WATER QUALITY STATUS REPORT NO. 99

ANTELOPE-PINE CREEK AREA

Bonneville, Jefferson, Madison, and Teton Counties, Idaho

1988-1989

Prepared by
Blaine R. Drewes

Idaho Department of Health and Welfare

Division of Environmental Quality

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ABSTRACT

The Antelope-Pine Creek study area consists of the drainage which flows into that portion of the South Fork of the Snake River between Heise and the Palisades Dam (USB-10). The South Fork of the Snake River was identified in the Agricultural Nonpoint Pollution Abatement Plan as a first priority stream segment for the reduction of agriculture related pollutants.

Additionally, the West Birch Creek drainage was studied at the request of the East Side Soil and Water Conservation District. West Birch Creek is not a tributary of the Snake River within the study area, but is diverted outside the drainage for irrigation use.

In conjunction with the East Side Soil and Water Conservation District, a State agricultural planning study was conducted from October 13, 1987 through July 11, 1989. The objectives of the study were to: 1) observe the water quality impact that agricultural lands have on the South Fork of the Snake River and its tributaries; 2) determine the sources of the pollution found in the streams and river; 3) based upon the water quality data and analysis, rank each subwatershed as to the severity of agricultural pollution and; 4) recommend to the East Side Soil and Water Conservation District, based on the ranking, areas where pollution control programs would produce the greatest reduction of agricultural water quality pollution.

Due to below average winter precipitation during 1988, extremely dry soil conditions in 1989, and cool dry springs, runoff was much less than normal. Much of the water was retained in the soil and that which did run off flowed slowly causing little erosion. USGS records for 1989 at the gauge station near Heise indicated the Snake River was at the lowest flows in over 30 years.

Agricultural pollution was directly related to the type of stream studied. The intermittent streams showed the greatest pollution concentrations and loads. Pollution loading in these creeks is directly related to the practice of farming closely to the stream edge, to the shallowness of the streams which allows scouring of the stream banks at high flows, and to mass wasting on some of the streams.

The perennial streams are somewhat protected from the pollution loading. Pine Creek is located in a deep, forested canyon. This resulting in a large buffer zone between the farms on the plateaus and the creek. The lower

portion of Rainey Creek meanders through a low lying area with a high water table. The non-soluble portion of the pollution load settles out in Rainey Creek.

During the 1988 study period, the Antelope-Pine Creek watershed contributed an estimated 265 tons of suspended solids to the Snake River per day. The Palisades Dam, located on the upper end of the study area, acts as a sediment trap. Therefore, the suspended solids load in the Snake River is almost completely contributed by the watershed.

Data taken from the Snake River near Heise showed elevated concentrations of suspended solids, inorganic nitrogen, and phosphorus. Tributaries which contributed the greatest amounts of pollutants were East Birch Creek, Antelope Creek, and Granite Creek, all intermittent streams.

Because of drought conditions during the study, the agricultural impacts were not accurately assessed. The pollution loading from farmlands was minimal, but potential exists for greatly increased loadings during more normal or above normal water years.

INTRODUCTION

The Antelope-Pine Creek study area is located in eastern Idaho about 30 miles east of Idaho Falls. The watershed drains into the South Fork of the Snake River upstream of the US Geological Service (USGS) gauge station near Heise and downstream of Palisades Dam. West Birch Creek was also included in the study at the request of the East Side Soil and Water Conservation District (Figures 1 and 2). Major tributaries in the Antelope-Pine Creek Area are Antelope Creek, Granite Creek, Pine Creek, Rainey Creek, Palisades Creek, Fall Creek, and Indian Creek.

Fall Creek, Indian Creek, and Palisades Creek were not sampled since they are contained almost exclusively within Forest Service lands. Since the study was set up to determine agricultural pollution sources and impacts, the inclusion of these streams was not deemed necessary.

West Birch Creek was originally a tributary of the South Fork of the Snake River, but, since the construction of the Enterprise Canal, West Birch Creek flows are diverted out of the drainage for irrigation uses.

The current designated uses of the Snake River (USB-10) are domestic and agricultural water supplies, cold water biota, salmonid spawning, and primary and secondary contact recreation. The Snake River is also designated a special resource water by the Idaho water quality standards and are protected as such (Idaho Department of Health and Welfare 1987).

The Idaho Water Quality Status Report and Nonpoint Source Assessment (IDHW 1988), describes Antelope Creek as being highly impacted by sediment from dryland agriculture. Cold water biota and salmonid spawning are partially supported and primary and secondary contact recreation are threatened. Rainey Creek from the forest boundary to the mouth is listed as being moderately impacted by sediment from dryland and irrigated farms, and stream modification and destablization. Rangeland is indicated as a source of high nutrient loading and a major factor in stream alteration. Cold water biota and salmonid spawning are only partially supported, and primary and secondary contact recreation are threatened.

East Birch Creek is highly impacted with sediments due to dryland agriculture, channelization, and the loss of riparian vegetation. The stream partially supports cold water biota and salmonid spawning, but primary and secondary contact recreation are threatened. All other segments within the study area which were included in the Idaho Water

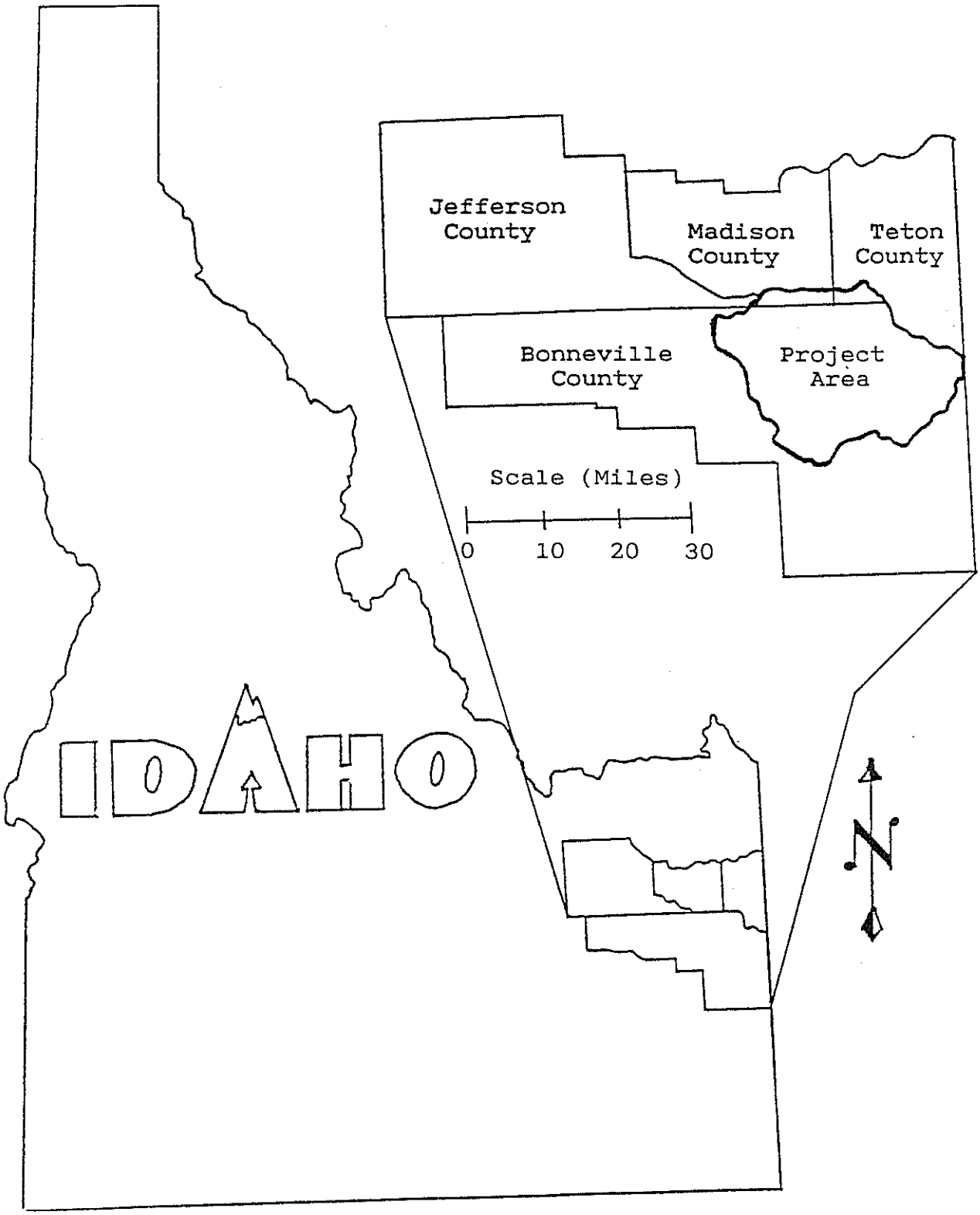


Figure 1. Antelope-Pine Creek Project Location

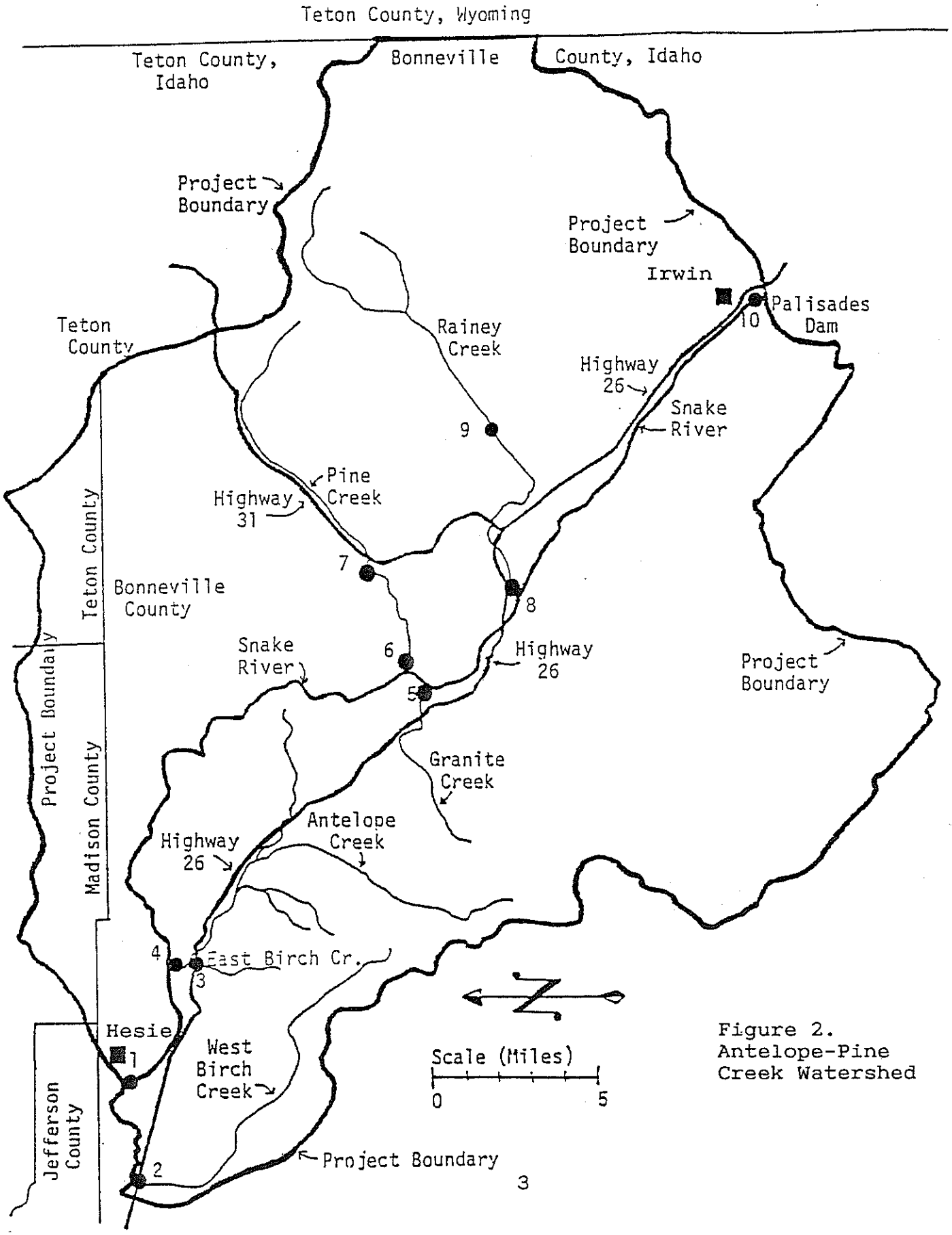


Figure 2. Antelope-Pine Creek Watershed

Quality Status Report and Nonpoint Source Assessment are listed as fully supporting the designated beneficial uses.

The Snake River from Irwin to Heise (Segment 3.00), Palisades Dam to Irwin (Segment 4.00), and Antelope Creek from the Headwaters to the Snake River (Segment 6.00) have been designated as stream segments of concern under the antidegradation plan due to agriculture/grazing activities. The Nonpoint Source Pollution Abatement Plan has identified USB-10 as a first priority stream segment with special notice being given to the Antelope Creek area (IDHW 1987a).

The Antelope-Pine Creek Area contains approximately 366,417 acres. Of this amount 106,915 acres are private lands, most of which are used for agricultural purposes (Table 1). Most of the Federal lands are located in the Caribou and Targhee National Forests. State lands are located in the upper Antelope and West Birch Creek drainages.

The watershed is 36 miles long from Heise to the Wyoming border, and 29 miles wide at its widest point. The average width is about 16 miles along its length. Elevations range from 5,000 feet to 9,780 feet.

Topography of the area is characteristic of eastern Idaho with rolling hills and mountainous terrain. Agricultural slopes range from 4 to 26 percent, with woodland slopes in excess of 60 percent. All upper portions of the tributaries are used for range. There has been some oil exploration, mining, and logging over the past decade.

The lower portions are used extensively in a grain-fallow rotation with winter wheat and spring barley being the major dryland crops. Other agricultural uses of the project area are for grass pastures, alfalfa, potatoes, range, and small feedlots.

The climate of the Antelope-Pine Creek area is semi-arid with cool, moist winters and warm, dry summers. Annual precipitation ranges from 15 inches in the lower elevations to over 26 inches in the higher elevations. Winter precipitation is mostly in the form of snow with some rainfall in the late fall and early spring. Snowpacks of 60 to 70 inches are common in the higher elevations. The frost-free growing season ranges from 90 days to 50 days in the higher elevations. The average yearly temperature is 41 degrees F.

Table 1. Land Ownership and Use in the Antelope-Pine Creek Watershed

Ownership	Number of Acres	% of Total
Private Land	106,915 Acres	29%
State Land	3,044 Acres	<1%
Federal Land	254,624 Acres	70%
Other	1,834 Acres	<1%
Total	366,417 Acres	100%

Estimated Private Land Use

Use	Number of Acres	% of Total
Dry Cropland	57,665 Acres	54%
Irrigated Cropland	13,425 Acres	13%
Range and Woodland	~20,800 Acres	20%
Wetlands	~1,000 Acres	<1%
Urban	117 Acres	<1%

Tables courtesy of East Side Soil and Water Conservation District.

Many of the farmed soils are highly erodible. The main cropped soil types are:

Hobacker gravelly loam, 0 to 4 percent slopes. Elevation is 6,000 to 7,000 feet. This soil is mainly used for irrigated barley, alfalfa, and pasture. Surface runoff is slow, and the erosion hazard is slight.

Potell silt loam, 0 to 20 percent slopes. Elevation is 5,000 to 5,300 feet. The soil is used for dryland wheat and barley. Surface runoff is slow to very rapid and the erosion potential is moderate to very high. This soil tends to pipe when wet.

Ririe silt loam 0 to 20 percent slopes. Elevation 5,200 to 6,200 feet. Most of these soils are used for non-irrigated winter wheat and barley with small areas of irrigated potatoes, small grains, and range present. Depending upon the slope, the runoff rate is from slow to rapid and the erosion potential is slight to very high.

Tetonia silt loam, 0 to 20 percent slopes. Elevation 5,500 to 7,000 feet. These soils are used for non-irrigated winter wheat. Depending upon the slopes, the runoff rate is from slow to very rapid with an erosion potential of slight to very high (US Department of Agriculture 1981).

Recreation is a major source of income for some of the residents. The Antelope-Pine Creek Area is nationally known for its fishing, hunting, and scenic vistas. The main highway to Jackson Hole, Wyoming and the Grand Teton Mountains runs the length of the study area, hence the aesthetics of the area come under constant scrutiny. The East Side Soil and Water Conservation District estimates there are 250 farms in the project area.

The purpose of the Antelope-Pine Creek Area Planning Project was twofold. First, an assessment of the pollution impact on the water quality of the Snake River was conducted. This was done through regular chemical sampling of the Snake River and its tributaries. Secondly, the sources of pollution on the various tributaries were ascertained to determine the areas where the installation of Best Management Practices (BMPs) would produce rapid results.

MATERIALS AND METHODS

Methods of sample collection, preservation, and analysis followed Standard Methods (American Public Health Association 1985), EPA guidelines (US Environmental Protection Agency 1979), and the National Handbook of Recommended Methods for Water Data Acquisition (US Geological Survey, 1977). All samples, except bacterial, were collected using a Bel-Art Products churn splitter from which split samples were drawn. Samples were collected from the center of the stream at 0.6 depth, or from an area of complete mixing. Bacterial samples were hand dipped directly into the sample containers.

SAMPLE STATIONS

Eight sampling stations were designated on the Snake River and the main tributaries (Figure 2). These locations were chosen to allow differentiation of the sources of pollutants entering the streams. Additionally, station 3 was placed on East Birch Creek at the mouth in an effort to determine the pollution impact of the western portion of the Antelope Creek drainage. Another station was placed on West Birch Creek at the request of the East Side Soil and Water Conservation District in an effort to determine pollution sources which may be addressed through programs other than the State Agricultural Water Quality Program. The sample sites, a brief watershed description, STORET numbers, and reasons for their placement are given below and on Table 2.

Station 1. Snake River at the USGS gauge station near Heise. STORET #2080000. This station was located on the low end of the study area. Data gathered here represents the total impact of pollution from the study area. The USGS gauge station was, at the time, one of only two places in Idaho where the USGS collects chemical data. This data has been collected on a monthly basis since January, 1953.

Station 2. West Birch Creek at Highway 26. STORET # 2080515. The station was sampled at the request of the East Side Soil and Water Conservation District. There is no outlet to the South Fork of the Snake River. West Birch Creek flows through an area of high farming usage. Data collected represents pollution loading from farmland into West Birch Creek.

Station 3. East Birch Creek at the Mouth. STORET # 2080516. The data collected from this site is indicative of the pollution impact from the western part of the Antelope Creek drainage. This was done to divide the Antelope Creek drainage into two more easily managed sub-basins. East Birch Creek is located in a high use farming area. There is

Table 2. Sample Stations for the Antelope-Pine Creek Study

SURVEY NAME: ANTELOPE/PINE CREEK STUDY

116 - 881601 HUC = 17040201 DATE: 04/06/88

STORET	ID	DESCRIPTION	LATITUDE	LONGITUDE	RIVER MILE	ELEV (FT)
2080000 151104 13037500	1	SNAKE R @ HEISE USGS GAUGE	43 36 45	111 39 33	324.3/861.6	5040
2080515	2	WEST BIRCH CK @ HWY 26	43 36 45	111 43 10	NONE	5010
2080516	3	EAST BIRCH CK @ MOUTH	43 35 10	111 35 12	324.3/866.0/.9	5480
2080517	4	ANTELOPE CK @ CANYON	43 35 25	111 35 25	324.3/866.0/.6	5440
2080518	5	GRANITE CK @ MOUTH	43 29 08	111 26 00	324.3/884.0/.1	5240
2080519	6	PINE CK @ MOUTH	43 29 27	111 25 00	324.3/883.0	5240
2080520	7	PINE CK @ FOREST BOUNDARY	43 30 35	111 21 10	324.3/883.0/3.7	5700
2080521	8	RAINEY CK @ MOUTH	43 26 55	111 22 40	324.3/888.8	5280
2080522	9	RAINEY CK @ FOREST BOUNDARY	43 27 30	111 15 57	324.3/888.8/8.5	5520
2080523 13032500	10	SNAKE R @ PALISADES USGS GAUGE	43 21 03	111 12 35	324.3/901.6	5400

an extensive area of mass wasting located in the upper 1.5 miles of the watershed where the creek is actively cutting downward. In many places the creek is two feet wide and over eight feet deep. There is a major problem with bank sloughing in this reach.

Station 4. Antelope Creek at the Snake River Canyon. STORET # 2080517. The total pollution load of the Antelope Creek drainage was measured here. The impact from the eastern section of the Antelope Creek drainage was estimated by subtracting the East Birch Creek results from the data obtained at this station. The pollution loading in Antelope Creek is almost exclusively related to farming.

Station 5. Granite Creek at the Mouth. STORET # 2080518. Granite Creek is a major contributor of pollution related to livestock and dryland farming. Although Granite Creek flows through farmland, Garden Creek, its only major tributary, runs through a heavily grazed wetland area.

Station 6. Pine Creek at the Mouth. STORET # 2080519. This station reflects the total pollution loading from the Pine Creek drainage. Pine Creek from station 7 to station 6 is located in the bottom of an igneous canyon. Farms are located all along the edge of the canyon and may contribute large amounts of pollution to Pine Creek. The steep slopes of the canyon are heavily forested.

Station 7. Pine Creek at the Forest Boundary. STORET # 2080520. The upper portion of Pine Creek is contained on the Targhee National Forest. The lands above this station are used exclusively for livestock grazing and recreation. Station 7 served to collect baseline data for Pine Creek. The agricultural impact from private lands was assumed to be the difference in results between station 6 and station 7.

Station 8. Rainey Creek at Mouth. STORET # 2080521. This station reflects the total pollution loading from the Rainey Creek drainage. Rainey Creek below station 9 is located in a low lying area with a high water table. The area is used almost exclusively for grazing although there are some livestock pens and urban development located along Rainey Creek. The major source of farming pollution comes from the buttes overlooking Swan Valley, through which Rainey Creek flows.

Station 9. Rainey Creek at the Forest Boundary. STORET # 2080522. The upper portion of Rainey Creek is contained on the Targhee National Forest. The lands above this station are used exclusively for livestock grazing and recreation. Station 9 served to collect baseline data for Rainey Creek.

The agricultural impact from private lands was assumed to be the difference in results between station 8 and station 9.

Station 10. Snake River at Palisades USGS gauge station. STORET # 2080523. This was the uppermost station in the study area, and was the baseline information station for the Snake River above the study area.

The study was designed to monitor water quality during spring and storm runoff events when the maximum influx of nutrients and suspended solids was expected. Therefore, the sample schedule was established with the flexibility to respond to storm events.

Samples were taken on a bi-monthly basis from February through June, 1988, and once in July, 1988. In addition, one sample was taken during the months of October and November 1987 to characterize ambient conditions at low flow. Due to the low flow conditions in 1987-88, samples were also collected during the runoff period of March through May 1989 on a semi-monthly basis. An additional sample was taken in July, 1989. The determination of total solutes contributed during a one day period was based on the assumption that an individual sample was representative of the whole day.

PARAMETERS

Parameters which were sampled and are discussed in this report are shown in Table 3.

Flow

Direct measurement of stream velocity was made with a Marsh McBirney Model 201 or 201D flow meter. Cross sections of the creeks were made by measuring the stream width to the nearest tenth of a foot, and measuring the water depth to the nearest tenth of a foot. Velocities were measured each foot at 0.6 depth from the water surface. Determination of velocity and depth was not always possible. On the main stem of the Snake River, the water depth and velocity were too great to measure. Flow data for stations 1 and 10 was obtained from the USGS, which maintains gauges at these sites.

During runoff, flows in the larger tributaries were difficult to measure due to depth and velocity. In these situations, the flow was calculated on an area-volume basis. During the period of low flow, markers were placed perpendicular to and above the high water mark of the stream channel (Figure 3). A line was strung from one marker to

Table 3: Parameters Sampled.

Parameter	Units	STORET No.
Flow	cfs	00061
Suspended Solids	mg/l	00530
Nutrients		
Total Ammonia as N (NH_3)	mg/l	00610
Total Nitrate+ Nitrite as N (NO_2 + NO_3)	mg/l	00630
Total Kjeldahl Nitrogen as N (TKN)	mg/l	00625
Total Phosphorus as P (P)	mg/l	00665
Dissolved ortho-Phosphate as P (o-P)	mg/l	70507
Bacteria		
Fecal Coliform (FC)	colonies/100ml	31616
Fecal Streptococcus (FS)	colonies/100ml	31679

the other and leveled. The area contained below the line and above the stream channel was measured for depth at each foot of horizontal line. The flow of the stream was then measured as described above.

By measuring flows which were above the previously recorded low flow channel, flow at a set point within the low flow channel, and using the low flow measurements obtained previously, it was possible to determine the stream flow. Referring to Figure 3 and using the equation:

$$Q = \left(\frac{AVK}{Q_b}\right) + Q_a$$

Q is the flow in cfs, A is the water area over the low flow channel in square feet, V is the velocity of the water at a specific point (B) in the low water channel measured at 0.6 depth in feet/ second, K is a correction factor with no units, Q_b is the base flow in cfs measured at B during the low flow period, and Q_a is the actual measured flows which fall outside of the low flow water channel. K is determined by using the measurements taken during low flow using the formula:

$$K = \left(\frac{Vc/Vb}{n}\right)$$

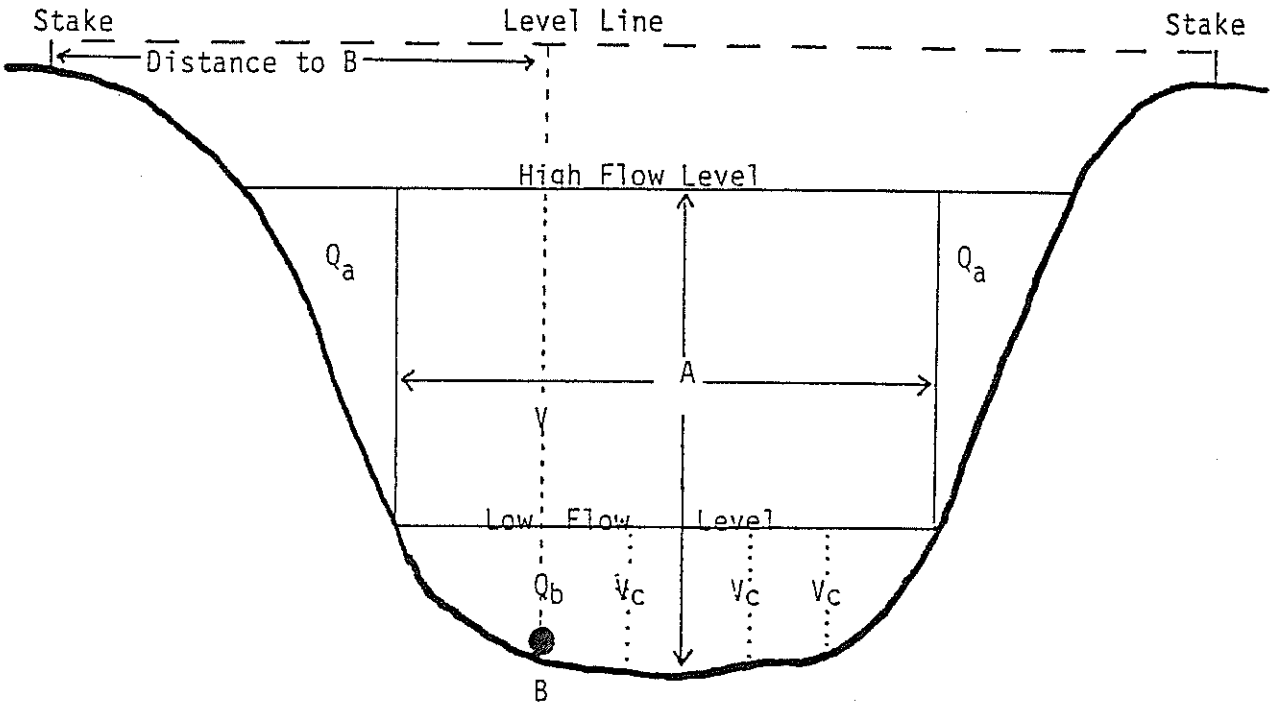
where n is the number of 1 foot intervals at low flow, V_b is the water velocity measured at B, and V_c is the velocity at each n during low flow.

Suspended solids

Suspended solids are one of the prime indicators of non-point agricultural pollution. Suspended solids consist of soil particles that are entrained in the water column from three inches above stream bottom to the top of the column (Clark, 1985).

Nitrogen

Nitrogen is a primary plant nutrient and is applied in various forms to agricultural lands. This study looked at the four most common nitrogen compounds: nitrate, nitrite, ammonia, and total kjeldahl nitrogen (TKN). Because of the rapid interchangability of nitrate and nitrite, these compounds were analyzed together as nitrate+ nitrite. Total kjeldahl nitrogen was used to determine the amount of organic nitrogen in the sample. The TKN method does not distinguish between organic and ammonia nitrogen compounds. An estimate of the amount of organic material present in a sample can be made by subtracting the ammonia concentration from the TKN concentration.



Representative stream section parallel to flow. Q_a, Q_b, V, and V_c are shown at approximately the level they are measured.

Figure 3. Indirect Method of Flow Measurement

Phosphorus

Phosphorus is another of the primary plant nutrients. The most common use is as a fertilizer, although some pesticides are phosphorus based. Most phosphorus is tightly bound to soil particles with only a small portion (ortho-phosphate) dissolving in water. When erosion takes place, bound phosphorus molecules are washed away with the soils. It is not uncommon to note an increase in phosphorus concentrations when the suspended solids concentrations increase.

Two forms of phosphorus were monitored during the study. These were total phosphorus and dissolved ortho-phosphate. Dissolved ortho-phosphate is that form of phosphorus which is available for plant uptake.

Bacteria

Two bacterial parameters were sampled during the study. Fecal coliform and fecal streptococcus are monitored to determine livestock impacts. Both analyses are reported in terms of number of colonies per 100 ml of sample. A ratio of the fecal coliform to streptococcus colonies can be used to determine the type of contamination (APHA, 1985). Samples were collected in sterile 250 ml nalgene bottles.

QUALITY ASSURANCE

Split samples were collected each sampling date from the Snake River at Heise to measure sampling precision. The chemical samples were divided with a churn splitter. Average relative ranges were calculated according to Bauer et al. (1986).

Spiked field samples were used to determine accuracy. The IDHW laboratory supplied spikes which were added to 900 ml of sample water. Spiked samples were analyzed for suspended solids, nitrite + nitrite, TKN, ammonia, total phosphorus, and dissolved ortho-phosphate. A sampling site was randomly selected for spiking each sampling run. Percent recovery is determined by subtracting the values of the unspiked samples from the spiked samples and comparing this figure with the known amount in the spike. The Bureau of Laboratories in Boise also ran a blank composed of distilled water to check for contamination in their instrumentation.

Field instruments were calibrated to standards in accordance with manufacturers instructions. The instruments were calibrated immediately prior to beginning a sampling run.

RESULTS AND DISCUSSION

FLOW

Two distinct water regimes exist in the Antelope-Pine Creek study area. The flows of the Snake River are governed by Palisades Dam. Runoff is retained during the winter and spring to provide flood control and to meet summer irrigation needs. Flows at this time are usually lower than during the irrigation season.

In contrast, the flows on the tributaries are not regulated. The lowest flows occur in the summer, fall, and winter seasons. Flows occasionally increase during the summer due to thunderstorms. Flows are usually at their highest during the spring runoff. To keep these two water regimes separate and to provide a proper description, they shall be discussed separately then combined to get a complete picture of the watershed.

Flows in the Snake River were at the lowest levels on record during the period of November 1, 1988 through April 15, 1989 (Table 4). The same period in water year 1987-88 was the second lowest on record. Historical USGS records showed an average flow of 3090 cfs near Heise for the same period prior to 1988, but the flow only averaged 929 cfs in 1988-89 and 1230 cfs 1987-1988. This was due to the Bureau of Reclamation storing the runoff water in preparation for the second and third severe drought years in a row.

Releases from Palisades dropped dramatically once irrigation releases were stopped (Figure 4). During the 1988-89 water year, flows from Palisades Dam went from 14,000 cfs on July 15 to 700 cfs on November 7. Releases from Palisades in 1987-88 were similar. Flows were at a high of 12,800 cfs on July 1, 1987, had dropped to 4180 cfs on October 13, 1987 and to 887 cfs on November 16, 1987. The flows were cut back further, and during the runoff period of February 16, 1988 to April 4, 1988 releases from Palisades were between 739 and 760 cfs.

Irrigation season reversed the downward flow trend in the Snake River. The flows at Palisades jumped from 749 cfs on April 4, 1988 to 13,900 cfs on June 13, 1988. Flows at the USGS gauge station near Heise showed a corresponding jump going from 1640 cfs to 14,900 cfs.

The water regime in the tributaries is representative of uncontrolled streams in southeastern Idaho. The flows are lowest in the summer, fall, and winter months with a large flow in the spring. Occasional flow pulses do occur in response to summer thunderstorms.

Table 4. Average Flows on the Snake River near Heise Ranked from Lowest to Highest for the Period November 1 to April 15, 1953-1989.

YEAR ENDING	FLOW (CFS)
1989	1143
1988	1230
1980	1430
1962	1580
1967	1640
1961	1680
1981	1690
1978	1700
1963	1760
1964	1860
1960	1870
1958	2240
1959	2290
1955	2360
1970	2370
1954	2430
1968	2460
1953	2530
1957	2610
1986	2670
1977	2720
1973	3350
1971	3530
1956	3670
1975	4030
1979	4170
1972	4490
1965	4710
1983	4750
1985	4760
1974	4810
1966	4930
1982	5030
1976	5270
1984	5430
1969	5750

Data courtesy of the US Geological Survey.

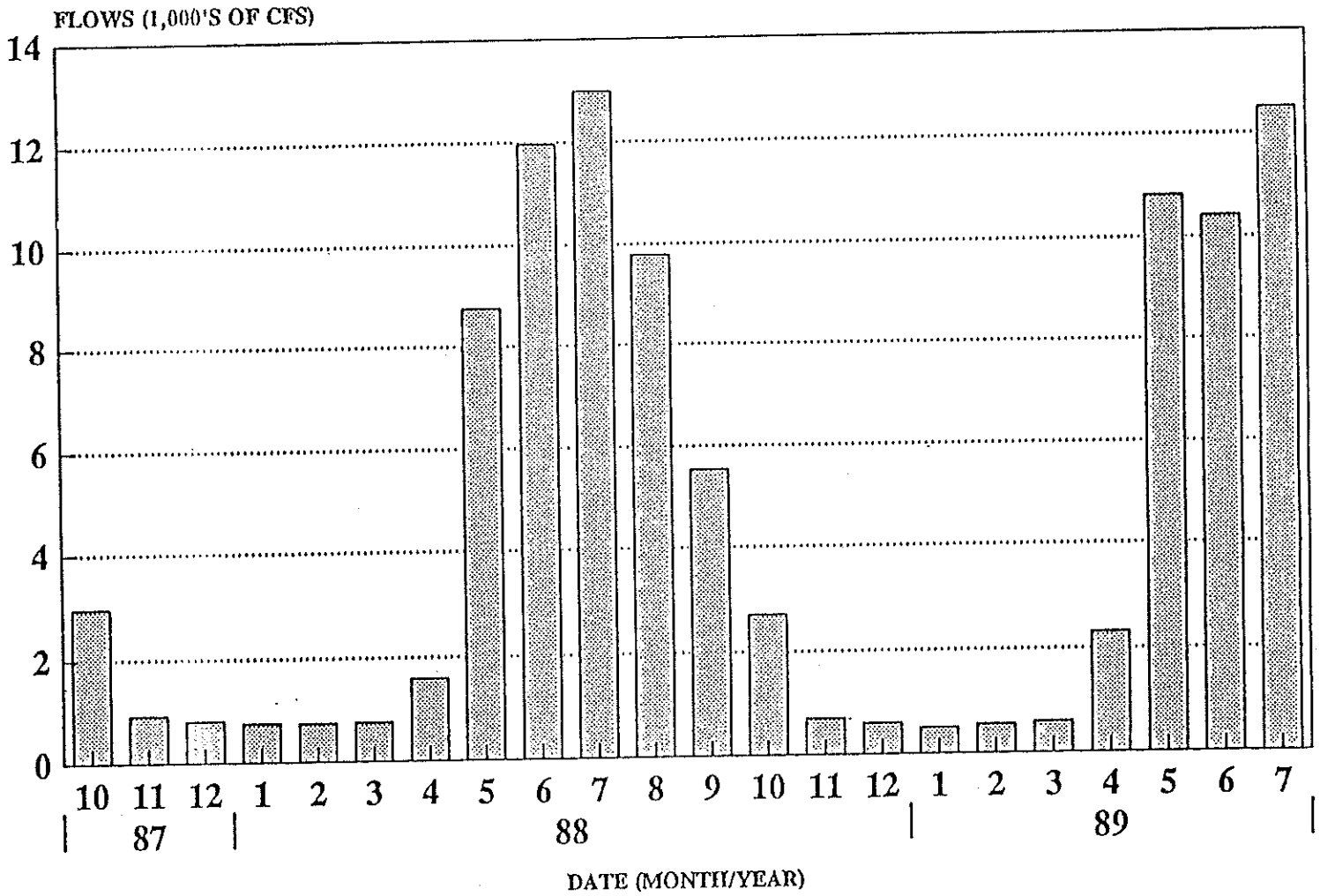


Figure 4. Monthly Average Water Releases
from Palisades Dam
(October, 1987 to June, 1989)

The elevation of the creeks and the time of day played an important part in the timing of the peak flows. The 1988 data clearly demonstrates this effect.

The lowest stream in the study area, West Birch Creek, peaked earliest (February 29, 1988) with 21.7 cfs. East Birch, Antelope, and Granite Creeks are all located on the Antelope Bench and have about the same mean elevation (Table 2). High flows for these three streams were recorded March 23, 1988 with flows of 8.6, 40, and 35 cfs respectfully.

Pine and Rainey Creeks had two flow peaks each in 1988. The weather was cool from February through the first part of May. From the middle of May to the end of the 1988 study, the weather pattern changed to hot with temperatures approaching the mid-90's. The mild temperatures in the early part of the study melted the snows in the lower ends of Pine and Rainey Creek, causing the first flow peak. With the rapid increase in temperatures in mid-May, the snows in the upper watersheds melted causing a second flow peak.

