (feet)	Contents (acre-feet)	Change in Contents (acre-feet)
September 30	3,409.30	26,620	--
October 31	3,411.70	30,960	+4,340
November 30	3,413.10	33,940	+2,980
December 31	3,414.00	35,940	+2,000
Calendar Year 2004	--	--	-9,130
January 31	3,415.30	38,830	+2,890
February 28	3,416.40	41,420	+2,590
March 31	3,417.20	43,500	+2,080
April 30	3,418.70	47,410	+3,910
May 31	3,428.50	78,740	+31,330
June 30	3,428.40	78,360	-380
July 31	3,424.90	65,990	-12,370
August 31	3,420.50	52,310	-13,680
September 30	3,417.30	43,760	-8,550
Water Year 2005	--	--	+17,140

06307500 TONGUE RIVER AT TONGUE RIVER DAM, NEAR DECKER, MT

LOCATION.--Lat 45°08'29", long 106°46'15" (NAD 27), in SW¹/₄ SE¹/₄ SE¹/₄ sec.12, T.8 S., R.40 E., Big Horn County, Hydrologic Unit 10090101, on left bank 0.5 mi downstream from Tongue River Dam, 4 mi upstream from Post Creek, 8 mi northeast of Decker, 16 mi southeast of Kirby, and at river mile 188.4.

DRAINAGE AREA.--1,770 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1939 to current year.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,344.40 ft (NGVD 29) (levels by Bureau of Reclamation). Prior to Aug. 5, 1975, at elevation 10.00 ft lower.

REMARKS.--Water-discharge records good except those for the period Aug. 15 to Sept. 30, which are fair. Flow regulated by Tongue River Reservoir (station number 06307000) and many small reservoirs, combined capacity, about 15,000 acre-ft. Diversion for irrigation of about 64,800 acres upstream from station. U.S. Geological Survey satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	94	94	73	73	70	70	89	1,350	1,170	400	341
2	93	94	94	73	73	70	70	89	1,320	1,040	404	342
3	94	95	94	73	73	70	70	89	1,280	903	374	345
4	94	96	94	73	74	70	70	90	1,210	860	379	347
5	94	96	94	73	74	69	70	90	1,150	723	384	347
6	94	96	93	73	74	69	70	91	1,060	563	391	346
7	92	96	93	73	75	70	70	95	1,140	505	397	344
8	92	96	92	73	74	70	71	87	1,390	508	405	321
9	92	96	92	73	73	70	71	76	1,470	493	415	303
10	93	96	92	73	73	70	71	78	1,410	452	428	301
11	92	96	92	73	73	70	72	172	1,310	451	434	301
12	90	96	92	73	72	70	72	1,010	1,250	441	441	299
13	90	96	92	74	71	70	72	1,410	1,320	436	444	290
14	89	96	92	73	71	70	72	1,410	1,470	427	449	251
15	90	96	92	73	71	68	73	1,410	1,450	422	454	247
16	89	96	92	73	71	69	73	1,240	1,430	420	424	251
17	89	96	92	73	71	69	73	1,080	1,550	416	397	256
18	90	96	92	73	71	69	76	1,260	1,780	415	397	261
19	90	96	91	73	70	70	81	1,270	2,140	410	395	241
20	90	96	92	73	70	70	89	1,370	2,250	407	392	229
21	90	96	94	73	70	70	106	1,580	2,170	404	389	233
22	91	96	93	73	70	70	105	2,460	2,040	403	383	237
23	90	96	92	73	71	70	105	2,740	1,830	400	377	224
24	90	96	92	73	71	70	109	2,690	1,730	398	369	197
25	91	95	92	73	71	70	114	2,600	1,640	397	359	201
26	90	95	92	73	70	70	114	2,350	1,520	394	360	203
27	92	95	93	73	70	70	102	1,990	1,430	391	360	203
28	92	95	92	73	70	70	88	1,750	1,350	393	358	203
29	93	94	92	73	---	70	88	1,580	1,230	395	356	201
30	94	94	86	73	---	70	88	1,520	1,200	395	352	201
31	93	---	73	73	---	70	---	1,460	---	398	350	---
TOTAL	2,836	2,867	2,842	2,264	2,010	2,163	2,475	35,226	44,870	15,830	12,217	8,066
MEAN	91.5	95.6	91.7	73.0	71.8	69.8	82.5	1,136	1,496	511	394	269
MAX	94	96	94	74	75	70	114	2,740	2,250	1,170	454	347
MIN	89	94	73	73	70	68	70	76	1,060	391	350	197
AC-FT	5,630	5,690	5,640	4,490	3,990	4,290	4,910	69,870	89,000	31,400	24,230	16,000

