

Water-Data Report 2013

13154500 SNAKE RIVER AT KING HILL, ID

Upper Snake Basin
Upper Snake-Rock Subbasin

LOCATION.--Lat 43°00'08", long 115°12'09" referenced to North American Datum of 1983, in NW ¼ NW ¼ SW ¼ sec.7, T.5 S., R.11 E., Elmore County, ID, Hydrologic Unit 17040212, King Hill quad., on right bank, 200 ft south of railroad tracks at King Hill, 20 mi downstream from Malad River, and at mile 546.6.

DRAINAGE AREA.--35,800 mi², approximately. Mean elevation, 6,040 ft.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May 1909 to current year.

REVISED RECORDS.--WSP 1317: 1935(M). WDR ID-76-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 2,492.3 ft above NGVD of 1929 (stadia levels). Nonrecording gage May 13, 1909 to Mar. 1, 1910, on left bank at present site at datum 2.20 ft higher. Nonrecording gage Mar. 7 to Aug. 16, 1910, 0.8 mi upstream at different datum. Nonrecording gage Aug. 17, 1910 to Oct. 7, 1928, at present site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Station equipment includes satellite telemetry. Flow regulated by American Falls Reservoir, 168.4 mi upstream and irrigation diversions at Milner Dam. Diurnal fluctuation caused by hydroelectric power plant near Bliss. At times, practically entire flow is diverted at Milner during irrigation seasons; only minor diversions below Milner; flow at King Hill is then derived largely from springs and seepage entering below Milner within the Twin Falls tract. Diversions above station for irrigation of about 2,450,000 acres, of which about 675,000 acres are irrigated by withdrawals from ground water (1966 determination). Inflow from Clover Creek (station 13154400) may be significant during snowmelt runoff periods some years.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 47,200 ft³/s June 22, 1918, gage height, 16.3 ft, from rating curve extended above 30,000 ft³/s; minimum observed, 1,250 ft³/s Jan. 10, 1950, when flow was cut for gage repairs, gage height, 1.75 ft; minimum daily, 4,760 ft³/s June 7-9, Aug. 15, 16, 1910.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 9,210 ft³/s May 30; minimum daily, 5,430 ft³/s July 18.

13154500 SNAKE RIVER AT KING HILL, ID—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	7,620	7,040	7,860	6,850	e7,150	6,590	5,920	6,840	8,910	5,640	7,660	6,490
2	7,660	6,960	7,700	6,720	e7,080	6,560	5,800	6,840	8,820	5,560	7,670	6,590
3	7,620	7,010	7,640	6,830	e7,030	6,640	5,790	8,220	8,600	5,630	7,630	6,700
4	7,790	7,020	7,640	6,770	e7,030	6,600	5,730	8,730	7,750	5,660	7,660	6,840
5	7,840	7,020	7,930	6,730	e6,970	6,570	5,820	8,920	7,050	5,770	7,710	7,170
6	7,820	6,980	7,920	6,720	6,890	6,540	5,830	8,980	6,520	5,850	7,680	7,290
7	7,920	7,030	7,460	6,760	6,850	6,490	5,660	8,840	6,040	5,900	7,670	7,280
8	7,980	7,020	7,610	6,780	6,790	6,570	6,290	8,710	6,020	5,910	7,790	7,290
9	7,970	7,180	7,280	6,690	6,750	6,510	6,340	8,720	5,890	5,970	7,950	7,130
10	7,880	7,260	7,060	6,740	6,740	6,500	6,410	8,370	5,890	5,910	7,770	7,190
11	7,870	7,200	7,100	6,650	6,670	6,500	6,580	8,350	5,960	5,880	6,850	7,100
12	7,830	7,210	7,080	6,710	6,730	6,480	6,490	8,500	5,930	5,900	6,280	7,140
13	7,820	7,160	7,070	6,670	6,650	6,490	6,510	8,540	5,790	5,930	6,280	7,230
14	7,740	7,220	7,030	6,630	6,730	6,480	6,530	8,530	5,980	6,180	6,230	7,360
15	7,670	6,960	7,030	6,670	6,670	6,520	6,740	8,510	5,950	5,930	6,270	7,400
16	7,640	6,970	7,020	6,680	6,680	6,480	6,740	8,750	5,970	5,910	6,250	7,490
17	7,550	6,850	7,140	6,540	6,620	6,470	6,650	8,780	5,880	5,900	6,310	7,580
18	7,480	7,070	7,000	6,630	6,710	6,500	6,720	8,900	5,880	5,430	6,250	7,490
19	7,390	7,000	7,020	e6,620	6,650	6,430	6,580	9,000	5,860	5,810	6,390	7,440
20	7,310	7,030	6,900	e6,610	6,730	6,570	6,600	9,100	5,700	5,860	6,420	7,480
21	7,280	6,990	6,880	e6,600	6,670	6,580	6,540	9,020	5,990	5,830	6,340	7,540
22	7,360	7,040	6,980	e6,600	6,610	6,510	6,750	8,830	6,050	5,860	6,340	7,500
23	7,480	7,060	7,000	e6,610	6,680	6,350	6,780	8,880	5,970	5,900	6,360	7,630
24	7,480	7,010	6,920	e6,630	6,680	5,980	6,410	8,820	6,050	6,780	6,470	7,600
25	7,330	7,010	6,950	e6,640	6,650	5,940	6,500	8,760	6,020	7,330	6,450	7,640
26	7,190	6,910	6,860	e6,660	6,540	5,980	6,270	8,720	5,980	7,350	6,550	7,760
27	7,120	6,860	7,060	e6,690	6,550	5,800	6,080	8,760	5,920	7,430	6,600	7,870
28	7,020	6,780	6,770	e6,690	6,520	5,870	6,130	8,930	5,730	7,420	6,420	7,930
29	7,000	6,940	6,790	e6,750	---	5,830	6,140	9,120	5,660	7,510	6,440	7,920
30	7,040	7,600	6,910	e7,060	---	5,900	6,360	9,210	5,630	7,530	6,440	7,900
31	6,970	---	6,900	e7,160	---	5,780	---	9,170	---	7,580	6,450	---
Total	233,670	211,390	222,510	208,090	189,020	197,010	189,690	268,350	189,390	193,050	211,580	220,970
Mean	7,538	7,046	7,178	6,713	6,751	6,355	6,323	8,656	6,313	6,227	6,825	7,366
Max	7,980	7,600	7,930	7,160	7,150	6,640	6,780	9,210	8,910	7,580	7,950	7,930
Min	6,970	6,780	6,770	6,540	6,520	5,780	5,660	6,840	5,630	5,430	6,230	6,490
Ac-ft	463,500	419,300	441,300	412,700	374,900	390,800	376,300	532,300	375,700	382,900	419,700	438,300