Rainey Creek first peaked on April 18, 1988 with flows of 100 and 90 cfs at the mouth and forest respectfully. The second peak occurred on May 16 with flows of 76 cfs at the forest and 160 cfs at the mouth. Pine Creek flows peaked on the same sampling dates as did Rainey Creek. Flows recorded during the first runoff period were 110 cfs at the Rainey Creek forest station and 190 cfs at the mouth, with flows during the second runoff period peaking at 210 cfs and 140 cfs respectfully.

The time of day that the measurements were taken was the second factor which influenced flows. This becomes apparent when the flows on Pine Creek are compared for the May 16, 1988 sampling date. Pine Creek at the Mouth was sampled at 5:15 pm and the forest station was sampled at 6:15 pm. The hour difference during the heat of the day allowed time for the snows in the higher elevations to melt and the water to reach the forest station. This caused a "water surge" which was recorded as a difference of +70 cfs at the higher forest station over the lower mouth station.

This is also demonstrated in the May 16, 1989 data from Rainey Creek. Flow at the forest station was 5 cfs greater than at the mouth. The forest station was sampled at 3:30 pm, two hours after the mouth of Rainey Creek was sampled.

Comparing the 1988 flow data to the 1989 data for the tributaries indicates that 1989 was a lower water year than was 1988. Not one of the tributaries reached the peak flows

of 1988 in 1989. The intermittent tributaries started flowing later and dried up earlier. East Birch Creek, which flowed through May 16, 1988, remained dry through the 1989 sampling season.

The amount of water contributed to the Snake River from the study area can be determined by subtracting the flow data at Palisades from the flow data at Heise. The smallest contribution came in October, 1987 when the watershed contributed a total of 80 cfs to the Snake River. This amount increased through the 1988 spring runoff period and peaked twice.

The first peak occurred at the same time the lower tributaries were at high flow. The watershed contribution to the Snake River was 891 cfs and made up 54 percent of the total flow in the Snake River near Heise. The second peak increase was measured on May 16, when the upper tributaries were at high flow. on this date, the watershed contributed 1,905 cfs or 16.7 percent of the flow. Although the amount of water contributed to the Snake River was greater during the second peak, irrigation water was being released from Palisades Dam so the percent contributed by the watershed was less.

1988 and 1989 were recorded as the second and third drought years in a row (U.S. Weather Service 1989, 1990). The low snow packs combined with dry soils and a long cool runoff period caused much lower flows in the tributaries than normal. Most of the runoff was retained in the soil.

SUSPENDED SOLIDS

Suspended solids concentrations were influenced by three main factors, channel washing, direct input, and dilution. Channel washing is the actual flushing of soil and debris which have built up in the channel during low flows. The material which makes up the stream armor is disturbed by the first major flow of the season and is carried, in suspension or as bedload, by the water. Most of this material is thought to consist of soils which were laid down in the previous high flow period. For ease of discussion, mass wasting of the stream channel will also be considered as a part of channel washing. Channel washing is most apparent in intermittent streams, but can be seen in permanent streams as well.

Direct input is the material which is washed directly into the stream from the surrounding lands. This influence can be seen as sheet and rill or gully erosion on the farmland

near streams. Much of the solids load which is carried by a stream after the initial channel washing may be attributable to direct input.

Dilution of suspended solids is the result of the input of relatively "cleaner" waters into the system. Although dilution happens when a clean stream enters a larger polluted stream, the most apparent effects of dilution occur when a polluted stream enters a larger "clean" water body. Dilution usually reduces the impacts of pollution on a stream (resulting in lower concentrations), but the pollution load remains the same or increases.

There is no accepted instream water quality standard to compare suspended solids concentration with, but for the purpose of comparison the EPA Water Quality Index (EPA-WQI) guidelines will be used (1983). The index uses the following scale to rate suspended solids effects in streams:

0-80 mg/l No impact
81-500 mg/l Moderately polluted
over 500 mg/l Severely polluted

By using the EPA guidelines and the three factors which influence suspended solids, the effects of each drainage are more apparent.

West Birch, East Birch, Antelope, and Granite Creek are all intermittent streams with a similar structure. All have geologically new stream channels with very little cutting into the bedrock. Therefore, the soils are close to the water surface at low flow and are scoured during high flows. Further, many of the farms extend to within a few feet of each of these creeks. The combination of these factors make these four streams susceptible to high solids loading during spring runoff and summer rain storms.

Our data supports this theory. After being dry for the winter, West Birch Creek had a flow of 21.7 cfs on February 29, 1988. The suspended solids concentration was 16,000 mg/l. Division of Environmental Quality personnel toured the watershed and determined the major contributors of the solids pollution were traditionally farmed lands along the edge of the stream. One farm had lost enough soil across the West Birch Creek Road that traffic was halted until the mud could be removed.

Using the formula:

Tons/day= concentration (mg/l) * flow (cfs) * 0.0027

for suspended solids loading, calculations indicate the soil transported on this one day from West Birch Creek was 937 tons.

West Birch Creek flows and suspended solids concentrations dropped rapidly after February 29th. The weather cooled, resulting in less runoff from the fields and lower suspended solids concentrations. On the next sampling date, March 14, field notes indicate the air temperature was 34 degrees F. The suspended solids concentration was minimal. In late March through April, the weather again warmed resulting in two consecutive high and one moderate suspended solids reading. The major contributors of suspended solids at this time were dryland farms.

The East Birch Creek-Antelope Creek system illustrates the relationship between channel washing, direct input, and dilution. Antelope Creek is a more stable stream than is East Birch Creek. Antelope Creek has reached bedrock along its reach. East Birch Creek, on the other hand, is down cutting its bottom in the upper reaches. With the first flows in spring East Birch Creek suspended solids samples show a higher channel wash concentration than does Antelope Creek.

Both creeks began flowing in late March, 1988. The March 23 sampling run caught the channel washing period in both streams. East Birch Creek flows made up 10.6 percent of the total Antelope Creek flow, but 42.9 percent of the suspended solids load. The total Antelope Creek watershed suspended solids load contributed on this date was 115 tons.

Direct input can best be seen by comparing the April 4, 1988 data to the March 23 data. East Birch Creek flows increased from 5.4 cfs on March 23 to 8.6 cfs on April 4, but the suspended solids concentrations decreased by 43.7 percent. Antelope Creek flows decreased 31.1 percent during the same period, but the farming impact raised the suspended solids load by 208 percent. The suspended solids loading on April 4 was 171 tons/day.

Figures 5 through 9 illustrate the suspended solids concentrations and loadings in the tributaries. The intermittent streams contained the highest concentrations of suspended solids. This is due to three factors. First, the intermittent streams are located closer to the farmed lands than are the permanent streams. There is not a large buffer strip between the farmed lands and the stream to settle the solids. Secondly, the lack of water and the exposure of the stream bottoms during portions of the year weaken the stream armor allowing washing during the first flows in spring. Thirdly, the stream bottoms are not cut into the bedrock and

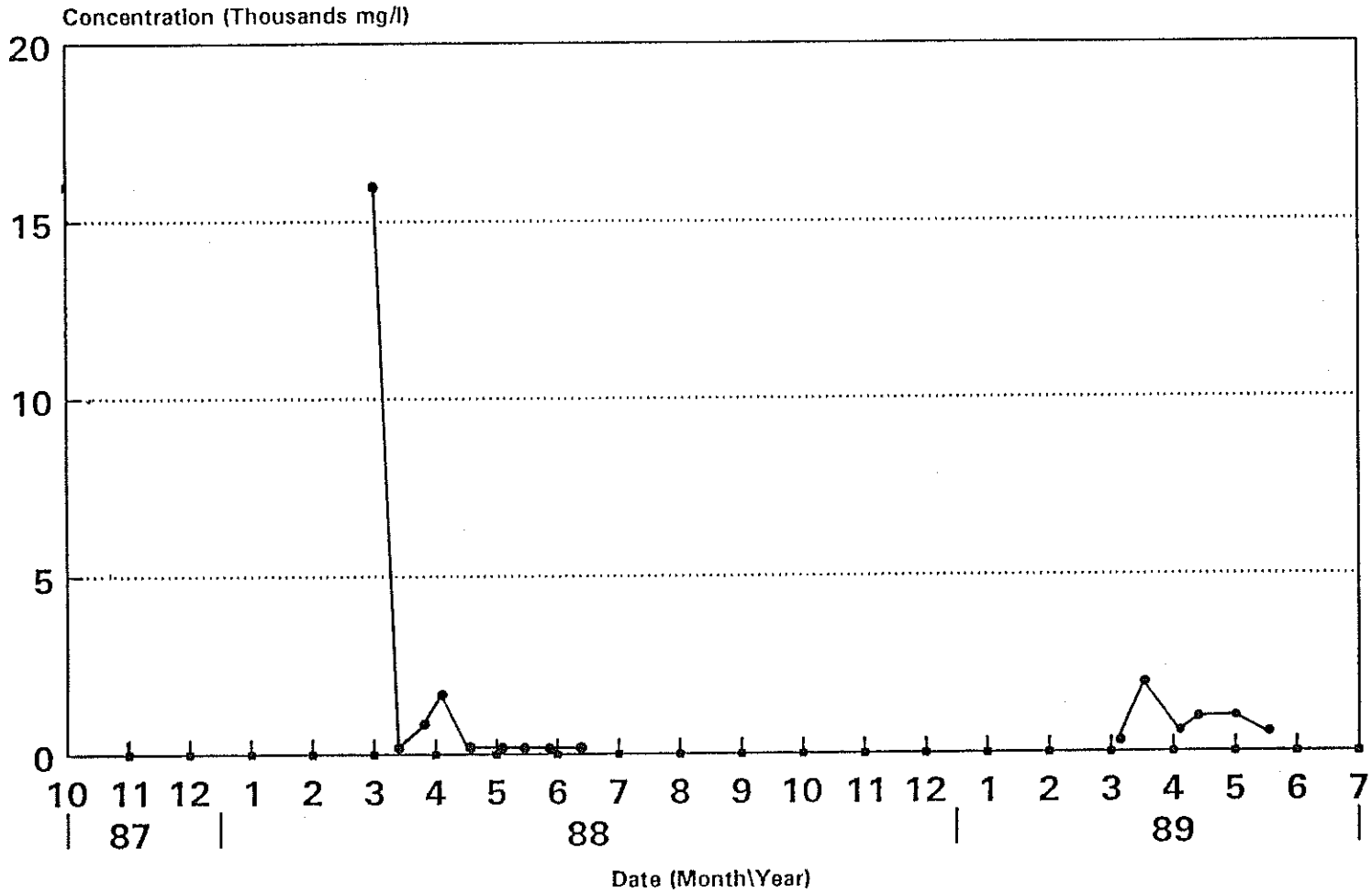


Figure 5. Suspended Soilds Concentration in West Birch Creek

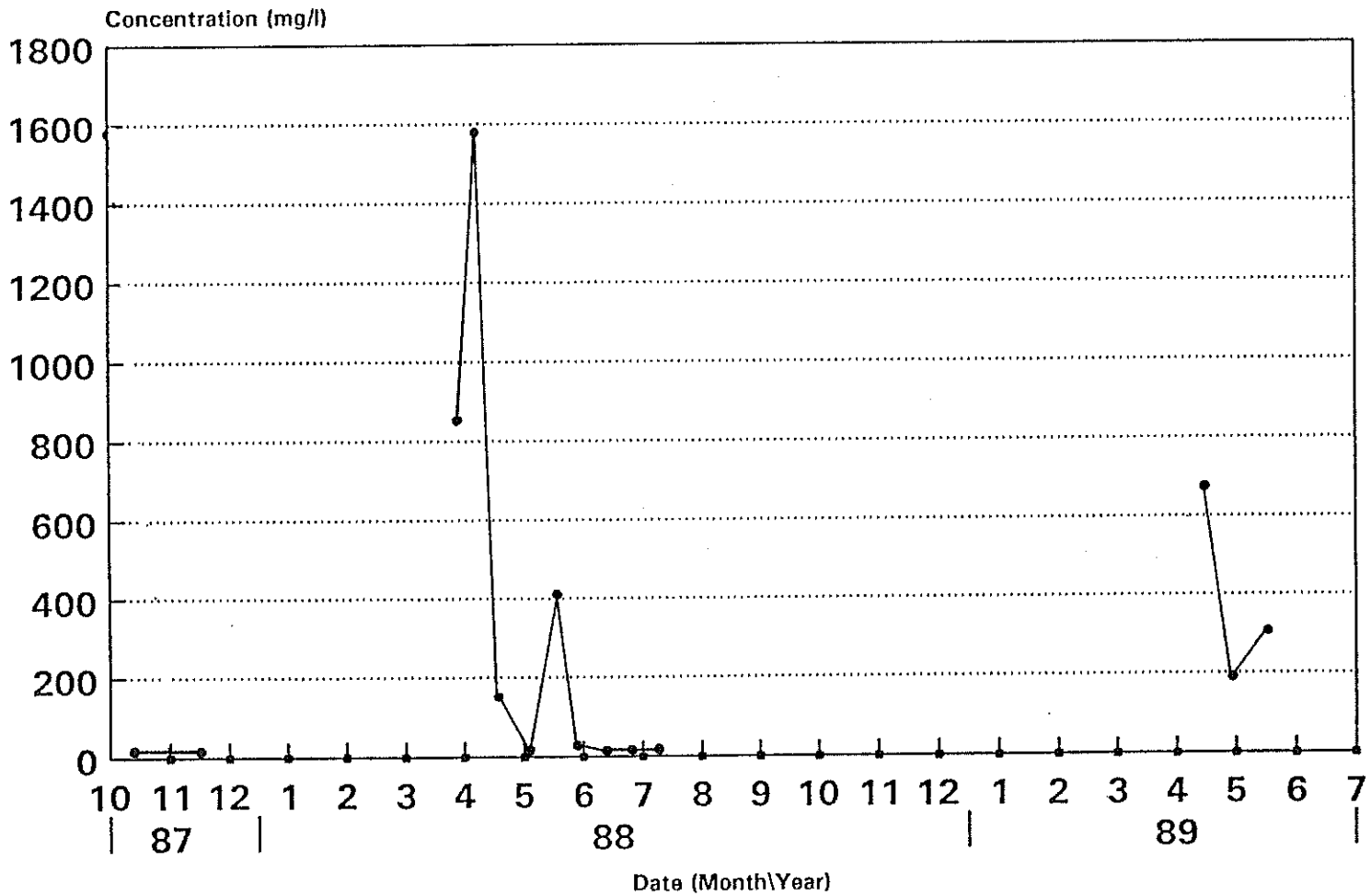


Figure 6. Suspended Soilds Concentration in Antelope Creek

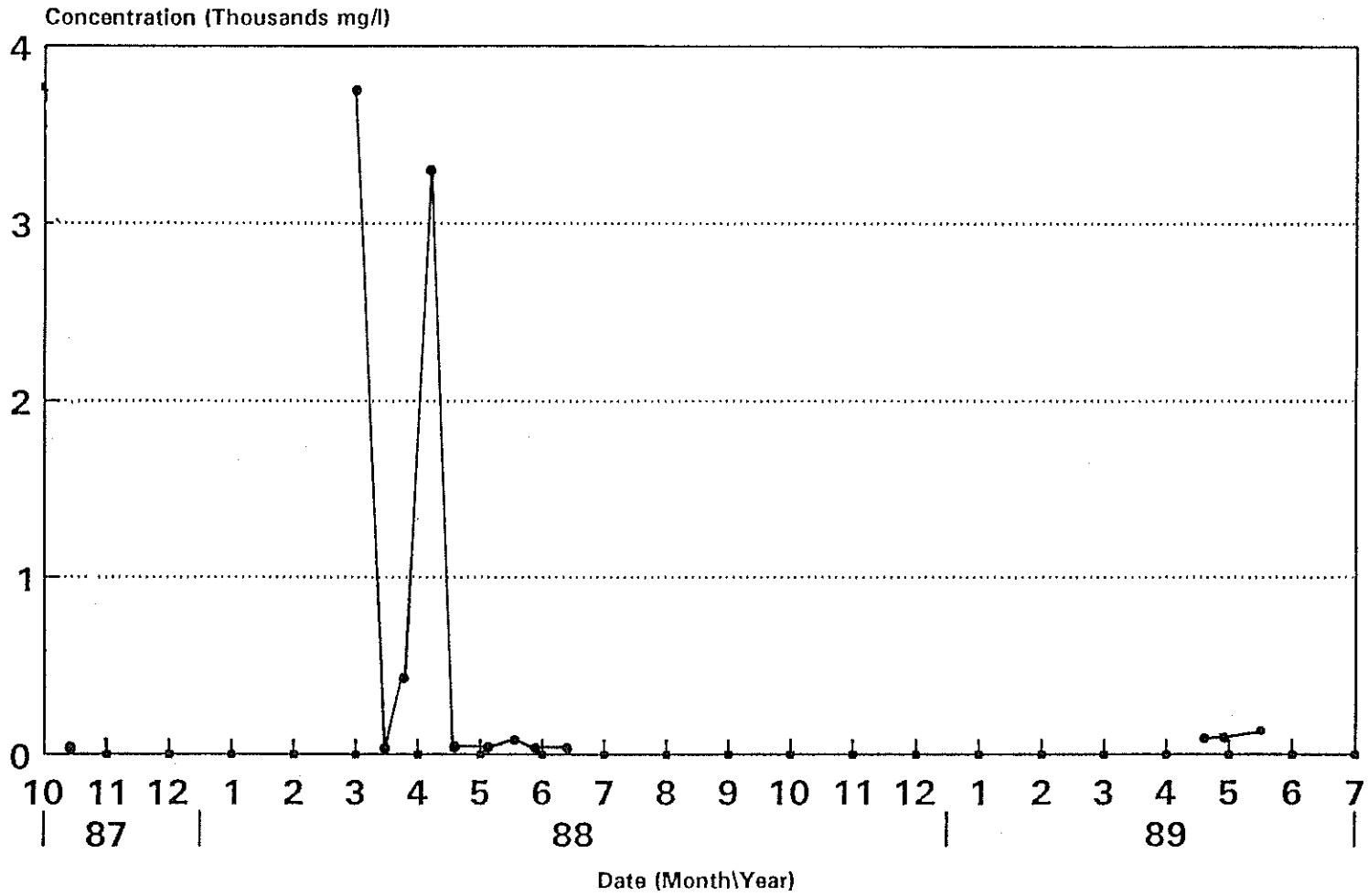


Figure 7. Suspended Soilds Concentration in Granite Creek

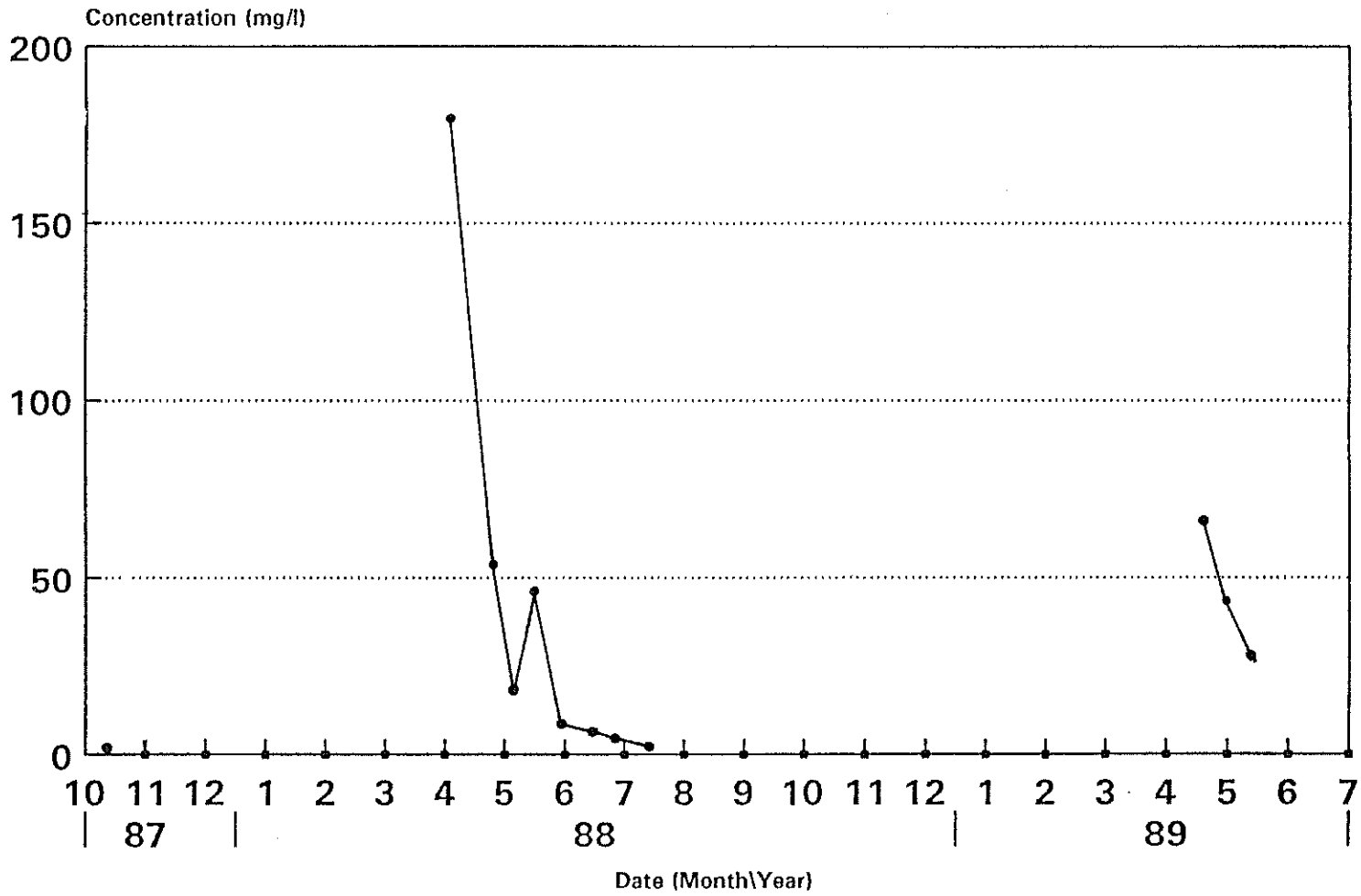


Figure 8. Suspended Soilds Concentration in Pine Creek at the Mouth

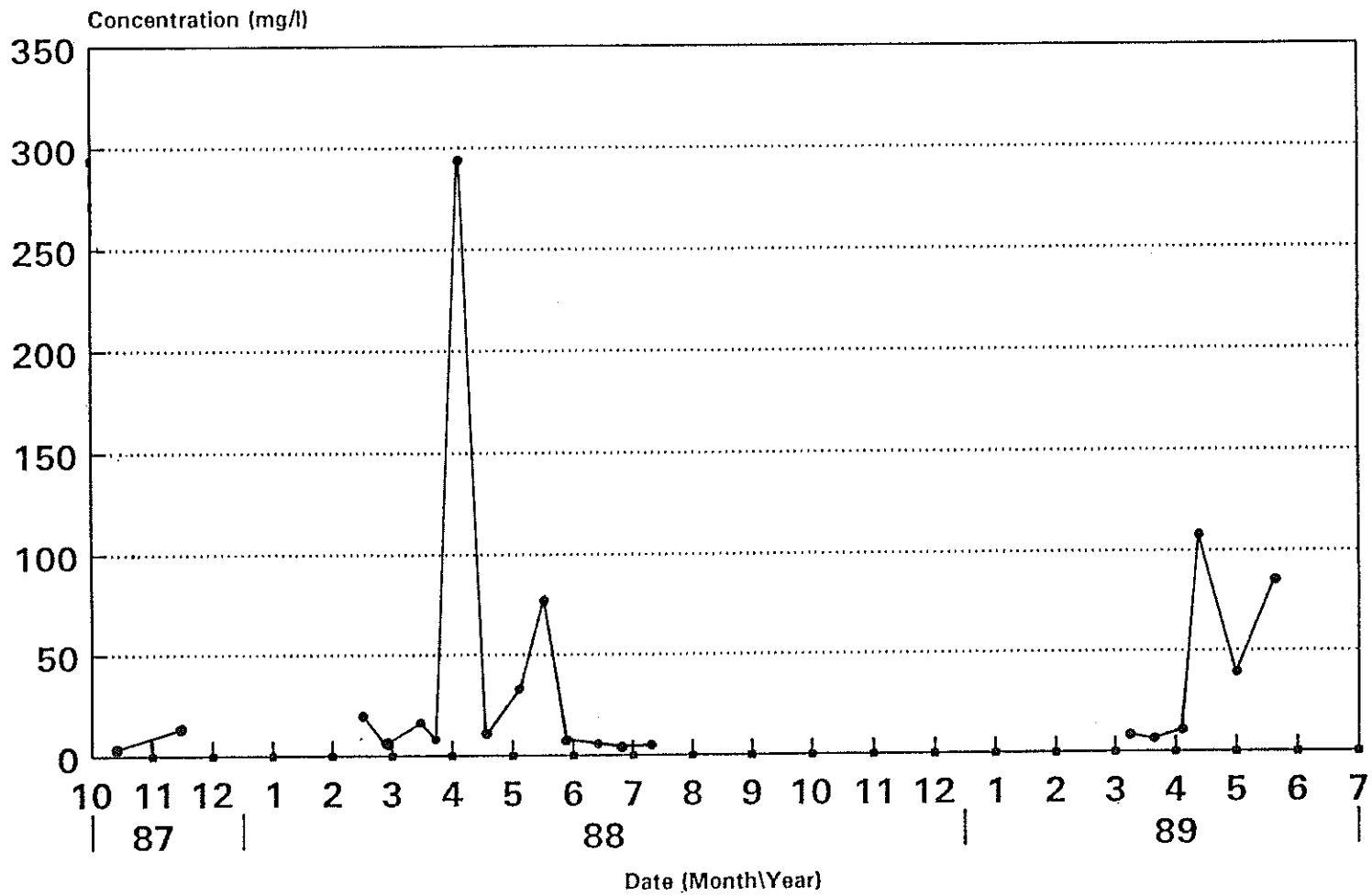


Figure 9. Suspended Soilds Concentration in Rainey Creek at the Mouth

allowing the water to be in direct contact with streambank soils, resulting in greater mass wasting.

Pine Creek and Rainey Creek area more "established" streams than those described earlier. Pine Creek from the forest boundary to the mouth lies within a steep, deep canyon which is heavily vegetated. There is little potential for mass wasting since the channel is confined by the Pine Creek Canyon.

The plateaus above the Pine Creek Canyon are extensively dry farmed. Due to the inaccessibility of the sampling site at the mouth during the runoff period, it is unlikely that the peak agricultural solids loading was sampled. However, it is doubtful the impacts from the farms are as great as the intermittent streams due to the natural buffer strip.

The lower 3 miles of Rainey Creek meanders through Swan Valley, a low swampy area. The stream gradient is nearly zero and the water table is near or at the soil surface. During the study, this low area acted as a sediment trap. As an example, using the epa sediment criteria Rainey Creek at the forest boundary was rated as moderately polluted on May 16, 1987, but loading calculations showed 48.8 percent of the solids were dropped in Swan Valley. The suspended solids sample at the mouth for that date was rated at "no impact".

The major agricultural pollution sources are on the plateau just above the mouth of Rainey Creek. This area is capable of producing large amounts of suspended solids which are concentrated in a few small gullies.

Dilution is the most important of the factors which affect the suspended solids in the Snake River. Dilution of incoming pollution loads by the Snake River dropped the suspended solids concentration near Heise to the "no impact" category on all but two occasions. The much greater flows and the purity of the main stem waters entering the study area combined with the stability of the river channel means the vast majority of solids loading at Heise comes from watershed drainage.

The suspended solids concentrations in the Snake River at Palisades never exceeded 8 mg/l. This is due to a large impoundment, the Palisades Reservoir, which is located just upstream from the sampling station. Measurements taken at the USGS gage station near Heise, however, reached the EPA's moderately polluted category twice; once on April 4, 1988 and again on April 18, 1988. Since the water released from Palisades Reservoir contains little sediment, the

concentrations found at Heise are directly related to loading from the watershed.

For example, on April 4, 1988, the amount of suspended solids released from Palisades Dam was calculated to be 4 tons per day. On the same date the solids load passing the Heise station was calculated to be 673 tons/day. The sampled tributaries were contributing a total of 538 tons/day, with the remaining 131 tons/day flowing directly into the Snake River from lands adjoining the river. Table 5 shows the estimated suspended solids load released from Palisades Dam, the amount contributed by the sampled tributaries, and the amount from lands adjacent to the river.

By subtracting the total suspended solids load released from Palisades during the study from the total load passing the USGS gage station near Heise, it is estimated the Antelope-Pine Creek watershed contributed an average of 265 tons of suspended solids to the Snake River per day over the length of the 1988 study (October 1987 through July 1988).

NUTRIENTS

Nitrogen

Nitrates, nitrites, and ammonia are considered inorganic nitrogen compounds. A concentration of 0.3 mg/l total inorganic nitrogen is the recommended limit for the prevention of nuisance aquatic vegetation (Mackenthun, 1973). These inorganic compounds are water soluble with high concentrations being found in waters with high debris breakdown, near fertilizer application sites, and near legume crops, especially after the plow out of alfalfa fields (Clark 1985).

Inorganic nitrogen concentrations in West Birch Creek exceeded the 0.3 mg/l recommendation on 14 of the 18 dates sampled. It appears that the farming techniques practiced in this area had the most effect due to the planting of winter wheat in the fall and wheat, barley, and potatoes in the spring. These crops are usually fertilized shortly after or during planting.

East Birch Creek did not meet inorganic nitrogen recommendations at any time. Nitrogen concentrations were over 1.0 mg/l on all but one occasion. This drainage has the highest consistent nitrogen values in the Antelope-Pine Creek watershed.

The greater flow of Antelope Creek was able to dilute the high East Birch Creek inorganic load to below

Table 5. Estimated Suspended Solids Loading from Palisades Dam, Sampled Streams, and Direct runoff.

Sample Date	Loading (Tons/day) Palisades	Sampled Streams	Direct Input
Oct. 13, 1987	<22.6	0.22	<0.2
Nov. 16, 1987	19.2	0.94	5.96
Feb. 16, 1988	<4.0	<2.0	5.0
Feb. 29, 1988	6.1	11.6	102
Mar. 14, 1988	<4.0	0.66	<1.1
Mar. 23, 1988	8.2	132	-78.5
Apr. 4, 1988	4.0	538	131
Apr. 18, 1988	<13.7	35.5	1000
May 2, 1988	40.4	10.3	139
May 16, 1988	103	69.6	566
May 31, 1988	53.7	4.14	311
June 13, 1988	225	0.94	498
June 27, 1988	65.3	0.42	143
July 11, 1988	<69.7	0.24	>86.1
Mar. 8, 1989	4.1	0.83	7.27
Mar. 20, 1989	<4.2	1.31	>6.69
Apr. 4, 1989	29.0	30.3	-9.2
Apr. 17, 1989	81.2	98.3	-14.5
May 1, 1989	121	146	8.52
May 16, 1989	59.4	50.6	352

Negative values indicate suspended solids values dropped to below upstream loading rates at the Snake River near Heise sampling station.

recommendations on all but four sampling dates. On only three of the sampling dates did Antelope Creek contribute more than 50% of the nitrogen contained in the sample. Without the East Birch Creek inorganic load, Antelope Creek would have only exceeded recommendations on March 23 and April 4, 1988 and April 17, 1989 with readings of 0.350 mg/l, 0.395 mg/l, and 0.539 mg/l respectively.

Granite Creek inorganic nitrogen concentrations exceeded the recommendations in the first four samples taken in the spring of 1988 and all of 1989. The first two samples in 1988 would not have been excessive if the ammonia fraction had been deleted. The ammonia concentration made up 40.4 and 60.6 percent of the inorganic nitrogen in these samples.

Pine Creek exceeded the inorganic nitrogen recommendation on October 13, 1987 at the station at the mouth. All samples taken at the forest boundary had inorganic nitrogen levels below 0.300 mg/l. This study did not show excessive nitrogen concentrations on Pine Creek although, during an examination of the forest station in early September, 1988 it appeared heavy cattle impacts were causing nitrification of the stream (K. Bohmer and B. Drewes, IDHW-DEQ, pers. observation).

Rainey Creek at the forest did not exceed recommended inorganic nitrogen levels at any time. The lower station, however, exceeded recommendations on all but three sampling dates. The area through which the lower portion of Rainey Creek flows has a high water table with numerous small feedlots. There are also two larger (100+ head) feedlot/pasture areas through which Rainey Creek flows. It appears the nitrogen is coming from the breakdown of detritus in the marsh lands and the feedlots.

Because of the solubility of inorganic nitrogen, the waters received by and released from Palisades Reservoir contained elevated levels of nitrogen which were picked up above the study watershed. Waters released from the reservoir during the runoff period were higher in nitrogen than at any other time in the study.

With the addition of nitrogen from the study watershed, both samples taken in April, 1988 and four of six samples in 1989 at Heise were over the 0.3 mg/l limit. USGS records near Heise show recommended levels of inorganic nitrogen were surpassed in 11 of 77 samples taken, but there is no correlation with the time of year or the river flows. Ammonia standards were not exceeded at any time at any station (Idaho Department of Health and Welfare, 1987). Natural (unpolluted) waters normally exhibit total Kjeldahl Nitrogen (TKN) values between 0.05 and 2.0 mg/l (Mackenthun,

1973). TKN levels exceeded 2.0 mg/l on the intermittent streams 13 times. Levels above 2.0 are closely related to the channel cleaning and input periods on these streams. The permanent streams and the Snake River had no TKN levels above 2.0 mg/l. USGS station records near Heise had only two TKN levels which were greater than 2.0 mg/l (n=107).

Phosphorus

Phosphorus is a relatively common element in the project area. The area above the Palisades Dam contains concentrated natural deposits of phosphorus with many areas having phosphorus based mining claims (US Forest Service, 1985), and natural levels of phosphorus in the soils are high enough in the project area that phosphate is rarely applied (pers. com. Ririe Producers Co-op).

Using this information, levels of total phosphorus and dissolved ortho-phosphate were expected to be high. This was indeed the case. The intermittent streams (excluding West Birch Creek) exceeded the 0.3 mg/l total phosphorus level recommended by Mackenthun (1973) 24 of 36 times. The perennial steams (excluding the Snake River) exceeded the recommendation 15 of 64 times.

The apparent discrepancy between the phosphorus exceedences of the intermittent creeks (67%) and the perennial creeks (23%) can be explained by the farming practices in the various drainages and the stream characteristics. On the intermittent creeks, many farms extend to within a few feet of the streambanks. Without a buffer strip, the solids and attached phosphorus run directly into the stream. Additionally, the stream beds on the intermittent streams are shallow and are not cut within the bedrock. This allows the water to scour the stream banks during high flow, eroding sediment and attached phosphorus into the stream.

The larger streams have natural protection and settling areas. Pine Creek has a large buffer strip between the farms and the creek. Much of the solids and phosphorus is trapped in this buffer strip. Rainey Creek, on the other hand, is a slow moving, meandering stream. On this stream there are many places where the solids and attached phosphorus settle out of the water column.

West Birch Creek was omitted from the above analysis for two reasons. First, the creek does not impact the Snake River within the study area, and secondly, West Birch Creek was impacted by residential sewage. A septic system located about 0.5 miles above the sampling site had failed and the minimally treated sewage was being released into West Birch Creek through a drainage pipe. Consequently, the phosphorus

levels exceeded the recommended levels on every sampling date (n= 18). It is not known what the exact impact of the failed septic system had on West Birch Creek nor what the ratio of agricultural phosphorus to residential phosphorus was. It is believed, however, the residence did contribute the majority of the phosphorus to the system due to the use of phosphorus based detergents and soaps.

Phosphorus concentrations at Palisades were below laboratory detection limits on all sampling dates (n=20). Although phosphorus levels are expected to be high above Palisades Dam due to the natural phosphorus deposits, the phosphorus apparently became tied to sediment particles and settles out in the Palisades Reservoir.

The 0.1 mg/l criteria was exceeded twice on the Snake River near Heise. Both readings were recorded for the April, 1988 samples. The low flows of the Snake River during the runoff period were not enough to dilute the phosphorus to below recommended levels. USGS records at this station show an additional 7 samples (n=177) which are above recommended levels. There is no explanation for these high values since 4 occurred in April and May, 1 was in July, and 1 each in October and November. Further, 3 readings were under low flow conditions (< 5,000 cfs) and 4 were under high flow conditions (>11,000 cfs).

Dissolved ortho-phosphate exceeded the recommended limit of 0.025 mg/l (Mackenthun 1973) on 36 occasions (n= 159). All but eight of the excesses were recorded on the intermittent tributaries. Rainey Creek at the forest did not show any excessive ortho-phosphate readings. USGS records near Heise document five other times the recommendation was exceeded (n= 30).

West Birch Creek was over the 0.025 mg/l standard on all but four sampling dates. As with the total phosphorus, it is not known whether the majority of the ortho-phosphate came from agricultural or residential sources. In all cases the dissolved ortho-phosphate concentrations followed the pattern shown for total phosphorus.

BACTERIA

The Snake River is protected for primary contact recreation (Idaho Department of Health and Welfare 1987). Under the bacteria standards, the fecal coliform count shall not exceed 500 colonies per 100 ml at one time during the period from May 1 through September 30 of each calendar year. Our study records and USGS records near Heise did not have any readings which exceeded coliform standards on the Snake River (Appendix 1 and 2).

If the standards are applied to the tributaries, three creeks show coliform counts greater than 500/ 100ml. West Birch Creek was over standards on five sampling dates. This is directly due to a poor residential septic field located upstream of the sampling site. The other two creeks (Rainey and Granite) are situated in a livestock-pasture area. Granite Creek had a count of >800 colonies/ 100ml on one date during the peak runoff period. Rainey Creek exceeded standards on three occasions.

Fecal coliform-streptococcus ratios (Table 6) indicate that the main contributor is livestock on all of the creeks except West Birch and Rainey Creeks. Of 17 samples on West Birch Creek, eight indicate livestock, eight livestock-human mix, and one human source sample. Rainey Creek had two indications of a livestock-human mix and four samples showed human contamination (n=20). It may be there is a human source of fecal coliform on Rainey Creek, but none has yet been found.

QUALITY ASSURANCE

The precision of all the split samples except ammonia and dissolved ortho-phosphate was good to excellent (Table 7). The dissolved ortho-phosphate precision was actually better than the figures showed. Only 6 of the samples had a discrepancy. The problem which arose was due to the small concentrations of ortho-phosphate. A variance of 0.001 mg/l showed as a 67% precision discrepancy. It is not known why the ammonia showed such poor precision results (53%).

The accuracy of the spiked samples was excellent for all parameters (Table 8). Accuracy and precision results demonstrated few problems with the sampling and analytical testing procedures.