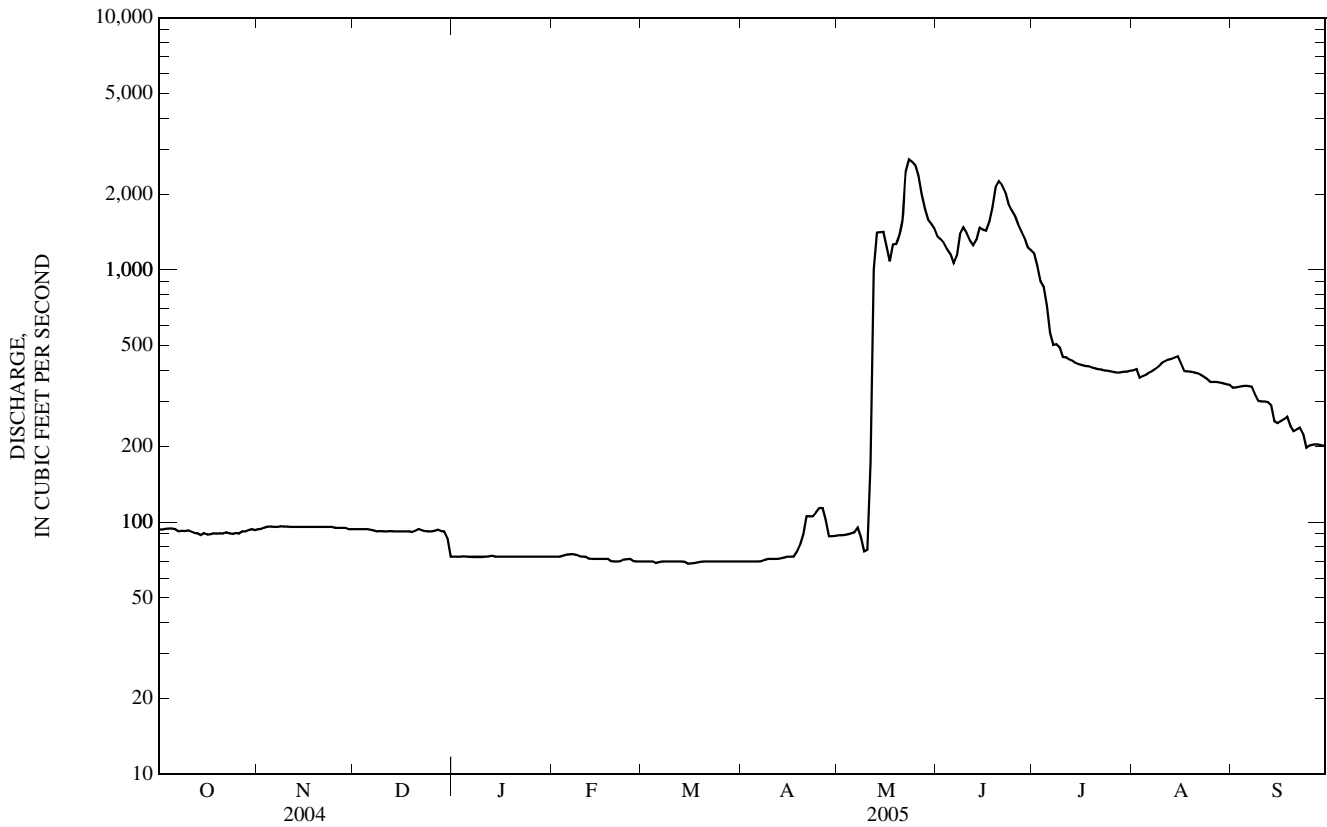
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