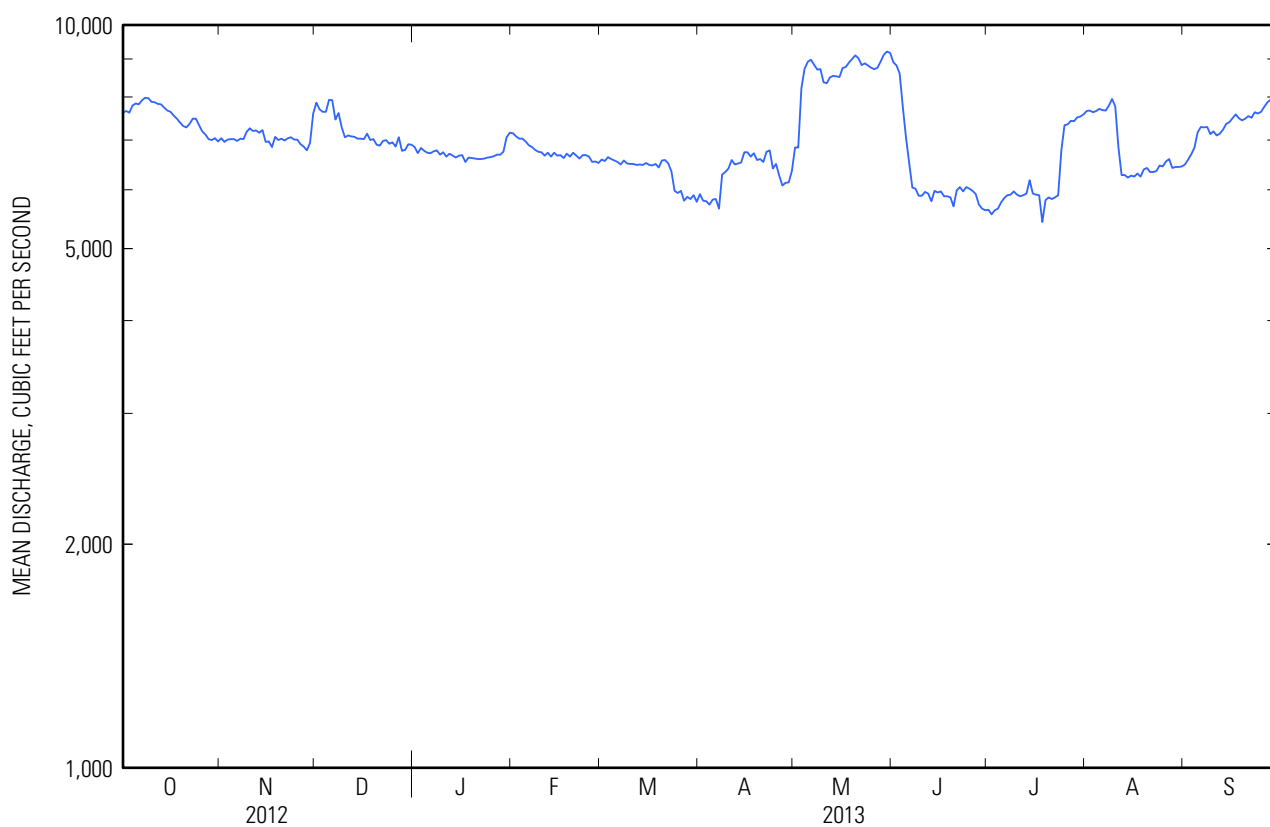
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	10,250	10,650	10,660	10,860	10,970	11,260	12,420	12,220	12,720	8,377	7,758	8,692
Max	18,630	20,920	19,750	21,980	25,290	26,830	28,100	27,590	36,970	21,730	10,920	14,740
(WY)	(1985)	(1985)	(1984)	(1984)	(1997)	(1997)	(1971)	(1984)	(1909)	(1909)	(1997)	(1912)
Min	6,859	6,783	6,786	6,613	6,473	6,355	6,323	6,205	5,666	5,396	4,969	5,869
(WY)	(1925)	(2005)	(2005)	(2004)	(2008)	(2013)	(2013)	(1924)	(2004)	(1910)	(1910)	(1910)