CONCLUSIONS AND RECOMMENDATIONS

Drought-like winter conditions and a cooler than normal spring melt severely limited the scope of the study. There were no spring rains to accelerate the snow melt, no summer thunderstorms, resulting in little runoff.

Agricultural impacts on the Snake River were minimal. The lower sampling station (Snake River near Heise) exceeded recommended limits of inorganic nitrogen on 6 sampling dates, total phosphorus on 2 dates, and dissolved ortho-phosphate on one occasion. Water released from Palisades exceeded recommended limits of inorganic nitrogen on two dates. No other standards or recommendations were exceeded in the Snake River.

Table 6. Fecal Coliform-Streptococcus Ratios for Antelope-Pine Creek

	Station Numbers									
Date	1	2	3	4	5	6	7	8	9	10
Oct 13	Sml	1.75	0.06	0.29	0.33	Lge	2.50	0.43	1.00	Sml
Feb 16	Sml	-	-	-	-	-	-	Sml	-	Sml
Feb 29	0.01	Sml	-	-	Sml	-	0.36	0.55	0.03	Sml
Mar 14	Sml	2.39	-	-	-	-	Sml	0.01	Sml	Sml
Mar 23	Sml	0.36	0.03	0.06	0.05	-	0.38	0.15	-	Sml
Apr 4	0.06	0.52	0.02	0.05	0.24	Sml	Sml	10.3	-	Sml
Apr 18	Lge	0.71	Sml	Sml	Sml	Lge	Sml	0.18	Sml	Sml
May 2	Sml	3.75	1.00	Sml	Sml	Sml	Sml	Sml	Sml	Sml
May 16	Sml	**8.50**	Sml	0.25	1.78	Sml	Sml	0.33	Sml	Sml
May 31	Sml	0.10	-	1.13	1.14	Sml	Sml	0.56	Sml	Sml
Jun 13	1.00	0.87	-	0.05	0.92	0.33	Sml	1.42	Sml	Sml
Jun 27	Sml	-	-	0.39	-	Sml	Sml	0.99	Sml	Sml
Jul 11	0.33	-	-	Sml	-	0.25	0.25	**14.0**	0.20	0.38

Sml= Ratio small. The Fecal Coliform count was less than 10 colonies/ 100ml.

Lge= Ratio large. The streptococcus count was less than 10 colonies/ 100ml. Although the fecal coliform count was greater than 10, it too was less than regulated values.

Underlined= Indicates livestock/human contamination (Ratio 0.7 to 4.1).

Bold= Indicates human contamination (Ratio greater than 4.1).

Table 7. Antelope-Pine Creek Precision Samples.

PARAMETER	N	RANGE (%)
Suspended Solids	20	8.6
Total Nitrate + Nitrite	18	6.5
Total Ammonia	20	51.4
Total Kjeldahl Nitrogen	19	15.2
Total Phosphorus	18	1.6
Dissolved ortho-Phosphate	20	29.0

Table 8. Antelope-Pine Creek Accuracy Samples.

PARAMETER	N	AVE. % RECOVERY	95% CL
Suspended Solids	15	98.9	± 1.1
Total Nitrate + Nitrite	18	100.8	± 9.6
Total Ammonia	19	96.1	± 5.4
Total Kjeldahl Nitrogen	18	98.1	± 9.4
Total Phosphorus	17	94.7	± 4.2
Dissolved ortho-phosphate	17	93.8	± 4.1

The most polluted tributary in terms of concentration is West Birch Creek. Although other streams may have had higher pollution values, West Birch Creek consistently had higher concentrations of suspended solids, nitrates, phosphorus, and higher populations of bacteria than the other creeks. West Birch Creek is not, however, a tributary of the Snake River within the study area. Further, much of the nutrient and bacteria loading comes from a filed septic system.

The highest concentrations of agricultural related pollutants come from the intermittent streams (East Birch, Antelope, and Granite Creeks). This is due to two separate factors:

1) The practice of farming to within a few feet of the edge of an intermittent stream resulting in the loss of a beneficial vegetative filter strip; and

2) The geology of the intermittent streams. During high flows, the creeks are in actual contact with the overlying soils. In a normal year, the creeks often overflow their banks, not only washing the stream channel, but the surrounding land.

The permanent streams (Pine and Rainey Creeks) have a well developed riparian area along most of their lengths. This buffer vegetation acts as a filter to reduce the amount of pollution reaching the stream. The permanent streams are also located in areas which have well developed stream beds and banks. Only during extreme high flows would these creeks wash the surrounding soils.

Although the extremely dry weather pattern prevented the study from determining the "normal" water year agricultural pollution concentrations and loading, the study was able to determine the most severely impacted creeks. They are, in order of most polluted to least polluted:

West Birch Creek
East Birch Creek
Antelope Creek
Granite Creek
Rainey Creek
Pine Creek

The above priority ranking is based upon a low water year and may not represent normal pollution loadings. Because of the dry weather during the study, it is thought the pollutant concentrations and loading represent minimum conditions.

ACKNOWLEDGEMENTS

We express our gratitude to those who made this report possible. Employees and board members of the East Side Soil and Water Conservation District, the Idaho Falls section of the US Weather Service, the Progressive Irrigation District, employees of the Ririe Co-op, and a special thanks to Jake Jacobson of the USGS and RaNae Hardy IDHW-DEQ for the 30+ years of back data.

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Appendix 1

Antelope-Pine Creek Data

STORET RETRIEVAL DATE 91/03/15 PGM=ALLPARM

2080515
43 36 35.0 111 43 10.0 2
WEST BIRCH CK @ HWY 26
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880423 17040201
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

INITIAL DATE				01/01/01	87/10/13	87/11/16	88/02/29	88/03/14	88/03/23	88/04/04	88/04/18	88/05/02
INITIAL TIME					1255	1005	1715	1100	1145	1145	1845	1130
MEDIUM				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00042	ALTITUDE	FEET	AB MSL	5010								
00061	STREAM	FLOW,	INST-CFS		1.6000	1.4000	21.7000	1.6000	1.9000	3.5000	3.3000	3.3000
00076	TURB	TRBIDMTR	HACH FTU		9.4	17.0	2900.0	27.0	320.0	570.0	60.0	19.0
00095	CNDUCTVY	AT 25C	MICROMHO		446	548	198	667	359	387	513	257
00116	INTNSVE	SURVEY	IDENT		881601	881601	881601	881601	881601	881601	881601	881601
00403	PH	LAB	SU		8.42							
00530	RESIDUE	TOT NFLT	MG/L		16.00	32.00	16000.00	60.00	810.00	1660.00	126.00	
00610	NH3+NH4-	N TOTAL	MG/L		.0170	.2270		.1440	.4180	.1670	.0290	.0150
00625	TOT KJEL	N	MG/L		.480	.510	21.000	.520	3.190	5.910	.910	.350
00630	NO2&NO3	N-TOTAL	MG/L		.0920	.5300	1.4100	1.1200	.5870	.5570	.5960	.2930
00665	PHOS-TOT		MG/L P		.130	.130	19.900	.320	1.520	2.820	.440	.140
00671	PHOS-DIS	ORTHO	MG/L P		.080	.087		.157	.085	.235	.060	.048
31616	FEC COLI	MFM-FCBR	/100ML		420	8100	10	1100	470	390	50	150
31679	FECSTREP	MF M-ENT	/100ML		240	90	21000	460	1300	750	70	40
74041	WQF	SAMPLE	UPDATED	880527	890816	890816	890816	890216	890216	890216	890309	890309
80154	SUSP SED	CONC	MG/L									34.000
82028	RATIO	FEC COL	FEC STRP		2$	90$	.0005$	2$	.4$	.5$	.7$	4$

INITIAL DATE				88/05/16	88/05/31	88/06/13	88/06/13	88/10/13	88/11/16	89/03/08	89/03/10	89/03/20
INITIAL TIME				1050	1610	1040		1255	1005	1215		1145
MEDIUM				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT							.2		.6
00011	WATER	TEMP	FAHN							32.4$		33.1$
00061	STREAM	FLOW,	INST-CFS	.3000	.9000	.3000				14.1000		3.0000
00076	TURB	TRBIDMTR	HACH FTU	23.0	19.0	17.0				245.0		525.0
00095	CNDUCTVY	AT 25C	MICROMHO	530	508	534				173	250	
00116	INTNSVE	SURVEY	IDENT	881601	881601	881601				881601	881601	881601
00300	DO		MG/L							14.2		13.2
00301	DO	SATUR	PERCENT							116.5$		111.4$
00530	RESIDUE	TOT NFLT	MG/L	56.00	18.00	34.00		16.00	32.00	310.00		1910.00
00610	NH3+NH4-	N TOTAL	MG/L	.0350	.0210	.0700				.0860	.1380	.0750
00625	TOT KJEL	N	MG/L	.520	.460	.470				1.890	21.800	2.080
00630	NO2&NO3	N-TOTAL	MG/L	.1370	.1000	.0690				.3030	.6360	.6530
00665	PHOS-TOT		MG/L P	.150	.180	.140				1.290	.960	2.000
00671	PHOS-DIS	ORTHO	MG/L P	.038	.031	.020	.020			.334		.001K

(SAMPLE CONTINUED ON NEXT PAGE)

2080515
43 36 35.0 111 43 10.0 2
WEST BIRCH CK @ HWY 26
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880423 17040201
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				88/05/16	88/05/31	88/06/13	88/06/13	88/10/13	88/11/16	89/03/08	89/03/10	89/03/20
INITIAL TIME				1050	1610	1040		1255	1005	1215		1145
MEDIUM				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
31616	FEC COLI	MFM-FCBR	/100ML	510	160	2700				180		400
31679	FECSTREP	MF M-ENT	/100ML	60	1600	3100				2800		1500
74041	WQF	SAMPLE	UPDATED	890309	890301	890816	890309	890216	890216	890719	890816	890719
82028	RATIO	FEC COL	FEC STRP	9$	.1$	.9$				.06$		.3$

INITIAL DATE				89/04/04	89/04/17	89/05/01	89/05/16	89/07/11
INITIAL TIME				1140	1115	1000	1030	1120
MEDIUM				WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	4.4	7.8	7.7	11.0	15.7
00011	WATER	TEMP	FAHN	39.9$	46.0$	45.9$	51.8$	60.3$
00061	STREAM	FLOW,	INST-CFS	2.7000	3.4000		3.5000J	.5600
00076	TURB	TRBIDMTR	HACH FTU	126.0	160.0	120.0		90.0
00095	CNDUCTVY	AT 25C	MICROMHO	505	467	461	501	501
00116	INTNSVE	SURVEY	IDENT	881601	881601	881601	881601	881601
00300	DO		MG/L	14.3	12.6		11.4	7.2
00301	DO	SATUR	PERCENT	131.4$	127.4$		123.7$	86.0$
00400	PH		SU	8.31	8.51		8.26	7.39
00530	RESIDUE	TOT NFLT	MG/L	534.00	984.00	1002.00	584.00	286.00
00610	NH3+NH4-	N TOTAL	MG/L	.0590	.0600	.0730	.0450	.0510
00612	UN-IONZD	NH3-N	MG/L	.001$	.003$		.002$	.0004$
00619	UN-IONZD	NH3-NH3	MG/L	.002$	.004$		.002$	.0004$
00625	TOT KJEL	N	MG/L	1.370	2.510	1.840	1.140	1.340
00630	NO2&NO3	N-TOTAL	MG/L	.8110	.6000	.4780	.4040	.2730
00665	PHOS-TOT		MG/L P	.690	1.320	.680	.760	.560
00671	PHOS-DIS	ORTHO	MG/L P	.064	.240	.034	.044	.004
31616	FEC COLI	MFM-FCBR	/100ML	70	640	110	290	4600
31679	FECSTREP	MF M-ENT	/100ML	35	560	420	410	7800
74041	WQF	SAMPLE	UPDATED	890609	890609	890721	890721	890824
82028	RATIO	FEC COL	FEC STRP	2$	1$	.3$	.7$	.6$

STORET RETRIEVAL DATE 91/03/15

PGM=ALLFARM

2080516
43 35 10.0 111 35 12.0 2
EAST BIRCH CK @ MOUTH
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880430 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

	INITIAL DATE			01/01/01	87/10/13	87/11/16	88/03/23	88/04/04	88/04/18	88/05/02	88/05/16
	INITIAL TIME				1335	1145	1400	1255	1730	1215	1230
	MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00042	ALTITUDE	FEET	AB MSL	5480							
00061	STREAM	FLOW,	INST-CFS		.2000	.1000	5.4000	8.6000	1.8000	.2000	.2000
00076	TURB	TRBIDMTR	HACH FTU		1.3	17.0	500.0	360.0	37.0	6.3	3.8
00095	CNDUCTVY	AT 25C	MICROMHO		302	444	161	227	515	517	448
00116	INTNSVE	SURVEY	IDENT		881601	881601	881601	881601	881601	881601	881601
00403	PH	LAB	SU		8.63						
00530	RESIDUE	TOT NFLT	MG/L		2.00K	18.00	3380.00	1480.00	104.00		22.00
00610	NH3+NH4-	N TOTAL	MG/L		.0100	.0160	.2720	.1800	.0270	.0240	.0160
00625	TOT KJEL	N	MG/L		.420	.290	4.660	4.050	.800	.270	.540
00630	NO2&NO3	N-TOTAL	MG/L		1.3200	2.1100	.3060	1.1200	4.7400	4.6300	1.9300
00665	PHOS-TOT		MG/L P		.050	.120	3.530	2.390	.340	.180	.050K
00671	PHOS-DIS	ORTHO	MG/L P		.041	.104	.348	.311	.137	.109	.002
31616	FEC COLI	MFM-FCBR	/100ML		30	9600	200	10	10K	10	10K
31679	FECSTREP	MF M-ENT	/100ML		480	1100	7900	420	80	10	60
74041	WQF	SAMPLE	UPDATED	880527	890216	890216	890216	890216	890309	890309	890309
80154	SUSP SED	CONC	MG/L							18.000	
82028	RATIO	FEC COL	FEC STRP		.06$	9$	.03$	.02$	.1$	1$	.2$

2080517
43 35 25.0 111 35 25.0 2
ANTELOPE CK NR MOUTH
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880423 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

INITIAL DATE			01/01/01	87/10/13	87/11/16	88/03/23	88/04/04	88/04/18	88/05/02	88/05/16	88/05/31
INITIAL TIME				1405	1150	1415	1310	1745	1230	1245	1515
MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00042 ALTITUDE	FEET	AB MSL	5440								
00061 STREAM	FLOW,	INST-CFS		2.7000	1.2000	50.7000	40.1000	9.1000	9.7000	17.0000	11.2000
00076 TURB	TRBIDMTR	HACH FTU		6.0	7.6	265.0	360.0	85.0	19.0	110.0	25.0
00095 CNDUCTVY	AT 25C	MICROMHO		374	548	119	191	400	.4	403	433
00116 INTNSVE	SURVEY	IDENT		881601	881601	881601	881601	881601	881601	881601	881601
00403 PH	LAB	SU		8.27							
00530 RESIDUE	TOT NFLT	MG/L		12.00	18.00	840.00	1580.00	178.00		404.00	40.00
00610 NH3+NH4-	N TOTAL	MG/L		.0160	.0430	.1310	.1260	.0240	.0550	.0230	.0470
00625 TOT KJEL	N	MG/L		.400	.260	2.380	4.080	.990	.360	1.480	.450
00630 NO2&NO3	N-TOTAL	MG/L		.0120	.0630	.2450	.4620	.3740	.0530	.0890	.0010
00665 PHOS-TOT		MG/L P		.050K	.050K	1.850	2.520	.400	.100	.600	.120
00671 PHOS-DIS	ORTHO	MG/L P		.025	.019	.355	.284	.027	.015	.015	.019
31616 FEC COLI	MFM-FCBR	/100ML		50	2200	50	50	10K	10K	10	260
31679 FECSTREP	MF M-ENT	/100ML		170	180	900	960	140	10	40	230
74041 WQF	SAMPLE	UPDATED	880527	890816	890216	890216	890216	890309	890309	890309	890301
80154 SUSP SED	CONC	MG/L							16.000		
82028 RATIO	FEC COL	FEC STRP		.3$	12$	.06$	.05$	.07$	1$	.3$	1$

INITIAL DATE			88/06/13	88/06/27	88/07/11	89/04/17	89/05/01	89/05/16
INITIAL TIME			1125	1235	1700	1225	1200	1200
MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER
00010 WATER	TEMP	CENT				6.8	8.5	8.7
00011 WATER	TEMP	FAHN				44.2$	47.3$	47.7$
00061 STREAM	FLOW,	INST-CFS	.8000	1.8000	.6000	23.0000	10.8000	18.9000
00076 TURB	TRBIDMTR	HACH FTU	4.3	5.8	7.1	182.0	46.0	
00095 CNDUCTVY	AT 25C	MICROMHO	401	376	255	346	424	394
00116 INTNSVE	SURVEY	IDENT	881601	881601	881601	881601	881601	881601
00300 DO		MG/L				12.9		12.1
00301 DO	SATUR	PERCENT				129.0$		127.8$
00400 PH		SU				8.46		7.74
00530 RESIDUE	TOT NFLT	MG/L	12.00	8.00	10.00	668.00	198.00	340.00
00610 NH3+NH4-	N TOTAL	MG/L	.0410	.0420	.0580	.0580	.0280	.0340
00612 UN-IONZD	NH3-N	MG/L				.002$		.0003$
00619 UN-IONZD	NH3-NH3	MG/L				.003$		.0004$
00625 TOT KJEL	N	MG/L	.540	.390	.570	2.530	.800	1.570

(SAMPLE CONTINUED ON NEXT PAGE)

2080517
43 35 25.0 111 35 25.0 2
ANTELOPE CK NR MOUTH
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880423 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			88/06/13	88/06/27	88/07/11	89/04/17	89/05/01	89/05/16
	INITIAL TIME			1125	1235	1700	1225	1200	1200
	MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER
00630	NO2&NO3	N-TOTAL	MG/L	.0120	.0210	.0070	.5050	.1400	.0960
00665	PHOS-TOT		MG/L P	.080	.060	.070	.990	.310	.940
00671	PHOS-DIS	ORTHO	MG/L P	.010	.003	.003	.001K	.001K	.011
31616	FEC COLI	MFM-FCBR	/100ML	50	240	10K	110	20	40
31679	FECSTREP	MF M-ENT	/100ML	960	620	230	160	10	20
74041	WQF	SAMPLE	UPDATED	890216	890216	890216	890609	890728	890728
82028	RATIO	FEC COL	FEC STRP	.05$	.4$	.04$	.7$	2$	2$

2080518
43 29 08.0 111 26 00.0 2
GRANITE CK @ MOUTH
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880514 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

INITIAL DATE			01/01/01	87/10/13	88/02/29	88/03/23	88/04/04	88/04/18	88/05/02	88/05/16	88/05/31
INITIAL TIME				1435	1540	1500	1605	1710	1310	1455	1445
MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00042	ALTITUDE	FEET	AB MSL	5240							
00061	STREAM	FLOW,	INST-CFS		.1000	1.1000	12.6000	34.9000	.9000	.9000	4.0000	5.5000
00076	TURB	TRBIDMTR	HACH FTU		1.9	280.0	84.0	600.0	7.8	3.7	28.0	20.0
00095	CNDUCTVY	AT 25C	MICROMHO		243	111	124	120	388	399	387	375
00116	INTNSVE	SURVEY	IDENT		881601	881601	881601	881601	881601	881601	881601	881601
00403	PH	LAB	SU		7.67						
00530	RESIDUE	TOT NFLT	MG/L		4.00	3770.00	446.00	3300.00	6.00		82.00	36.00
00610	NH3+NH4-	N TOTAL	MG/L		.0030	.1280	.2380	.1440	.0170	.0120	.0140	.0100
00625	TOT KJEL	N	MG/L		.390	3.310	2.400	7.000	.330	.250	.650	.410
00630	NO2&NO3	N-TOTAL	MG/L		.0130	.1890	.1550	.4580	.7020	.2280	.0930	.2070
00665	PHOS-TOT		MG/L P		.060	4.180	1.440	4.620	.120	.050	.200	.110
00671	PHOS-DIS	ORTHO	MG/L P		.057	.303	.304	.415	.081	.003	.020	.014
31616	FEC COLI	MFM-FCBR	/100ML		50	10	120	800L	10K	10K	160	160
31679	FECSTREP	MF M-ENT	/100ML		150	3800	2600	3400	20	10K	90	140
74041	WQF	SAMPLE	UPDATED	880527	890216	890216	890216	890216	890816	890309	890725	890301
80154	SUSP SED	CONC	MG/L							12.000		
82028	RATIO	FEC COL	FEC STRP		.3$	.003$	.05$	.2$	.5$	1$	2$	1$

INITIAL DATE			88/06/13	89/04/17	89/05/01	89/05/11	89/05/16		
INITIAL TIME			1145	1315	1230	1230	1300		
MEDIUM			WATER	WATER	WATER	WATER	WATER		
00010	WATER	TEMP	CENT		9.8	11.7		10.1	
00011	WATER	TEMP	FAHN		49.6$	53.1$		50.2$	
00061	STREAM	FLOW,	INST-CFS	1.9000	5.6000	5.4000		2.6000	
00076	TURB	TRBIDMTR	HACH FTU	88.0	34.0	18.0	18.0		
00095	CNDUCTVY	AT 25C	MICROMHO	342	384	353	353	394	
00116	INTNSVE	SURVEY	IDENT	881601	881601	881601	881601	881601	
00300	DO		MG/L		11.1			11.3	
00301	DO	SATUR	PERCENT		119.5$			121.2$	
00400	PH		SU		8.53			7.87	
00530	RESIDUE	TOT NFLT	MG/L	18.00	98.00	104.00	104.00	136.00	
00610	NH3+NH4-	N TOTAL	MG/L	.0150	.0400	.0260	.0260	.0390	
00612	UN-IONZD	NH3-N	MG/L		.002$			.0005$	
00619	UN-IONZD	NH3-NH3	MG/L		.003$			.0006$	
00625	TOT KJEL	N	MG/L	.390	.740	.530	.530	.510	

(SAMPLE CONTINUED ON NEXT PAGE)

2080518
43 29 08.0 111 26 00.0 2
GRANITE CK @ MOUTH
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
/TYPA/AMBNT/STREAM UPPER SNAKE RIVER
21IDSURV 880514 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			88/06/13	89/04/17	89/05/01	89/05/11	89/05/16
	INITIAL TIME			1145	1315	1230	1230	1300
	MEDIUM			WATER	WATER	WATER	WATER	WATER
00630	NO2&NO3	N-TOTAL	MG/L	.0240	1.9700	.6920	.6920	.4630
00665	PHOS-TOT		MG/L P	.180	.230	.150	.150	.250
00671	PHOS-DIS	ORTHO	MG/L P	.002	.036	.025	.025	.003
31616	FEC COLI	MFM-FCBR	/100ML	110	10K	10K		60
31679	FECSTREP	MF M-ENT	/100ML	120	40	20		330
74041	WQF	SAMPLE	UPDATED	890216	890609	890728	890609	890721
82028	RATIO	FEC COL	FEC STRP	.9$	.3$	.5$		.2$

2080519
43 29 27.0 111 25 00.0 2
PINE CK @ MOUTH
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880430 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

INITIAL DATE			01/01/01	87/10/20	88/02/29	88/04/04	88/04/12	88/04/18	88/05/02	88/05/16	88/05/31
INITIAL TIME				1200	1325	1650	1600	1415	1435	1715	1315
MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00042	ALTITUDE	FEET AB MSL	5240								
00061	STREAM	FLOW, INST-CFS		6.7000			51.4000	187.0000	57.0000	140.0000	
00076	TURB	TRBIDMTR HACH FTU		.5			105.0	31.0	13.0	15.0	3.8
00095	CNDUCTVY	AT 25C MICROMHO		872			182	155	193	178	235
00116	INTNSVE	SURVEY IDENT		881601	881601	881601	881601	881601	881601	881601	881601
00530	RESIDUE	TOT NFLT MG/L		2.00K			180.00	54.00		46.00	8.00
00610	NH3+NH4-	N TOTAL MG/L		.0640			.0700	.0270	.0100	.0070	.0070
00625	TOT KJEL	N MG/L		.360			1.650	.370	.150	.340	.200
00630	NO2&NO3	N-TOTAL MG/L		.7530			.1250	.0940	.0150	.0040	.0200
00665	PHOS-TOT	MG/L P		.050K			.710	.160	.060	.100	.050K
00671	PHOS-DIS	ORTHO MG/L P		.001K			.049	.007	.009	.002	.007
31616	FEC COLI	MFM-FCBR /100ML		130	5	90	10K	10	10K	10K	10K
31679	FECSTREP	MF M-ENT /100ML		10K	14	340	80	10K	10K	10K	10K
74041	WQF	SAMPLE UPDATED	880527	890216	880809	880830	890216	890309	890309	890309	890216
80154	SUSP SED	CONC MG/L							18.000		
82028	RATIO	FEC COL FEC STRP		13$	.4$	.3$	.1$	1$	1$	1$	1$

INITIAL DATE			88/05/31	88/06/13	88/06/27	88/07/11	89/04/17	89/05/01	89/05/16	89/07/11
INITIAL TIME				1300	1340	1400	1445	1400	1415	1640
MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP CENT					5.4	6.2	6.9	17.7
00011	WATER	TEMP FAHN					41.7$	43.2$	44.4$	63.9$
00061	STREAM	FLOW, INST-CFS	55.6000A	38.0000	27.0000	15.1000	120.0000J		120.0000J	30.4000
00076	TURB	TRBIDMTR HACH FTU		.7	.3	.2	20.0	12.0		1.4
00095	CNDUCTVY	AT 25C MICROMHO		301	357	464	145	161	181	356
00116	INTNSVE	SURVEY IDENT	881601	881601	881601	881601	881601	881601	881601	881601
00300	DO	MG/L					13.3		12.5	8.8
00301	DO	SATUR PERCENT					126.0$		123.7$	111.6$
00400	PH	SU					6.99		6.97	7.61
00530	RESIDUE	TOT NFLT MG/L		6.00	4.00	2.00	66.00	44.00	28.00	10.00
00610	NH3+NH4-	N TOTAL MG/L		.0180	.0210	.0540	.0390	.0290	.0280	.0320
00612	UN-IONZD	NH3-N MG/L					.00005$		.00004$	.0004$
00619	UN-IONZD	NH3-NH3 MG/L					.00006$		.00005$	.0005$
00625	TOT KJEL	N MG/L		.210	.110	.120	.360	.270	.170	.190
00630	NO2&NO3	N-TOTAL MG/L		.0390	.1070	.1450	.1480	.0100	.0640	.0820

(SAMPLE CONTINUED ON NEXT PAGE)

2080519
43 29 27.0 111 25 00.0 2
FINE CK @ MOUTH
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880430 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			88/05/31	88/06/13	88/06/27	88/07/11	89/04/17	89/05/01	89/05/16	89/07/11
	INITIAL TIME				1300	1340	1400	1445	1400	1415	1640
	MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00665	PHOS-TOT		MG/L P		.050K	.050K	.050K	.120	.070	.050	.050K
00671	PHOS-DIS	ORTHO	MG/L P		.005	.001	.002	.005	.013	.001K	.016
31616	FEC COLI	MFM-FCBR	/100ML		10	10K	10	10K	1	10K	3
31679	FECSTREP	MF M-ENT	/100ML		30	10	40	20	1K	10K	45
74041	WQF	SAMPLE	UPDATED	890301	890216	890216	890216	890609	890721	890728	890824
82028	RATIO	FEC COL	FEC STRP		.3*	1*	.3*	.5*	1*	1*	.07*

2080520
43 30 35.0 111 21 10.0 2
PINE CK @ FOREST BOUNDARY
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880430 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

INITIAL DATE			01/01/01	87/10/20	88/02/29	88/03/14	88/03/23	88/04/12	88/04/18	88/05/02	88/05/16
INITIAL TIME				1330	1325	1245	1610	1705	1500	1530	1815
MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00042 ALTITUDE	FEET	AB MSL	5700								
00061 STREAM	FLOW,	INST-CFS		6.5000	15.0000J	15.0000J	25.0000J	39.7000	112.0000	38.0000	210.0000
00076 TURB	TRBIDMTR	HACH FTU		.5	1.4	.8	4.0	29.0	27.0	12.0	30.0
00095 CNDUCTVY	AT 25C	MICROMHO		385	293	314	257	170	147	181	159
00116 INTNSVE	SURVEY	IDENT		881601	881601	881601	881601	881601	881601	881601	881601
00530 RESIDUE	TOT NFLT	MG/L		2.00K	3.00	2.00K	8.00	60.00	40.00		136.00
00610 NH3+NH4-	N TOTAL	MG/L		.0160	.0160	.0140	.0190	.0740	.0170	.0120	.0070
00625 TOT KJEL	N	MG/L		.230	.080	.080	.210	.560	.380	.170	.540
00630 NO2&NO3	N-TOTAL	MG/L		.0050	.0930	.0340	.0380	.0310	.0450	.0040	.0010K
00665 PHOS-TOT		MG/L P		.050K	.050K	.050K	.060	.160	.170	.060	.190
00671 PHOS-DIS	ORTHO	MG/L P		.001K	.010	.003	.020	.017	.010	.012	.005
31616 FEC COLI	MFM-FCBR	/100ML		100		1K	3	10K	10K	10K	10K
31679 FECSTREP	MF M-ENT	/100ML		40		2	8	80	10	10K	20
74041 WQF	SAMPLE	UPDATED	880527	890216	890216	890216	890216	890216	890309	890309	890309
80154 SUSP SED	CONC	MG/L								12.000	
82028 RATIO	FEC COL	FEC STRP		3$		.5$	.4$	.1$	1$	1$	.5$

INITIAL DATE			88/05/31	88/06/13	88/06/27	88/07/11	89/03/08	89/03/10	89/03/20	89/04/04	89/04/17
INITIAL TIME			1230	1430	1510	1320	1550		1415	1500	1545
MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010 WATER	TEMP	CENT					.1		.2	3.6	6.0
00011 WATER	TEMP	FAHN					32.2$		32.4$	38.5$	42.8$
00061 STREAM	FLOW,	INST-CFS	54.2000	27.0000	26.0000	14.0000	15.0000J	14.0000J	20.0000J	28.0000	130.0000
00076 TURB	TRBIDMTR	HACH FTU	3.7	.6	.5	.2			3.2	3.0	22.0
00095 CNDUCTVY	AT 25C	MICROMHO	3	265	299	359			232	212	134
00116 INTNSVE	SURVEY	IDENT	881601	881601	881601	881601	881601	881601	881601	881601	881601
00300 DO		MG/L					15.1		13.9	15.0	12.8
00301 DO	SATUR	PERCENT					127.4$		117.1$	141.5$	126.7$
00400 PH		SU									7.58
00530 RESIDUE	TOT NFLT	MG/L	12.00	8.00	4.00	2.00K	2.00K		6.00	14.00	50.00
00610 NH3+NH4-	N TOTAL	MG/L	.0020	.0150	.0180	.0380	.0430		.0500	.0170	.0530
00612 UN-IONZD	NH3-N	MG/L									.0003$
00619 UN-IONZD	NH3-NH3	MG/L									.0003$
00625 TOT KJEL	N	MG/L	.240	.160	.130	.120	.180		.240	.170	.320
00630 NO2&NO3	N-TOTAL	MG/L	.0070	.0060	.0170	.0320	.1430		.1080	.0080	.1360

(SAMPLE CONTINUED ON NEXT PAGE)

2080520
43 30 35.0 111 21 10.0 2
PINE CK @ FOREST BOUNDARY
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880430 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				88/05/31	88/06/13	88/06/27	88/07/11	89/03/08	89/03/10	89/03/20	89/04/04	89/04/17
INITIAL TIME				1230	1430	1510	1320	1550		1415	1500	1545
MEDIUM				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00665	PHOS-TOT		MG/L P	.050K	.050	.050K	.050K	.050K		.050K	.050K	.110
00671	PHOS-DIS	ORTHO	MG/L P	.006	.001K	.004	.001K	.037		.001K	.001K	.007
31616	FEC COLI	MFM-FCBR	/100ML	10K	10K	10K	10	2		1K	1K	10K
31679	FECSTREP	MF M-ENT	/100ML	10K	10	10K	40	27		2	1	10K
74041	WQF	SAMPLE	UPDATED	890301	890216	890216	890216	890609	890626	890626	890609	890609
82028	RATIO	FEC COL	FEC STRP	1$	1$	1$	.3$	.07$		.5$	1$	1$

INITIAL DATE				89/05/01	89/05/16	89/07/11
INITIAL TIME				1420	1500	1812
MEDIUM				WATER	WATER	WATER
00010	WATER	TEMP	CENT	8.2	7.1	20.4
00011	WATER	TEMP	FAHN	46.8$	44.8$	68.7$
00061	STREAM	FLOW,	INST-CFS		120.0000J	21.3000
00076	TURB	TRBIDMTR	HACH FTU	7.5		1.0
00095	CNDUCTVY	AT 25C	MICROMHO	154		306
00116	INTNSVE	SURVEY	IDENT	881601	881601	881601
00300	DO		MG/L		12.3	
00301	DO	SATUR	PERCENT		124.7$	
00400	PH		SU		6.67	7.82
00530	RESIDUE	TOT NFLT	MG/L	12.00		14.00
00610	NH3+NH4-	N TOTAL	MG/L	.0290		.0210
00612	UN-IONZD	NH3-N	MG/L			.0006$
00619	UN-IONZD	NH3-NH3	MG/L			.0007$
00625	TOT KJEL	N	MG/L	.270		.230
00630	NO2&NO3	N-TOTAL	MG/L	.0080		.0100
00665	PHOS-TOT		MG/L P	.070		.050
00671	PHOS-DIS	ORTHO	MG/L P	.012		.003
31616	FEC COLI	MFM-FCBR	/100ML	1K	10K	14
31679	FECSTREP	MF M-ENT	/100ML	1	10K	27
74041	WQF	SAMPLE	UPDATED	890721	890728	890824
82028	RATIO	FEC COL	FEC STRP	1$	1$	.5$

2080521
43 26 55.0 111 22 40.0 2
RAINEY CK @ MOUTH
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880430 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

INITIAL DATE			01/01/01	87/10/13	87/11/16	88/02/16	88/02/29	88/03/14	88/03/23	88/04/04	88/04/11
INITIAL TIME					1235	1045	1440	1530	1745	1650	1630
MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00042	ALTITUDE	FEET	AB MSL	5280								
00061	STREAM	FLOW,	INST-CFS		18.4000	12.6000	17.4000	15.9000	11.3000	61.4000	39.1000	
00076	TURB	TRBIDMTR	HACH FTU		.8	1.6	6.0	1.8	4.0	3.0	84.0	.4
00095	CNDUCTVY	AT 25C	MICROMHO		416	548	555	454	451	460	511	591
00116	INTNSVE	SURVEY	IDENT		811601	881601	881601	881601	881601	881601	881601	881601
00403	PH	LAB	SU		7.84A							
00530	RESIDUE	TOT NFLT	MG/L		2.00K	16.00	23.00	11.00	19.00	10.00	294.00	4.00
00610	NH3+NH4-	N TOTAL	MG/L		.0310A	.0460	.0390	.0460	.0280	.1660	.0810	.0490
00625	TOT KJEL	N	MG/L		.310A	.170	.100	.180	.500	.890	1.480	.260
00630	NO2&NO3	N-TOTAL	MG/L		1.3200A	1.3300	.9560	.7500	.0500	.6880	.4780	.6690
00665	PHOS-TOT		MG/L P		.050K	.050K	.030	.050K	.050K	.100	.630	.050K
00671	PHOS-DIS	ORTHO	MG/L P		.007	.003	.003	.010	.003	.032	.063	.001K
31616	FEC COLI	MFM-FCBR	/100ML		30	410	10K	120	2	1300		
31679	FECSTREP	MF M-ENT	/100ML		70	30	20	220	270	8700		
74041	WQF	SAMPLE	UPDATED	880527	890216	890216	890216	890216	890216	890216	890216	890216
82028	RATIO	FEC COL	FEC STRP		.4$	14$	.5$	.5$	.007$	.1$		

INITIAL DATE			88/04/18	88/05/02	88/05/16	88/05/31	88/06/13	88/06/27	88/07/11	89/03/08	89/03/20
INITIAL TIME			1630	1335	1630	1410	1215	1310	1630	1400	1330
MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT							6.3	10.3
00011	WATER	TEMP	FAHN							43.3$	50.5$
00061	STREAM	FLOW,	INST-CFS	100.0000	73.0000	160.0000		13.0000	16.0000	13.6000	19.7000	36.6000
00076	TURB	TRBIDMTR	HACH FTU	30.0	14.0	27.0	4.3	.5	.6	.4	5.8	3.3
00095	CNDUCTVY	AT 25C	MICROMHO	253	340	247	387	544	530	591	390	490
00116	INTNSVE	SURVEY	IDENT	881601	881601	881601	881601	881601	881601	881601	881601	881601
00300	DO		MG/L								12.7	12.1
00301	DO	SATUR	PERCENT								123.5$	129.9$
00530	RESIDUE	TOT NFLT	MG/L	14.00		76.00	8.00	6.00	2.00	4.00	14.00	10.00
00610	NH3+NH4-	N TOTAL	MG/L	.0300	.0120	.0450	.0450	.0330	.0320	.0490	.2330	.0820
00625	TOT KJEL	N	MG/L	.650	.340	.690	.210	.250	.320	.260	.600	.320
00630	NO2&NO3	N-TOTAL	MG/L	.2400	.2910	.1360	.7130	.9800	.9600	.6690	.6880	1.4400
00665	PHOS-TOT		MG/L P	.150	.070	.320	.050K	.050K	.050K	.050K	.080	.050
00671	PHOS-DIS	ORTHO	MG/L P	.014	.003	.003	.004	.002	.001	.001K	.017	.001K
31616	FEC COLI	MFM-FCBR	/100ML	210	10K	100	50	370	680	3500	13	1K

(SAMPLE CONTINUED ON NEXT PAGE)

2080521
43 26 55.0 111 22 40.0 2
RAINEY CK @ MOUTH
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880430 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			88/04/18	88/05/02	88/05/16	88/05/31	88/06/13	88/06/27	88/07/11	89/03/08	89/03/20
	INITIAL TIME			1630	1335	1630	1410	1215	1310	1630	1400	1330
	MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
31679	FECSTREP	MF M-ENT	/100ML	1200	20	30	90	260	760	250	3600	47
74041	WQF	SAMPLE	UPDATED	890309	890309	890309	890216	890216	890216	890216	890609	890626
80154	SUSP SED	CONC	MG/L		36.000							
82028	RATIO	FEC COL	FEC STRP	.2$	.5$	3$	.6$	1$	.9$	14$	.004$	.02$