MEAN	266	248	184	169	176	218	351	892	1,409	565	360	304
MAX	665	554	369	287	592	676	958	2,714	3,824	2,083	767	775
(WY)	(1946)	(1942)	(1979)	(1983)	(1971)	(1971)	(1965)	(1978)	(1944)	(1975)	(1975)	(1998)
MIN	71.1	40.6	61.7	73.0	56.9	22.7	14.9	157	183	169	103	107
(WY)	(1989)	(1976)	(1989)	(2005)	(1961)	(1961)	(1940)	(2002)	(2001)	(1956)	(1943)	(2001)

06307500 TONGUE RIVER AT TONGUE RIVER DAM, NEAR DECKER, MT—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939 - 2005	
ANNUAL TOTAL	57,695		133,666			
ANNUAL MEAN	158		366		430	
HIGHEST ANNUAL MEAN					853	1978
LOWEST ANNUAL MEAN					133	2002
HIGHEST DAILY MEAN	300	Jul 23	2,740	May 23	9,580	May 20, 1978
LOWEST DAILY MEAN	73	Dec 31	68	Mar 15	0.50	Apr 17, 1940
ANNUAL SEVEN-DAY MINIMUM	89	Dec 25	69	Mar 12	0.50	Apr 17, 1940
MAXIMUM PEAK FLOW			2,930	May 24	10,800	May 20, 1978
MAXIMUM PEAK STAGE			15.03	May 24	a20.00	May 20, 1978
INSTANTANEOUS LOW FLOW					b0.00	Nov 12, 1969
ANNUAL RUNOFF (AC-FT)	114,400		265,100		311,400	
10 PERCENT EXCEEDS	261		1,310		897	
50 PERCENT EXCEEDS	120		94		250	
90 PERCENT EXCEEDS	92		70		107	

a--From floodmark in well.
 b--Result of dam closure.



06307500 TONGUE RIVER AT TONGUE RIVER DAM, NEAR DECKER, MT—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1976 to 1995, January 2004 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1980 to December 1986 (observer daily samples), May 2004 to current year (seasonal electronic records).

INSTRUMENTATION.--Specific conductance probe was installed in May 2004.