13154500 SNAKE RIVER AT KING HILL, ID—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1909 - 2013	
Annual total	3,175,000		2,534,720			
Annual mean	8,675		6,944		10,530	
Highest annual mean					18,070	1984
Lowest annual mean					6,520	2004
Highest daily mean	16,600	Apr 6	9,210	May 30	47,200	Jun 22, 1918
Lowest daily mean	6,190	Aug 2	5,430	Jul 18	4,760	Jul 7, 1910
Annual seven-day minimum	6,290	Jul 27	5,640	Jun 28	4,880	Aug 10, 1910
Annual runoff (ac-ft)	6,298,000		5,028,000		7,625,000	
10 percent exceeds	11,700		7,930		16,500	
50 percent exceeds	7,700		6,790		8,900	
90 percent exceeds	6,740		5,900		6,780	



13154500 SNAKE RIVER AT KING HILL, ID—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1951 to September 1980 (discontinued).

WATER TEMPERATURE: March 1951 to September 1980, June to September 1993, June to September 1994, July to September 1995, July to September 1996, May to September 2001, June to September 2002, July 2004 to current year.

INSTRUMENTATION.--Water-quality monitor from March 1951 to September 1980. Temperature recording data logger from June to September 1993, June to September 1994, July to September 1995, July to September 1996, May to September 2001, June to September 2002, July to October 2004. Electronic thermistor connected to datalogger located in orifice pipe on right bank at gage from November 2004 to current year.

REMARKS.--Records good. Records represent water temperature at thermistor within 0.2 °C. Water temperature data is representational of a point in river and not necessarily representational of mean temperature of the river cross section at that point. National Water-Quality Assessment site.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 595 micromho/cm June 19, 1968; minimum, 296 micromho/cm May 15, 1974.

WATER TEMPERATURE: Maximum, 23.0 °C Aug. 2, 1955; minimum, 3.0 °C Dec. 11, 16, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 22.5 °C July 2, 4; minimum, 6.6 °C Jan. 5, 13.