	INITIAL DATE			89/04/04	89/04/17	89/05/01	89/05/16	89/07/11
	INITIAL TIME			1440	1345	1300	1330	1513
	MEDIUM			WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	10.2	7.3	9.9	8.3	20.0
00011	WATER	TEMP	FAHN	50.4$	45.1$	49.8$	46.9$	68.0$
00061	STREAM	FLOW,	INST-CFS	37.0000	110.0000		105.0000	25.0000
00076	TURB	TRBIDMTR	HACH FTU	1.2	21.0	8.8		1.4
00095	CNDUCTVY	AT 25C	MICROMHO	461	239	331	262	324
00116	INTNSVE	SURVEY	IDENT	881601	881601	881601	881601	881601
00300	DO		MG/L	14.9	12.7		11.5	7.4
00301	DO	SATUR	PERCENT	159.9$	125.9$		117.6$	97.1$
00400	PH		SU		8.44		7.18	7.38
00530	RESIDUE	TOT NFLT	MG/L	18.00	114.00	40.00	82.00	12.00
00610	NH3+NH4-	N TOTAL	MG/L	.0310	.0520	.0280	.0310	.0330
00612	UN-IONZD	NH3-N	MG/L		.002$		.00008$	.0003$
00619	UN-IONZD	NH3-NH3	MG/L		.003$		.00009$	.0004$
00625	TOT KJEL	N	MG/L	.180	.940	.170	.300	.760
00630	NO2&NO3	N-TOTAL	MG/L	1.7400	.3940	.0100	.2560	1.5000
00665	PHOS-TOT		MG/L P	.050K	.180	.050K	.110	.260
00671	PHOS-DIS	ORTHO	MG/L P	.001K	.002	.002	.001K	.001K
31616	FEC COLI	MFM-FCBR	/100ML	10	380	10K	60	330
31679	FECSTREP	MF M-ENT	/100ML	37	150	10	20	420
74041	WQF	SAMPLE	UPDATED	890609	890609	890721	890728	890824
82028	RATIO	FEC COL	FEC STRP	.3$	3$	1$	3$	.8$

2080522
43 27 30.0 111 15 57.0 2
RAINEY CK @ FOREST BOUNDARY
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880430 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

	INITIAL DATE			01/01/01	87/10/13	87/11/16	88/02/29	88/03/14	88/04/18	88/05/02	88/05/16	88/05/31
	INITIAL TIME				1755	1330	1225	1355	1230	1635	1900	1145
	MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00042	ALTITUDE	FEET	AB MSL	5520								
00061	STREAM	FLOW,	INST-CFS		6.8000	10.3000	12.4000	8.0000	89.8000	18.0000	76.0000	39.5000
00076	TURB	TRBIDMTR	HACH FTU		.7	1.0	.7	.8	22.0	8.2	100.0	6.7
00095	CNDUCTVY	AT 25C	MICROMHO		248	306	316	341	211	252	190	253
00116	INTNSVE	SURVEY	IDENT		881601	881601	881601	881601	881601	881601	881601	881601
00403	PH	LAB	SU		8.14							
00530	RESIDUE	TOT NFLT	MG/L		2.00	12.00	4.00	2.00K	30.00		310.00	12.00
00610	NH3+NH4-	N TOTAL	MG/L		.0130	.0430	.0250	.0630	.1050	.0120	.0930	.0050
00625	TOT KJEL	N	MG/L		.230	.090	.240	.140	.470	.150	1.230	.170
00630	NO2&NO3	N-TOTAL	MG/L		.0760	.1680	.1470	.1340	.1360	.0110	.0130	.0360
00665	PHOS-TOT		MG/L P		.050K	.050K	.050	.050K	.100	.050K	.410	.050
00671	PHOS-DIS	ORTHO	MG/L P		.004	.003	.009	.012	.003	.012	.004	.005
31616	FEC COLI	MFM-FCBR	/100ML		50	130	2	1K	10K	10K	10	10K
31679	FECSTREP	MF M-ENT	/100ML		50	10K	67	1	10K	10K	20	10K
74041	WQF	SAMPLE	UPDATED	880527	890216	890216	890216	890216	890309	890309	890309	890301
80154	SUSP SED	CONC	MG/L							12.000		
82028	RATIO	FEC COL	FEC STRP		1$	13$	.03$	1$	1$	1$	.5$	1$

	INITIAL DATE			88/06/13	88/06/27	88/07/11	89/03/08	89/03/20	89/04/04	89/04/17	89/05/01	89/05/16
	INITIAL TIME			1500	1615	1305	1600	1430	1530	1610	1530	1530
	MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT				5.6	7.4	8.1	6.4	8.9	8.5
00011	WATER	TEMP	FAHN				42.1$	45.3$	46.6$	43.5$	48.0$	47.3$
00016	DT FROM	NATURAL	CENT						881601.0			
00061	STREAM	FLOW,	INST-CFS	16.0000	12.4000	10.1000	10.3000	14.5000	11.5000	74.0000		110.0000
00076	TURB	TRBIDMTR	HACH FTU	.7	.5	.3	1.7	2.4	.8	19.0	6.2	
00095	CNDUCTVY	AT 25C	MICROMHO	306	332	378	275	298	272	206	221	
00116	INTNSVE	SURVEY	IDENT	881601	881601	881601	881601	881601	881601	881601	881601	881601
00300	DO		MG/L				12.9	11.7	13.9	12.8		11.1
00301	DO	SATUR	PERCENT				126.8$	117.2$	142.6$	125.4$		114.2$
00400	PH		SU							7.87		7.61
00530	RESIDUE	TOT NFLT	MG/L	8.00	2.00	2.00	10.00	14.00	20.00	88.00	38.00	
00610	NH3+NH4-	N TOTAL	MG/L	.0200	.0630	.0370	.0210	.0340	.0120	.0900	.0780	
00612	UN-IONZD	NH3-N	MG/L							.0009$		
00619	UN-IONZD	NH3-NH3	MG/L							.001$		

(SAMPLE CONTINUED ON NEXT PAGE)

2080522
43 27 30.0 111 15 57.0 2
RAINEY CK @ FOREST BOUNDARY
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880430 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			88/06/13	88/06/27	88/07/11	89/03/08	89/03/20	89/04/04	89/04/17	89/05/01	89/05/16
	INITIAL TIME			1500	1615	1305	1600	1430	1530	1610	1530	1530
	MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00625	TOT KJEL	N	MG/L	.200	.180	.140	.170	.270	.080	.730	.320	
00630	NO2&NO3	N-TOTAL	MG/L	.0250	.0420	.0590	.1100	.1150	.0520	.1510	.0518	
00665	PHOS-TOT		MG/L P	.050K	.050K	.050K	.050K	.050K	.050K	.150	.070	
00671	PHOS-DIS	ORTHO	MG/L P	.002	.001	.001	.011	.001K	.007	.003	.001K	
31616	FEC COLI	MFM-FCBR	/100ML	10K	10K	10	2	1K	1K	10K	10K	1K
31679	FECSTREP	MF M-ENT	/100ML	10K	10	50	31	5	1	10K	10K	2
74041	WQF	SAMPLE	UPDATED	890216	890216	890216	890609	890626	890609	890609	890721	890721
82028	RATIO	FEC COL	FEC STRP	1$	1$	.2$	.06$	.2$	1$	1$	1$	.5$

2080523 13032500
43 21 03.0 111 12 35.0 2
SNAKE R @ PALISADES USGS GAUGE
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
UPPER SNAKE RIVER
21IDSURV 880430 17040104
0000 FEET DEPTH

/TYPA/AMBNT/STREAM

INITIAL DATE			01/01/01	87/10/13	87/11/16	88/02/16	88/02/29	88/03/14	88/03/23	88/04/04	88/04/18
INITIAL TIME				1820	1415	1210	1020	1450	1640	1745	1210
MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00042 ALTITUDE	FEET	AB MSL	5400								
00061 STREAM	FLOW,	INST-CFS		4180.000	887.0000	739.0000	751.0000	744.0000	760.0000	749.0000	2540.000
00076 TURB	TRBIDMTR	HACH FTU		1.4	1.2	1.9	.5	.5	.6	1.2	.9
00095 CNDUCTVY	AT 25C	MICROMHO		251	334	395	367	425	403	387	407
00116 INTNSVE	SURVEY	IDENT		881601	881601	881601	881601	881601	881601	881601	881601
00403 PH	LAB	SU		7.76							
00530 RESIDUE	TOT NFLT	MG/L		2.00K	8.00	2.00K	3.00	2.00K	4.00	2.00	2.00K
00610 NH3+NH4-	N TOTAL	MG/L		.0200	.0250	.0150	.0390	.0120	.0150	.0140	.0170
00625 TOT KJEL	N	MG/L		.290	.160	.030	.060	.140	.100	.120	.190
00630 NO2&NO3	N-TOTAL	MG/L		.0800	.1390	.1340	.1600	.1740	.1870	.2190	.2660
00665 PHOS-TOT		MG/L P		.050K	.050K	.010K	.050K	.050K	.050K	.050K	.050K
00671 PHOS-DIS	ORTHO	MG/L P		.007	.003	.001	.003	.003K	.002	.004	.001K
31616 FEC COLI	MFM-FCBR	/100ML		10K	10K	10K	1K	1K	1K	10K	10K
31679 FECSTREP	MF M-ENT	/100ML		20	10K	10K	1K	4	1K	10	10K
74041 WQF	SAMPLE	UPDATED	880527	890216	890216	890216	890216	890216	890216	890216	890309
82028 RATIO	FEC COL	FEC STRP		.5$	1$	1$	1$	.3$	1$	1$	1$

INITIAL DATE			88/05/02	88/05/16	88/05/31	88/06/13	88/06/27	88/07/11	89/03/08	89/03/20	89/04/04
INITIAL TIME			1700	1930	1115	1530	1630	1245	1645	1540	1615
MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010 WATER	TEMP	CENT							4.1	4.0	4.0
00011 WATER	TEMP	FAHN							39.4$	39.2$	39.2$
00061 STREAM	FLOW,	INST-CFS		9495.000	9945.000	13900.00	12700.00	12900.00	755.0000	774.0000	767.0000
00076 TURB	TRBIDMTR	HACH FTU	1.2	1.1	1.4	.8	10.0	.6	.8	.7	1.6
00095 CNDUCTVY	AT 25C	MICROMHO	429	376	355	335	314	319	346	387	365
00116 INTNSVE	SURVEY	IDENT	881601	881601	881601	881601	881601	881601	881601	881601	881601
00300 DO		MG/L							18.4	16.3	19.2
00301 DO	SATUR	PERCENT							171.1$	151.6$	178.6$
00530 RESIDUE	TOT NFLT	MG/L		4.00	2.00	6.00	2.00	2.00K	2.00	2.00K	14.00
00610 NH3+NH4-	N TOTAL	MG/L	.0100	.0100	.0120	.0170	.0220	.0260	.0200	.0690	.0170
00625 TOT KJEL	N	MG/L	.110	.260	.210	.220	.150	.370	.160	.150	.100
00630 NO2&NO3	N-TOTAL	MG/L	.1970	.1290	.1120	.1030	.0920	.0690	.2790	.2880	.2820
00665 PHOS-TOT		MG/L P	.050K	.050K	.050K	.050K	.050K	.050K	.050K	.050K	.050K
00671 PHOS-DIS	ORTHO	MG/L P	.001K	.002	.002	.001K	.001	.002	.008	.105	.003
31616 FEC COLI	MFM-FCBR	/100ML	10K	10K	10K	10K	10K	30	1K	1K	1K

(SAMPLE CONTINUED ON NEXT PAGE)

2080523 13032500
43 21 03.0 111 12 35.0 2
SNAKE R @ PALISADES USGS GAUGE
16019 IDAHO BONNEVILLE
PACIFIC NORTHWEST 130600
/TYPA/AMBNT/STREAM UPPER SNAKE RIVER
21IDSURV 880430 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			88/05/02	88/05/16	88/05/31	88/06/13	88/06/27	88/07/11	89/03/08	89/03/20	89/04/04
	INITIAL TIME			1700	1930	1115	1530	1630	1245	1645	1540	1615
	MEDIUM			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
31679	FECSTREP	MF M-ENT	/100ML	10K	10K	10K	10	10K	80	2	25	220
74041	WQF	SAMPLE	UPDATED	890309	890309	890216	890301	890816	890301	891120	891120	891120
80154	SUSP SED	CONC	MG/L	4.000								
82028	RATIO	FEC COL	FEC STRP	1$	1$	1$	1$	1$	.4$	.5$	.04$	.005$

	INITIAL DATE			89/04/17	89/05/01	89/05/16
	INITIAL TIME			1630	1600	1615
	MEDIUM			WATER	WATER	WATER
00010	WATER	TEMP	CENT	8.1	5.6	5.6
00011	WATER	TEMP	FAHN	46.6$	42.1$	42.1$
00061	STREAM	FLOW,	INST-CFS	1260.000	7470.000	11000.00
00076	TURB	TRBIDMTR	HACH FTU	1.2	2.3	
00095	CNDUCTVY	AT 25C	MICROMHO	384	365	380
00116	INTNSVE	SURVEY	IDENT	881601	881601	881601
00300	DO		MG/L	15.9		13.0
00301	DO	SATUR	PERCENT	163.2$		126.5$
00400	PH		SU	7.84		6.92
00530	RESIDUE	TOT NFLT	MG/L	24.00	6.00	2.00K
00610	NH3+NH4-	N TOTAL	MG/L	.0760	.0280	.0420
00612	UN-IONZD	NH3-N	MG/L	.0008$		.00005$
00619	UN-IONZD	NH3-NH3	MG/L	.001$		.00006$
00625	TOT KJEL	N	MG/L	.080	.140	.130
00630	NO2&NO3	N-TOTAL	MG/L	.2930	.1360	.2160
00665	PHOS-TOT		MG/L P	.050K	.050K	.050K
00671	PHOS-DIS	ORTHO	MG/L P	.001K	.032	.001K
31616	FEC COLI	MFM-FCBR	/100ML	10K	1K	1K
31679	FECSTREP	MF M-ENT	/100ML	40	1	4
74041	WQF	SAMPLE	UPDATED	891120	891120	891120
82028	RATIO	FEC COL	FEC STRP	.3$	1$	.3$

THAT'S ALL FOLKS

Appendix 2

USGS Data Near Heise

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

	INITIAL DATE			53/01/08	53/02/01	53/03/01	53/03/11	53/03/21	53/04/01	53/04/11	53/04/21	53/05/01
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			53/01/31	53/02/28	53/03/10	53/03/20	53/03/31	53/04/10	53/04/20	53/04/30	53/05/10
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	2522	2341	2235	2279	2468	3075	2824	6750	6511
00080	COLOR	PT-CO	UNITS	2	2	10	7	5	5	5	5	5
00095	CNDUCTVY	AT 25C	MICROMHO	550	572	571	570	557	531	549	420	411
00400	PH		SU	7.80	7.90	7.60	7.80	8.00	8.10	8.10	7.70	7.90
00410	T ALK	CACO3	MG/L	176	184	185	184	180	178	180	151	150
00440	HCO3 ION	HCO3	MG/L	214	224	226	224	220	217	220	184	183
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	248	262	271	268	256	245	256	195	197
00902	NC HARD	CACO3	MG/L	72	78	86	84	76	67	76	44	47
00915	CALCIUM	CA,DISS	MG/L	68.0	72.0	74.0	73.0	68.0	67.0	70.0	55.0	56.0
00925	MGNSIUM	MG,DISS	MG/L	19.0	20.0	21.0	21.0	21.0	19.0	20.0	14.0	14.0
00930	SODIUM	NA,DISS	MG/L	19.00	20.00	19.00	19.00	19.00	18.00	19.00	12.00	12.00
00931	SODIUM	ADSBTION	RATIO	.5	.5	.5	.5	.5	.5	.5	.4	.4
00932	PERCENT	SODIUM	X	14	14	13	13	14	14	14	12	12
00935	PTSSIUM	K,DISS	MG/L	3.00	3.00	2.70	2.70	2.70	2.00	2.30	1.70	1.60
00940	CHLORIDE	TOTAL	MG/L	23	24	26	26	26	24	26	14	12
00945	SULFATE	SO4-TOT	MG/L	80	85	87	84	81	72	75	48	48
00950	FLUORIDE	F,DISS	MG/L	.30	.30	.40	.30	.40	.30	.40	.30	.30
00955	SILICA	DISOLVED	MG/L	11.0	11.0	12.0	12.0	12.0	11.0	9.7	12.0	10.0
01020	BORON	B,DISS	UG/L	110	100		120			100		
46570	CAL HARD	CA MG	MG/L	248$	262$	271$	269$	256$	246$	257$	195$	197$
70300	RESIDUE	DISS-180	C MG/L	338	353	353	352	342	321	333	252	248
70302	DISS SOL	TONS/DAY		2300.00	2230.00	2130.00	2170.00	2280.00	2670.00	2540.00	4590.00	4360.00
70303	DISS SOL	TONS PER	ACRE-FT	.46	.48	.48	.48	.47	.44	.45	.34	.34
71851	NITRATE	DISS-NO3	MG/L	4.8	4.2	1.7	1.4	1.2	1.2	.5	1.8	1.2
71885	IRON	FE	UG/L	20.00	20.00	50.00	60.00	120.00	50.00	50.00	60.00	30.00

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

	INITIAL DATE			53/05/11	53/05/21	53/06/01	53/06/11	53/06/21	53/07/01	53/07/11	53/07/21	53/08/01
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			53/05/20	53/05/31	53/06/10	53/06/20	53/06/30	53/07/10	53/07/20	53/07/31	53/08/07
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	8566	9699	13500	22930	19500	15160	12540	11880	10600
00080	COLOR	PT-CO	UNITS	5	8	8	8	6	7	6	7	5
00095	CNDUCTVY	AT 25C	MICROMHO	381	365	330	311	281	284	292	287	305
00400	PH		SU	7.50	7.60	7.70	7.50	7.40	7.30	7.30	7.40	7.50
00410	T ALK	CACO3	MG/L	139	139	130	135	112	106	107	105	107
00440	HCO3 ION	HCO3	MG/L	170	169	158	164	137	129	131	128	131
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	181	174	164	152	136	130	133	128	134
00902	NC HARD	CACO3	MG/L	42	35	34	17	24	24	26	23	27
00915	CALCIUM	CA,DISS	MG/L	51.0	50.0	46.0	47.0	41.0	38.0	39.0	37.0	39.0
00925	MGNSIUM	MG,DISS	MG/L	13.0	12.0	12.0	8.4	8.1	8.5	8.7	8.7	9.0
00930	SODIUM	NA,DISS	MG/L	11.00	9.10	7.40	5.30	6.70	7.00	8.20	9.60	10.00
00931	SODIUM	ADSBTION	RATIO	.4	.3	.3	.2	.3	.3	.3	.4	.4
00932	PERCENT	SODIUM	%	12	10	9	7	10	10	12	14	14
00935	PTSSIUM	K,DISS	MG/L	1.60	1.60	1.10	1.40	1.70	1.80	1.70	2.40	2.30
00940	CHLORIDE	TOTAL	MG/L	11	10	8	5	6	7	8	9	10
00945	SULFATE	SO4-TOT	MG/L	41	38	32	24	28	30	34	35	36
00950	FLUORIDE	F,DISS	MG/L	.30	.40	.40	.30	.30	.30	.40	.50	.50
00955	SILICA	DISOLVED	MG/L	12.0	10.0	10.0	11.0	12.0	11.0	13.0	14.0	14.0
01020	BORON	B,DISS	UG/L	100			20			40		
46570	CAL HARD	CA MG	MG/L	181$	174$	164$	152$	136$	130$	133$	128$	134$
70300	RESIDUE	DISS-180	C MG/L	229	218	198	188	168	169	177	176	183
70302	DISS SOL	TONS/DAY		5300.00	5710.00	7220.00	11600.00	8850.00	6920.00	5990.00	5650.00	5240.00
70303	DISS SOL	TONS PER	ACRE-FT	.31	.30	.27	.26	.23	.23	.24	.24	.25
71851	NITRATE	DISS-NO3	MG/L	1.4	1.4	1.4	1.4	1.1	1.3	.9	.8	.3
71885	IRON	FE	UG/L	30.00	30.00	40.00	40.00	20.00	20.00	20.00	20.00	20.00

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

	INITIAL DATE			53/08/08	53/08/09	53/08/11	53/08/21	53/09/01	53/09/11	53/09/21	53/10/01	53/10/11
	CP-SPACE OR TIME-STATISTICAL FUNC				CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)				53/08/10	53/08/20	53/08/31	53/09/10	53/09/20	53/09/30	53/10/10	53/10/20
	FINAL TIME-NUMBER OF SAMPLES				C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	6080	10600	9691	8348	7717	7845	6100	3116	2920
00080	COLOR	PT-CO	UNITS		5	7	7	7	9	9	7	7
00095	CNDUCTVY	AT 25C	MICROMHO	417	305	310	323	330	320	352	490	513
00400	PH		SU	7.70	7.50	7.20	7.30	7.30	7.40	7.50	7.60	7.60
00410	T ALK	CACO3	MG/L	147	107	111	112	113	108	120	166	173
00440	HCO3 ION	HCO3	MG/L	179	131	135	136	138	132	146	202	211
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	190	134	136	143	148	138	157	238	250
00902	NC HARD	CACO3	MG/L	43	27	25	31	35	30	37	72	77
00915	CALCIUM	CA,DISS	MG/L		39.0	38.0	41.0	41.0	39.0	43.0	66.0	69.0
00925	MGNSIUM	MG,DISS	MG/L		9.0	10.0	10.0	11.0	10.0	12.0	18.0	19.0
00930	SODIUM	NA,DISS	MG/L		10.00	11.00	11.00	12.00	12.00	12.00	13.00	14.00
00931	SODIUM	ADSBTION	RATIO		.4	.4	.4	.4	.4	.4	.4	.4
00932	PERCENT	SODIUM	%		14	15	14	15	16	14	10	11
00935	PTSSIUM	K,DISS	MG/L		2.30	2.20	2.20	2.20	2.20	2.20	2.20	2.30
00940	CHLORIDE	TOTAL	MG/L		10	9	10	10	10	11	16	17
00945	SULFATE	SO4-TOT	MG/L		36	33	38	40	38	45	72	76
00950	FLUORIDE	F,DISS	MG/L		.50	.60	.60	.60	.60	.60	.30	.30
00955	SILICA	DISOLVED	MG/L		14.0	14.0	14.0	14.0	15.0	13.0	11.0	10.0
01020	BORON	B,DISS	UG/L			120			100			80
46570	CAL HARD	CA MG	MG/L		134$	136$	144$	148$	139$	157$	239$	251$
70300	RESIDUE	DISS-180	C MG/L	254	183	184	191	196	191	208	304	318
70302	DISS SOL	TONS/DAY		4170.00	5240.00	4820.00	4310.00	4080.00	4050.00	3430.00	2560.00	2510.00
70303	DISS SOL	TONS PER	ACRE-FT	.35	.25	.25	.26	.27	.26	.28	.41	.43
71851	NITRATE	DISS-NO3	MG/L		.3	.7	.6	.9	.7	.5	.9	.9
71885	IRON	FE	UG/L		20.00	50.00	30.00	30.00	30.00	30.00	20.00	20.00

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

	INITIAL DATE			53/10/21	53/11/01	53/11/11	53/11/21	53/12/01	53/12/11	53/12/21	54/01/01	54/01/11
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			53/10/31	53/11/10	53/11/20	53/11/30	53/12/10	53/12/20	53/12/31	54/01/10	54/01/20
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	2954	2870	2732	2697	2573	2478	2265	2345	2315
00080	COLOR	PT-CO	UNITS	7	7	5	5	5	4	3	3	3
00095	CNDUCTVY	AT 25C	MICROMHO	514	519	528	534	534	553	580	553	555
00400	PH		SU	7.60	7.60	7.60	7.80	8.10	7.60	7.70	7.80	7.70
00410	T ALK	CACO3	MG/L	176	176	179	176	180	184	190	182	182
00440	HCO3 ION	HCO3	MG/L	214	215	218	214	220	224	232	222	222
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	248	252	258	258	258	262	271	259	262
00902	NC HARD	CACO3	MG/L	72	76	79	82	78	78	81	77	80
00915	CALCIUM	CA,DISS	MG/L	68.0	68.0	69.0	72.0	72.0	72.0	74.0	71.0	72.0
00925	MGNSIUM	MG,DISS	MG/L	19.0	20.0	21.0	19.0	19.0	20.0	21.0	20.0	20.0
00930	SODIUM	NA,DISS	MG/L	14.00	14.00	15.00	15.00	15.00	16.00	17.00	17.00	17.00
00931	SODIUM	ADSBTION	RATIO	.4	.4	.4	.4	.4	.4	.4	.5	.5
00932	PERCENT	SODIUM	%	11	11	11	11	11	12	12	12	12
00935	PTSSIUM	K,DISS	MG/L	2.50	2.50	2.50	2.00	2.10	2.50	2.50	2.50	2.50
00940	CHLORIDE	TOTAL	MG/L	18	18	18	20	21	21	22	20	22
00945	SULFATE	SO4-TOT	MG/L	76	75	79	79	81	80	87	82	83
00950	FLUORIDE	F,DISS	MG/L	.30	.30	.30	.50	.50	.30	.20	.30	.30
00955	SILICA	DISOLVED	MG/L	10.0	9.9	10.0	11.0	11.0	10.0	11.0	11.0	11.0
01020	BORON	B,DISS	UG/L			80			100			80
46570	CAL HARD	CA MG	MG/L	248$	252$	259$	258$	258$	262$	271$	260$	262$
70300	RESIDUE	DISS-180 C	MG/L	320	324	328	332	335	340	358	342	347
70302	DISS SOL	TONS/DAY		2550.00	2510.00	2420.00	2420.00	2330.00	2280.00	2190.00	2170.00	2170.00
70303	DISS SOL	TONS PER	ACRE-FT	.44	.44	.45	.45	.46	.46	.49	.47	.47
71851	NITRATE	DISS-NO3	MG/L	.9	1.0	1.0	.8	.4	1.6	1.5	1.3	1.3
71885	IRON	FE	UG/L	20.00	20.00	30.00	40.00	40.00	30.00	50.00	40.00	40.00

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SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

	INITIAL DATE			54/01/21	54/02/01	54/02/11	54/02/21	54/03/01	54/03/11	54/03/21	54/04/01	54/04/11
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			54/01/31	54/02/10	54/02/20	54/02/28	54/03/10	54/03/20	54/03/31	54/04/10	54/04/20
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	2335	2252	2255	2190	2176	2453	2274	2695	4738
00080	COLOR	PT-CO	UNITS	5	5	7	7	7	12	8	8	10
00095	CNDUCTVY	AT 25C	MICROMHO	553	569	552	556	573	532	553	534	464
00400	PH		SU	7.80	7.90	7.70	7.80	7.90	7.60	7.70	7.70	7.70
00410	T ALK	CACO3	MG/L	180	188	180	181	188	176	179	176	162
00440	HCO3 ION	HCO3	MG/L	220	229	219	221	229	214	218	215	198
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	262	268	259	262	274	250	252	248	216
00902	NC HARD	CACO3	MG/L	82	80	79	81	86	74	73	72	54
00915	CALCIUM	CA,DISS	MG/L	72.0	73.0	71.0	72.0	75.0	69.0	70.0	68.0	60.0
00925	MGNSIUM	MG,DISS	MG/L	20.0	21.0	20.0	20.0	21.0	19.0	19.0	19.0	16.0
00930	SODIUM	NA,DISS	MG/L	17.00	17.00	16.00	17.00	17.00	17.00	18.00	18.00	15.00
00931	SODIUM	ADSBTION	RATIO	.5	.5	.4	.5	.4	.5	.5	.5	.4
00932	PERCENT	SODIUM	%	12	12	12	12	12	13	13	13	13
00935	PTSSIUM	K,DISS	MG/L	2.40	2.50	2.50	2.50	2.50	2.60	2.60	2.60	2.20
00940	CHLORIDE	TOTAL	MG/L	20	22	22	23	24	22	24	23	18
00945	SULFATE	SO4-TOT	MG/L	83	86	83	84	86	76	81	76	58
00950	FLUORIDE	F,DISS	MG/L	.30	.20	.40	.40	.20	.40	.30	.30	.30
00955	SILICA	DISOLVED	MG/L	11.0	11.0	11.0	10.0	11.0	11.0	11.0	10.0	9.3
01020	BORON	B,DISS	UG/L			100			80			60
46570	CAL HARD	CA MG	MG/L	262$	269$	260$	262$	274$	251$	253$	248$	216$
70300	RESIDUE	DISS-180	C MG/L	339	352	342	342	354	330	340	326	281
70302	DISS SOL	TONS/DAY		2140.00	2140.00	2080.00	2020.00	2080.00	2190.00	2090.00	2370.00	3600.00
70303	DISS SOL	TONS PER	ACRE-FT	.46	.48	.47	.47	.48	.45	.46	.44	.38
71851	NITRATE	DISS-NO3	MG/L	.7	1.2	1.3	1.3	1.1	1.3	.9	.8	.7
71885	IRON	FE	UG/L	20.00	20.00	20.00	20.00	20.00	30.00	50.00	80.00	50.00

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SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

	INITIAL DATE			54/04/21	54/05/01	54/05/11	54/05/21	54/06/01	54/06/11	54/06/21	54/07/01	54/07/11
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			54/04/30	54/05/10	54/05/20	54/05/31	54/06/10	54/06/20	54/06/30	54/07/10	54/07/20
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	7865	9423	18350	21780	12390	11270	20980	17170	13900
00080	COLOR	PT-CO	UNITS	10	10	15	15	15	7	8	7	9
00095	CNDUCTVY	AT 25C	MICROMHO	398	371	300	270	312	336	279	268	282
00400	PH		SU	7.60	7.80	7.60	7.70	7.60	8.00	7.70	7.40	7.50
00410	T ALK	CACO3	MG/L	146	141	121	108	118	132	112	104	104
00440	HCO3 ION	HCO3	MG/L	178	172	147	132	144	161	137	127	127
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	188	177	147	128	148	159	134	126	128
00902	NC HARD	CACO3	MG/L	42	36	26	20	30	27	22	22	24
00915	CALCIUM	CA,DISS	MG/L	54.0	51.0	43.0	37.0	41.0	44.0	39.0	36.0	36.0
00925	MGNSIUM	MG,DISS	MG/L	13.0	12.0	9.7	8.8	11.0	12.0	9.0	8.8	9.3
00930	SODIUM	NA,DISS	MG/L	11.00	9.30	5.70	6.10	7.70	8.20	6.70	7.00	7.60
00931	SODIUM	ADSRTION	RATIO	.3	.3	.2	.2	.3	.3	.3	.3	.3
00932	PERCENT	SODIUM	%	11	10	8	9	10	10	10	11	11
00935	PTSSIUM	K,DISS	MG/L	1.80	1.50	1.20	1.40	1.50	1.30	1.50	1.70	1.70
00940	CHLORIDE	TOTAL	MG/L	11	8	5	5	7	7	5	5	7
00945	SULFATE	SO4-TOT	MG/L	45	40	27	24	33	35	25	26	28
00950	FLUORIDE	F,DISS	MG/L	.40	.30	.40	.30	.30	.10	.10	.20	.30
00955	SILICA	DISOLVED	MG/L	12.0	11.0	10.0	10.0	11.0	11.0	12.0	11.0	11.0
01020	BORON	B,DISS	UG/L			40			40			50
46570	CAL HARD	CA MG	MG/L	188$	177$	147$	129$	148$	159$	134$	126$	128$
70300	RESIDUE	DISS-180	C MG/L	243	226	180	166	189	202	168	161	168
70302	DISS SOL	TONS/DAY		5160.00	5750.00	8920.00	9760.00	6320.00	6150.00	9520.00	7460.00	6310.00
70303	DISS SOL	TONS PER	ACRE-FT	.33	.31	.24	.23	.26	.27	.23	.22	.23
71851	NITRATE	DISS-NO3	MG/L	1.8	1.2	1.7	1.0	.8	.8	1.0	.8	.8
71885	IRON	FE	UG/L	50.00	50.00	70.00	80.00	50.00	30.00	40.00	30.00	30.00

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SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

	INITIAL DATE			54/07/21	54/08/01	54/08/11	54/08/21	54/09/01	54/09/11	54/09/21	54/10/01	54/10/11
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			54/07/31	54/08/10	54/08/20	54/08/31	54/09/10	54/09/20	54/09/30	54/10/10	54/10/20
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	11570	10650	8923	8138	9009	7840	5173	3218	3117
00080	COLOR	PT-CO	UNITS	7	7	6	7	8	3	3		
00095	CNDUCTVY	AT 25C	MICROMHO	291	295	312	318	302	318	389	497	504
00400	PH		SU	7.50	7.40	7.40	7.50	7.40	7.30	7.20	7.60	7.70
00410	T ALK	CACO3	MG/L	107	103	110	110	103	109	131	166	171
00440	HCO3 ION	HCO3	MG/L	130	126	134	134	126	133	160	202	209
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	132	133	148	145	136	136	173	234	250
00902	NC HARD	CACO3	MG/L	25	30	38	35	33	27	42	68	79
00915	CALCIUM	CA,DISS	MG/L	37.0	37.0	41.0	40.0	38.0	38.0	48.0	64.0	69.0
00925	MGNSIUM	MG,DISS	MG/L	9.6	9.9	11.0	11.0	10.0	9.9	13.0	18.0	19.0
00930	SODIUM	NA,DISS	MG/L	8.70	9.50	10.00	10.00	11.00	12.00	13.00	14.00	14.00
00931	SODIUM	ADSBTION	RATIO	.3	.4	.4	.4	.4	.4	.4	.4	.4
00932	PERCENT	SODIUM	%	12	13	13	13	15	16	14	11	11
00935	PTSSIUM	K,DISS	MG/L	1.80	2.30	1.80	1.90	1.90	2.00	2.00	2.00	2.00
00940	CHLORIDE	TOTAL	MG/L	7	7	8	9	9	12	14	18	18
00945	SULFATE	SO4-TOT	MG/L	32	34	38	39	36	37	52	74	80
00950	FLUORIDE	F,DISS	MG/L	.40	.50	.50	.60	.60	.70	.60	.40	
00955	SILICA	DISOLVED	MG/L	11.0	14.0	13.0	14.0	14.0	15.0	13.0	11.0	10.0
01020	BORON	B,DISS	UG/L			70			120			60
46570	CAL HARD	CA MG	MG/L	132$	133$	148$	145$	136$	136$	173$	234$	251$
70300	RESIDUE	DISS-180	C MG/L	176	176	188	190	179	191	236	305	312
70302	DISS SOL	TONS/DAY		5500.00	5060.00	4530.00	4180.00	4350.00	4040.00	3300.00	2650.00	2630.00
70303	DISS SOL	TONS PER	ACRE-FT	.24	.24	.26	.26	.24	.26	.32	.41	.42
71851	NITRATE	DISS-NO3	MG/L	.4	.5	.5	.5	.7	.2	.6	.6	.9
71885	IRON	FE	UG/L	30.00	30.00	30.00	30.00	30.00	20.00	20.00	20.00	

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SNAKE RIVER NR HEISE,ID
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112WRD 17040104
0000 FEET DEPTH

INITIAL DATE			54/10/21	54/11/01	54/11/11	54/11/21	54/12/01	54/12/11	54/12/21	55/01/01	55/01/11
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			54/10/31	54/11/10	54/11/20	54/11/30	54/12/10	54/12/20	54/12/31	55/01/10	55/01/20
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	3063	2850	2873	2664	2507	2276	2192	2150	2184
00095	CNDUCTVY	AT 25C	MICROMHO	504	515	518	533	554	576	583	570	587
00400	PH		SU	7.70	7.70	7.70	7.70	7.90	7.80	8.00	7.90	7.60
00410	T ALK	CACO3	MG/L	170	176	176	176	179	185	187	184	186
00440	HCO3 ION	HCO3	MG/L	207	214	215	215	218	226	228	224	227
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	248	255	258	264	255	269	274	266	268
00902	NC HARD	CACO3	MG/L	78	79	82	88	76	84	87	82	82
00915	CALCIUM	CA,DISS	MG/L	70.0	71.0	72.0	73.0	71.0	75.0	77.0	74.0	76.0
00925	MGNSIUM	MG,DISS	MG/L	18.0	19.0	19.0	20.0	19.0	20.0	20.0	20.0	19.0
00930	SODIUM	NA,DISS	MG/L	14.00	14.00	14.00	14.00	17.00	17.00	18.00	18.00	18.00
00931	SODIUM	ADSBTION	RATIO	.4	.4	.4	.4	.5	.5	.5	.5	.5
00932	PERCENT	SODIUM	%	11	11	10	10	12	12	12	13	13
00935	PTSSIUM	K,DISS	MG/L	2.00	2.00	2.10	2.10	2.80	2.80	2.80	2.90	3.30
00940	CHLORIDE	TOTAL	MG/L	19	20	20	20	20	22	22	22	22
00945	SULFATE	SO4-TOT	MG/L	81	81	80	83	83	85	92	87	86
00955	SILICA	DISOLVED	MG/L	9.6	10.0	12.0	9.5	12.0	12.0	12.0	11.0	11.0
01020	BORON	B,DISS	UG/L			100			110			50
46570	CAL HARD	CA MG	MG/L	249$	256$	258$	265$	256$	270$	275$	267$	268$
70300	RESIDUE	DISS-180	C MG/L	312	320	320	336	342	356	369	356	359
70302	DISS SOL.	TONS/DAY		2580.00	2460.00	2480.00	2420.00	2320.00	2190.00	2180.00	2070.00	2120.00
70303	DISS SOL	TONS PER	ACRE-FT	.42	.44	.44	.46	.47	.48	.50	.48	.49
71851	NITRATE	DISS-NO3	MG/L	.8	.9	1.0	.7	.9	1.0	1.2	1.0	1.2

INITIAL DATE			55/01/21	55/02/01	55/02/11	55/02/20	55/03/01	55/03/11	55/03/21	55/04/01	55/04/11
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			55/01/31	55/02/10	55/02/19	55/02/28	55/03/10	55/03/20	55/03/31	55/04/10	55/04/20
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	2141	2111	2159	2176	2152	2193	2084	2204	3223
00095	CNDUCTVY	AT 25C	MICROMHO	565	567	561	568	569	554	561	540	513
00400	PH		SU	7.80	7.90	8.10	7.90	7.80	8.00	7.70	7.90	7.70
00410	T ALK	CACO3	MG/L	180	182	179	184	182	179	179	171	168

(SAMPLE CONTINUED ON NEXT PAGE)