REMARKS.--Daily specific conductance records are rated good to excellent except for the periods Mar. 2-8, Apr. 6, 7, 20, 21, and June 5-8, which are rated fair. The conductance monitor was operated all year in a trial attempt to obtain winter record. The values for Jan. 4 to Feb. 9 were deleted because the probe was frozen in the deployment tube and could not be retrieved for cleaning and calibration. Values for Apr. 7-19 and Apr. 23 to May 2 were deleted due to sedimentation. Low-level mercury analysis on July 13; result is reported in nanograms per liter. Several unpublished observations of specific conductance and water temperature were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 932 microsiemens per centimeter ($\mu\text{S}/\text{cm}$) at 25.0°C, Mar. 12, 14, 1981; minimum daily, 230 $\mu\text{S}/\text{cm}$ at 25.0°C, July 1, 1983.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE (seasonal records): Maximum, 795 microsiemens per centimeter ($\mu\text{S}/\text{cm}$) at 25.0°C, Mar. 6, 7; minimum, 272 $\mu\text{S}/\text{cm}$ at 25.0°C, July 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT													
13...	1230	88	685	12.7	141	8.7	683	12.5	15.0	280	52.9	36.5	3.62
NOV													
04...	1200	96	*	*	*	8.6	690	10.5	10.0	300	56.8	38.4	3.94
DEC													
02...	1045	94	678	10.6	91	8.4	696	3.0	4.0	290	55.4	37.8	3.69
FEB													
08...	1530	75	677	13.8	119	8.4	735	-3.0	4.0	350	67.7	43.9	3.52
MAR													
08...	1500	70	676	12.1	110	8.3	753	11.0	6.0	340	66.4	43.0	3.60
21...	1400	70	672	12.3	117	8.4	750	13.0	7.5	340	64.9	43.1	3.51
APR													
05...	1500	70	680	11.9	116	8.4	750	14.5	9.0	320	61.8	41.2	3.49
19...	1345	75	677	10.6	104	8.5	736	5.0	9.0	320	63.7	40.1	3.58
MAY													
02...	1700	90	684	11.2	113	8.6	734	10.5	10.5	330	62.1	41.4	3.53
13...	0835	1,400	678	10.3	103	8.4	718	7.5	10.0	320	60.9	40.3	3.34
JUN													
08...	1340	1,390	670	10.0	111	8.2	362	18.0	14.0	150	30.8	17.2	2.60
22...	0930	2,090	675	8.3	98	8.3	303	33.0	17.5	140	30.7	14.8	1.94
JUL													
13...	1610	441	670	10.9	134	8.1	282	40.0	19.0	120	27.5	12.0	1.48
26...	1600	391	681	8.8	110	8.0	289	22.0	20.5	130	30.6	13.1	1.65
AUG													
09...	1435	420	677	8.5	110	8.0	342	28.5	22.0	150	34.0	14.9	1.84
24...	1430	367	672	11.0	141	8.2	433	25.0	21.0	180	41.2	19.7	2.45
SEP													
07...	1530	345	680	10.3	127	8.3	419	30.0	20.0	180	40.7	19.4	2.32
19...	1300	220	677	9.8	120	8.4	459	25.0	19.0	210	47.5	22.6	2.65

*--Equipment problems.

06307500 TONGUE RIVER AT TONGUE RIVER DAM, NEAR DECKER, MT—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end lab, mg/L as CaCO3 (29801)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue water, fltrd, tons/d (70302)	Suspnd. sediment, percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
OCT 13...	1	44.1	200	4.01	.4	3.80	158	423	.58	161	88	8	1.9
NOV 04...	1	43.8	219	4.13	.4	4.75	160	443	.60	115	74	5	1.3
DEC 02...	1	42.7	226	3.90	.4	5.96	158	444	.60	113	47	6	1.5
FEB 08...	1	44.5	266	4.69	.4	8.80	161	495	.67	100	72	31	6.3
MAR 08...	1	45.8	255	4.53	.3	7.45	161	485	.66	91.6	59	17	3.2
MAR 21...	1	45.8	249	4.55	.4	6.46	161	478	.65	90.4	68	10	1.9
APR 05...	1	44.3	246	4.67	.4	5.74	158				47	21	4.0
APR 19...	1	43.2	220	4.78	.4	4.50	154	447	.61	90.5	68	19	3.8
MAY 02...	1	43.1	223	4.81	.4	3.92	157	450	.61	109	52	25	6.1
MAY 13...	1	43.0	222	4.82	.3	2.92	149	439	.60	1,660	76	43	163
JUN 08...	.5	14.4	119	2.08	.2	6.80	62.7	208	.28	781	96	8	30
JUN 22...	.4	11.6	107	1.62	.1	6.91	46.4	178	.24	1,010	63	9	51
JUL 13...	.4	8.96	102	1.23	.1	7.70	38.5	159	.22	189	93	5	6.0
JUL 26...	.4	10.2	107	1.22	.1	7.44	40.4	169	.23	178	93	9	9.5
AUG 09...	.4	12.3	121	1.55	.2	4.38	50.6	192	.26	218	96	6	6.8
AUG 24...	.6	18.6	151	2.05	.2	4.48	74.0	254	.35	252	94	4	4.0
SEP 07...	.6	17.2	147	2.00	.2	3.97	71.6	246	.33	229	86	3	2.8
SEP 19...	.6	19.4	160	2.28	.2	5.36	82.7	279	.38	166	92	5	3.0