13154500 SNAKE RIVER AT KING HILL, ID—Continued

 TEMPERATURE, WATER, DEGREES CELSIUS
 WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	17.5	15.6	16.4	14.4	13.1	13.6	11.5	10.9	11.2	8.7	8.0	8.2
2	17.2	15.3	16.2	14.2	12.9	13.4	11.6	11.0	11.3	8.8	7.7	8.2
3	16.3	14.7	15.5	14.0	12.4	13.2	11.8	11.0	11.3	8.6	7.2	7.8
4	16.0	13.9	14.8	13.9	12.3	13.1	11.2	10.8	11.0	8.2	6.9	7.4
5	15.3	13.6	14.2	13.8	12.3	13.0	11.6	10.8	11.1	8.0	6.6	7.1
6	14.7	13.1	13.7	13.8	12.3	13.0	11.5	10.7	11.1	8.0	6.8	7.2
7	14.6	12.8	13.5	14.0	12.3	13.0	11.6	10.5	10.9	7.6	6.7	7.2
8	14.5	12.7	13.4	13.7	12.6	13.0	10.9	9.9	10.5	8.2	7.0	7.7
9	14.3	12.6	13.3	13.0	11.9	12.4	10.3	9.5	9.8	8.5	7.8	8.1
10	14.3	12.5	13.3	12.1	10.6	11.4	10.3	9.4	9.8	8.4	7.5	7.9
11	14.6	12.8	13.6	11.1	9.8	10.4	10.3	9.3	9.8	8.4	7.3	7.7
12	15.0	13.1	13.9	10.0	9.5	9.7	10.7	9.9	10.2	8.1	6.9	7.5
13	15.1	13.5	14.1	10.2	9.4	9.7	10.9	10.1	10.5	7.7	6.6	7.0
14	15.2	13.6	14.2	10.8	9.7	10.2	11.1	10.3	10.6	7.7	6.8	7.2
15	15.4	13.8	14.4	11.4	10.3	10.8	11.2	10.1	10.5	8.4	7.1	7.5
16	15.5	13.9	14.6	11.7	10.7	11.2	10.9	10.1	10.4	8.3	7.0	7.5
17	14.8	13.5	14.0	11.9	11.1	11.5	10.8	9.6	10.2	8.5	7.1	7.7
18	14.5	12.9	13.5	12.3	11.4	11.9	10.5	9.1	9.7	8.6	7.2	7.7
19	13.9	12.5	13.1	12.5	11.8	12.2	10.2	8.9	9.4	8.5	6.9	7.5
20	14.2	12.9	13.4	12.5	12.2	12.3	9.0	8.0	8.6	8.4	7.0	7.5
21	14.4	12.7	13.4	12.8	11.7	12.3	8.4	7.7	8.1	8.4	6.9	7.4
22	13.7	12.7	13.1	12.6	11.3	11.9	8.3	7.9	8.2	8.3	7.0	7.5
23	13.8	12.5	13.0	12.2	11.0	11.5	8.9	8.0	8.5	8.2	7.0	7.6
24	13.0	12.0	12.4	11.8	10.6	11.2	9.4	8.5	8.8	8.8	7.7	8.2
25	12.9	11.5	12.1	12.0	10.7	11.3	9.3	8.5	8.8	9.6	8.5	9.0
26	12.3	11.1	11.7	11.7	10.5	11.0	8.8	8.3	8.5	10.5	9.1	9.7
27	12.4	10.9	11.6	11.6	10.2	10.8	9.2	8.3	8.7	9.8	8.9	9.4
28	12.8	11.4	12.0	11.4	10.2	10.8	9.4	8.1	8.6	9.9	8.8	9.4
29	13.6	11.8	12.6	11.4	10.4	11.0	8.9	8.1	8.4	10.0	8.9	9.3
30	14.3	12.4	13.2	11.6	10.9	11.2	9.0	8.2	8.5	9.7	8.7	9.1
31	14.3	12.7	13.4	---	---	---	8.5	7.8	8.2	10.2	8.8	9.4
Month	17.5	10.9	13.6	14.4	9.4	11.7	11.8	7.7	9.7	10.5	6.6	8.0