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SNAKE RIVER NR HEISE,ID
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112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			55/01/21	55/02/01	55/02/11	55/02/20	55/03/01	55/03/11	55/03/21	55/04/01	55/04/11
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			55/01/31	55/02/10	55/02/19	55/02/28	55/03/10	55/03/20	55/03/31	55/04/10	55/04/20
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00440	HCO3 ION	HCO3	MG/L	219	222	218	224	222	218	218	208	205
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	262	276	276	276	274	266	266	252	238
00902	NC HARD	CACO3	MG/L	82	94	97	92	92	87	87	81	70
00915	CALCIUM	CA,DISS	MG/L	74.0	76.0	76.0	76.0	75.0	74.0	72.0	68.0	66.0
00925	MGNSIUM	MG,DISS	MG/L	19.0	21.0	21.0	21.0	21.0	20.0	21.0	20.0	18.0
00930	SODIUM	NA,DISS	MG/L	17.00	17.00	17.00	17.00	17.00	17.00	18.00	18.00	17.00
00931	SODIUM	ADSBTION	RATIO	.5	.4	.4	.4	.4	.5	.5	.5	.5
00932	PERCENT	SODIUM	%	12	12	12	12	12	12	13	13	13
00935	PTSSIUM	K,DISS	MG/L	2.50	2.40	2.40	2.40	2.40	2.40	2.10	2.10	2.10
00940	CHLORIDE	TOTAL	MG/L	20	22	23	22	23	23	24	24	22
00945	SULFATE	SO4-TOT	MG/L	86	93	98	98	92	91	88	83	71
00955	SILICA	DISOLVED	MG/L	11.0	13.0	13.0	13.0	12.0	12.0	13.0	12.0	9.0
01020	BORON	B,DISS	UG/L			30			80			50
46570	CAL HARD	CA MG	MG/L	263$	276$	276$	276$	274$	267$	266$	252$	239$
70300	RESIDUE	DISS-180 C	MG/L	349	362	363	364	364	353	348	332	311
70302	DISS SOL	TONS/DAY		2020.00	2060.00	2120.00	2140.00	2120.00	2090.00	1960.00	1980.00	2710.00
70303	DISS SOL	TONS PER	ACRE-FT	.47	.49	.49	.50	.50	.48	.47	.45	.42
71851	NITRATE	DISS-NO3	MG/L	.8	1.1	1.1	.9	1.0	.7	1.0	.9	1.1

INITIAL DATE			55/04/21	55/05/01	55/05/11	55/05/21	55/06/01	55/06/11	55/06/21	55/07/01	55/07/11
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			55/04/30	55/05/10	55/05/20	55/05/31	55/06/10	55/06/20	55/06/30	55/07/10	55/07/20
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	3304	6026	8735	10830	11400	16750	14990	11510	12350
00095	CNDUCTVY	AT 25C	MICROMHO	510	430	359	328	333	278	269	290	272
00400	PH		SU	7.70	7.80	7.80	7.60	7.60	7.60	7.60	7.60	7.30
00410	T ALK	CACO3	MG/L	171	154	136	125	130	110	102	102	97
00440	HCO3 ION	HCO3	MG/L	209	188	166	152	158	134	124	124	118
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	240	206	174	159	164	131	128	133	118
00902	NC HARD	CACO3	MG/L	69	52	38	34	34	21	26	31	21
00915	CALCIUM	CA,DISS	MG/L	68.0	58.0	50.0	44.0	46.0	37.0	36.0	37.0	33.0
00925	MGNSIUM	MG,DISS	MG/L	17.0	15.0	12.0	12.0	12.0	9.4	9.3	9.9	8.7
00930	SODIUM	NA,DISS	MG/L	17.00	6.70	8.10	6.90	5.40	6.80	5.90	6.70	9.60

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			55/04/21	55/05/01	55/05/11	55/05/21	55/06/01	55/06/11	55/06/21	55/07/01	55/07/11
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			55/04/30	55/05/10	55/05/20	55/05/31	55/06/10	55/06/20	55/06/30	55/07/10	55/07/20
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00931	SODIUM	ADSBTION	RATIO	.5	.2	.3	.2	.2	.3	.2	.3	.4
00932	PERCENT	SODIUM	%	13	7	9	9	7	10	9	10	15
00935	PTSSIUM	K,DISS	MG/L	1.90	.70	.70	.70	.70	1.70	1.70	1.70	2.00
00940	CHLORIDE	TOTAL	MG/L	24	7	8	7	7	5	6	8	8
00945	SULFATE	SO4-TOT	MG/L	73	55	41	36	35	27	29	32	27
00955	SILICA	DISOLVED	MG/L	8.8	14.0	13.0	12.0	12.0	13.0	12.0	15.0	16.0
01020	BORON	B,DISS	UG/L			70			40			110
46570	CAL HARD	CA MG	MG/L	240$	207$	174$	159$	164$	131$	128$	133$	118$
70300	RESIDUE	DISS-180	C MG/L	310	268	224	203	204	169	163	176	162
70302	DISS SOL	TONS/DAY		2770.00	4360.00	5280.00	5940.00	6280.00	7640.00	6600.00	5470.00	5400.00
70303	DISS SOL	TONS PER	ACRE-FT	.42	.36	.30	.28	.28	.23	.22	.24	.22
71851	NITRATE	DISS-NO3	MG/L	.8	1.7	1.0	1.0	.9	1.1	1.0	.7	1.5

	INITIAL DATE			55/07/21	55/08/01	55/08/11	55/08/21	55/09/01	55/09/11	55/09/21	55/10/01	55/10/11
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			55/07/31	55/08/10	55/08/20	55/08/31	55/09/10	55/09/20	55/09/30	55/10/10	55/10/20
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	12010	10550	8333	7557	7544	6852	4425	2863	2800
00095	CNDUCTVY	AT 25C	MICROMHO	275	277	314	322	315	323	409	503	482
00400	PH		SU	7.50	7.30	7.70	7.60	7.50	7.50	7.70	7.80	7.70
00410	T ALK	CACO3	MG/L	98	95	107	108	104	107	135	167	154
00440	HCO3 ION	HCO3	MG/L	120	116	130	132	127	130	165	204	188
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	117	117	129	133	128	133	176	245	228
00902	NC HARD	CACO3	MG/L	19	22	22	25	24	26	41	78	74
00915	CALCIUM	CA,DISS	MG/L	33.0	33.0	37.0	38.0	37.0	38.0	49.0	67.0	60.0
00925	MGNSIUM	MG,DISS	MG/L	8.4	8.5	8.9	9.4	8.8	9.2	13.0	19.0	19.0
00930	SODIUM	NA,DISS	MG/L	9.60	10.00	12.00	13.00	14.00	14.00	15.00	14.00	14.00
00931	SODIUM	ADSBTION	RATIO	.4	.4	.5	.5	.5	.5	.5	.4	.4
00932	PERCENT	SODIUM	%	15	15	17	17	19	18	15	11	12
00935	PTSSIUM	K,DISS	MG/L	2.00	2.00	2.20	2.20	2.20	2.20	2.20	2.80	2.50
00940	CHLORIDE	TOTAL	MG/L	8	8	10	10	10	11	13	17	17
00945	SULFATE	SO4-TOT	MG/L	28	29	34	36	39	37	51	74	74
00955	SILICA	DISOLVED	MG/L	17.0	16.0	16.0	16.0	16.0	20.0	14.0	13.0	13.0
01020	BORON	B,DISS	UG/L			100			100			50

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE		55/07/21	55/08/01	55/08/11	55/08/21	55/09/01	55/09/11	55/09/21	55/10/01	55/10/11
CP-SPACE OR TIME-STATISTICAL FUNC		CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)		55/07/31	55/08/10	55/08/20	55/08/31	55/09/10	55/09/20	55/09/30	55/10/10	55/10/20
FINAL TIME-NUMBER OF SAMPLES		C	C	C	C	C	C	C	C	C
46570 CAL HARD	CA MG MG/L	117$	117$	129$	134$	129$	133$	176$	246$	228$
70300 RESIDUE	DISS-180 C MG/L	166	167	183	191	190	193	245	310	294
70302 DISS SOL	TONS/DAY	5380.00	4760.00	4120.00	3900.00	3870.00	3570.00	2930.00	2400.00	2220.00
70303 DISS SOL	TONS PER ACRE-FT	.23	.23	.25	.26	.26	.26	.33	.42	.40
71851 NITRATE	DISS-NO3 MG/L	1.3	1.3	1.2	1.2	1.2	1.0	1.2	1.7	1.2

INITIAL DATE		55/10/21	55/11/01	55/11/11	55/11/21	55/12/01	55/12/11	55/12/21	56/01/01	56/01/11
CP-SPACE OR TIME-STATISTICAL FUNC		CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)		55/10/31	55/11/10	55/11/20	55/11/30	55/12/10	55/12/20	55/12/31	56/01/10	56/01/20
FINAL TIME-NUMBER OF SAMPLES		C	C	C	C	C	C	C	C	C
00060 STREAM	FLOW CFS	2795	2679	2612	2858	2502	2447	4335	3005	2768
00095 CNDUCTVY	AT 25C MICROMHO	484	505	533	509	533	562	478	523	438
00400 PH	SU	7.70	7.60	7.60	7.80	7.60	7.60	7.60	7.90	8.00
00410 T ALK	CACO3 MG/L	154	162	171	167	172	181	160	179	125
00440 HCO3 ION	HCO3 MG/L	188	198	208	203	210	221	195	218	153
00445 CO3 ION	CO3 MG/L	0	0	0	0	0	0	0	0	0
00900 TOT HARD	CACO3 MG/L	230	238	252	245	254	268	224	252	191
00902 NC HARD	CACO3 MG/L	76	76	81	78	82	87	64	73	65
00915 CALCIUM	CA,DISS MG/L	61.0	64.0	68.0	67.0	69.0	73.0	62.0	70.0	47.0
00925 MGNSIUM	MG,DISS MG/L	19.0	19.0	20.0	19.0	20.0	21.0	17.0	19.0	18.0
00930 SODIUM	NA,DISS MG/L	14.00	14.00	15.00	15.00	16.00	16.00	14.00	15.00	17.00
00931 SODIUM	ADSBTION RATIO	.4	.4	.4	.4	.4	.4	.4	.4	.5
00932 PERCENT	SODIUM %	12	11	11	12	12	11	12	11	16
00935 PTSSIUM	K,DISS MG/L	2.50	2.50	2.10	2.10	2.10	2.40	2.40	1.90	2.00
00940 CHLORIDE	TOTAL MG/L	17	18	20	19	20	22	17	18	19
00945 SULFATE	SO4-TOT MG/L	75	77	81	73	78	84	63	73	72
00955 SILICA	DISOLVED MG/L	13.0	13.0	12.0	12.0	12.0	13.0	12.0	11.0	13.0
01020 BORON	B,DISS UG/L			70			50			60
46570 CAL HARD	CA MG MG/L	231$	238$	252$	246$	255$	269$	225$	253$	191$
70300 RESIDUE	DISS-180 C MG/L	298	307	329	309	330	349	291	325	264
70302 DISS SOL	TONS/DAY	2250.00	2220.00	2320.00	2390.00	2230.00	2310.00	3410.00	2640.00	1970.00
70303 DISS SOL	TONS PER ACRE-FT	.41	.42	.45	.42	.45	.47	.40	.44	.36
71851 NITRATE	DISS-NO3 MG/L	1.4	1.4	1.6	1.5	1.4	1.5	1.4	1.1	1.5

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

INITIAL DATE			56/01/21	56/02/01	56/02/11	56/02/21	56/03/01	56/03/11	56/03/21	56/04/01	56/04/11
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			56/01/31	56/02/10	56/02/20	56/02/29	56/03/10	56/03/20	56/03/31	56/04/10	56/04/20
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	2539	2127	2150	2324	2351	3156	5981	7193	11380
00095	CNDUCTVY	AT 25C	MICROMHO	493	520	519	523	514	476	372	361	350
00400	PH		SU	7.90	8.00	7.80	7.80	7.80	7.80	7.80	7.60	7.70
00410	T ALK	CACO3	MG/L	148	144	158	166	157	159	127	125	130
00440	HCO3 ION	HCO3	MG/L	180	176	193	202	191	194	155	152	159
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	220	226	234	240	230	218	164	155	158
00902	NC HARD	CACO3	MG/L	72	82	76	74	73	59	37	30	28
00915	CALCIUM	CA,DISS	MG/L	57.0	58.0	61.0	65.0	61.0	61.0	46.0	44.0	45.0
00925	MGNSIUM	MG,DISS	MG/L	19.0	20.0	20.0	19.0	19.0	16.0	12.0	11.0	11.0
00930	SODIUM	NA,DISS	MG/L	18.00	20.00	17.00	17.00	17.00	16.00	13.00	14.00	12.00
00931	SODIUM	ADSBTION	RATIO	.5	.6	.5	.5	.5	.5	.4	.5	.4
00932	PERCENT	SODIUM	%	15	16	13	13	14	14	14	16	14
00935	PTSSIUM	K,DISS	MG/L	2.10	2.50	2.30	2.30	2.30	2.20	2.20	2.00	2.00
00940	CHLORIDE	TOTAL	MG/L	22	24	20	20	22	18	13	14	11
00945	SULFATE	SO4-TOT	MG/L	77	88	81	77	79	66	43	39	34
00955	SILICA	DISOLVED	MG/L	11.0	12.0	12.0	12.0	11.0	14.0	14.0	14.0	14.0
01020	BORON	B,DISS	UG/L			50			60			60
46570	CAL HARD	CA MG	MG/L	221$	227$	235$	241$	231$	218$	164$	155$	158$
70300	RESIDUE	DISS-180 C	MG/L	294	316	312	317	312	289	223	213	209
70302	DISS SOL	TONS/DAY		2020.00	1820.00	1810.00	1990.00	1980.00	2460.00	3600.00	4140.00	6420.00
70303	DISS SOL	TONS PER	ACRE-FT	.40	.43	.42	.43	.42	.39	.30	.29	.28
71851	NITRATE	DISS-NO3	MG/L	1.2	1.2	1.4	1.3	1.5	1.4	1.5	.9	1.5

INITIAL DATE			56/04/21	56/05/01	56/05/11	56/05/21	56/06/01	56/06/11	56/06/21	56/07/01	56/07/11
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			56/04/30	56/05/10	56/05/20	56/05/31	56/06/10	56/06/20	56/06/30	56/07/10	56/07/20
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	14840	15480	19830	29120	31910	28310	18810	16090	13400
00095	CNDUCTVY	AT 25C	MICROMHO	364	358	320	305	276	271	298	298	304
00400	PH		SU	7.90	7.70	7.80	7.50	7.60	7.60	7.60	7.30	7.30
00410	T ALK	CACO3	MG/L	154	145	129	130	118	112	118	108	110

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			56/04/21	56/05/01	56/05/11	56/05/21	56/06/01	56/06/11	56/06/21	56/07/01	56/07/11
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			56/04/30	56/05/10	56/05/20	56/05/31	56/06/10	56/06/20	56/06/30	56/07/10	56/07/20
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00440	HCO3 ION	HCO3	MG/L	188	177	157	158	144	136	144	132	134
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	172	168	146	146	132	130	140	136	136
00902	NC HARD	CACO3	MG/L	18	23	17	16	14	18	22	28	26
00915	CALCIUM	CA,DISS	MG/L	51.0	50.0	44.0	46.0	39.0	38.0	41.0	39.0	39.0
00925	MGNSIUM	MG,DISS	MG/L	11.0	11.0	8.8	7.8	8.3	8.8	9.2	9.2	9.2
00930	SODIUM	NA,DISS	MG/L	9.00	9.00	9.00	6.00	5.80	5.60	6.50	7.00	7.60
00931	SODIUM	ADSBTION	RATIO	.3	.3	.3	.2	.2	.2	.2	.3	.3
00932	PERCENT	SODIUM	%	10	10	12	8	9	8	9	10	11
00935	PTSSIUM	K,DISS	MG/L	1.50	1.80	1.50	.90	1.20	1.20	1.30	2.00	2.00
00940	CHLORIDE	TOTAL	MG/L	8	8	7	5	4	5	6	6	7
00945	SULFATE	SO4-TOT	MG/L	30	30	25	20	19	21	28	28	33
00955	SILICA	DISOLVED	MG/L	14.0	13.0	13.0	9.2	10.0	10.0	10.0	11.0	11.0
01020	BORON	B,DISS	UG/L			90			40			60
46570	CAL HARD	CA MG	MG/L	173$	170$	146$	147$	132$	131$	140$	135$	135$
70300	RESIDUE	DISS-180	C MG/L	222	216	193	179	164	163	177	181	183
70302	DISS SOL	TONS/DAY		8900.00	9030.00	10300.00	14100.00	14100.00	12500.00	8990.00	7860.00	6620.00
70303	DISS SOL	TONS PER	ACRE-FT	.30	.29	.26	.24	.22	.22	.24	.25	.25
71851	NITRATE	DISS-NO3	MG/L	1.3	.9	.9	.9	.8	.8	1.2	2.8	1.7

	INITIAL DATE			56/07/21	56/08/01	56/08/11	56/08/21	56/09/01	56/09/11	56/09/21	56/10/01	56/10/11
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			56/07/31	56/08/10	56/08/20	56/08/31	56/09/10	56/09/20	56/09/30	56/10/10	56/10/20
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	12480	10430	9274	9345	8950	7358	5913	3590	3476
00095	CNDUCTVY	AT 25C	MICROMHO	296	315	322	313	315	347	378	501	498
00400	PH		SU	7.20	7.30	7.50	7.30	7.30	7.60	7.70	7.90	7.90
00410	T ALK	CACO3	MG/L	105	113	115	107	108	120	130	167	162
00440	HCO3 ION	HCO3	MG/L	128	138	140	130	132	146	158	204	198
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	132	144	142	136	138	156	170	234	234
00902	NC HARD	CACO3	MG/L	27	31	27	29	30	36	40	67	72
00915	CALCIUM	CA,DISS	MG/L	38.0	41.0	44.0	42.0	40.0	46.0	51.0	67.0	66.0
00925	MGNSIUM	MG,DISS	MG/L	8.8	10.0	7.8	7.8	9.2	9.7	11.0	16.0	17.0
00930	SODIUM	NA,DISS	MG/L	8.10	10.00	10.00	10.00	11.00	11.00	12.00	14.00	14.00

(SAMPLE CONTINUED ON NEXT PAGE)

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SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			56/07/21	56/08/01	56/08/11	56/08/21	56/09/01	56/09/11	56/09/21	56/10/01	56/10/11
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			56/07/31	56/08/10	56/08/20	56/08/31	56/09/10	56/09/20	56/09/30	56/10/10	56/10/20
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00931	SODIUM	ADSBTION	RATIO	.3	.4	.4	.4	.4	.4	.4	.4	.4
00932	PERCENT	SODIUM	%	12	13	13	13	14	13	13	11	11
00935	PTSSIUM	K,DISS	MG/L	2.00	2.70	2.70	2.70	2.70	2.70	2.70	2.50	2.50
00940	CHLORIDE	TOTAL	MG/L	7	7	8	9	9	10	12	18	18
00945	SULFATE	SO4-TOT	MG/L	33	37	38	37	37	43	50	74	74
00955	SILICA	DISOLVED	MG/L	12.0	13.0	13.0	14.0	13.0	13.0	12.0	11.0	11.0
01020	BORON	B,DISS	UG/L			50			70			40
46570	CAL HARD	CA MG	MG/L	131$	144$	142$	137$	138$	155$	173$	233$	235$
70300	RESIDUE	DISS-180 C	MG/L	184	198	204	192	198	220	234	308	307
70302	DISS SOL	TONS/DAY		6200.00	5580.00	5110.00	4850.00	4790.00	4370.00	3740.00	2990.00	2880.00
70303	DISS SOL	TONS PER	ACRE-FT	.25	.27	.28	.26	.27	.30	.32	.42	.42
71851	NITRATE	DISS-NO3	MG/L	1.4	1.5	.8	1.0	.7	.9	.5	1.0	1.0

INITIAL DATE			56/10/21	56/11/01	56/11/11	56/11/21	56/12/01	56/12/11	56/12/21	57/01/01	57/01/11
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			56/10/31	56/11/10	56/11/20	56/11/30	56/12/10	56/12/20	56/12/31	57/01/10	57/01/20
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	3461	1334	1731	2007	2328	2149	2062	2029	1913
00095	CNDUCTVY	AT 25C	MICROMHO	502	609	610	479	404	400	421	408	431
00400	PH		SU	7.80	7.90	7.80	7.70	7.70	7.60	7.70	7.70	7.60
00410	T ALK	CACO3	MG/L	166	180	192	154	131	130	136	136	139
00440	HCO3 ION	HCO3	MG/L	202	220	234	188	160	159	166	166	170
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	235	266	274	211	169	170	178	177	186
00902	NC HARD	CACO3	MG/L	69	86	82	57	38	40	42	41	47
00915	CALCIUM	CA,DISS	MG/L	66.0	73.0	76.0	60.0	49.0	49.0	51.0	51.0	55.0
00925	MGNSIUM	MG,DISS	MG/L	17.0	20.0	20.0	15.0	11.0	12.0	12.0	12.0	12.0
00930	SODIUM	NA,DISS	MG/L	14.00	25.00	23.00	18.00	16.00	16.00	16.00	17.00	17.00
00931	SODIUM	ADSBTION	RATIO	.4	.7	.6	.5	.5	.5	.5	.6	.5
00932	PERCENT	SODIUM	%	11	17	15	15	17	17	16	17	16
00935	PTSSIUM	K,DISS	MG/L	2.50	2.90	2.90	2.90	2.60	2.60	2.60	2.40	2.40
00940	CHLORIDE	TOTAL	MG/L	19	36	34	22	20	20	22	19	21
00945	SULFATE	SO4-TOT	MG/L	74	92	88	64	48	48	50	52	53
00955	SILICA	DISOLVED	MG/L	11.0	11.0	11.0	12.0	14.0	13.0	14.0	13.0	13.0
01020	BORON	B,DISS	UG/L			60			60			90

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE		56/10/21	56/11/01	56/11/11	56/11/21	56/12/01	56/12/11	56/12/21	57/01/01	57/01/11
CP-SPACE OR TIME-STATISTICAL FUNC		CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)		56/10/31	56/11/10	56/11/20	56/11/30	56/12/10	56/12/20	56/12/31	57/01/10	57/01/20
FINAL TIME-NUMBER OF SAMPLES		C	C	C	C	C	C	C	C	C
46570 CAL HARD	CA MG MG/L	235$	265$	272$	212$	168$	172$	177$	177$	187$
70300 RESIDUE	DISS-180 C MG/L	306	375	378	294	248	244	258	251	268
70302 DISS SOL	TONS/DAY	2860.00	1350.00	1770.00	1590.00	1560.00	1420.00	1440.00	1380.00	1390.00
70303 DISS SOL	TONS PER ACRE-FT	.42	.51	.51	.40	.34	.33	.35	.34	.36
71851 NITRATE	DISS-NO3 MG/L	1.1	.9	1.2	1.0	.7	.7	.2	.7	1.5

INITIAL DATE		57/01/21	57/02/01	57/02/11	57/02/21	57/03/01	57/03/11	57/03/21	57/04/01	57/04/11
CP-SPACE OR TIME-STATISTICAL FUNC		CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)		57/01/31	57/02/10	57/02/20	57/02/28	57/03/10	57/03/20	57/03/31	57/04/10	57/04/20
FINAL TIME-NUMBER OF SAMPLES		C	C	C	C	C	C	C	C	C
00060 STREAM	FLOW CFS	2019	2028	2059	2134	2110	3963	4981	4070	5410
00095 CNDUCTVY	AT 25C MICROMHO	430	438	451	450	479	450	429	436	433
00400 PH	SU	7.70	7.30	7.40	7.30	7.70	7.40	7.00	7.40	7.10
00410 T ALK	CACO3 MG/L	144	141	149	148	161	149	144	147	147
00440 HCO3 ION	HCO3 MG/L	176	172	182	180	196	182	176	179	179
00445 CO3 ION	CO3 MG/L	0	0	0	0	0	0	0	0	0
00900 TOT HARD	CACO3 MG/L	187	193	203	203	220	206	195	200	198
00902 NC HARD	CACO3 MG/L	43	52	54	55	59	57	51	53	51
00915 CALCIUM	CA,DISS MG/L	55.0	58.0	59.0	59.0	63.0	61.0	58.0	56.0	57.0
00925 MGNSIUM	MG,DISS MG/L	12.0	12.0	14.0	14.0	15.0	13.0	12.0	15.0	14.0
00930 SODIUM	NA,DISS MG/L	18.00	16.00	16.00	16.00	16.00	16.00	14.00	14.00	13.00
00931 SODIUM	ADSBTION RATIO	.6	.5	.5	.5	.5	.5	.4	.4	.4
00932 PERCENT	SODIUM %	17	15	14	14	14	14	13	13	12
00935 PTSSIUM	K,DISS MG/L	2.40	2.40	2.40	2.40	2.40	2.40	2.20	2.20	2.20
00940 CHLORIDE	TOTAL MG/L	19	19	19	19	19	18	14	15	15
00945 SULFATE	SO4-TOT MG/L	55	58	61	61	67	63	59	60	57
00955 SILICA	DISOLVED MG/L	15.0	13.0	13.0	13.0	12.0	12.0	13.0	12.0	12.0
01020 BORON	B,DISS UG/L			70			60			90
46570 CAL HARD	CA MG MG/L	187$	194$	205$	205$	219$	206$	194$	202$	200$
70300 RESIDUE	DISS-180 C MG/L	271	272	283	284	299	281	270	271	267
70302 DISS SOL	TONS/DAY	1480.00	1490.00	1570.00	1640.00	1700.00	3010.00	3630.00	2980.00	3900.00
70303 DISS SOL	TONS PER ACRE-FT	.37	.37	.38	.39	.41	.38	.37	.37	.36
71851 NITRATE	DISS-NO3 MG/L	.6	1.1	.8	.8	.6	.5	.8	.7	.7

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/BTREAM

112WRD 17040104
0000 FEET DEPTH

	INITIAL DATE			57/04/21	57/05/01	57/05/11	57/05/21	57/06/01	57/06/11	57/06/21	57/07/01	57/07/11
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			57/04/30	57/05/10	57/05/20	57/05/31	57/06/10	57/06/20	57/06/30	57/07/10	57/07/20
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	6996	10760	15060	14650	12480	12920	11380	12340	13540
00095	CNDUCTVY	AT 25C	MICROMHO	424	394	367	352	338	313	311	313	295
00400	PH		SU	7.40	7.10	7.00	7.10	7.20	7.10	7.20	7.60	7.50
00410	T ALK	CACO3	MG/L	146	139	135	135	135	127	125	125	119
00440	HCO3 ION	HCO3	MG/L	178	170	165	165	165	155	152	152	145
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	194	180	168	162	159	148	144	144	138
00902	NC HARD	CACO3	MG/L	48	41	33	27	24	21	19	19	19
00915	CALCIUM	CA,DISS	MG/L	57.0	52.0	50.0	48.0	48.0	44.0	44.0	44.0	41.0
00925	MGNSIUM	MG,DISS	MG/L	12.0	12.0	11.0	10.0	9.5	9.2	8.5	8.1	8.6
00930	SODIUM	NA,DISS	MG/L	13.00	11.00	9.80	8.90	7.80	6.80	6.70	6.90	6.50
00931	SODIUM	ADSBTION	RATIO	.4	.4	.3	.3	.3	.2	.2	.3	.2
00932	PERCENT	SODIUM	%	13	12	11	11	10	9	9	9	9
00935	PTSSIUM	K,DISS	MG/L	2.00	2.10	1.80	1.80	1.40	1.40	1.90	1.60	1.90
00940	CHLORIDE	TOTAL	MG/L	12	13	8	7	7	6	6	8	6
00945	SULFATE	SO4-TOT	MG/L	57	47	39	34	28	26	26	26	28
00955	SILICA	DISOLVED	MG/L	12.0	11.0	9.8	9.0	8.4	9.1	8.1	8.7	8.8
01020	BORON	B,DISS	UG/L			70			30			60
46570	CAL HARD	CA MG	MG/L	193$	179$	170$	161$	159$	148$	145$	143$	138$
70300	RESIDUE	DISS-180 C	MG/L	266	240	221	210	202	188	185	184	176
70302	DISS SOL	TONS/DAY		5030.00	6970.00	8990.00	8310.00	6810.00	6560.00	5690.00	6130.00	6430.00
70303	DISS SOL	TONS PER	ACRE-FT	.36	.33	.30	.29	.27	.26	.25	.25	.24
71851	NITRATE	DISS-NO3	MG/L	.6	1.0	.9	.9	.8	.8	.4	2.2	.9

	INITIAL DATE			57/07/21	57/08/01	57/08/11	57/08/21	57/09/01	57/09/11	57/09/21	57/10/01	57/11/01
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			57/07/31	57/08/10	57/08/20	57/08/31	57/09/10	57/09/20	57/09/30	57/10/31	57/11/30
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	13170	11990	9769	8372	7555	8034	6154	3405	2809
00095	CNDUCTVY	AT 25C	MICROMHO	290	296	305	321	334	349	365	415	444
00400	PH		SU	7.70	7.60	7.70	7.00	7.20	7.10	7.30	7.40	7.20
00410	T ALK	CACO3	MG/L	118	116	120	121	125	125	131	143	153

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			57/07/21	57/08/01	57/08/11	57/08/21	57/09/01	57/09/11	57/09/21	57/10/01	57/11/01
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			57/07/31	57/08/10	57/08/20	57/08/31	57/09/10	57/09/20	57/09/30	57/10/31	57/11/30
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00440 HCO3 ION	HCO3	MG/L	144	141	146	147	152	152	160	174	186
00445 CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900 TOT HARD	CACO3	MG/L	135	136	140	147	154	153	164	185	198
00902 NC HARD	CACO3	MG/L	17	20	20	26	29	28	33	42	45
00915 CALCIUM	CA,DISS	MG/L	40.0	40.0	42.0	42.0	44.0	44.0	47.0	53.0	57.0
00925 MGNSIUM	MG,DISS	MG/L	8.3	9.0	8.9	10.0	10.0	10.0	11.0	13.0	14.0
00930 SODIUM	NA,DISS	MG/L	6.90	7.30	7.60	8.70	9.70	10.00	11.00	11.00	13.00
00931 SODIUM	ADSBTION	RATIO	.3	.3	.3	.3	.3	.4	.4	.4	.4
00932 PERCENT	SODIUM	%	10	10	10	11	12	12	13	11	12
00935 PTSSIUM	K,DISS	MG/L	1.80	1.80	1.80	1.80	1.80	1.80	1.70	1.90	1.60
00940 CHLORIDE	TOTAL	MG/L	6	6	7	7	8	8	9	14	14
00945 SULFATE	SO4-TOT	MG/L	29	27	33	40	38	40	46	49	56
00955 SILICA	DISOLVED	MG/L	9.7	9.6	9.6	11.0	11.0	9.9	10.0	8.1	6.3
01020 BORON	B,DISS	UG/L			60			60		80	80
46570 CAL HARD	CA MG	MG/L	134$	137$	142$	146$	151$	151$	163$	186$	200$
70300 RESIDUE	DISS-180 C	MG/L	173	176	180	192	203	204	220	246	262
70302 DISS SOL	TONS/DAY		6150.00	5700.00	4750.00	4340.00	4140.00	4430.00	3660.00	2260.00	1990.00
70303 DISS SOL	TONS PER	ACRE-FT	.24	.24	.24	.26	.28	.28	.30	.33	.36
71851 NITRATE	DISS-NO3	MG/L	1.2	1.1	.8	.8	.8	.8	.5	.9	.7

INITIAL DATE			57/12/01	57/12/04	57/12/07	58/01/01	58/02/01	58/03/01	58/04/01	58/05/01	58/06/01
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			57/12/03	57/12/06	57/12/31	58/01/31	58/02/28	58/03/31	58/04/30	58/05/31	58/06/30
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060 STREAM	FLOW	CFS	2362	1172	2362	2300	2346	2304	3200	13490	12680
00095 CNDUCTVY	AT 25C	MICROMHO	461	595	461	474	480	491	462	375	332
00400 PH		SU	7.60	7.80	7.60	7.60	7.70	7.90	8.00	7.90	7.50
00410 T ALK	CACO3	MG/L	153	179	153	158	161	163	153	136	123
00440 HCO3 ION	HCO3	MG/L	186	218	186	193	196	199	186	166	150
00445 CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900 TOT HARD	CACO3	MG/L	215	264	215	214	213	218	205	172	151
00902 NC HARD	CACO3	MG/L	62	85	62	56	52	55	52	36	28
00915 CALCIUM	CA,DISS	MG/L	67.0	68.0	67.0	60.0	61.0	62.0	57.0	50.0	45.0
00925 MGNSIUM	MG,DISS	MG/L	12.0	23.0	12.0	16.0	15.0	16.0	15.0	12.0	9.6
00930 SODIUM	NA,DISS	MG/L	14.00	24.00	14.00	15.00	15.00	15.00	14.00	10.00	8.30

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			57/12/01	57/12/04	57/12/07	58/01/01	58/02/01	58/03/01	58/04/01	58/05/01	58/06/01
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			57/12/03	57/12/06	57/12/31	58/01/31	58/02/28	58/03/31	58/04/30	58/05/31	58/06/30
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00931	SODIUM	ADSBTION	RATIO	.4	.6	.4	.4	.4	.4	.4	.3	.3
00932	PERCENT	SODIUM	%	12	16	12	13	13	13	13	11	11
00935	PTSSIUM	K,DISS	MG/L	2.40	3.60	2.40	2.20	2.20	2.20	2.00	1.70	1.50
00940	CHLORIDE	TOTAL	MG/L	17	32	17	17	18	19	17	2	4
00945	SULFATE	SO4-TOT	MG/L	63	88	63	62	60	64	62	47	36
00955	SILICA	DISOLVED	MG/L	7.0	8.0	7.0	7.0	6.9	7.2	9.8	12.0	9.5
01020	BORON	B,DISS	UG/L	60	160	60	70	80	80	70	20	30
46570	CAL HARD	CA MG	MG/L	217$	265$	217$	216$	214$	221$	204$	174$	152$
70300	RESIDUE	DISS-180	C MG/L	274	362	274	282	282	288	272	230	200
70302	DISS SOL	TONS/DAY		1750.00	1150.00	1750.00	1750.00	1790.00	1790.00	2350.00	8380.00	6850.00
70303	DISS SOL	TONS PER	ACRE-FT	.37	.49	.37	.38	.38	.39	.37	.31	.27
71851	NITRATE	DISS-NO3	MG/L	1.9	2.4	1.9	1.9	1.7	1.7	.9	1.3	1.0

INITIAL DATE			58/07/01	58/08/01	58/09/01	58/10/01	58/11/01	58/12/01	59/01/01	59/02/01	59/03/01
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			58/07/31	58/08/31	58/09/30	58/10/31	58/11/30	58/12/31	59/01/31	59/02/28	59/03/31
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	12410	8560	5997	3142	2815	2036	2197	2233	2161
00095	CNDUCTVY	AT 25C	MICROMHO	321	341	371	407	432	474	468	474	469
00400	PH		SU	7.40	7.50	7.90	8.10	8.20	8.20	8.10	7.60	8.00
00410	T ALK	CACO3	MG/L	121	127	135	144	153	165	162	160	162
00440	HCO3 ION	HCO3	MG/L	147	155	164	176	186	201	198	195	198
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	149	156	166	178	192	211	210	210	215
00902	NC HARD	CACO3	MG/L	28	29	31	34	39	46	48	50	53
00915	CALCIUM	CA,DISS	MG/L	43.0	44.0	47.0	51.0	55.0	59.0	59.0	60.0	60.0
00925	MGNSIUM	MG,DISS	MG/L	10.0	11.0	12.0	12.0	14.0	15.0	16.0	15.0	16.0
00930	SODIUM	NA,DISS	MG/L	7.40	9.00	11.00	14.00	15.00	17.00	16.00	16.00	16.00
00931	SODIUM	ADSBTION	RATIO	.3	.3	.4	.5	.5	.5	.5	.5	.5
00932	PERCENT	SODIUM	%	10	11	12	14	14	15	14	14	14
00935	PTSSIUM	K,DISS	MG/L	1.70	1.90	1.90	2.40	2.40	2.60	2.60	2.30	2.40
00940	CHLORIDE	TOTAL	MG/L	7	8	11	15	16	18	17	17	20
00945	SULFATE	SO4-TOT	MG/L	35	36	43	47	53	60	61	62	62
00955	SILICA	DISOLVED	MG/L	9.1	8.9	9.1	9.8	8.5	7.2	7.3	8.2	7.7
01020	BORON	B,DISS	UG/L	60	60	50	90	90	70	60	20	90

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			58/07/01	58/08/01	58/09/01	58/10/01	58/11/01	58/12/01	59/01/01	59/02/01	59/03/01
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			58/07/31	58/08/31	58/09/30	58/10/31	58/11/30	58/12/31	59/01/31	59/02/28	59/03/31
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
46570	CAL HARD	CA MG MG/L	149$	155$	167$	177$	195$	209$	213$	212$	216$
70300	RESIDUE	DISS-180 C MG/L	188	202	218	240	256	280	280	276	283
70302	DISS SOL	TONS/DAY	6300.00	4670.00	3530.00	2040.00	1950.00	1540.00	1660.00	1660.00	1650.00
70303	DISS SOL	TONS PER ACRE-FT	.26	.27	.30	.33	.35	.38	.38	.38	.38
71851	NITRATE	DISS-NO3 MG/L	1.8	1.5	1.3	.8	.8	.9	.6	.9	1.0