Date	Time	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Aluminum, water, fltrd, ug/L (01106)	Aluminum, water, unfltrd recover-able, ug/L (01105)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover-able, ug/L (01007)
OCT 13...	1230	E.005	<.016	<.002	.50	<.006	.040	<2	36	1.4	<2	60	62
DEC 02...	1045	.034	.017	.002	.44	<.006	.022	<2	14	1.2	<2	57	53
FEB 08...	1530	.148	.101	.005	.51	<.006	.022	<2	11	.9	<2	50	57
APR 05...	1500	.024	E.013	.002	.40	<.006	.026	<2	16	1.0	<2	54	56
MAY 13...	0835	E.005	<.016	<.002	.36	<.006	.031	3	79	.8	E1	57	58
JUL 13...	1610	--	--	--	--	--	--	--	--	--	--	--	--
AUG 24...	1430	.102	.062	.021	.45	E.003	.025	3	50	1.2	1.2	47	54

E--Estimated.

06307500 TONGUE RIVER AT TONGUE RIVER DAM, NEAR DECKER, MT—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Cadmium, water, fltrd, ug/L (01025)	Cadmium, water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover-able, ug/L (01051)	Lithium, water, fltrd, ug/L (01130)
OCT 13...	<.06	<.06	79	<.04	<.04	<2	--	2.8	E4	90	--	.09	25.3
DEC 02...	<.06	<.06	81	<.04	<.04	<2	1.3	3.6	<6	20	<.08	E.03	25.0
FEB 08...	<.06	<.06	79	<.04	<.04	E2	1.3	2.3	E4	30	<.08	E.03	27.9
APR 05...	<.06	<.06	75	<.04	<.04	3	1.6	4.3	<6	20	E.07	E.04	27.8
MAY 13...	E.03	<.06	72	<.04	.12	E2	1.2	2.6	<6	150	.15	.49	21.8
JUL 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 24...	<.06	<.06	40	<.04	<.04	<2	2.4	1.0	8	80	.24	.09	10.5

Date	Manganese, water, fltrd, ug/L (01056)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury, water, unfltrd ng/L (50286)	Mercury, water, unfltrd recover-able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, fltrd, ug/L (01145)	Selenium, water, unfltrd ug/L (01147)	Strontium, water, fltrd, ug/L (01080)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover-able, ug/L (01092)
OCT 13...	8.6	43	--	<.01	2.46	2.64	.8	1.1	514	1.3	E1
DEC 02...	3.5	15	--	<.01	.955	2.54	.6	.6	502	.7	E2
FEB 08...	73.1	92	--	E.01	2.19	2.08	.5	.7	593	1.3	E2
APR 05...	5.1	30	--	--	--	1.75	.6	.6	601	3.7	E2
MAY 13...	2.0	20	--	--	1.77	2.01	E.3	.7	546	3.8	3
JUL 13...	--	--	1.05	--	--	--	--	--	--	--	--
AUG 24...	31.9	74	--	--	1.86	1.57	E.2	<.4	282	4.4	<2

E--Estimated.