13154500 SNAKE RIVER AT KING HILL, ID—Continued**TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	10.6	9.2	9.8	12.2	9.8	10.8	16.2	14.0	15.0	16.0	12.8	14.2
2	10.8	9.5	10.0	12.1	10.5	11.3	16.5	14.1	15.2	16.0	12.6	14.1
3	11.1	9.9	10.3	12.6	11.0	11.6	17.0	14.1	15.3	15.2	12.7	13.8
4	11.2	10.1	10.5	12.8	10.8	11.6	16.0	14.1	15.0	15.5	13.9	14.8
5	11.2	10.2	10.5	11.6	10.2	10.9	16.4	14.1	15.1	15.9	14.6	15.1
6	11.5	10.2	10.6	11.1	9.7	10.3	16.4	14.4	15.0	16.2	14.8	15.5
7	10.6	10.1	10.3	11.8	10.0	10.8	15.5	14.2	14.6	16.2	15.2	15.6
8	10.5	9.9	10.1	12.6	10.4	11.3	15.6	13.5	14.5	16.9	15.3	16.0
9	11.0	9.5	10.1	12.8	10.4	11.5	15.8	13.0	14.1	17.2	15.4	16.2
10	10.8	9.2	9.8	12.8	10.6	11.5	14.5	12.5	13.5	17.6	15.7	16.6
11	10.5	8.9	9.5	12.6	10.6	11.4	14.6	11.6	13.1	18.0	16.0	17.0
12	10.7	9.0	9.6	13.4	10.8	11.9	15.4	12.1	13.5	18.3	16.5	17.4
13	10.9	9.4	10.0	13.8	11.3	12.4	14.6	12.5	13.3	19.0	16.9	17.7
14	11.0	9.5	10.0	14.2	11.9	12.9	14.1	12.0	13.0	18.7	17.0	17.8
15	11.3	9.4	10.1	14.7	12.6	13.5	14.7	12.3	13.1	18.6	16.9	17.6
16	11.4	9.6	10.3	14.6	12.6	13.5	13.6	11.7	12.4	17.9	16.9	17.3
17	11.4	9.7	10.4	13.8	12.0	12.8	14.3	11.8	12.6	17.9	16.5	17.2
18	11.3	9.9	10.4	13.5	11.5	12.4	14.1	11.5	12.6	17.6	16.2	16.8
19	10.8	9.6	10.1	13.7	11.2	12.2	13.9	11.7	12.6	17.1	15.7	16.4
20	10.9	9.5	10.0	13.2	11.2	11.9	14.3	11.8	12.9	16.9	15.4	16.1
21	10.9	9.3	9.8	12.8	10.8	11.7	14.7	11.9	13.2	16.6	15.4	15.9
22	10.6	9.1	9.8	12.6	10.6	11.5	14.9	11.9	13.1	16.7	15.2	15.9
23	10.6	9.0	9.7	12.2	10.4	11.1	15.3	12.3	13.6	16.3	14.8	15.4
24	10.9	9.0	9.8	12.6	9.8	11.0	15.8	12.3	13.8	16.4	14.6	15.5
25	10.2	8.9	9.5	12.5	9.6	10.9	15.6	12.5	13.9	17.0	15.1	16.0
26	10.0	8.3	9.1	13.1	10.4	11.5	16.3	13.0	14.5	17.5	15.6	16.4
27	10.6	8.8	9.5	13.8	11.1	12.4	16.8	13.6	15.1	17.3	15.7	16.4
28	10.9	8.9	9.8	14.7	11.7	13.1	16.9	13.9	15.3	17.0	15.9	16.4
29	---	---	---	15.2	12.6	13.8	16.8	14.3	15.4	16.7	15.5	16.1
30	---	---	---	15.8	13.1	14.4	16.1	13.3	14.6	16.5	15.3	15.8
31	---	---	---	16.5	13.2	14.8	---	---	---	16.4	15.0	15.6
Month	11.5	8.3	10.0	16.5	9.6	12.0	17.0	11.5	14.0	19.0	12.6	16.1

13154500 SNAKE RIVER AT KING HILL, ID—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
June				July			August			September		
1	16.7	14.9	15.7	22.4	19.6	21.0	21.6	19.4	20.5	20.1	18.0	18.9
2	17.5	15.3	16.3	22.5	20.0	21.2	21.0	19.2	20.1	20.2	18.3	19.0
3	17.9	15.8	16.8	22.2	20.1	21.1	20.8	18.8	19.7	19.7	18.5	18.9
4	18.6	16.1	17.1	22.5	20.1	21.2	20.9	18.6	19.6	20.5	18.4	19.1
5	19.5	16.1	17.6	21.5	19.8	20.8	21.1	18.8	19.8	19.9	18.4	19.0
6	19.7	16.3	17.9	21.8	19.1	20.5	21.2	19.0	20.0	20.3	18.4	19.2
7	20.0	16.8	18.5	21.9	19.2	20.6	21.0	19.0	19.8	20.3	18.2	19.0
8	20.2	17.0	18.6	21.9	19.4	20.7	20.9	19.0	19.8	20.2	18.0	18.9
9	20.6	17.4	18.9	22.1	19.2	20.7	20.7	19.0	19.7	20.2	17.5	18.6
10	20.8	17.4	19.1	22.1	19.1	20.6	20.9	18.9	19.7	20.0	17.7	18.6
11	20.8	17.2	19.1	20.9	19.6	20.3	21.6	18.8	20.0	20.1	17.4	18.5
12	20.6	17.6	19.0	21.4	19.2	20.2	21.6	18.8	20.0	19.9	17.9	18.7
13	19.9	17.6	18.6	21.1	18.6	19.9	21.6	18.9	20.1	20.2	18.0	18.8
14	19.7	16.9	18.1	21.2	18.5	19.8	21.6	18.6	19.9	20.1	17.9	18.8
15	19.5	16.1	17.8	21.2	18.5	19.8	21.2	18.4	19.7	19.9	17.9	18.7
16	19.7	16.2	18.0	21.4	19.0	20.1	21.1	18.4	19.6	19.9	17.7	18.7
17	20.2	16.6	18.5	21.8	19.5	20.5	20.8	18.6	19.5	19.3	17.7	18.3
18	20.5	17.2	18.9	21.9	18.9	20.4	21.1	18.4	19.6	18.1	16.8	17.5
19	19.3	17.3	18.2	21.8	18.9	20.4	20.8	18.4	19.6	17.7	16.1	16.8
20	19.6	16.8	18.1	21.9	19.0	20.5	20.9	18.5	19.5	17.1	15.4	16.1
21	19.1	16.4	17.8	21.8	18.9	20.4	19.9	18.6	19.2	16.9	15.3	16.0
22	19.1	15.8	17.4	21.5	18.8	20.1	20.2	18.5	19.2	16.7	15.1	15.7
23	19.2	16.0	17.6	21.1	18.5	19.9	20.3	18.4	19.1	16.5	15.0	15.6
24	18.4	16.7	17.6	20.0	18.8	19.5	20.2	18.2	19.0	16.2	15.0	15.4
25	18.8	17.0	17.9	21.1	18.5	19.7	19.9	18.1	18.9	15.5	14.8	15.1
26	19.9	17.2	18.6	21.1	18.6	19.8	20.0	18.0	18.9	15.0	14.2	14.6
27	20.5	17.2	19.0	21.7	19.0	20.2	20.2	18.2	19.1	14.9	13.8	14.2
28	21.1	17.7	19.6	21.5	19.5	20.4	20.4	18.4	19.2	14.8	13.6	14.1
29	21.8	18.6	20.2	21.5	19.4	20.3	20.7	18.5	19.4	14.5	13.8	14.1
30	22.2	19.1	20.7	21.6	19.6	20.4	20.6	18.4	19.3	15.2	14.2	14.6
31	---	---	---	21.7	19.5	20.5	20.5	18.2	19.2	---	---	---
Month	22.2	14.9	18.2	22.5	18.5	20.4	21.6	18.0	19.6	20.5	13.6	17.3