INITIAL DATE			59/04/01	59/05/01	59/06/01	59/07/01	59/08/01	59/09/01	59/10/01	59/10/16	59/11/01
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			59/04/30	59/05/31	59/06/30	59/07/31	59/08/31	59/09/30	59/10/15	59/10/31	59/11/15
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW CFS	3117	8906	12880	13100	11400	9454	2589	3341	3381
00095	CNDUCTVY	AT 25C MICROMHO	457	412	377	313	303	339	415	408	414
00400	PH	SU	8.40	8.30	8.20	7.50	7.70	7.70	7.90	8.00	8.00
00410	T ALK	CACO3 MG/L	159	149	142	115	112	123	141	139	142
00440	HCO3 ION	HCO3 MG/L	182	169	173	140	136	150	172	170	173
00445	CO3 ION	CO3 MG/L	6	6	0	0	0	0	0	0	0
00900	TOT HARD	CACO3 MG/L	205	190	174	142	137	151	180	180	185
00902	NC HARD	CACO3 MG/L	46	41	32	27	25	28	39	41	43
00915	CALCIUM	CA,DISS MG/L	59.0	63.0	51.0	42.0	39.0	44.0	52.0		
00925	MGNSIUM	MG,DISS MG/L	14.0	8.3	11.0	8.8	9.5	10.0	12.0		
00930	SODIUM	NA,DISS MG/L	16.00	12.00	10.00	7.60	7.70	10.00	14.00	13.00	13.00
00931	SODIUM	ADSBTION RATIO	.5	.4	.3	.3	.3	.4	.5	.4	.4
00932	PERCENT	SODIUM %	14	12	11	10	11	12	14		
00935	PTSSIUM	K,DISS MG/L	2.50	1.70	1.50	1.40	1.60	1.90	2.00		
00940	CHLORIDE	TOTAL MG/L	20	11	9	8	6	9	16		
00945	SULFATE	SO4-TOT MG/L	51	45	44	37	33	39	50		
00950	FLUORIDE	F,DISS MG/L				.40			.40		
00955	SILICA	DISOLVED MG/L	10.0	11.0	9.3	7.5	8.3	7.6	6.7		
01020	BORON	B,DISS UG/L	70	50	40	50	40	20	0		
46570	CAL HARD	CA MG MG/L	205$	191$	173$	141$	137$	151$	179$		
70300	RESIDUE	DISS-180 C MG/L	279	240	228	187	178	201	251	244	254
70302	DISS SOL	TONS/DAY	2350.00	5770.00	7930.00	6610.00	5480.00	5130.00	1760.00	2200.00	2320.00
70303	DISS SOL	TONS PER ACRE-FT	.38	.33	.31	.25	.24	.27	.34	.33	.35
71851	NITRATE	DISS-NO3 MG/L	1.2	1.0	.8	.3	.1	.1	.5		

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

INITIAL DATE			59/11/16	59/12/01	59/12/17	59/12/25	59/12/26	60/01/01	60/01/16	60/02/14	60/03/01
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-		CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			59/11/30	59/12/16	59/12/24		59/12/31	60/01/15	60/02/13	60/02/29	60/03/21
FINAL TIME-NUMBER OF SAMPLES			C	C	C		C	C	C	C	C
00060	STREAM FLOW	CFS	2063	1863	1884	1880	1880	1726	1634	1544	1576
00095	CNDUCTVY AT 25C	MICROMHO	478	488	486	418	473	478	485	497	504
00400	PH	SU	7.90	8.10	7.90	7.70	7.70	7.90	8.10	8.00	7.90
00410	T ALK CACO3	MG/L	159	163	161	133	156	156	159	162	163
00440	HCO3 ION HCO3	MG/L	194	199	196	162	190	190	194	198	199
00445	CO3 ION CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD CACO3	MG/L	209	215	212	176	208	208	208	216	218
00902	NC HARD CACO3	MG/L	50	52	51	43	52	52	49	54	55
00915	CALCIUM CA,DISS	MG/L						60.0			
00925	MGNSIUM MG,DISS	MG/L						14.0			
00930	SODIUM NA,DISS	MG/L	17.00	17.00	18.00	14.00	17.00	17.00	18.00	18.00	19.00
00931	SODIUM ADSBTION	RATIO	.5	.5	.5	.5	.5	.5	.5	.5	.6
00932	PERCENT SODIUM	%						15			
00935	PTSSIUM K,DISS	MG/L						2.50			
00940	CHLORIDE TOTAL	MG/L						20			
00945	SULFATE SO4-TOT	MG/L						60			
00950	FLUORIDE F,DISS	MG/L						.40			
00955	SILICA DISOLVED	MG/L						7.5			
01020	BORON B,DISS	UG/L						30			
46570	CAL HARD CA MG	MG/L						207$			
70300	RESIDUE DISS-180 C	MG/L	294	298	282	238	283	283	283	294	296
70302	DISS SOL TONS/DAY		1640.00	1500.00	1440.00	1210.00	1440.00	1320.00	1250.00	1230.00	1260.00
70303	DISS SOL TONS PER	ACRE-FT	.40	.41	.38	.32	.38	.38	.38	.40	.40
71851	NITRATE DISS-NO3	MG/L						.3			

INITIAL DATE			60/03/22	60/03/31	60/04/07	60/04/14	60/04/25	60/05/02	60/05/15	60/06/10	60/06/29
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			60/03/30	60/04/06	60/04/13	60/04/24	60/05/01	60/05/14	60/06/09	60/06/28	60/07/07
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM FLOW	CFS	1787	1466	1744	1775	3191	6543	12820	13040	13260
00095	CNDUCTVY AT 25C	MICROMHO	476	527	466	513	452	413	385	364	348
00400	PH	SU	8.00	8.10	8.00	8.00	8.00	7.90	8.00	8.00	7.90

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			60/03/22	60/03/31	60/04/07	60/04/14	60/04/25	60/05/02	60/05/15	60/06/10	60/06/29
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			60/03/30	60/04/06	60/04/13	60/04/24	60/05/01	60/05/14	60/06/09	60/06/28	60/07/07
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00410	T ALK	CACO3 MG/L	155	180	153	169	151	139	138	135	129
00440	HCO3 ION	HCO3 MG/L	189	220	187	206	184	170	168	165	157
00445	CO3 ION	CO3 MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3 MG/L	202	232	206	228	202	186	177	177	164
00902	NC HARD	CACO3 MG/L	47	52	53	59	51	47	39	42	35
00915	CALCIUM	CA,DISS MG/L			58.0						
00925	MGNSIUM	MG,DISS MG/L			15.0						
00930	SODIUM	NA,DISS MG/L	17.00	18.00	15.00	17.00	14.00	11.00	11.00	9.70	9.00
00931	SODIUM	ADSBTION RATIO	.5	.5	.5	.5	.4	.4	.4	.3	.3
00932	PERCENT	SODIUM %			13						
00935	PTSSIUM	K,DISS MG/L			2.40						
00940	CHLORIDE	TOTAL MG/L			20						
00945	SULFATE	SO4-TOT MG/L			53						
00950	FLUORIDE	F,DISS MG/L			.30						
00955	SILICA	DISOLVED MG/L			7.8						
01020	BORON	B,DISS UG/L			30						
46570	CAL HARD	CA MG MG/L			207$						
70300	RESIDUE	DISS-180 C MG/L	277	313	271	302	266	241	235	218	208
70302	DISS SOL	TONS/DAY	1340.00	1240.00	1280.00	1450.00	2290.00	4260.00	8140.00	7680.00	7450.00
70303	DISS SOL	TONS PER ACRE-FT	.38	.43	.37	.41	.36	.33	.32	.30	.28
71851	NITRATE	DISS-NO3 MG/L			1.1						

INITIAL DATE		60/07/08	60/07/29	60/08/28	60/10/01	60/10/15	60/11/05	60/12/04	60/12/11	61/01/10
CP-SPACE OR TIME-STATISTICAL FUNC		CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)		60/07/28	60/08/27	60/09/30	60/10/14	60/11/04	60/12/03	60/12/10	60/12/30	61/02/08
FINAL TIME-NUMBER OF SAMPLES		C	C	C	C	C	C	C	C	C
00060	STREAM FLOW	CFS	14200	13140	9066	4202	1639	1440	1394	1395	1829
00095	CNDUCTVY AT 25C	MICROMHO	323	329	343	361	469	519	554	523	489
00400	PH	SU	7.90	8.00	7.90	7.90	8.10	8.20	8.20	8.10	8.20
00410	T ALK	CACO3 MG/L	121	121	121						
00440	HCO3 ION	HCO3 MG/L	148	147	148	148	187	205	220	207	196
00445	CO3 ION	CO3 MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3 MG/L	152	150	150	150	202	228	256	232	222
00902	NC HARD	CACO3 MG/L	31	29	29	28	49	60	76	62	62
00915	CALCIUM	CA,DISS MG/L	44.0			44.0					64.0

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			60/07/08	60/07/29	60/08/28	60/10/01	60/10/15	60/11/05	60/12/04	60/12/11	61/01/10
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			60/07/28	60/08/27	60/09/30	60/10/14	60/11/04	60/12/03	60/12/10	60/12/30	61/02/08
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00925 MGNSIUM	MG,DISS	MG/L	10.0			9.7					15.0
00930 SODIUM	NA,DISS	MG/L	8.40	9.20	12.00	14.00	19.00	20.00	22.00	19.00	16.00
00931 SODIUM	ADSBTION	RATIO	.3	.3	.4	.5					.5
00932 PERCENT	SODIUM	%	11								
00935 PTSSIUM	K,DISS	MG/L	1.90			2.20					2.70
00940 CHLORIDE	TOTAL	MG/L	7			14					20
00945 SULFATE	SO4-TOT	MG/L	36			40					61
00950 FLUORIDE	F,DISS	MG/L	.30			.60					.70
00955 SILICA	DISOLVED	MG/L	8.1			9.8					9.7
01020 BORON	B,DISS	UG/L	0			50					10
46570 CAL HARD	CA MG	MG/L	151$			150$					222$
70300 RESIDUE	DISS-180 C	MG/L	194	196	204	217	284	316	344	319	302
70302 DISS SOL	TONS/DAY		7440.00	6950.00	4990.00	2460.00	1260.00	1230.00	1290.00	1200.00	1490.00
70303 DISS SOL	TONS PER	ACRE-FT	.26	.27	.28	.30	.39	.43	.47	.43	.41
71851 NITRATE	DISS-NO3	MG/L	.4			.7					.7

INITIAL DATE			61/02/09	61/03/09	61/04/03	61/04/18	61/04/25	61/05/16	61/06/09	61/06/21	61/07/09
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			61/03/08	61/04/02	61/04/17	61/04/24	61/05/15	61/06/08	61/06/20	61/07/08	61/08/07
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060 STREAM	FLOW	CFS	1661	1753	2149	3691	7278	11440	12480	12510	11290
00095 CNDUCTVY	AT 25C	MICROMHO	507	494	475	426	397	372	342	306	278
00400 PH		SU	8.30	8.20	8.10	8.00	8.00	8.00	7.90	8.00	8.10
00440 HCO3 ION	HCO3	MG/L	196	200	194	176	162	158	150	138	126
00445 CO3 ION	CO3	MG/L	2	0	0	0	0	0	0	0	0
00900 TOT HARD	CACO3	MG/L	227	229	212	197	177	167	154	141	130
00902 NC HARD	CACO3	MG/L	63	65	52	53	44	37	31	28	26
00915 CALCIUM	CA,DISS	MG/L			59.0						36.0
00925 MGNSIUM	MG,DISS	MG/L			16.0						9.6
00930 SODIUM	NA,DISS	MG/L	17.00	18.00	17.00	14.00	14.00	12.00	9.70	8.30	8.80
00931 SODIUM	ADSBTION	RATIO			.5						.3
00935 PTSSIUM	K,DISS	MG/L			2.70						1.70
00940 CHLORIDE	TOTAL	MG/L			18						7
00945 SULFATE	SO4-TOT	MG/L			64						31
00950 FLUORIDE	F,DISS	MG/L			.50						.40

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			61/02/09	61/03/09	61/04/03	61/04/18	61/04/25	61/05/16	61/06/09	61/06/21	61/07/09
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			61/03/08	61/04/02	61/04/17	61/04/24	61/05/15	61/06/08	61/06/20	61/07/08	61/08/07
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00955	SILICA	DISOLVED	MG/L		9.6						11.0
01020	BORON	B,DISS	UG/L		40						70
46570	CAL HARD	CA MG	MG/L		213*						129*
70300	RESIDUE	DISS-180 C	MG/L	318	300	289	260	236	220	204	180	174
70302	DISS SOL	TONS/DAY		1430.00	1420.00	1680.00	2590.00	4640.00	6800.00	6870.00	6080.00	5300.00
70303	DISS SOL	TONS PER	ACRE-FT	.43	.41	.39	.35	.32	.30	.28	.24	.24
71851	NITRATE	DISS-NO3	MG/L			.4						.3

INITIAL DATE			61/08/08	61/09/03	61/09/16	61/09/22	61/10/01	61/10/14	61/10/25	61/11/06	61/11/19
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			61/09/02	61/09/15	61/09/21	61/09/30	61/10/13	61/10/24	61/11/05	61/11/18	61/12/05
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	8139	5062	3618	2410	2268	2461	1683	1565	1577
00095	CNDUCTVY	AT 25C	MICROMHO	285	331	364	412	422	412	454	476	504
00400	PH		SU	8.00	8.30	8.10	8.70	8.00	7.90	8.10	8.00	8.10
00440	HCO3 ION	HCO3	MG/L	127	143	158	158	172	169	182	190	201
00445	CO3 ION	CO3	MG/L	0	1	0	6	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	125	148	164	182	184	180	198	207	223
00902	NC HARD	CACO3	MG/L	21	29	34	42	42	42	49	52	58
00915	CALCIUM	CA,DISS	MG/L					52.0				
00925	MGNSIUM	MG,DISS	MG/L					13.0				
00930	SODIUM	NA,DISS	MG/L	12.00	13.00	14.00	15.00	16.00	15.00	16.00	18.00	20.00
00931	SODIUM	ADSBTION	RATIO					.5	.5	.5	.5	.6
00932	PERCENT	SODIUM	%					16				
00935	PTSSIUM	K,DISS	MG/L					2.20				
00940	CHLORIDE	TOTAL	MG/L					16				
00945	SULFATE	SO4-TOT	MG/L					52				
00950	FLUORIDE	F,DISS	MG/L					.50				
00955	SILICA	DISOLVED	MG/L					9.7				
01020	BORON	B,DISS	UG/L					80				
46570	CAL HARD	CA MG	MG/L					183*				
70300	RESIDUE	DISS-180 C	MG/L	174	203	228	242	256	251	277	283	296
70302	DISS SOL	TONS/DAY		3820.00	2770.00	2230.00	1570.00	1570.00	1670.00	1260.00	1200.00	1260.00
70303	DISS SOL	TONS PER	ACRE-FT	.24	.28	.31	.33	.35	.34	.38	.38	.40
71851	NITRATE	DISS-NO3	MG/L					.3				

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

INITIAL DATE			61/12/06	61/12/09	61/12/11	62/01/06	62/01/27	62/02/10	62/02/14	62/02/17	62/02/27
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			61/12/08	61/12/10	61/12/12	62/01/26	62/02/09	62/02/13	62/02/16	62/02/26	62/03/10
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM FLOW	CFS	1553	1415	1550	1636	1524	2392	1900	1175	1537
00095	CNDUCTVY AT 25C	MICROMHO	481	499	588	472	481	373	457	517	502
00400	PH	SU	8.10	8.00	8.20	8.00	8.00	7.70	7.80	8.10	8.00
00440	HCO3 ION HCO3	MG/L	185	198	233	190	192	150	187	188	198
00445	CO3 ION CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD CACO3	MG/L	208	219	262	212	215	163	205	216	217
00902	NC HARD CACO3	MG/L	56	56	71	56	58	40	52	62	54
00915	CALCIUM CA,DISS	MG/L				60.0					
00925	MGNSIUM MG,DISS	MG/L				15.0					
00930	SODIUM NA,DISS	MG/L	18.00	18.00	23.00	17.00	18.00	12.00	16.00	22.00	18.00
00931	SODIUM ADSBTION	RATIO	.5	.5	.6	.5	.5	.4	.5	.7	.5
00932	PERCENT SODIUM	%				15					
00935	PTSSIUM K,DISS	MG/L				2.70					
00940	CHLORIDE TOTAL	MG/L				19					
00945	SULFATE SO4-TOT	MG/L				63					
00950	FLUORIDE F,DISS	MG/L				.40					
00955	SILICA DISOLVED	MG/L				9.9					
01020	BORON B,DISS	UG/L				70					
46570	CAL HARD CA MG	MG/L				212$					
70300	RESIDUE DISS-180 C	MG/L	291	302	362	296	298	227	286	325	314
70302	DISS SOL TONS/DAY		1220.00	1150.00	1510.00	1310.00	1230.00	1470.00	1470.00	1030.00	1300.00
70303	DISS SOL TONS PER	ACRE-FT	.40	.41	.49	.40	.41	.31	.39	.44	.43
71851	NITRATE DISS-NO3	MG/L				.6					

INITIAL DATE			62/03/11	62/04/06	62/04/14	62/04/18	62/05/06	62/05/27	62/06/21	62/07/05	62/07/28
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			62/04/05	62/04/13	62/04/17	62/05/05	62/05/26	62/06/20	62/07/04	62/07/27	62/08/18
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM FLOW	CFS	1161	1312	1720	9394	15730	12640	13400	12400	11020
00095	CNDUCTVY AT 25C	MICROMHO	566	548	471	421	394	374	339	318	304
00400	PH	SU	7.90	7.80	7.60	7.70	8.00	8.00	8.00	7.90	7.90
00440	HCO3 ION HCO3	MG/L	220	220	191	178	173	170	166	156	144

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			62/03/11	62/04/06	62/04/14	62/04/18	62/05/06	62/05/27	62/06/21	62/07/05	62/07/28
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			62/04/05	62/04/13	62/04/17	62/05/05	62/05/26	62/06/20	62/07/04	62/07/27	62/08/18
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00445	CO3 ION	CO3 MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3 MG/L	246	240	204	190	183	175	163	152	142
00902	NC HARD	CACO3 MG/L	66	59	48	44	41	35	27	24	24
00915	CALCIUM	CA,DISS MG/L		70.0						45.0	
00925	MGNSIUM	MG,DISS MG/L		16.0						9.4	
00930	SODIUM	NA,DISS MG/L	22.00	21.00	16.00	12.00	10.00	8.90	7.80	6.80	7.10
00931	SODIUM	ADSBTION RATIO	.6	.6	.5	.4	.3	.3	.3	.2	.3
00932	PERCENT	SODIUM %		16							
00935	PTSSIUM	K,DISS MG/L		3.30						1.40	
00940	CHLORIDE	TOTAL MG/L		25						5	
00945	SULFATE	SO4-TOT MG/L		67						30	
00950	FLUORIDE	F,DISS MG/L		.40						.30	
00955	SILICA	DISOLVED MG/L		9.7						8.4	
01020	BORON	B,DISS UG/L		60						50	
46570	CAL HARD	CA MG MG/L		241$						151$	
70300	RESIDUE	DISS-180 C MG/L	348	340	290	259	233	218	202	192	182
70302	DISS SOL	TONS/DAY	1090.00	1200.00	1350.00	6570.00	9900.00	7440.00	7310.00	6430.00	5420.00
70303	DISS SOL	TONS PER ACRE-FT	.47	.46	.39	.35	.32	.30	.27	.26	.25
71851	NITRATE	DISS-NO3 MG/L		.9						.4	

INITIAL DATE			62/08/19	62/09/09	62/10/01	62/10/16	62/11/02	62/12/01	63/01/01	63/01/18	63/01/31
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			62/09/08	62/09/30	62/10/15	62/11/01	62/11/30	62/12/31	63/01/17	63/01/30	63/02/02
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW CFS	9119	7926	3451	2827	2529	2432	1751	1347	1743
00080	COLOR	PT-CO UNITS			5				5		
00095	CNDUCTVY	AT 25C MICROMHO	316	334	388	407	431	442	457	487	420
00400	PH	SU	8.00	8.00	8.00	8.00	8.00	8.00	8.20	8.20	7.60
00440	HCO3 ION	HCO3 MG/L	146	152	168	174	182	184	191	201	175
00445	CO3 ION	CO3 MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3 MG/L	146	154	169	178	195	200	210	222	186
00902	NC HARD	CACO3 MG/L	27	29	32	36	46	49	53	58	42
00915	CALCIUM	CA,DISS MG/L			50.0				59.0		
00925	MGNSIUM	MG,DISS MG/L			11.0				15.0		
00930	SODIUM	NA,DISS MG/L	8.30	9.40	13.00	13.00	14.00	14.00	16.00	18.00	14.00

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			62/08/19	62/09/09	62/10/01	62/10/16	62/11/02	62/12/01	63/01/01	63/01/18	63/01/31
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			62/09/08	62/09/30	62/10/15	62/11/01	62/11/30	62/12/31	63/01/17	63/01/30	63/02/02
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00931	SODIUM	ADSBTION RATIO	.3	.3	.4				.5		
00932	PERCENT	SODIUM %			14				14		
00935	PTSSIUM	K,DISS MG/L			2.20				2.30		
00940	CHLORIDE	TOTAL MG/L			12				18		
00945	SULFATE	SO4-TOT MG/L			44				58		
00950	FLUORIDE	F,DISS MG/L			.40				.40		
00955	SILICA	DISOLVED MG/L			8.9				8.4		
01020	BORON	B,DISS UG/L			50				50		
46570	CAL HARD	CA MG MG/L			170$				209$		
70300	RESIDUE	DISS-180 C MG/L	190	201	230	238	261	267	283	307	258
70302	DISS SOL	TONS/DAY	4680.00	4300.00	2140.00	1820.00	1780.00	1750.00	1340.00	1120.00	1210.00
70303	DISS SOL	TONS PER ACRE-FT	.26	.27	.31	.32	.35	.36	.38	.42	.35
71851	NITRATE	DISS-NO3 MG/L			.4				.5		

INITIAL DATE		63/02/03	63/02/24	63/03/17	63/03/23	63/03/30	63/04/15	63/04/26	63/05/01	63/05/05
CP-SPACE OR TIME-STATISTICAL FUNC		CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)		63/02/23	63/03/16	63/03/22	63/03/29	63/04/14	63/04/25	63/04/30	63/05/04	63/06/03
FINAL TIME-NUMBER OF SAMPLES		C	C	C	C	C	C	C	C	C
00060	STREAM FLOW	CFS	1298	1288	1318	1440	1339	1191	1998	3392	13160
00095	CNDUCTVY AT 25C	MICROMHO	490	509	525	488	515	543	484	437	390
00400	PH	SU	8.00	8.10	7.80	7.80	8.10	8.10	7.90	7.90	7.90
00440	HCO3 ION	HCO3 MG/L	202	207	214	200	211	220	202	185	172
00445	CO3 ION	CO3 MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3 MG/L	220	228	241	223	239	248	226	202	185
00902	NC HARD	CACO3 MG/L	54	58	66	59	66	67	60	50	44
00915	CALCIUM	CA,DISS MG/L						68.0			
00925	MGNSIUM	MG,DISS MG/L						19.0			
00930	SODIUM	NA,DISS MG/L	18.00	18.00	19.00	17.00	18.00	20.00	16.00	14.00	10.00
00931	SODIUM	ADSBTION RATIO						.6			
00932	PERCENT	SODIUM %						15			
00935	PTSSIUM	K,DISS MG/L						3.10			
00940	CHLORIDE	TOTAL MG/L						25			
00945	SULFATE	SO4-TOT MG/L						73			
00950	FLUORIDE	F,DISS MG/L						.40			
00955	SILICA	DISOLVED MG/L						6.9			

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			63/02/03	63/02/24	63/03/17	63/03/23	63/03/30	63/04/15	63/04/26	63/05/01	63/05/05
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			63/02/23	63/03/16	63/03/22	63/03/29	63/04/14	63/04/25	63/04/30	63/05/04	63/06/03
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
01020	BORON	B,DISS	UG/L					60			
46570	CAL HARD	CA MG	MG/L					248$			
70300	RESIDUE	DISS-180 C	MG/L	304	316	331	294	312	327	290	264	241
70302	DISS SOL	TONS/DAY		1070.00	1100.00	1180.00	1140.00	1130.00	1050.00	1560.00	2420.00	8560.00
70303	DISS SOL	TONS PER	ACRE-FT	.41	.43	.45	.40	.42	.44	.39	.36	.33
71851	NITRATE	DISS-NO3	MG/L						.7			

INITIAL DATE			63/06/04	63/06/15	63/06/24	63/07/15	63/08/14	63/09/04	63/09/13	63/09/22	63/10/01
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			63/06/14	63/06/23	63/07/14	63/08/13	63/09/03	63/09/12	63/09/21	63/09/30	63/10/28
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	19600	22130	14750	12100	8665	6361	6777	3849	4202
00095	CNDUCTVY	AT 25C	MICROMHO	360	331	297	284	310	332	329	369	376
00400	PH		SU	8.20	8.00	8.00	7.90	7.90	7.90	7.80	7.80	7.90
00440	HCO3 ION	HCO3	MG/L	166	156	142	136	141	148	147	162	164
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	173	166	144	137	140	150	134	170	175
00902	NC HARD	CACO3	MG/L	36	38	28	25	24	28	14	36	40
00915	CALCIUM	CA,DISS	MG/L			41.0						50.0
00925	MGNSIUM	MG,DISS	MG/L			10.0						12.0
00930	SODIUM	NA,DISS	MG/L	9.40	8.50	8.00	7.80	8.80	11.00	10.00	13.00	12.00
00931	SODIUM	ADSBTION	RATIO			.3						.4
00932	PERCENT	SODIUM	%			11						13
00935	PTSSIUM	K,DISS	MG/L			1.70						2.10
00940	CHLORIDE	TOTAL	MG/L			6						12
00945	SULFATE	SO4-TOT	MG/L			31						45
00950	FLUORIDE	F,DISS	MG/L			.30						.40
00955	SILICA	DISOLVED	MG/L			7.8						8.2
01020	BORON	B,DISS	UG/L			100						30
46570	CAL HARD	CA MG	MG/L			144$						174$
70300	RESIDUE	DISS-180 C	MG/L	220	201	177	176	182	197	198	223	241
70302	DISS SOL	TONS/DAY		11640.00	12010.00	7050.00	5750.00	4260.00	3380.00	3620.00	2320.00	2730.00
70303	DISS SOL	TONS PER	ACRE-FT	.30	.27	.24	.24	.25	.27	.27	.30	.33
71851	NITRATE	DISS-NO3	MG/L			.5						.8

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

INITIAL DATE			63/10/29	63/11/11	63/11/23	63/11/26	63/11/30	63/12/01	64/01/11	64/02/10	64/02/25
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-		CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			63/11/10	63/11/22	63/11/25	63/11/29		63/12/16	64/02/09	64/02/24	64/03/24
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C		C	C	C	C
00060	STREAM FLOW	CFS	2411	1752	1817	1675	1650	1590	1545	1760	2153
00095	CNDUCTVY AT 25C	MICROMHO	416	462	406	451	504	468	471	466	459
00400	PH	SU	8.00	8.10	8.10	8.20	7.80	8.10	8.10	8.20	8.00
00410	T ALK CACO3	MG/L								157	
00440	HCO3 ION HCO3	MG/L	174	190	152	184	206	193	192	192	192
00445	CO3 ION CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD CACO3	MG/L	189	209	178	202	221	210	210	213	210
00902	NC HARD CACO3	MG/L	46	54	54	51	52	52	53	55	52
00915	CALCIUM CA,DISS	MG/L							58.0		
00925	MGNSIUM MG,DISS	MG/L							16.0		
00930	SODIUM NA,DISS	MG/L	13.00	17.00	17.00	17.00	29.00	18.00	19.00	18.00	16.00
00931	SODIUM ADSBTION	RATIO	.4	.5	.6	.5	.8	.5	.6	.5	.5
00932	PERCENT SODIUM	%	13	15	17	15	22	16	16	16	14
00935	PTSSIUM K,DISS	MG/L							2.70		
00940	CHLORIDE TOTAL	MG/L							22		
00945	SULFATE SO4-TOT	MG/L							60		
00950	FLUORIDE F,DISS	MG/L							.40		
00955	SILICA DISOLVED	MG/L							7.5		
01020	BORON B,DISS	UG/L							0		
46570	CAL HARD CA MG	MG/L							211$		
70300	RESIDUE DISS-180 C	MG/L	254	282	244	271	298	280	295	290	279
70302	DISS SOL TONS/DAY		1650.00	1330.00	1200.00	1230.00	1330.00	1200.00	1230.00	1380.00	1620.00
70303	DISS SOL TONS PER	ACRE-FT	.35	.38	.33	.37	.41	.38	.40	.39	.38
71851	NITRATE DISS-NO3	MG/L							.4		

INITIAL DATE			64/03/25	64/04/10	64/04/17	64/05/10	64/05/25	64/06/09	64/06/25	64/07/03	64/07/25
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			64/04/09	64/04/16	64/05/09	64/05/24	64/06/08	64/06/24	64/07/02	64/07/24	64/08/07
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM FLOW	CFS	2560	3927	11230	15440	14950	18320	14080	15800	12850
00080	COLOR PT-CO	UNITS	5								
00095	CNDUCTVY AT 25C	MICROMHO	462	467	429	393	366	323	319	298	288

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			64/03/25	64/04/10	64/04/17	64/05/10	64/05/25	64/06/09	64/06/25	64/07/03	64/07/25
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			64/04/09	64/04/16	64/05/09	64/05/24	64/06/08	64/06/24	64/07/02	64/07/24	64/08/07
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00400	PH		SU	8.00	8.20	8.20	7.80	7.80	7.80	7.70	7.60	7.80
00410	T ALK	CACO3	MG/L						125		117	
00440	HCO3 ION	HCO3	MG/L	194	194	178	168	163	152	150	143	138
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	212	215	198	182	170	149	145	136	131
00902	NC HARD	CACO3	MG/L	52	56	52	44	36	24	22	19	18
00915	CALCIUM	CA,DISS	MG/L	59.0							39.0	
00925	MGNSIUM	MG,DISS	MG/L	16.0							9.4	
00930	SODIUM	NA,DISS	MG/L	16.00	16.00	12.00	12.00	10.00	8.50	8.50	8.10	7.70
00931	SODIUM	ADSBTION	RATIO	.5	.5	.4	.4	.3	.3	.3	.3	.3
00932	PERCENT	SODIUM	%	14	14	12	13	11	11	11	11	11
00935	PTSSIUM	K,DISS	MG/L	2.50							1.50	
00940	CHLORIDE	TOTAL	MG/L	18							6	
00945	SULFATE	SO4-TOT	MG/L	60							26	
00950	FLUORIDE	F,DISS	MG/L	.40							.30	
00955	SILICA	DISOLVED	MG/L	7.2							8.5	
01020	BORON	B,DISS	UG/L	20							10	
46570	CAL HARD	CA MG	MG/L	213$							136$	
70300	RESIDUE	DISS-180	C MG/L	280	287	262	242	223	189	186	173	166
70302	DISS SOL	TONS/DAY		1940.00	3040.00	7940.00	10090.00	9000.00	9350.00	7070.00	7380.00	5760.00
70303	DISS SOL	TONS PER	ACRE-FT	.38	.39	.36	.33	.30	.26	.25	.24	.23
71851	NITRATE	DISS-NO3	MG/L	.4							.6	

	INITIAL DATE			64/08/08	64/09/01	64/09/22	64/10/01	64/10/23	64/11/06	64/11/17	64/11/19	64/12/16
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			64/08/31	64/09/21	64/09/30	64/10/22	64/11/05	64/11/16	64/11/18	64/12/15	64/12/31
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	9444	8075	6433	4770	2674	2228	2615	2440	2649
00095	CNDUCTVY	AT 25C	MICROMHO	299	325	343	373	419	428	380	441	436
00400	PH		SU	7.90	7.80	7.90	7.90	8.00	8.20	8.20	8.20	8.10
00405	CO2		MG/L				3.3					
00410	T ALK	CACO3	MG/L			124	135					
00440	HCO3 ION	HCO3	MG/L	138	144	151	164	178	172	151	185	183
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00618	NO3-N	DISS	MG/L				.07					

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/BTREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			64/08/08	64/09/01	64/09/22	64/10/01	64/10/23	64/11/06	64/11/17	64/11/19	64/12/16
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			64/08/31	64/09/21	64/09/30	64/10/22	64/11/05	64/11/16	64/11/18	64/12/15	64/12/31
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00900	TOT HARD	CACO3 MG/L	137	147	151	170	190	186	166	197	194
00902	NC HARD	CACO3 MG/L	24	29	28	35	44	45	42	45	44
00915	CALCIUM	CA,DISS MG/L				47.0					
00925	MGNSIUM	MG,DISS MG/L				13.0					
00930	SODIUM	NA,DISS MG/L	8.10	10.00	11.00	12.00	14.00	16.00	14.00	15.00	15.00
00931	SODIUM	ADSBTION RATIO	.3	.4	.4	.4	.4	.5	.5	.5	.5
00932	PERCENT	SODIUM %	11	13	14	13	14	16	16	14	14
00935	PTSSIUM	K,DISS MG/L				2.20					
00940	CHLORIDE	TOTAL MG/L				12					
00945	SULFATE	SO4-TOT MG/L				43					
00950	FLUORIDE	F,DISS MG/L				.40					
00955	SILICA	DISOLVED MG/L				8.1					
01020	BORON	B,DISS UG/L				0					
46570	CAL HARD	CA MG MG/L				171*					
70300	RESIDUE	DISS-180 C MG/L	171	186	204	225	254	255	226	262	257
70301	DISS SOL	SUM MG/L				219					
70302	DISS SOL	TONS/DAY	4360.00	4060.00	3540.00	2900.00	1830.00	1530.00	1600.00	1730.00	1840.00
70303	DISS SOL	TONS PER ACRE-FT	.23	.25	.28	.31	.35	.35	.31	.36	.35
71851	NITRATE	DISS-NO3 MG/L				.3					
71870	BROMIDE	BR MG/L				.13					

INITIAL DATE			65/01/01	65/01/09	65/01/26	65/01/30	65/03/01	65/04/12	65/03/21	65/04/20	65/05/11
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-		CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			65/01/08	65/01/25	65/01/29	65/02/28	65/03/20		65/04/19	65/05/10	65/05/29
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C		C	C	C
00060	STREAM	FLOW CFS	2811	3385	2530	7268	10500	10700	10620	11670	13920
00095	CNDUCTVY	AT 25C MICROMHO	436	420	432	411	397	386	393	356	334
00400	PH	SU	7.80	7.90	8.10	8.10	7.80	7.60	7.90	7.60	7.70
00410	T ALK	CACO3 MG/L						130			
00440	HCO3 ION	HCO3 MG/L	181	177	172	173	168	158	164	157	156
00445	CO3 ION	CO3 MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3 MG/L	196	192	192	186	182	170	177	160	153
00902	NC HARD	CACO3 MG/L	47	47	51	44	44	41	42	31	25
00915	CALCIUM	CA,DISS MG/L		54.0				50.0		45.0	
00925	MGNSIUM	MG,DISS MG/L		14.0				11.0		12.0	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			65/01/01	65/01/09	65/01/26	65/01/30	65/03/01	65/04/12	65/03/21	65/04/20	65/05/11
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-		CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			65/01/08	65/01/25	65/01/29	65/02/28	65/03/20		65/04/19	65/05/10	65/05/29
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C		C	C	C
00930	SODIUM	NA,DISS MG/L	15.00	14.00	16.00	14.00	13.00	13.00	13.00	12.00	10.00
00931	SODIUM	ADSBTION RATIO	.5	.4	.5	.4	.4	.4	.4	.4	.4
00932	PERCENT	SODIUM %	14	14	15	14	13	14	14	14	12
00935	PTSSIUM	K,DISS MG/L		2.20				2.10		2.00	
00940	CHLORIDE	TOTAL MG/L		16				12		10	
00945	SULFATE	SO4-TOT MG/L		53				48		39	
00950	FLUORIDE	F,DISS MG/L		.20				.30		.30	
00955	SILICA	DISOLVED MG/L		7.8				10.0		11.0	
01020	BORON	B,DISS UG/L		80						30	
46570	CAL HARD	CA MG MG/L		192$				170$		162$	
70300	RESIDUE	DISS-180 C MG/L	262	248	256	243	237	224	232	215	196
70302	DISS SOL	TONS/DAY	1990.00	2270.00	1750.00	4770.00	6720.00	6470.00	6650.00	6770.00	7370.00
70303	DISS SOL	TONS PER ACRE-FT	.36	.34	.35	.33	.32	.30	.32	.29	.27
71851	NITRATE	DISS-NO3 MG/L		.4				1.0		1.5	
71885	IRON	FE UG/L						30.00			

INITIAL DATE			65/05/30	65/06/19	65/07/18	65/08/18	65/09/17	65/10/01	65/11/01	65/12/01	65/12/03
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			65/06/18	65/07/17	65/08/17	65/09/16	65/09/30	65/10/31	65/11/30	65/12/02	
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	
00060	STREAM	FLOW CFS	14760	15970	12610	8419	5545	4225	2332	2470	2450
00095	CNDUCTVY	AT 25C MICROMHO	315	281	277	303	339	360	381	383	419
00400	PH	SU	7.60	7.90	7.80	7.90	7.80	8.10	8.10	8.20	7.50
00410	T ALK	CACO3 MG/L						131	135	136	131
00440	HCO3 ION	HCO3 MG/L	154	141	134	140	151	160	164	166	160
00445	CO3 ION	CO3 MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3 MG/L	147	134	130	142	156	166	177	176	189
00902	NC HARD	CACO3 MG/L	21	18	20	27	32	36	42	40	58
00915	CALCIUM	CA,DISS MG/L			38.0			47.0			
00925	MGNSIUM	MG,DISS MG/L			8.4			12.0			
00930	SODIUM	NA,DISS MG/L	8.20	7.00	6.80	7.80	9.80	11.00	11.00	11.00	13.00
00931	SODIUM	ADSBTION RATIO	.3	.3	.3	.3	.3	.4	.4	.4	.4
00932	PERCENT	SODIUM %	11	10	10	11	12	12	12	12	13
00935	PTSSIUM	K,DISS MG/L			1.30			1.90			
00940	CHLORIDE	TOTAL MG/L			5			10			

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			65/05/30	65/06/19	65/07/18	65/08/18	65/09/17	65/10/01	65/11/01	65/12/01	65/12/03
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			65/06/18	65/07/17	65/08/17	65/09/16	65/09/30	65/10/31	65/11/30	65/12/02	
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	
00945	SULFATE	SO4-TOT MG/L			24			42			
00950	FLUORIDE	F,DISS MG/L			.30			.40			
00955	SILICA	DISOLVED MG/L			8.0			8.2			
01020	BORON	B,DISS UG/L			60			30			
46570	CAL HARD	CA MG MG/L			129$			167$			
70300	RESIDUE	DISS-180 C MG/L	185	164	160	179	205	218	222	227	258
70302	DISS SOL	TONS/DAY	7370.00	7070.00	5450.00	4070.00	3070.00	2490.00	1400.00	1510.00	1710.00
70303	DISS SOL	TONS PER ACRE-FT	.25	.22	.22	.24	.28	.30	.30	.31	.35
71851	NITRATE	DISS-NO3 MG/L			.6			.6			