06307500 TONGUE RIVER AT TONGUE RIVER DAM, NEAR DECKER, MT—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
SEASON OCTOBER 2004 TO OCTOBER 2005

DAY	OCTOBER 2004			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	704	687	695	695	686	691	706	698	702	754	746	749
2	695	684	691	697	683	692	717	703	710	757	745	752
3	696	681	690	697	686	693	718	713	716	762	748	755
4	697	680	690	709	685	698	718	712	716	---	---	---
5	694	676	687	709	699	706	719	714	717	---	---	---
6	692	681	688	709	698	705	720	714	718	---	---	---
7	693	679	689	709	699	705	720	714	718	---	---	---
8	694	675	685	709	699	706	722	704	717	---	---	---
9	---	---	---	711	700	706	726	704	723	---	---	---
10	---	---	---	712	704	709	725	718	722	---	---	---
11	---	---	---	711	701	708	726	722	724	---	---	---
12	692	674	682	710	701	707	727	721	724	---	---	---
13	694	678	686	712	703	707	727	721	725	---	---	---
14	---	---	---	712	699	709	727	722	725	---	---	---
15	---	---	---	714	698	710	728	723	725	---	---	---
16	696	685	692	714	705	711	728	721	725	---	---	---
17	697	684	692	714	701	710	728	724	726	---	---	---
18	694	682	690	714	704	711	728	711	719	---	---	---
19	695	682	690	714	706	711	726	713	719	---	---	*726
20	695	684	691	715	703	711	731	719	725	---	---	---
21	694	682	689	716	706	712	732	724	729	---	---	---
22	698	687	694	715	709	713	733	723	729	---	---	---
23	703	681	694	715	709	713	734	728	731	---	---	---
24	703	679	691	714	701	709	739	719	726	---	---	---
25	692	678	687	714	679	711	739	732	736	---	---	---
26	697	681	691	712	700	707	739	733	736	---	---	---
27	695	684	691	713	686	706	741	735	739	---	---	---
28	696	683	691	714	705	711	744	733	740	---	---	---
29	696	687	692	715	705	713	742	730	736	---	---	---
30	694	684	691	716	694	703	745	734	738	---	---	---
31	695	681	690	---	---	---	751	741	747	---	---	---
MONTH	704	674	690	716	679	707	751	698	725	762	745	752
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	775	720	761	748	711	736	---	---	---
2	---	---	---	775	732	754	762	705	736	---	---	*734
3	---	---	---	780	753	765	765	753	760	739	673	723
4	---	---	---	784	755	774	763	737	754	730	665	716
5	---	---	---	788	761	782	754	707	747	726	663	707
6	---	---	---	795	744	781	753	694	736	678	604	650
7	---	---	---	795	749	772	---	---	---	610	575	599
8	---	---	*735	783	760	768	---	---	---	609	590	601
9	---	---	---	765	747	754	---	---	---	598	559	584
10	736	717	728	762	750	755	---	---	---	592	573	580
11	744	717	734	758	750	754	---	---	---	597	576	586
12	743	712	735	758	752	755	---	---	---	721	568	640
13	739	711	731	757	750	754	---	---	---	713	710	711
14	740	731	735	769	749	756	---	---	---	715	710	713
15	740	734	737	770	750	764	---	---	---	720	710	716
16	741	732	737	772	754	765	---	---	---	717	661	702
17	744	730	736	777	763	770	---	---	---	677	601	646
18	752	730	739	778	755	771	---	---	---	676	611	644
19	749	737	742	784	755	773	---	---	*736	679	667	674
20	749	732	741	787	755	773	738	723	733	668	642	654
21	750	742	745	776	755	764	738	727	732	644	578	606
22	755	741	748	762	738	756	733	669	711	606	557	588
23	---	---	---	761	754	759	---	---	---	577	542	560
24	---	---	---	765	760	762	---	---	---	550	514	531
25	767	745	759	766	739	758	---	---	---	534	506	519
26	768	755	761	764	721	748	---	---	---	517	488	503
27	770	761	765	747	691	724	---	---	---	505	471	491
28	770	753	764	722	661	697	---	---	---	508	477	489
29	---	---	---	692	655	673	---	---	---	482	434	463
30	---	---	---	697	655	677	---	---	---	478	432	445
31	---	---	---	744	687	713	---	---	---	450	396	436
MONTH	770	711	743	795	655	753	765	669	738	739	396	603

*--Instantaneous value from water-quality sample.