	Max	Min	Mean
Year	22.5	6.6	14.2

13154500 SNAKE RIVER AT KING HILL, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 1 of 7

[CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft, feet; ft/s, feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Sample date-time	Barometric pressure, mm Hg (00025)	Tempera- ture, air, °C (00020)	Absorbance, UV, 254 nm, 1 cm path length, water, filtered, units per cm (50624)	Absorbance, UV, organic constituents, 280 nm, 1 cm path length, water, filtered, units per cm (61726)	Discharge, instanta- neous, ft ³ /s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	pH, water, unfiltered, laboratory, standard units (00403)	Specific conduc- tance, water, unfiltered, laboratory, µS/cm at 25°C (90095)
10-04-2012 1320	699	18.0	0.024	0.018	7,840	10.2	8.3	8.4	496
12-10-2012 1110	697	5.0	.022	.016	7,200	10.4	8.3	8.3	502
01-23-2013 1020	701	-5.0	.016	.012	6,650	11.5	8.3	8.2	511
02-04-2013 1130	700	8.0	.019	.015	6,890	10.8	8.2	8.3	511
03-12-2013 1140	700	17.0	.019	.015	6,550	10.9	8.5	8.5	480
04-08-2013 1130	686	11.2	.014	.011	6,190	10.2	8.5	8.4	475
04-22-2013 1300	697	14.5	.019	.014	6,700	12.3	8.8	8.7	456
05-06-2013 1100	692	22.3	.023	.017	8,890	10.6	8.6	8.5	510
05-20-2013 1200	699	24.0	.030	.023	9,180	9.7	8.5	8.4	472
06-03-2013 1130	694	25.0	.013	.007	8,770	10.2	8.6	8.6	464
06-19-2013 1100	690	22.0	.025	.019	5,760	10.2	8.7	8.6	445
07-01-2013 1030	695	35.0	.025	.021	5,760	9.1	8.4	8.5	481
07-18-2013 1240	696	31.0	.021	.016	5,160	9.5	8.4	8.5	483
08-07-2013 1120	695	32.0	.027	.020	7,910	9.7	8.5	8.6	479