INITIAL DATE			65/12/04	65/12/05	65/12/27	66/01/01	66/01/15	66/01/22	66/02/02	66/03/01	66/03/18
CP-SPACE OR TIME-STATISTICAL FUNC				CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)				65/12/26	65/12/31	66/01/14	66/01/21	66/02/01	66/02/28	66/03/17	66/04/14
FINAL TIME-NUMBER OF SAMPLES				C	C	C	C	C	C	C	C
00060	STREAM	FLOW CFS	2430	2576	2588	2999	3501	3170	7660	10510	10560
00080	COLOR	PT-CO UNITS				5					
00095	CNDUCTVY	AT 25C MICROMHO	338	384	381	410	426	408	420	447	428
00400	PH	SU	8.20	8.20	8.20	8.20	8.10	8.10	8.10	7.90	8.00
00410	T ALK	CACO3 MG/L	112	135	133	144	146	141	146	156	149
00440	HCO3 ION	HCO3 MG/L	136	164	162	176	178	172	178	190	182
00445	CO3 ION	CO3 MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3 MG/L	151	177	175	188	199	188	195	206	198
00902	NC HARD	CACO3 MG/L	40	42	42	44	52	47	49	50	48
00915	CALCIUM	CA,DISS MG/L				54.0					
00925	MGNSIUM	MG,DISS MG/L				13.0					
00930	SODIUM	NA,DISS MG/L	11.00	11.00	11.00	13.00	12.00	12.00	12.00	14.00	13.00
00931	SODIUM	ADSBTION RATIO	.4	.4	.4	.4	.4	.4	.4	.4	.4
00932	PERCENT	SODIUM %	14	12	12	13	12	12	12	13	12
00935	PTSSIUM	K,DISS MG/L				1.90					
00940	CHLORIDE	TOTAL MG/L				13					
00945	SULFATE	SO4-TOT MG/L				52					
00950	FLUORIDE	F,DISS MG/L				.40					
00955	SILICA	DISOLVED MG/L				7.3					
01020	BORON	B,DISS UG/L				120					
46570	CAL HARD	CA MG MG/L				188$					

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			65/12/04	65/12/05	65/12/27	66/01/01	66/01/15	66/01/22	66/02/02	66/03/01	66/03/18
CP-SPACE OR TIME-STATISTICAL FUNC				CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)				65/12/26	65/12/31	66/01/14	66/01/21	66/02/01	66/02/28	66/03/17	66/04/14
FINAL TIME-NUMBER OF SAMPLES				C	C	C	C	C	C	C	C
70300 RESIDUE	DISS-180	C MG/L	200	231	226	247	248	243	246	265	249
70302 DISS SOL	TONS/DAY		1310.00	1610.00	1580.00	2000.00	2340.00	2080.00	5090.00	7520.00	7100.00
70303 DISS SOL	TONS PER	ACRE-FT	.27	.31	.31	.34	.34	.33	.33	.36	.34
71851 NITRATE	DISS-NO3	MG/L				.5					

INITIAL DATE			66/04/15	66/04/19	66/05/04	66/05/30	66/06/05	66/06/06	66/06/11	66/06/12	66/07/01
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-		CP-T-		CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			66/04/18	66/05/03	66/05/29	66/06/04		66/06/10		66/06/30	66/07/28
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C		C		C	C
00060 STREAM	FLOW	CFS	10820	11670	13290	15950	13700	13500	13200	15070	15990
00095 CNDUCTVY	AT 25C	MICROMHO	455	422	377	358	297	359	260	342	306
00400 PH		SU	7.80	7.90	7.80	8.00	8.20	7.80	8.20	7.80	7.50
00410 T ALK	CACO3	MG/L	156	144	133	130	110	130	79	126	118
00440 HCO3 ION	HCO3	MG/L	190	176	162	158	134	158	96	154	144
00445 CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900 TOT HARD	CACO3	MG/L	208	193	174	162	142	165	110	158	142
00902 NC HARD	CACO3	MG/L	52	49	41	32	32	35	32	32	24
00915 CALCIUM	CA,DISS	MG/L		56.0	50.0						42.0
00925 MGNSIUM	MG,DISS	MG/L		13.0	12.0						9.1
00930 SODIUM	NA,DISS	MG/L	14.00	12.00	10.00	9.30	14.00	10.00	15.00	9.20	8.30
00931 SODIUM	ADSBTION	RATIO	.4	.4	.3	.3	.5	.3	.6	.3	.3
00932 PERCENT	SODIUM	%	13	12	11	11	18	12	23	11	11
00935 PTSSIUM	K,DISS	MG/L		2.10							1.50
00940 CHLORIDE	TOTAL	MG/L		13							7
00945 SULFATE	SO4-TOT	MG/L		54							33
00950 FLUORIDE	F,DISS	MG/L		.40							.40
00955 SILICA	DISOLVED	MG/L		8.0							8.7
01020 BORON	B,DISS	UG/L		0							0
46570 CAL HARD	CA MG	MG/L		193$	174$						142$
70300 RESIDUE	DISS-180	C MG/L	270	246	222	212	177	213	148	204	181
70302 DISS SOL	TONS/DAY		7890.00	7750.00	7970.00	9130.00	6550.00	7760.00	5270.00	8300.00	7810.00
70303 DISS SOL	TONS PER	ACRE-FT	.37	.33	.30	.29	.24	.29	.20	.28	.25
71851 NITRATE	DISS-NO3	MG/L		1.0							.4

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

INITIAL DATE			66/07/29	66/08/09	66/09/08	66/09/18	66/10/01	66/10/20	66/11/07	66/12/01	66/12/06
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			66/08/08	66/09/07	66/09/17	66/09/30	66/10/19	66/11/06	66/11/30	66/12/05	66/12/18
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	12300	9012	7850	5463	4820	2760	1660	1590	1550
00095	CNDUCTVY	AT 25C	MICROMHO	297	315	340	374	384	425	490	494	482
00400	PH		SU	7.50	7.50	7.80	7.90	7.80	7.90	7.90	7.70	7.80
00410	T ALK	CACO3	MG/L	112	116	121	128	131	141	159	159	153
00440	HCO3 ION	HCO3	MG/L	137	142	147	156	160	172	194	194	187
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3	MG/L	138	146	155	165	164	178	210	210	201
00902	NC HARD	CACO3	MG/L	26	30	34	37	34	38	52	52	48
00915	CALCIUM	CA,DISS	MG/L	39.0	42.0	44.0	48.0	46.0	50.0	58.0	58.0	56.0
00925	MGNSIUM	MG,DISS	MG/L	9.8	10.0	11.0	11.0	12.0	13.0	16.0	16.0	15.0
00930	SODIUM	NA,DISS	MG/L	8.20	9.30	10.00	12.00	14.00	16.00	19.00		
00931	SODIUM	ADSBTION	RATIO	.3	.3	.3	.4	.5	.5	.6		
00932	PERCENT	SODIUM	%	11	12	12	14	15	16	16		
00935	PTSSIUM	K,DISS	MG/L					2.20				
00940	CHLORIDE	TOTAL	MG/L					14				
00945	SULFATE	SO4-TOT	MG/L					46				
00950	FLUORIDE	F,DISS	MG/L					.50				
00955	SILICA	DISOLVED	MG/L					10.0				
01020	BORON	B,DISS	UG/L					0				
46570	CAL HARD	CA MG	MG/L	138$	146$	155$	165$	164$	178$	211$	211$	202$
70300	RESIDUE	DISS-180	C MG/L	206	203	221	237	231	251	294	278	289
70302	DISS SOL	TONS/DAY		6840.00	4940.00	4680.00	3500.00	3010.00	1870.00	1320.00	1190.00	1210.00
70303	DISS SOL	TONS PER	ACRE-FT	.28	.28	.30	.32	.31	.34	.40	.38	.39
71851	NITRATE	DISS-NO3	MG/L					.7				

INITIAL DATE			66/12/19	67/01/01	67/01/25	67/02/23	67/03/11	67/04/10	67/04/27	67/05/10	67/06/01
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			66/12/31	67/01/24	67/02/22	67/03/10	67/04/09	67/04/26	67/05/09	67/05/31	67/06/08
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	1550	1560	1570	1540	1550	2150	7700	12500	13000
00095	CNDUCTVY	AT 25C	MICROMHO	513	517	518	529	537	506	451	402	360
00400	PH		SU	7.90	7.80	8.10	8.10	8.10	8.20	8.20	8.00	8.10

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			66/12/19	67/01/01	67/01/25	67/02/23	67/03/11	67/04/10	67/04/27	67/05/10	67/06/01
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			66/12/31	67/01/24	67/02/22	67/03/10	67/04/09	67/04/26	67/05/09	67/05/31	67/06/08
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00410	T ALK	CACO3 MG/L	169	167	164	171	172	162	154	138	130
00440	HCO3 ION	HCO3 MG/L	206	204	200	208	210	198	188	168	158
00445	CO3 ION	CO3 MG/L	0	0	0	0	0	0	0	0	0
00900	TOT HARD	CACO3 MG/L	220	220	232	234	238	220	211	186	167
00902	NC HARD	CACO3 MG/L	52	54	68	64	66	58	57	48	38
00915	CALCIUM	CA,DISS MG/L	62.0	62.0	65.0	66.0	69.0	62.0	60.0	53.0	47.0
00925	MGNSIUM	MG,DISS MG/L	16.0	16.0	17.0	17.0	16.0	16.0	15.0	13.0	12.0
00930	SODIUM	NA,DISS MG/L		20.00	19.00	20.00	20.00	19.00	15.00	13.00	10.00
00931	SODIUM	ADSBTION RATIO		.6	.5	.6	.6	.6	.4	.4	.3
00932	PERCENT	SODIUM %		16	15	16	15	16	13	13	12
00935	PTSSIUM	K,DISS MG/L		2.90				3.00			
00940	CHLORIDE	TOTAL MG/L		23				21			
00945	SULFATE	SO4-TOT MG/L		66				67			
00950	FLUORIDE	F,DISS MG/L		.40				.50			
00955	SILICA	DISOLVED MG/L		8.8				9.1			
01020	BORON	B,DISS UG/L		90				20			
46570	CAL HARD	CA MG MG/L	221$	221$	232$	235$	238$	221$	212$	186$	167$
70300	RESIDUE	DISS-180 C MG/L	310	323	314	330	318	307	276	230	205
70302	DISS SOL	TONS/DAY	1300.00	1360.00	1330.00	1370.00	1330.00	1780.00	5740.00	7760.00	7200.00
70303	DISS SOL	TONS PER ACRE-FT	.42	.44	.43	.45	.43	.42	.38	.31	.28
71851	NITRATE	DISS-NO3 MG/L		1.0				.3			

INITIAL DATE			67/06/09	67/06/21	67/07/09	67/08/07	67/09/07	67/10/01	67/10/07	67/10/16	67/11/15
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			67/06/20	67/07/08	67/08/06	67/09/06	67/09/30	67/10/06	67/10/15	67/11/14	67/11/21
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW CFS	16300	18200	12900	9870	8340	6500	3660	2968	2036
00080	COLOR	PT-CO UNITS								5	
00095	CNDUCTVY	AT 25C MICROMHO	338	302	273	289	319	333	376	402	443
00400	PH	SU	8.20	8.10	8.40	8.40	8.00	8.50	8.40	8.30	8.20
00410	T ALK	CACO3 MG/L	123	116	110	113	118	126	141	148	153
00440	HCO3 ION	HCO3 MG/L	150	142	122	130	144	146	164	172	186
00445	CO3 ION	CO3 MG/L	0	0	6	4	0	4	4	4	0
00900	TOT HARD	CACO3 MG/L	154	144	130	134	150	152	176	192	208
00902	NC HARD	CACO3 MG/L	30	27	20	21	32	26	35	44	56

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			67/06/09	67/06/21	67/07/09	67/08/07	67/09/07	67/10/01	67/10/07	67/10/16	67/11/15
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			67/06/20	67/07/08	67/08/06	67/09/06	67/09/30	67/10/06	67/10/15	67/11/14	67/11/21
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00915	CALCIUM	CA,DISS	MG/L	45.0	42.0	37.0	38.0	42.0	43.0	49.0	54.0	59.0
00925	MGNSIUM	MG,DISS	MG/L	10.0	9.4	9.0	9.5	11.0	11.0	13.0	14.0	15.0
00930	SODIUM	NA,DISS	MG/L	8.70	7.20	7.10	7.90	8.40	10.00	11.00	12.00	14.00
00931	SODIUM	ADSBTION	RATIO	.3	.3	.3	.3	.3	.4	.4	.4	.4
00932	PERCENT	SODIUM	%	11	9	10	11	11	12	12	12	13
00935	PTSSIUM	K,DISS	MG/L			1.90					2.40	
00940	CHLORIDE	TOTAL	MG/L			6					15	
00945	SULFATE	SO4-TOT	MG/L			25					48	
00950	FLUORIDE	F,DISS	MG/L			.20					.40	
00955	SILICA	DISOLVED	MG/L			8.9					8.0	
01020	BORON	B,DISS	UG/L			20					20	
46570	CAL HARD	CA MG	MG/L	154$	144$	129$	134$	150$	153$	176$	192$	209$
70300	RESIDUE	DISS-180	C MG/L	194	176	151	165	194	186	212	238	250
70301	DISS SOL	SUM	MG/L								243	
70302	DISS SOL	TONS/DAY		8540.00	8650.00	5260.00	4400.00	4370.00	3260.00	2100.00	1910.00	1370.00
70303	DISS SOL	TONS PER	ACRE-FT	.26	.24	.21	.22	.26	.25	.29	.32	.34
71851	NITRATE	DISS-NO3	MG/L			.7					.6	

	INITIAL DATE			67/11/22	67/11/30	67/12/06	68/01/08	68/02/09	68/03/05	68/03/13	68/03/24	68/03/29
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			67/11/29	67/12/05	67/12/26	68/01/31	68/03/04	68/03/12	68/03/23	68/03/28	
	FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	
00060	STREAM	FLOW	CFS	3202	3015	2966	2884	1436	1513	1615	1852	1920
00080	COLOR	PT-CO	UNITS				0					
00095	CNDUCTVY	AT 25C	MICROMHO	420	428	426	438	503	493	487	449	498
00400	PH		SU	8.20	8.20	8.20	8.30	8.20	8.20	8.40	8.20	8.30
00410	T ALK	CACO3	MG/L	144	146	144	148	166	162	162	139	164
00440	HCO3 ION	HCO3	MG/L	176	178	176	177	202	198	190	170	196
00445	CO3 ION	CO3	MG/L	0	0	0	2	0	0	4	0	2
00900	TOT HARD	CACO3	MG/L	187	187	190	194	230	220	220	191	223
00902	NC HARD	CACO3	MG/L	43	41	46	46	65	58	58	52	59
00915	CALCIUM	CA,DISS	MG/L	52.0	52.0	53.0	55.0	66.0	62.0	62.0	50.0	63.0
00925	MGNSIUM	MG,DISS	MG/L	14.0	14.0	14.0	14.0	16.0	16.0	16.0	16.0	16.0
00930	SODIUM	NA,DISS	MG/L	13.00	13.00	13.00	14.00	18.00	18.00	17.00	16.00	17.00
00931	SODIUM	ADSBTION	RATIO	.4	.4	.4	.4	.5	.5	.5	.5	.5

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE		67/11/22	67/11/30	67/12/06	68/01/08	68/02/09	68/03/05	68/03/13	68/03/24	68/03/29
	CP-SPACE OR TIME-STATISTICAL FUNC		CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	
	MEDIUM-USGS REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)		67/11/29	67/12/05	67/12/26	68/01/31	68/03/04	68/03/12	68/03/23	68/03/28	
	FINAL TIME-NUMBER OF SAMPLES		C	C	C	C	C	C	C	C	
00932	PERCENT SODIUM	%	13	13	13	13	15	15	14	15	14
00935	PTSSIUM K,DISS	MG/L				2.10					
00940	CHLORIDE TOTAL	MG/L				16					
00945	SULFATE SO4-TOT	MG/L				55					
00950	FLUORIDE F,DISS	MG/L				.50					
00955	SILICA DISOLVED	MG/L				8.7					
01020	BORON B,DISS	UG/L				20					
46570	CAL HARD CA MG	MG/L	187$	187$	190$	195$	231$	221$	221$	191$	223$
70300	RESIDUE DISS-180 C	MG/L	239	243	249	251	279	289	279	248	290
70301	DISS SOL SUM	MG/L				255					
70302	DISS SOL TONS/DAY		2070.00	1980.00	1990.00	1950.00	1080.00	1180.00	1220.00	1240.00	1500.00
70303	DISS SOL TONS PER	ACRE-FT	.33	.33	.34	.34	.38	.39	.38	.34	.39
71851	NITRATE DISS-NO3	MG/L				.8					

	INITIAL DATE		68/03/30	68/04/03	68/04/12	68/04/13	68/04/18	68/04/24	68/04/25	68/05/11	68/06/17
	CP-SPACE OR TIME-STATISTICAL FUNC		CP-T-	CP-T-		CP-T-	CP-T-		CP-T-	CP-T-	CP-T-
	MEDIUM-USGS REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)		68/03/31	68/04/11		68/04/17	68/04/23		68/05/10	68/06/09	68/07/02
	FINAL TIME-NUMBER OF SAMPLES		C	C		C	C		C	C	C
00060	STREAM FLOW	CFS	1990	3659	3710	4014	4793	5800	10820	13140	15720
00080	COLOR FT-CO	UNITS								0	
00095	CNDUCTVY AT 25C	MICROMHO	423	449	376	451	438	383	415	389	334
00400	PH	SU	8.20	8.20	8.20	8.20	8.40	8.40	8.10	8.10	8.50
00410	T ALK CACO3	MG/L	125	151	107	153	149	120	144	138	130
00440	HCO3 ION HCO3	MG/L	152	184	130	186	174	138	176	168	146
00445	CO3 ION CO3	MG/L	0	0	0	0	4	4	0	0	6
00900	TOT HARD CACO3	MG/L	181	198	156	204	201	168	194	176	150
00902	NC HARD CACO3	MG/L	6	48	50	51	52	48	50	38	20
00915	CALCIUM CA,DISS	MG/L	46.0	55.0	38.0	57.0	56.0	44.0	55.0	49.0	42.0
00925	MGNSIUM MG,DISS	MG/L	16.0	15.0	15.0	15.0	15.0	14.0	14.0	13.0	11.0
00930	SODIUM NA,DISS	MG/L	16.00	14.00	14.00	13.00	13.00	12.00	11.00	10.00	8.40
00931	SODIUM ADSBTION	RATIO	.5	.4	.5	.4	.4	.4	.3	.3	.3
00932	PERCENT SODIUM	%	16	13	16	12	12	13	11	11	11
00935	PTSSIUM K,DISS	MG/L								1.80	
00940	CHLORIDE TOTAL	MG/L								9	
00945	SULFATE SO4-TOT	MG/L								47	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			68/03/30	68/04/03	68/04/12	68/04/13	68/04/18	68/04/24	68/04/25	68/05/11	68/06/17
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-		CP-T-	CP-T-		CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			68/03/31	68/04/11		68/04/17	68/04/23		68/05/10	68/06/09	68/07/02
FINAL TIME-NUMBER OF SAMPLES			C	C		C	C		C	C	C
00950	FLUORIDE	F,DISS	MG/L							.30	
00955	SILICA	DISOLVED	MG/L							10.0	
01020	BORON	B,DISS	UG/L							20	
46570	CAL HARD	CA MG	MG/L	181$	199$	157$	204$	202$	168$	195$	176$	150$
70300	RESIDUE	DISS-180 C	MG/L	232	259	220	284	263	224	242	231	233
70301	DISS SOL	SUM	MG/L								224	
70302	DISS SOL	TONS/DAY		1250.00	2560.00	2200.00	3080.00	3400.00	3510.00	7070.00	8200.00	9890.00
70303	DISS SOL	TONS PER	ACRE-FT	.32	.35	.30	.39	.36	.30	.33	.31	.32
71851	NITRATE	DISS-NO3	MG/L								.8	

INITIAL DATE			68/07/03	68/07/17	68/08/07	68/08/20	68/08/27	68/09/10	68/09/25	68/10/01	68/10/15
CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)			68/07/16	68/08/06	68/08/19	68/08/26	68/09/09	68/09/24	68/09/30	68/10/14	68/10/23
FINAL TIME-NUMBER OF SAMPLES			C	C	C	C	C	C	C	C	C
00060	STREAM	FLOW	CFS	12720	12530	9548	6016	5091	7650	4982	5240	3840
00080	COLOR	PT-CO	UNITS			0						
00095	CNDUCTVY	AT 25C	MICROMHO	311	292	301	328	351	326	358	358	395
00400	PH		SU	8.50	8.40	8.20	7.70	8.20	8.10	8.40	8.40	8.40
00410	T ALK	CACO3	MG/L	123	116	115	122	125	121	126	126	138
00440	HCO3 ION	HCO3	MG/L	138	137	140	149	152	147	146	146	158
00445	CO3 ION	CO3	MG/L	6	2	0	0	0	0	4	4	5
00900	TOT HARD	CACO3	MG/L	138	128	136	144	150	141	157	157	175
00902	NC HARD	CACO3	MG/L	14	12	22	22	26	20	31	31	37
00915	CALCIUM	CA,DISS	MG/L	39.0	37.0	39.0	41.0	42.0	40.0	43.0	43.0	47.0
00925	MGNSIUM	MG,DISS	MG/L	9.7	8.8	9.4	10.0	11.0	10.0	12.0	12.0	14.0
00930	SODIUM	NA,DISS	MG/L	8.00	7.40	8.80	9.90	11.00	10.00	12.00	12.00	13.00
00931	SODIUM	ADSBTION	RATIO	.3	.3	.3	.4	.4	.4	.4	.4	.4
00932	PERCENT	SODIUM	%	11	11	12	13	14	13	14	14	14
00935	PTSSIUM	K,DISS	MG/L			1.50						
00940	CHLORIDE	TOTAL	MG/L			7						
00945	SULFATE	SO4-TOT	MG/L			31						
00950	FLUORIDE	F,DISS	MG/L			.30						
00955	SILICA	DISOLVED	MG/L			9.8						
01020	BORON	B,DISS	UG/L			20						
46570	CAL HARD	CA MG	MG/L	137$	129$	136$	144$	150$	141$	157$	157$	175$

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYFA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE	68/07/03	68/07/17	68/08/07	68/08/20	68/08/27	68/09/10	68/09/25	68/10/01	68/10/15
CP-SPACE OR TIME-STATISTICAL FUNC	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)	68/07/16	68/08/06	68/08/19	68/08/26	68/09/09	68/09/24	68/09/30	68/10/14	68/10/23
FINAL TIME-NUMBER OF SAMPLES	C	C	C	C	C	C	C	C	C
70300 RESIDUE DISS-180 C MG/L	218	193	181	187	198	180	202	202	222
70301 DISS SOL SUM MG/L			177						
70302 DISS SOL TONS/DAY	7490.00	6530.00	4670.00	3040.00	2720.00	3720.00	2720.00	2860.00	2300.00
70303 DISS SOL TONS PER ACRE-FT	.30	.26	.25	.25	.27	.24	.27	.27	.30
71851 NITRATE DISS-NO3 MG/L			.7						

INITIAL DATE	68/10/24	68/11/10	69/01/04	69/02/01	69/02/05	69/02/27	69/03/27	69/03/28	69/04/02
CP-SPACE OR TIME-STATISTICAL FUNC	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-		CP-T-	
MEDIUM-USGS REMARK	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)	68/11/09	68/12/02	69/01/31	69/02/04	69/02/26	69/03/26		69/04/01	
FINAL TIME-NUMBER OF SAMPLES	C	C	C	C	C	C		C	
00060 STREAM FLOW CFS	3270	3410	3630	3630	3440	4270	6460	7100	9640
00080 COLOR PT-CO UNITS		5				5			
00095 CNDUCTVY AT 25C MICROMHO	403	410	413	401	425	424	351	405	359
00400 PH SU	8.30	8.30	8.10	8.20	8.30	8.30		8.20	
00410 T ALK CACO3 MG/L	139	140	144	138	148	148		143	
00440 HCO3 ION HCO3 MG/L	161	167	176	168	173	174		174	
00445 CO3 ION CO3 MG/L	4	2	0	0	4	3		0	
00900 TOT HARD CACO3 MG/L	176	178	178	178	190	190		187	
00902 NC HARD CACO3 MG/L	38	38	34	40	41	42		44	
00915 CALCIUM CA,DISS MG/L	49.0	50.0	50.0	48.0	53.0	53.0		52.0	
00925 MGNSIUM MG,DISS MG/L	13.0	13.0	13.0	14.0	14.0	14.0		14.0	
00930 SODIUM NA,DISS MG/L	13.00	13.00	12.00	12.00	12.00	13.00		12.00	
00931 SODIUM ADSBTION RATIO	.4	.4	.4	.4	.4	.4		.4	
00932 PERCENT SODIUM %	14	14	13	13	12	13		12	
00935 PTSSIUM K,DISS MG/L		2.60				2.10			
00940 CHLORIDE TOTAL MG/L		12				13			
00945 SULFATE SO4-TOT MG/L		49				54			
00950 FLUORIDE F,DISS MG/L		.40				.30			
00955 SILICA DISOLVED MG/L		9.3				9.1			
01020 BORON B,DISS UG/L		40							
46570 CAL HARD CA MG MG/L	176$	178$	178$	178$	190$	190$		187$	
70300 RESIDUE DISS-180 C MG/L	231	235	251	263	258	252		244	
70301 DISS SOL SUM MG/L		234				248			
70302 DISS SOL TONS/DAY	2040.00	2160.00	2460.00	2580.00	2400.00	2910.00		4680.00	
70303 DISS SOL TONS PER ACRE-FT	.31	.32	.34	.36	.35	.34		.33	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE	68/10/24	68/11/10	69/01/04	69/02/01	69/02/05	69/02/27	69/03/27	69/03/28	69/04/02
CP-SPACE OR TIME-STATISTICAL FUNC	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-	CP-T-		CP-T-	
MEDIUM-USGS REMARK	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)	68/11/09	68/12/02	69/01/31	69/02/04	69/02/26	69/03/26		69/04/01	
FINAL TIME-NUMBER OF SAMPLES	C	C	C	C	C	C		C	
71851 NITRATE DISS-NO3 MG/L		.5				.9			

INITIAL DATE	69/04/03	69/04/08	69/04/09	69/04/20	69/04/21	69/05/20	69/06/02	69/07/01	69/08/01
CP-SPACE OR TIME-STATISTICAL FUNC	CP-T-		CP-T-		CP-T-	CP-T-	CP-T-	CP-T-	CP-T-
MEDIUM-USGS REMARK	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)	69/04/07		69/04/19		69/05/19	69/06/01	69/06/30	69/07/31	69/08/31
FINAL TIME-NUMBER OF SAMPLES	C		C		C	C	C	C	C
00060 STREAM FLOW CFS	10400	10300	11700	12500	12600	15500	11100	11900	10400
00095 CNDUCTVY AT 25C MICROMHO	406	311	399	309	373	344	321	304	313
00400 PH SU	8.20		7.90		8.00	8.10	8.10	8.20	8.20
00410 T ALK CACO3 MG/L	141		138		133	127	126	121	121
00440 HCO3 ION HCO3 MG/L	172		168		162	155	154	147	147
00445 CO3 ION CO3 MG/L	0		0		0	0	0	0	0
00900 TOT HARD CACO3 MG/L	187		182		164	152	146	139	144
00902 NC HARD CACO3 MG/L	46		45		32	26	20	18	23
00915 CALCIUM CA,DISS MG/L	52.0		50.0		46.0	43.0	42.0	40.0	41.0
00925 MGNSIUM MG,DISS MG/L	14.0		14.0		12.0	11.0	10.0	9.5	10.0
00930 SODIUM NA,DISS MG/L	11.00		11.00		11.00	9.50	8.50	7.70	8.60
00931 SODIUM ADSBTION RATIO	.3		.4		.4	.3	.3	.3	.3
00932 PERCENT SODIUM %	11		12		13	12	11	11	12
46570 CAL HARD CA MG MG/L	187$		183$		164$	153$	146$	139$	144$
70300 RESIDUE DISS-180 C MG/L	235		235		206	185	171	168	204
70302 DISS SOL TONS/DAY	6600.00		7420.00		7010.00	7740.00	5130.00	5400.00	5730.00
70303 DISS SOL TONS PER ACRE-FT	.32		.32		.28	.25	.23	.23	.28

INITIAL DATE	69/09/01	69/10/15	69/11/15	69/12/15	70/01/15	70/02/15	70/03/15	70/04/15	70/06/15
INITIAL TIME		1040	1330	1330	0730	1700	1815	1630	1600
CP-SPACE OR TIME-STATISTICAL FUNC	CP-T-								
MEDIUM-USGS REMARK	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
FINAL DATE(UMK)	69/09/30								
FINAL TIME-NUMBER OF SAMPLES	C								
00010 WATER TEMP CENT									9.0
00011 WATER TEMP FAHN									48.2$
00060 STREAM FLOW CFS	7360	2750	1850	1350	1760	1440	1570	6220	16100
00095 CNDUCTVY AT 25C MICROMHO	344	355	434	464	538	503	510	457	329
00400 PH SU	8.00	8.40	7.70	7.60	8.00	8.00	8.60	8.00	7.80

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			69/09/01	69/10/15	69/11/15	69/12/15	70/01/15	70/02/15	70/03/15	70/04/15	70/06/15
	INITIAL TIME				1040	1330	1330	0730	1700	1815	1630	1600
	CP-SPACE OR TIME-STATISTICAL FUNC			CP-T-								
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	FINAL DATE(UMK)			69/09/30								
	FINAL TIME-NUMBER OF SAMPLES			C								
00410	T ALK	CACO3	MG/L	127	102	133	136	172	154	166	153	125
00440	HCO3 ION	HCO3	MG/L	155	120	162	166	210	188	190	186	152
00445	CO3 ION	CO3	MG/L	0	2	0	0	0	0	6	0	0
00900	TOT HARD	CACO3	MG/L	155	136	176	186	234	204	226	201	148
00902	NC HARD	CACO3	MG/L	28	38	44	50	62	50	70	48	24
00915	CALCIUM	CA,DISS	MG/L	44.0	33.0	46.0	48.0	66.0	54.0	64.0	56.0	43.0
00925	MGNSIUM	MG,DISS	MG/L	11.0	13.0	15.0	16.0	17.0	17.0	16.0	15.0	10.0
00930	SODIUM	NA,DISS	MG/L	10.00	15.00	16.00	18.00	20.00	20.00	19.00	13.00	8.80
00931	SODIUM	ADSBTION	RATIO	.3	.6	.5	.6	.6	.6	.6	.4	.3
00932	PERCENT	SODIUM	%	12	19	16	17	15	17	15	12	11
00935	PTSSIUM	K,DISS	MG/L		2.60	2.70	2.90	3.00	3.10	3.50	2.20	1.70
00940	CHLORIDE	TOTAL	MG/L		15	15	20	28	22	22	12	8
00945	SULFATE	SO4-TOT	MG/L									32
00950	FLUORIDE	F,DISS	MG/L		.40	.40	.40	.40	.40	.40	.40	.30
00955	SILICA	DISOLVED	MG/L		4.3	4.2	4.6	8.8	8.4	7.1	8.1	10.0
46570	CAL HARD	CA MG	MG/L	155$	136$	177$	186$	235$	205$	226$	202$	149$
70300	RESIDUE	DISS-180 C	MG/L	190	199	255	246	313	288	313	269	197
70301	DISS SOL	SUM	MG/L									189
70302	DISS SOL	TONS/DAY		3780.00	1480.00	1270.00	897.00	1490.00	1120.00	1330.00	4520.00	8560.00
70303	DISS SOL	TONS PER	ACRE-FT	.26	.27	.35	.33	.43	.39	.43	.37	.27
71851	NITRATE	DISS-NO3	MG/L									.1

	INITIAL DATE			70/07/15	70/08/15	70/09/15	70/10/15	70/11/15	70/12/15	71/01/15	71/01/15	71/02/15
	INITIAL TIME			1900	2015	0730	1330	1800	1100	1400		1830
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	16.0	16.0	12.0	11.5		4.0	2.5		4.0
00011	WATER	TEMP	FAHN	60.8$	60.8$	53.6$	52.7$		39.2$	36.5$		39.2$
00060	STREAM	FLOW	CFS	11300	10900	5510	4110	3430	2680	2580		4740
00061	STREAM	FLOW,	INST-CFS								2580	
00095	CNDUCTVY	AT 25C	MICROMHO	272	293	341	368	431	420	413		404
00400	PH		SU	8.80	7.90	7.90	8.40	8.40	8.30	7.90		8.10
00410	T ALK	CACO3	MG/L	113	116	127	113	151	146	149		150
00440	HCO3 ION	HCO3	MG/L	122	142	155	128	180	178	182		183
00445	CO3 ION	CO3	MG/L	8	0	0	5	2	0	0		0
00631	NO2&NO3	N-DISS	MG/L				.0	.7	.7	.09		.09

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

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112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				70/07/15	70/08/15	70/09/15	70/10/15	70/11/15	70/12/15	71/01/15	71/01/15	71/02/15
INITIAL TIME				1900	2015	0730	1330	1800	1100	1400		1830
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00660	ORTHOPO4	PO4	MG/L					.00				.00
00665	PHOS-TOT		MG/L P				.360	.070	.020			.000
00900	TOT HARD	CACO3	MG/L	128	133	155	158	197	190	190		190
00902	NC HARD	CACO3	MG/L	14	16	28	45	46	44	41		40
00915	CALCIUM	CA,DISS	MG/L	37.0	38.0	44.0	42.0	56.0	53.0	52.0		53.0
00925	MGNSIUM	MG,DISS	MG/L	8.6	9.2	11.0	13.0	14.0	14.0	14.0		14.0
00930	SODIUM	NA,DISS	MG/L	7.20	7.60	10.00	12.00	13.00	12.00	14.00		14.00
00931	SODIUM	ADSBTION	RATIO	.3	.3	.3	.4	.4	.4	.4		.4
00932	PERCENT	SODIUM	%	11	11	12	14	13	12			14
00935	PTSSIUM	K,DISS	MG/L	1.50	1.50	1.90						
00940	CHLORIDE	TOTAL	MG/L	6	6	11	12	15	14	14		13
00945	SULFATE	SO4-TOT	MG/L	23	42	36	41	50	49	48		41
00950	FLUORIDE	F,DISS	MG/L	.30	.30	.40						
00955	SILICA	DISOLVED	MG/L	9.2	13.0	9.8	11.0					9.2
46570	CAL HARD	CA MG	MG/L	128$	133$	155$	158$	197$	190$	187$		190$
70300	RESIDUE	DISS-180	C MG/L	158	190	202	209	240	246	232		214
70301	DISS SOL	SUM	MG/L	161	188	200	200	241	233			230
70302	DISS SOL	TONS/DAY		4820.00	5590.00	3010.00	2320.00	2220.00	1780.00	1620.00		2740.00
70303	DISS SOL	TONS PER	ACRE-FT	.21	.26	.27	.28	.33	.33	.32		.29
71851	NITRATE	DISS-NO3	MG/L	.0	.0	.0						
71886	TOTAL P	AS PO4	MG/L				1.10	.20	.05			

INITIAL DATE				71/03/15	71/04/15	71/05/15	71/06/15	71/07/15	71/08/15	71/09/15	71/10/15	71/11/15
INITIAL TIME				1400	1700	2030	1630	1500	1000	1600	1900	1230
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	3.0	4.5				13.0			
00011	WATER	TEMP	FAHN	37.4$	40.1$				55.4$			
00060	STREAM	FLOW	CFS	5170	17200	19600	19200	18200	10900	9120		
00061	STREAM	FLOW,	INST-CFS								8370	3250
00095	CNDUCTVY	AT 25C	MICROMHO	412	408	309	291	246	289	330	344	
00400	PH		SU	8.00	7.70	7.90	7.80	7.90	7.70	7.70	8.20	
00410	T ALK	CACO3	MG/L	148	150	121	129	116	118	124	130	
00440	HCO3 ION	HCO3	MG/L	180	183	148	157	142	144	151	159	
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	
00631	NO2&NO3	N-DISS	MG/L	.1	.2	.3	.06	.08	.1	.1	.0	
00665	PHOS-TOT		MG/L P	.020	.080	.200	.040	.050	.050	.090	.040	
00900	TOT HARD	CACO3	MG/L	180	180	140	130	120	130	140	160	
00902	NC HARD	CACO3	MG/L	32	35	17	5	8	11	20	25	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				71/03/15	71/04/15	71/05/15	71/06/15	71/07/15	71/08/15	71/09/15	71/10/15	71/11/15
INITIAL TIME				1400	1700	2030	1630	1500	1000	1600	1900	1230
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00915	CALCIUM	CA,DISS	MG/L	54.0	51.0	41.0	39.0	36.0	37.0	41.0	44.0	
00925	MGNSIUM	MG,DISS	MG/L	12.0	14.0	8.8	8.8	8.5	8.9	10.0	11.0	
00930	SODIUM	NA,DISS	MG/L	12.00	11.00	9.00	7.60	5.20	6.10	7.70	9.20	
00931	SODIUM	ADSBTION	RATIO	.4	.4	.3	.3	.2	.2	.3	.3	
00932	PERCENT	SODIUM	%	12	11			8				
00940	CHLORIDE	TOTAL	MG/L	12	9	9	4	4	6	5	7	
00945	SULFATE	SO4-TOT	MG/L	52	55	24	23	21	28	35	48	
00955	SILICA	DISOLVED	MG/L	9.6								
46570	CAL HARD	CA MG	MG/L	184$	185$	139$	134$	125$	129$	144$	155$	
70300	RESIDUE	DISS-180	C MG/L	264	382	210	176	172	174	220	244	
70301	DISS SOL	SUM	MG/L	240	231							
70302	DISS SOL	TONS/DAY		3690.00	17700.00	11100.00	9120.00	8450.00	5120.00	5420.00		
70303	DISS SOL	TONS PER	ACRE-FT	.36	.52		.24	.23	.24	.30	.33	