13154500 SNAKE RIVER AT KING HILL, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 2 of 7

[CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft, feet; ft/s, feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Sample date-time	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	Gage height, ft (00065)	Sample location, distance down-stream, ft (72104)	Stream width, ft (00004)	Velocity at point in stream, ft/s (81904)	Number of sampling points, count (00063)
10-04-2012 1320	488	15.2	E 2.0	6.22	--	--	--	--
12-10-2012 1110	501	10.2	E 2.7	5.94	--	300	--	10
01-23-2013 1020	498	7.8	E 2.7	5.69	20.0	280	--	10
02-04-2013 1130	502	10.8	E 4.0	5.80	--	280	--	10
03-12-2013 1140	485	11.8	E 5.1	5.64	.0	300	1.00	10
04-08-2013 1130	467	14.4	E 4.5	5.47	--	--	--	--
04-22-2013 1300	461	13.6	E 7.3	5.71	2.0	300	--	10
05-06-2013 1100	502	15.6	E 7.4	6.66	--	300	--	10
05-20-2013 1200	461	16.2	E 5.6	6.78	20.0	300	--	10
06-03-2013 1130	462	16.9	E 13	6.61	--	300	--	10
06-19-2013 1100	442	18.1	E 5.9	5.30	20.0	300	--	10
07-01-2013 1030	466	20.1	E 3.8	5.33	50.0	300	--	10
07-18-2013 1240	477	20.0	E 4.2	5.08	50.0	280	--	10
08-07-2013 1120	474	19.6	E 10	6.37	50.0	280	--	10

13154500 SNAKE RIVER AT KING HILL, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 3 of 7

[CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft, feet; ft/s, feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Sample date-time	Sample purpose (71999)	Sampler type (84164)	Sampling method (82398)	Purpose, site visit (50280)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)
10-04-2012 1320	NAWQA	US DH-95 Teflon	EWI	Fixed frequency SW	289	44.5	20.2	4.37
12-10-2012 1110	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	306	48.1	20.0	4.32
01-23-2013 1020	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	323	47.4	20.6	4.53
02-04-2013 1130	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	309	45.6	20.3	4.74
03-12-2013 1140	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	309	46.2	19.9	4.52
04-08-2013 1130	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	304	41.4	19.9	4.50
04-22-2013 1300	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	292	41.9	19.2	4.60
05-06-2013 1100	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	306	43.2	20.5	4.76
05-20-2013 1200	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	281	41.5	18.1	4.04
06-03-2013 1130	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	295	42.4	18.7	4.44
06-19-2013 1100	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	279	33.7	17.4	4.20
07-01-2013 1030	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	285	40.6	18.5	4.15
07-18-2013 1240	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	293	43.8	19.7	4.41
08-07-2013 1120	NAWQA	US D-95 Teflon	EWI	Fixed frequency SW	285	45.9	20.0	4.42

13154500 SNAKE RIVER AT KING HILL, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 4 of 7

[CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft, feet; ft/s, feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Sample date-time	Sodium, water, filtered, mg/L (00930)	Alkalinity, water, filtered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as CaCO ₃ (29801)	Alkalinity, water, filtered, inflection- point, incremental titration method, field, mg/L as CaCO ₃ (39086)	Bicarbonate, water, filtered, inflection- point, incremental titration method, field, mg/L (00453)	Carbon (inorganic plus organic), suspended sediment, total, mg/L (00694)	Carbonate, water, filtered, inflection- point incremental titration method, field, mg/L (00452)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Inorganic carbon, suspended sediment, total, mg/L (00688)
10-04-2012 1320	28.4	172	162	194	0.32	2.1	24.2	0.55	< .03
12-10-2012 1110	27.7	174	164	196	.48	1.6	25.6	.55	< .03
01-23-2013 1020	26.7	175	169	205	.67	.3	25.6	.56	< .03
02-04-2013 1130	29.1	174	163	194	.67	2.2	27.0	.59	< .03
03-12-2013 1140	27.1	168	162	191	1.51	2.9	26.1	.62	< .03
04-08-2013 1130	27.2	164	161	192	1.22	2.1	24.5	.53	< .03
04-22-2013 1300	28.8	154	151	175	2.50	4.0	26.8	.60	< .03
05-06-2013 1100	32.4	170	166	192	1.57	4.5	28.8	.57	< .03
05-20-2013 1200	25.5	163	158	189	4.31	2.0	23.6	.72	< .03
06-03-2013 1130	27.5	166	164	193	1.84	3.6	24.4	.74	.18
06-19-2013 1100	24.3	152	--	--	3.02	--	24.5	.66	< .03
07-01-2013 1030	26.0	164	163	193	1.11	2.7	24.4	.64	< .03
07-18-2013 1240	28.3	168	166	197	.90	2.4	25.4	.61	< .03
08-07-2013 1120	27.0	170	160	188	1.89	3.7	23.4	.66	.05

13154500 SNAKE RIVER AT KING HILL, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 5 of 7

[CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft, feet; ft/s, feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Sample date-time	Silica, water, filtered, mg/L as SiO ₂ (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)	Orthophos- phate, water, filtered, mg/L as P (00671)	Particulate nitrogen, suspended in water, mg/L (49570)
10-04-2012 1320	30.4	45.1	0.15	0.23	0.011	1.94	0.013	0.038	0.053
12-10-2012 1110	33.0	45.8	.21	.22	.026	2.22	.021	.054	.084
01-23-2013 1020	31.1	45.3	.14	.24	.022	2.09	.015	.036	.079
02-04-2013 1130	31.0	50.1	.15	.30	.024	2.08	.017	.042	.085
03-12-2013 1140	29.2	45.5	.09	.43	< .010	1.71	.012	.014	.266
04-08-2013 1130	31.1	42.6	.10	.33	.013	1.68	.014	.023	.178
04-22-2013 1300	26.6	44.9	.14	.65	< .010	1.37	.012	.008	.397
05-06-2013 1100	27.0	50.1	.21	.56	< .010	1.47	.014	.010	.261
05-20-2013 1200	21.9	41.5	.16	.35	< .010	1.18	.013	.026	.184
06-03-2013 1130	23.2	44.1	.11	.47	< .010	1.11	.011	.026	.236
06-19-2013 1100	24.1	42.6	.14	.61	< .010	1.05	.015	.009	.433
07-01-2013 1030	27.6	42.8	.09	.37	.013	1.37	.019	.021	.158
07-18-2013 1240	30.5	45.6	.11	.32	< .010	1.42	.017	.023	.159
08-07-2013 1120	28.2	42.5	.13	.37	< .010	1.13	.013	.012	.309

13154500 SNAKE RIVER AT KING HILL, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 6 of 7

[CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft, feet; ft/s, feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Sample date-time	Phos- phorus, water, filtered, mg/L as P (00666)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, filtered, analytically determined, mg/L (62854)	Iron, water, filtered, µg/L (01046)	Lithium, water, filtered, µg/L (01130)	Strontium, water, filtered, µg/L (01080)	Vanadium, water, filtered, µg/L (01085)	Arsenic, water, filtered, µg/L (01000)	Boron, water, filtered, µg/L (01020)
10-04-2012 1320	0.04	0.05	--	< 4.0	25.5	272	9.1	3.8	75
12-10-2012 1110	.05	.06	--	5.9	25.4	263	9.5	3.7	69
01-23-2013 1020	.03	.05	--	9.7	25.6	252	9.7	3.4	75
02-04-2013 1130	.04	.06	--	6.2	19.6	276	8.9	3.3	68
03-12-2013 1140	< .02	.06	--	5.8	23.9	254	9.1	3.3	74
04-08-2013 1130	< .02	.05	--	6.9	22.5	243	8.8	3.2	67
04-22-2013 1300	< .02	.06	--	< 4.0	22.2	235	7.9	2.9	61
05-06-2013 1100	< .02	.07	--	< 4.0	25.9	260	7.8	3.3	80
05-20-2013 1200	.03	.07	1.31	4.1	31.7	250	6.6	3.3	68
06-03-2013 1130	< .02	.09	1.33	7.9	30.1	247	6.7	3.4	68
06-19-2013 1100	.02	.06	1.26	5.1	19.4	220	7.8	2.9	57
07-01-2013 1030	.02	.06	1.55	6.2	24.2	232	8.2	3.1	62
07-18-2013 1240	.03	.04	1.46	6.9	18.8	231	8.9	3.1	55
08-07-2013 1120	< .02	.05	1.31	< 4.0	25.7	253	8.4	3.6	67

13154500 SNAKE RIVER AT KING HILL, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 7 of 7

[CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft, feet; ft/s, feet per second; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Sample date-time	Selenium, water, filtered, µg/L (01145)	Organic carbon, suspended sediment, total, mg/L (00689)	Organic carbon, water, filtered, mg/L (00681)	Suspended sediment, sieve diameter, percent smaller than 0.0625 mm (70331)	Suspended sediment concentration, mg/L (80154)
10-04-2012 1320	0.77	0.31	1.53	65	8
12-10-2012 1110	.78	.48	1.19	89	5
01-23-2013 1020	.79	.67	1.01	91	6
02-04-2013 1130	.74	.67	1.07	92	9
03-12-2013 1140	.72	1.49	1.13	94	10
04-08-2013 1130	.72	1.22	1.16	87	8
04-22-2013 1300	.63	2.49	1.45	94	17
05-06-2013 1100	.76	1.57	1.56	92	13
05-20-2013 1200	.65	4.29	1.28	90	12
06-03-2013 1130	.58	1.66	1.57	88	25
06-19-2013 1100	.60	3.00	1.49	84	17
07-01-2013 1030	.64	1.11	1.46	82	10
07-18-2013 1240	.64	.90	1.11	88	6
08-07-2013 1120	.61	1.83	1.37	97	10