INITIAL DATE				71/11/15	71/12/15	72/01/15	72/02/15	72/03/15	72/04/15	72/05/15	72/06/15	72/07/15
INITIAL TIME					1400	1530	1700	1600	1600	1630	2000	0730
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00061	STREAM	FLOW,	INST-CFS		3760	3010	4610	7810	16400	17600	19200	11400
00095	CNDUCTVY	AT 25C	MICROMHO	408	417	437	428	416	384	318	274	282
00400	PH		SU	8.00	8.00	8.00	8.00	8.10	8.10	7.80	7.20	7.10
00410	T ALK	CACO3	MG/L	145	146	150	152	151	137	126	123	113
00440	HCO3 ION	HCO3	MG/L	177	178	183	185	184	167	153	150	138
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00631	NO2&NO3	N-DISS	MG/L	.1	.06	.1	.2	.2	.04	.1	.1	.0
00665	PHOS-TOT		MG/L P	.040	.040	.000	.030	.030	.040	.090	.070	.050
00900	TOT HARD	CACO3	MG/L	190	190	190	190	180	180	140	130	130
00902	NC HARD	CACO3	MG/L	43	42	39	41	34	45	15	3	18
00915	CALCIUM	CA,DISS	MG/L	54.0	54.0	56.0	54.0	51.0	53.0	41.0	37.0	38.0
00925	MGNSIUM	MG,DISS	MG/L	13.0	13.0	12.0	14.0	14.0	12.0	9.3	8.2	8.9
00930	SODIUM	NA,DISS	MG/L	12.00	12.00	12.00	12.00	11.00	11.00	9.50	5.20	6.20
00931	SODIUM	ADSBTION	RATIO	.4	.4	.4	.4	.4	.4	.3	.2	.2
00940	CHLORIDE	TOTAL	MG/L	13	14	15	15	16	10	7	4	5
00945	SULFATE	SO4-TOT	MG/L	59	47	57	54	57	54	30	21	24
46570	CAL HARD	CA MG	MG/L	188$	188$	189$	192$	185$	182$	141$	126$	132$
70300	RESIDUE	DISS-180	C MG/L	260	266	262	276	274	282	236	178	164
70303	DISS SOL	TONS PER	ACRE-FT	.35	.36	.36	.38	.37	.38	.32	.24	.22

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112WRD 17040104
0000 FEET DEPTH

INITIAL DATE				72/08/15	72/09/15	72/10/15	72/11/27	72/12/26	73/01/26	73/03/02	73/04/06	73/05/08
INITIAL TIME				0730	2000	1500	1235	1045	1000	1210	1200	1145
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT			12.0	4.5	4.0	2.5	2.0	6.0	7.5
00011	WATER	TEMP	FAHN			53.6$	40.1$	39.2$	36.5$	35.6$	42.8$	45.5$
00061	STREAM	FLOW,	INST-CFS	8980	9290	8230	3760	3840	3270	3270	2600	3360
00095	CNDUCTVY	AT 25C	MICROMHO	301	321	336	406	409	426	441	352	419
00400	PH		SU	7.30	8.10	7.90	7.80	8.10	7.60	8.10	8.10	8.00
00405	CO2		MG/L				4.5	2.3	7.3	2.4	2.5	2.8
00410	T ALK	CACO3	MG/L	116	125	122	145	146	149	153	162	144
00440	HCO3 ION	HCO3	MG/L	141	152	149	177	178	182	187	197	176
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	0
00631	NO2&NO3	N-DISS	MG/L	3.8	.03	.1K	.1	.1	4.7	1.2	.1	.07
00665	PHOS-TOT		MG/L P	.040	.040	.010	.010	.010	.010	.020	.140	.040
00900	TOT HARD	CACO3	MG/L	130	140	150	190	190	190	200	210	180
00902	NC HARD	CACO3	MG/L	15	16	26	47	41	41	47	53	38
00915	CALCIUM	CA,DISS	MG/L	37.0	40.0	43.0	54.0	52.0	53.0	57.0	61.0	50.0
00925	MGNSIUM	MG,DISS	MG/L	9.4	10.0	10.0	14.0	14.0	14.0	14.0	15.0	14.0
00930	SODIUM	NA,DISS	MG/L	6.80	8.40	8.50	12.00	13.00	12.00	12.00	14.00	12.00
00931	SODIUM	ADSBTION	RATIO	.3	.3	.3	.4	.4	.4	.4	.4	.4
00932	PERCENT	SODIUM	%				12	13	12			
00935	PTSSIUM	K,DISS	MG/L				2.00	1.90	2.20			
00940	CHLORIDE	TOTAL	MG/L	6	6	8	13	13	15	15	17	14
00945	SULFATE	SO4-TOT	MG/L	31	45	43	56	52	51	64	73	51
00950	FLUORIDE	F,DISS	MG/L				.60	.40	.30			
00955	SILICA	DISOLVED	MG/L				8.5	9.0	8.6			
46570	CAL HARD	CA MG	MG/L	131$	141$	149$	192$	187$	190$	200$	214$	183$
70300	RESIDUE	DISS-180	C MG/L	196	242	226				283	277	260
70301	DISS SOL	SUM	MG/L				248	243	266			
70302	DISS SOL	TONS/DAY				5020.00	2520.00	2520.00	2350.00	2500.00	1950.00	2360.00
70303	DISS SOL	TONS PER	ACRE-FT	.27	.33	.31	.34	.33	.36	.38	.38	.35

INITIAL DATE				73/06/05	73/07/03	73/08/07	73/09/11	73/10/02	73/11/06	73/12/06	74/02/04	74/02/26
INITIAL TIME				1235	1555	0930	1150	0855	0910	1230	0915	1100
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	7.5	11.5	13.5	15.0	12.4	5.8	1.3	1.6	2.5
00011	WATER	TEMP	FAHN	45.5$	52.7$	56.3$	59.0$	54.3$	42.4$	34.3$	34.9$	36.5$
00020	AIR	TEMP	CENT									-7.0

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			73/06/05	73/07/03	73/08/07	73/09/11	73/10/02	73/11/06	73/12/06	74/02/04	74/02/26
INITIAL TIME			1235	1555	0930	1150	0855	0910	1230	0915	1100
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00060 STREAM	FLOW	CFS					3430	1630	1450	3210	
00061 STREAM	FLOW,	INST-CFS	13600	13500	11200	4860	3430	1630	1450	3210	2850
00095 CNDUCTVY	AT 25C	MICROMHO	377	330	310	374	402	496	496	454	385
00400 PH		SU	7.50	8.10	7.90	8.20	8.00	8.30	8.30	7.90	
00405 CO2		MG/L	8.5	1.9	3.0	1.6	2.9	1.6	1.6	3.7	
00410 T ALK	CACO3	MG/L	137	124	121	134	147	164	164	151	
00440 HCO3 ION	HCO3	MG/L	167	151	147	163	179	200	200	184	
00445 CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	
00631 NO2&NO3	N-DISS	MG/L	.04	.08	.08	.07	.03	.2	6.4	.2	
00665 PHOS-TOT		MG/L P	.030	.010	.010	.080	.060	.170	.010	.010	
00900 TOT HARD	CACO3	MG/L	170	160	150	170	180	220	220	200	
00902 NC HARD	CACO3	MG/L	37	34	25	33	29	52	57	51	
00915 CALCIUM	CA,DISS	MG/L	50.0	45.0	42.0	47.0	49.0	60.0	62.0	56.0	
00925 MGNSIUM	MG,DISS	MG/L	12.0	11.0	10.0	12.0	13.0	16.0	16.0	15.0	
00930 SODIUM	NA,DISS	MG/L	9.20	8.00	7.90	12.00	13.00	18.00	19.00	14.00	
00931 SODIUM	ADSBTION	RATIO	.3	.3	.3	.4	.4	.5	.6	.4	
00932 PERCENT	SODIUM	%	10	10	10	14	14				
00935 PTSSIUM	K,DISS	MG/L	1.70	1.60	1.50	.10K	2.40				
00940 CHLORIDE	TOTAL	MG/L	9	7	7	12	14	23	22	17	
00945 SULFATE	SO4-TOT	MG/L	42	37	34	43	45	44	51	55	
00950 FLUORIDE	F,DISS	MG/L	.40	.90	.30	.30	.30				
00955 SILICA	DISOLVED	MG/L	7.7	7.7	8.9	8.8	7.9				
46570 CAL HARD	CA MG	MG/L	174$	158$	146$	167$	176$	216$	221$	202$	
70300 RESIDUE	DISS-180	C MG/L						308	307	267	
70301 DISS SOL	SUM	MG/L	214	193	185	216	233				
70302 DISS SOL	TONS/DAY		7860.00	7040.00	5590.00	2830.00	2160.00	1360.00	1200.00	2310.00	
70303 DISS SOL	TONS PER	ACRE-FT	.29	.26	.25	.29	.32	.42	.42	.36	

INITIAL DATE			74/03/07	74/03/14	74/03/22	74/04/04	74/04/12	74/04/16	74/05/01	74/05/15	74/05/21
INITIAL TIME			1420	1000	1400	1230	0915	1200	1230	1200	1300
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010 WATER	TEMP	CENT	3.0	1.5	2.3	3.0	1.5	3.0	7.0	6.0	7.0
00011 WATER	TEMP	FAHN	37.4$	34.7$	36.1$	37.4$	34.7$	37.4$	44.6$	42.8$	44.6$
00020 AIR	TEMP	CENT	9.5		9.0	9.0		13.0	24.0	9.5	
00041 WEATHER	WMO CODE	4501			2	1		1	2	0	
00060 STREAM	FLOW	CFS	3940	4590	5640						
00061 STREAM	FLOW,	INST-CFS	3940	4590	5570	15200	16300	16300	18400	18300	18700
00070 TURB	JKSN	JTU	1.0		1.0	2.0		1.0	10.0	10.0	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				74/03/07	74/03/14	74/03/22	74/04/04	74/04/12	74/04/16	74/05/01	74/05/15	74/05/21
INITIAL TIME				1420	1000	1400	1230	0915	1200	1230	1200	1300
MEDIUM-USGS		REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00095	CNDUCTVY	AT 25C	MICROMHO	469	436	436	415	416	437	356	344	318
00300	DO		MG/L	11.4		11.5	11.1		11.8	10.1	9.6	
00301	DO	SATUR	PERCENT	101.0		100.0	99.0		105.0	103.0	92.0	
00335	COD	LOWLEVEL	MG/L	.0		4.0	5.0		1.0	6.0	7.0	
00400	PH		SU	7.80	7.80	8.60	8.60	7.90	8.40	8.70	8.60	8.00
00405	CO2		MG/L	5.1	4.6		.7	3.3		.5		2.4
00410	T ALK	CACO3	MG/L	165	149		144	133		130		125
00440	HCO3 ION	HCO3	MG/L	201	182		176	162		156		152
00445	CO3 ION	CO3	MG/L	0	0			0		1		0
00600	TOTAL N	N	MG/L	.34		.38	.61		.32	.47	.52	
00605	ORG N	N	MG/L	.140		.150	.220		.080	.290	.220	
00610	NH3+NH4-	N TOTAL	MG/L	.050		.020	.210		.090	.170	.120	
00612	UN-IONZD	NH3-N	MG/L	.0003$		.0008$	.008$		.002$	.012$	.006$	
00619	UN-IONZD	NH3-NH3	MG/L	.0004$		.0009$	.010$		.003$	.014$	.007$	
00625	TOT KJEL	N	MG/L	.190		.170	.430		.170	.460	.340	
00630	NO2&NO3	N-TOTAL	MG/L	.15		.21	.18		.15	.01	.18	
00631	NO2&NO3	N-DISS	MG/L		.3			.2				.2
00665	PHOS-TOT		MG/L P	.010	.020	.010	.010	.030	.030	.090	.060	
00680	T ORG C	C	MG/L			7.7	4.9		3.8	4.7	4.2	
00900	TOT HARD	CACO3	MG/L	200	200			190				150
00902	NC HARD	CACO3	MG/L	35	52			56				23
00915	CALCIUM	CA,DISS	MG/L	56.0	56.0			54.0				43.0
00925	MGNSIUM	MG,DISS	MG/L	14.0	15.0			13.0				9.9
00930	SODIUM	NA,DISS	MG/L	14.00	13.00			11.00				9.30
00931	SODIUM	ADSBTION	RATIO	.4	.4			.3				.3
00932	PERCENT	SODIUM	%	13								
00935	PTSSIUM	K,DISS	MG/L	2.40								
00940	CHLORIDE	TOTAL	MG/L	16	15			9				6
00945	SULFATE	SO4-TOT	MG/L		48			56				30
00955	SILICA	DISOLVED	MG/L	8.2		8.2	9.1		11.0	10.0	10.0	
01002	ARSENIC	AS,TOT	UG/L	3						5		
01027	CADMIUM	CD,TOT	UG/L	20K						20K		
01034	CHROMIUM	CR,TOT	UG/L	0U						20		
01042	COPPER	CU,TOT	UG/L	20K						20K		
01045	IRON	FE,TOT	UG/L	90			190		180	660	570	
01051	LEAD	PB,TOT	UG/L	200K		200K				200K		
01092	ZINC	ZN,TOT	UG/L	40						100		
01147	SELENIUM	SE,TOT	UG/L	3						2		

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			74/03/07	74/03/14	74/03/22	74/04/04	74/04/12	74/04/16	74/05/01	74/05/15	74/05/21
INITIAL TIME			1420	1000	1400	1230	0915	1200	1230	1200	1300
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
31616	FEC COLI	MFM-FCBR /100ML	0		0	13B		0	8B	10B	
46570	CAL HARD	CA MG MG/L	197$	202$			188$				148$
70299	RES-SUSP	AT 180 C MG/L	5		1	5		2	18	21	
70300	RESIDUE	DISS-180 C MG/L	257	261	258	243	243	235	211	186	187
70302	DISS SOL	TONS/DAY	2730.00	3240.00	3930.00	9970.00	10700.00	10300.00	10500.00	9190.00	9440.00
70303	DISS SOL	TONS PER ACRE-FT	.35	.36	.35	.33	.33	.32	.29	.25	.25
71887	TOTAL N	AS NO3 MG/L	1.5		1.7	2.7		1.4	2.1	2.3	
71900	MERCURY	HG,TOTAL UG/L	.5K		.5K	.5K		.5K	.5K		

INITIAL DATE			74/05/29	74/06/11	74/06/25	74/07/11	74/07/25	74/08/07	74/08/20	74/09/09	74/09/19
INITIAL TIME			1130	1215	1400	1145	1300	1250	1305	1400	1205
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP CENT	8.5	23.0	11.0	11.9	13.0	15.0	12.1	14.4	13.0
00011	WATER	TEMP FAHN	47.3$	73.4$	51.8$	53.4$	55.4$	59.0$	53.8$	57.9$	55.4$
00020	AIR	TEMP CENT	21.0	9.0	35.0	19.0	21.5	25.0	14.5	29.0	19.0
00041	WEATHER	WMO CODE 4501	2	0	1	0	0	2	63	0	0
00061	STREAM	FLOW, INST-CFS	19000	18200	25500	16800	12300	10300	9140	8750	7580
00070	TURB	JKSN JTU	20.0	20.0	20.0	8.0	2.0	2.0	3.0	2.0	1.0
00095	CNDUCTVY	AT 25C MICROMHO	323	308	292	269	280	296	293	329	338
00300	DO	MG/L	9.3	9.8	9.6	8.8	9.4	8.2	7.9	8.5	8.8
00301	DO	SATUR PERCENT	95.0	101.0	99.0	98.0	107.0	97.0	88.0	101.0	100.0
00335	COD	LOWLEVEL MG/L	6.0	19.0	.0	9.0	33.0	1.0	6.0	3.0	5.0
00400	PH	SU	8.10	8.30	8.50	8.50	7.80	8.20	8.10	8.40	8.40
00405	CO2	MG/L		1.1	.7	.7		1.3		.8	
00410	T ALK	CACO3 MG/L		114	108	107		106		104	
00440	HCO3 ION	HCO3 MG/L		139	122	127		129		127	
00445	CO3 ION	CO3 MG/L		0	5	2		0		0	
00600	TOTAL N	N MG/L	1.20	.99	.66	.72	1.90	.94	.40	.54	.51
00605	ORG N	N MG/L	1.000	.670	.450	.450	1.300	.440	.100	.280	.280
00610	NH3+NH4-	N TOTAL MG/L	.180	.220	.100	.110	.620	.200	.210	.100	.030
00612	UN-IONZD	NH3-N MG/L	.004$	.020$	.006$	.007$	.009$	.008$	.006$	.006$	.002$
00619	UN-IONZD	NH3-NH3 MG/L	.004$	.024$	.007$	.009$	.011$	.010$	.007$	.007$	.002$
00625	TOT KJEL	N MG/L	1.200	.890	.550	.560	1.900	.640	.310	.380	.310
00630	NO2&NO3	N-TOTAL MG/L	.03	.10	.11	.16	.03	.30	.09	.16	.20
00631	NO2&NO3	N-DISS MG/L				.2		.3		.01	
00665	PHOS-TOT	MG/L P	.090	.070	.070	.060	.040	.040	.020	.030	.020
00680	T ORG C	C MG/L	6.1	3.6	5.2	5.2	8.0	3.8		2.4	3.5
00900	TOT HARD	CACO3 MG/L				120		130		130	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				74/05/29	74/06/11	74/06/25	74/07/11	74/07/25	74/08/07	74/08/20	74/09/09	74/09/19
INITIAL TIME				1130	1215	1400	1145	1300	1250	1305	1400	1205
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00902	NC HARD	CACO3	MG/L				12		24		26	
00915	CALCIUM	CA,DISS	MG/L				36.0		38.0		40.0	
00925	MGNSIUM	MG,DISS	MG/L				8.1		8.6		8.3	
00930	SODIUM	NA,DISS	MG/L				5.50		7.00		7.60	
00931	SODIUM	ADSBTION	RATIO				.2		.3		.3	
00940	CHLORIDE	TOTAL	MG/L				7		8		7	
00945	SULFATE	SO4-TOT	MG/L				26		29		33	
00955	SILICA	DISOLVED	MG/L	9.6	8.9	10.0	8.8	8.6	9.2	9.6	9.9	10.0
01002	ARSENIC	AS,TOT	UG/L								3	
01045	IRON	FE,TOT	UG/L	2400	530	610	370	230	350	80	90	80
31616	FEC COLI	MFM-FCBR	/100ML	19	13B	15B	63		59	11B	2B	4B
46570	CAL HARD	CA MG	MG/L				123$		130$		134$	
70299	RES-SUSP	AT 180 C	MG/L	36	19	25	11	10	9	2	0	6
70300	RESIDUE	DISS-180 C	MG/L	187	166	164	152	156	160	180	171	187
70301	DISS SOL	SUM	MG/L				156		164		169	
70302	DISS SOL	TONS/DAY		9590.00	8160.00	11300.00	6890.00	5180.00	4450.00	4440.00	4040.00	3830.00
70303	DISS SOL	TONS PER	ACRE-FT	.25	.23	.22	.21	.21	.22	.24	.23	.25
71887	TOTAL N	AS NO3	MG/L	5.4	4.4	2.9	3.2	8.5	4.2	1.8	2.4	2.3
71900	MERCURY	HG,TOTAL	UG/L	.5K	.5K	.5K	.5K		.5K	.5K		

INITIAL DATE				74/10/03	74/10/15	74/10/29	74/11/14	74/11/19	74/12/02	74/12/17	74/12/31	75/01/13
INITIAL TIME				1330	1300	1230	1220	1435	1225	1420	1155	1315
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	12.5	11.0	10.0	7.0	7.0	4.5	4.5	.5	.5
00011	WATER	TEMP	FAHN	54.5$	51.8$	50.0$	44.6$	44.6$	40.1$	40.1$	32.9$	32.9$
00020	AIR	TEMP	CENT	16.0	17.0	20.0	12.5	4.5	4.5	2.0	-9.0	-4.0
00041	WEATHER	WMO CODE	4501	3	0	3	3		1	1	0	3
00061	STREAM	FLOW,	INST-CFS	6610	4640	4550	4260	3760	3160	3200	3100	2970
00070	TURB	JKSN	JTU	2.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0
00095	CNDUCTVY	AT 25C	MICROMHO	345	405	416	413	415	412	455	426	454
00300	DO		MG/L	9.2	10.4	9.6	11.0		10.6	11.5	11.2	12.4
00301	DO	SATUR	PERCENT	104.0	112.0	102.0	107.0		98.0	106.0	94.0	104.0
00335	COD	LOWLEVEL	MG/L	6.0	12.0	12.0	17.0		8.0	9.0	.0	6.0
00400	PH		SU	8.50	8.30	8.30	8.30		8.30	8.30	8.20	8.10
00405	CO2		MG/L	.7	1.2	1.3	1.3		1.3		1.4	
00410	T ALK	CACO3	MG/L	113	126	128	130		136		114	
00440	HCO3 ION	HCO3	MG/L	124	154	156	159		166		139	
00445	CO3 ION	CO3	MG/L	7	0	0	0		0		0	

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			74/10/03	74/10/15	74/10/29	74/11/14	74/11/19	74/12/02	74/12/17	74/12/31	75/01/13
	INITIAL TIME			1330	1300	1230	1220	1435	1225	1420	1155	1315
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00600	TOTAL N	N	MG/L	.40	.78	.27	.18		.22	.51	4.70	.79
00605	ORG N	N	MG/L	.160	.470	.130	.090		.040	.240	4.600	.600
00610	NH3+NH4-	N TOTAL	MG/L	.140	.290	.020	.020		.080	.130	.010	.010
00612	UN-IONZD	NH3-N	MG/L	.009$	.011$	.0007$	.0006$		.002$	.003$	.0001$	.0001$
00619	UN-IONZD	NH3-NH3	MG/L	.011$	.014$	.0009$	.0007$		.002$	.004$	.0002$	.0001$
00625	TOT KJEL	N	MG/L	.300	.760	.150	.110		.120	.370	4.600	.610
00630	NO2&NO3	N-TOTAL	MG/L	.10	.02	.12	.07		.10	.14	.11	.18
00631	NO2&NO3	N-DISS	MG/L	.1								
00665	PHOS-TOT		MG/L P	.020	.010K	.060	.010		.070	.030	.010K	.010
00680	T ORG C	C	MG/L	2.8	5.7	2.8	3.1		3.4	5.4	3.0	3.6
00900	TOT HARD	CACO3	MG/L	160								
00902	NC HARD	CACO3	MG/L	47								
00915	CALCIUM	CA,DISS	MG/L	47.0								
00925	MGNSIUM	MG,DISS	MG/L	10.0								
00930	SODIUM	NA,DISS	MG/L	8.60								
00931	SODIUM	ADSBTION	RATIO	.3								
00940	CHLORIDE	TOTAL	MG/L	8								
00945	SULFATE	SO4-TOT	MG/L	41								
00955	SILICA	DISOLVED	MG/L	9.3	8.1	8.4	8.1		8.2	8.8	9.1	9.2
01002	ARSENIC	AS,TOT	UG/L						3		2	2
01027	CADMIUM	CD,TOT	UG/L						20K		20	20
01034	CHROMIUM	CR,TOT	UG/L						20K		0U	0U
01042	COPPER	CU,TOT	UG/L						70		180	280
01045	IRON	FE,TOT	UG/L	270	70	110	40		100	100	60	180
01051	LEAD	PB,TOT	UG/L						200K		200K	200K
01092	ZINC	ZN,TOT	UG/L						100		180	270
01147	SELENIUM	SE,TOT	UG/L						1K		1K	2
31616	FEC COLI	MFM-FCBR	/100ML	2B		2B	0B		0	0	0	0
46570	CAL HARD	CA MG	MG/L	159$								
70299	RES-SUSP	AT 180 C	MG/L	10	6	4	4		18	4	8	13
70300	RESIDUE	DISS-180 C	MG/L	198	231	230	241		245	254	258	255
70301	DISS SOL	SUM	MG/L	193								
70302	DISS SOL	TONS/DAY		3530.00	2890.00	2830.00	2770.00		2090.00	2190.00	2160.00	2040.00
70303	DISS SOL	TONS PER	ACRE-FT	.27	.31	.31	.33		.33	.35	.35	.35
71887	TOTAL N	AS NO3	MG/L	1.8	3.5	1.2	.8		1.0	2.3	21.0	3.5
71900	MERCURY	HG,TOTAL	UG/L	.5K		.5K	.5K				.5K	

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

INITIAL DATE				75/01/29	75/02/12	75/02/26	75/03/12	75/03/25	75/04/08	75/04/15	75/04/29	75/05/13
INITIAL TIME				1245	1230	1300	1230	1125	1145	1300	1200	1245
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	.0	2.0	2.0	3.5	1.5	2.0	3.5	2.0	6.0
00011	WATER	TEMP	FAHN	32.0$	35.6$	35.6$	38.3$	34.7$	35.6$	38.3$	35.6$	42.8$
00020	AIR	TEMP	CENT	-2.0	3.0	5.0	2.0	4.0	.0	12.5	11.0	21.0
00041	WEATHER	WMO CODE	4501	1	85	1	0	64	2	13	3	0
00061	STREAM	FLOW,	INST-CFS	2800	2760	2900	3600	7880	7940	12500	12000	11200
00070	TURB	JKSN	JTU	1.0	1.0	1.0	1.0	1.0	1.0	4.0	2.0	1.0
00095	CNDUCTVY	AT 25C	MICROMHO	448	456	442	466	424	414	392	424	416
00300	DO		MG/L	12.1	11.3	12.2	11.9	10.9	11.5	11.3	11.3	11.4
00301	DO	SATUR	PERCENT	100.0	99.0	107.0	107.0	94.0	101.0	102.0	98.0	109.0
00335	COD	LOWLEVEL	MG/L	3.0	1.0	6.0	2.0	4.0	27.0		4.0	7.0
00400	PH		SU	8.20	8.20	8.20	8.10	8.20	8.30	8.10	8.10	8.40
00405	CO2		MG/L		1.8		2.2		1.3	2.3		1.0
00410	T ALK	CACO3	MG/L		144		155		144	148		127
00440	HCO3 ION	HCO3	MG/L		176		173		159	181		151
00445	CO3 ION	CO3	MG/L		0		0		0	0		2
00556	OIL-GRSE	FREON-GR	MG/L					3.00				
00600	TOTAL N	N	MG/L	.46	.15	.47	.32	.30	.20	.35	.22	
00605	ORG N	N	MG/L	.160	.000	.170	.150	.070	.030	.130	.080	
00610	NH3+NH4-	N TOTAL	MG/L	.120	.040	.130	.040	.010	.030	.060	.010K	.040
00612	UN-IONZD	NH3-N	MG/L	.002$	.0006$	.002$	.0005$	.0001$	.0006$	.0008$	.0001$	.001$
00619	UN-IONZD	NH3-NH3	MG/L	.002$	.0007$	.002$	.0007$	.0002$	.0007$	.0010$	.0001$	.002$
00625	TOT KJEL	N	MG/L	.280	.030	.300	.190	.080	.060	.190	.080	
00630	NO2&NO3	N-TOTAL	MG/L	.18	.12	.17	.13	.22	.14	.16	.14	.14
00631	NO2&NO3	N-DISS	MG/L				.09		.08			.1
00665	PHOS-TOT		MG/L P	.010	.010K	.010K	.010K	.010K	.010	.010	.010K	.010K
00680	T ORG C	C	MG/L	2.5	5.9	2.9	2.8	2.7	1.4			2.4
00900	TOT HARD	CACO3	MG/L				210		200			190
00902	NC HARD	CACO3	MG/L				51		51			63
00915	CALCIUM	CA,DISS	MG/L				56.0		55.0			53.0
00925	MGNSIUM	MG,DISS	MG/L				16.0		14.0			13.0
00930	SODIUM	NA,DISS	MG/L				14.00		11.00			11.00
00931	SODIUM	ADSBTION	RATIO				.4		.3			.4
00940	CHLORIDE	TOTAL	MG/L				16		11			13
00945	SULFATE	SO4-TOT	MG/L				58		57			48
00955	SILICA	DISOLVED	MG/L	9.1	.7	7.8	7.7	8.5	8.2	12.0	8.4	8.8

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				75/01/29	75/02/12	75/02/26	75/03/12	75/03/25	75/04/08	75/04/15	75/04/29	75/05/13
INITIAL TIME				1245	1230	1300	1230	1125	1145	1300	1200	1245
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01002	ARSENIC	AS,TOT	UG/L	5				3			3	2
01027	CADMIUM	CD,TOT	UG/L					20K			20K	20K
01034	CHROMIUM	CR,TOT	UG/L					2K			0U	0U
01042	COPPER	CU,TOT	UG/L					70			50	50
01045	IRON	FE,TOT	UG/L		90	90	310	130	90	260	120	370
01051	LEAD	PB,TOT	UG/L					200K			200K	200K
01092	ZINC	ZN,TOT	UG/L					50			50	50
01147	SELENIUM	SE,TOT	UG/L	1				1			1	1K
31616	FEC COLI	MFM-FCBR	/100ML	0B		0	0	1B	0	0B	2B	3B
46570	CAL HARD	CA MG	MG/L				206$		195$			186$
70299	RES-SUSP	AT 180 C	MG/L	85	0	0	0	0	4	16	20	40
70300	RESIDUE	DISS-180 C	MG/L	259	257	274	265	249	254	223	258	233
70301	DISS SOL	SUM	MG/L				261		235			224
70302	DISS SOL	TONS/DAY		1540.00	1920.00	2150.00	2580.00	5300.00	5450.00	7530.00	8360.00	7050.00
70303	DISS SOL	TONS PER	ACRE-FT	.35	.35	.37	.36	.34	.35	.30	.35	.32
71887	TOTAL N	AS NO3	MG/L	2.0	.7	2.1	1.4	1.3	.9	1.6	1.0	
71900	MERCURY	HG,TOTAL	UG/L	.5K	.5K	.5K	.5K	.5K	.5K	.5K		.5K

INITIAL DATE				75/05/23	75/06/12	75/06/24	75/07/04	75/07/31	75/07/31	75/08/10	75/09/03	75/09/03
INITIAL TIME				1330	1145	1300	1200	0930	1400	0930	0850	1100
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	6.5	8.0	11.0	10.5		13.0	15.5	12.5	
00011	WATER	TEMP	FAHN	43.7$	46.4$	51.8$	50.9$		55.4$	59.9$	54.5$	
00020	AIR	TEMP	CENT	10.5	24.0	26.0	23.5		20.5	16.0	9.0	
00041	WEATHER	WMO CODE	4501	13	0				1		0	
00061	STREAM	FLOW,	INST-CFS	12300	14700	9760	12400		13200	10900	8390	
00070	TURB	JKSN	JTU	16.0	12.0	12.0						
00095	CNDUCTVY	AT 25C	MICROMHO	335	317	300	294		297	294	310	
00300	DO		MG/L	10.1	9.3	9.5						
00301	DO	SATUR	PERCENT	108.0	94.0	103.0						
00335	COD	LOWLEVEL	MG/L	6.0	4.0	4.0						
00400	PH		SU	8.20	8.60	8.20			8.10		7.50	
00405	CO2		MG/L			1.4			1.6		6.4	
00410	T ALK	CACO3	MG/L			114			114		116	
00440	HCO3 ION	HCO3	MG/L			139			127		127	
00445	CO3 ION	CO3	MG/L			0			0		0	
00556	OIL-GRSE	FREON-GR	MG/L					1.00				1.00
00600	TOTAL N	N	MG/L	.56	.35	.61						

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			75/05/23	75/06/12	75/06/24	75/07/04	75/07/31	75/07/31	75/08/10	75/09/03	75/09/03
INITIAL TIME			1330	1145	1300	1200	0930	1400	0930	0850	1100
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00605 ORG N	N	MG/L	.340	.250	.380						
00610 NH3+NH4-	N TOTAL	MG/L	.050	.020	.040						
00612 UN-IONZD	NH3-N	MG/L	.001$	.001$	.001$						
00619 UN-IONZD	NH3-NH3	MG/L	.001$	.001$	.002$						
00625 TOT KJEL	N	MG/L	.390	.270	.420						
00630 NO2&NO3	N-TOTAL	MG/L	.17	.08	.19						
00631 NO2&NO3	N-DISS	MG/L						.1		.09	
00665 PHOS-TOT		MG/L P	.030	.030	.020			.030		.010K	
00680 T ORG C	C	MG/L	5.4	2.8	9.6						
00900 TOT HARD	CACO3	MG/L						130		150	
00902 NC HARD	CACO3	MG/L						16		30	
00915 CALCIUM	CA,DISS	MG/L						39.0		42.0	
00925 MGNSIUM	MG,DISS	MG/L						7.9		10.0	
00930 SODIUM	NA,DISS	MG/L						6.00		8.40	
00931 SODIUM	ADSBTION	RATIO						.2		.3	
00932 PERCENT	SODIUM	%						9		11	
00935 PTSSIUM	K,DISS	MG/L						1.40		1.60	
00940 CHLORIDE	TOTAL	MG/L						6		8	
00945 SULFATE	SO4-TOT	MG/L						22		33	
00950 FLUORIDE	F,DISS	MG/L						.20		.30	
00955 SILICA	DISOLVED	MG/L	8.9	8.3	8.5			8.2		8.7	
01002 ARSENIC	AS,TOT	UG/L		4	1						
01027 CADMIUM	CD,TOT	UG/L		20K	20K						
01034 CHROMIUM	CR,TOT	UG/L		20K	0U						
01042 COPPER	CU,TOT	UG/L		100	120						
01045 IRON	FE,TOT	UG/L	980	480	410						
01051 LEAD	PB,TOT	UG/L		200K	200K						
01092 ZINC	ZN,TOT	UG/L		60	100						
01147 SELENIUM	SE,TOT	UG/L		1K	1K						
31616 FEC COLI	MFM-FCBR	/100ML	6B	14	7B						
46570 CAL HARD	CA MG	MG/L						130$		146$	
70299 RES-SUSP	AT 180 C	MG/L	44	0	16						
70300 RESIDUE	DISS-180 C	MG/L	203	184	186			171		190	
70301 DISS SOL	SUM	MG/L						159		183	
70302 DISS SOL	TONS/DAY		6740.00	7300.00	4900.00			6090.00		4300.00	
70303 DISS SOL	TONS PER	ACRE-FT	.28	.25	.25			.23		.26	
71887 TOTAL N	AS NO3	MG/L	2.5	1.6	2.7						
71900 MERCURY	HG,TOTAL	UG/L			.5K						

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

INITIAL DATE				75/10/01	75/11/04	75/11/14	75/12/08	76/01/20	76/02/11	76/03/11	76/04/05	76/05/03
INITIAL TIME				0855	0905	1025	0940	0915	0900	0920	0930	0915
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	10.5	6.5	5.0	4.0	.0	.0	1.5	2.0	4.0
00011	WATER	TEMP	FAHN	50.9$	43.7$	41.0$	39.2$	32.0$	32.0$	34.7$	35.6$	39.2$
00020	AIR	TEMP	CENT	7.0	4.5		5.0	-15.0	-6.5	-2.0	12.0	15.0
00041	WEATHER	WMO CODE	4501	1	0		3	0	0	87	0	0
00061	STREAM	FLOW,	INST-CFS	7130	4210	3460	3450	4000	4600	8460	8700	18200
00095	CNDUCTVY	AT 25C	MICROMHO	326	397	398	382	375	386	404	419	353
00400	PH		SU	7.30	7.50		7.50	7.90	8.10	7.40	7.70	7.40
00405	CO2		MG/L	12.0	8.2			4.1	2.5	12.0	5.7	9.2
00410	T ALK	CACO3	MG/L	126	134			168	164	156	148	118
00440	HCO3 ION	HCO3	MG/L	153	163			205	200	190	180	144
00445	CO3 ION	CO3	MG/L	0	0			0	0	0	0	0
00631	NO2&NO3	N-DISS	MG/L	.1	.2			.2	3.4	.4	1.0	.2
00665	PHOS-TOT		MG/L P	.020	.010K			.010K	.010K			.040
00900	TOT HARD	CACO3	MG/L	160	180			200	200	190	190	150
00902	NC HARD	CACO3	MG/L	34	46			32	36	34	45	32
00915	CALCIUM	CA,DISS	MG/L	44.0	49.0			56.0	56.0	54.0	54.0	43.0
00925	MGNSIUM	MG,DISS	MG/L	12.0	13.0			14.0	15.0	14.0	14.0	11.0
00930	SODIUM	NA,DISS	MG/L	9.40	11.00			12.00	12.00	11.00	11.00	11.00
00931	SODIUM	ADSBTION	RATIO	.3	.4			.4	.4	.3	.3	.4
00932	PERCENT	SODIUM	%	11	12			12	11	11	11	13
00935	PTSSIUM	K,DISS	MG/L	1.80	2.00			2.50	2.50	2.10	2.10	2.10
00940	CHLORIDE	TOTAL	MG/L	9	4			13	14	11	12	9
00945	SULFATE	SO4-TOT	MG/L	47	48			56	51	52	56	38
00950	FLUORIDE	F,DISS	MG/L	.30	.30			.50	.40	.30	.40	.40
00955	SILICA	DISOLVED	MG/L	8.0	7.1			7.6	7.4	8.1	8.3	9.3
46570	CAL HARD	CA MG	MG/L	159$	176$			197$	202$	192$	192$	153$
70300	RESIDUE	DISS-180	C MG/L		233			247	254		248	200
70301	DISS SOL	SUM	MG/L	207	215			263	272	248	251	196
70302	DISS SOL	TONS/DAY		3990.00	2650.00			2670.00	3160.00	5670.00	5830.00	9830.00
70303	DISS SOL	TONS PER	ACRE-FT	.28	.32			.34	.35	.34	.34	.27

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SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

INITIAL DATE				76/06/01	76/06/28	76/08/03	76/09/14	76/10/06	76/11/04	76/12/08	76/12/08	77/01/12
INITIAL TIME				0920	0950	1320	0930	0740	0745	0815	1355	0900
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	9.0	9.5	13.0	13.0	11.0	8.0	5.5	5.5	.0
00011	WATER	TEMP	FAHN	48.2$	49.1$	55.4$	55.4$	51.8$	46.4$	41.9$	41.9$	32.0$
00020	AIR	TEMP	CENT	16.0	22.0	16.0	9.5	1.0	2.0	-1.0	6.5	-11.0
00041	WEATHER	WMO CODE	4501	1	0	63	63	1	0	1	3	3
00061	STREAM	FLOW,	INST-CFS	20100	9500	12800	6390	4140	2080	4970	4990	4300
00095	CNDUCTVY	AT 25C	MICROMHO	145	302	293	329	367	412	376	379	326
00400	PH		SU	7.30	7.40	7.80	7.40	7.50	7.30	7.60		7.80
00405	CO2		MG/L	11.0	9.0	3.5	8.4	8.1	13.0	6.0		4.8
00410	T ALK	CACO3	MG/L	116	116	114	108	131	131	123		156
00440	HCO3 ION	HCO3	MG/L	141	142	139	132	160	160	150		190
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0		0
00631	NO2&NO3	N-DISS	MG/L	.4	.3	.2	.8	.02	.1K	.2		.2
00665	PHOS-TOT		MG/L P	.060	.040	.010	.010	.010K	.010	.010K		.010
00900	TOT HARD	CACO3	MG/L	140	140	140	150	170	200	180		190
00902	NC HARD	CACO3	MG/L	21	24	25	42	39	69	57		34
00915	CALCIUM	CA,DISS	MG/L	41.0	40.0	40.0	42.0	48.0	56.0	50.0		53.0
00925	MGNSIUM	MG,DISS	MG/L	8.4	9.3	9.4	11.0	12.0	15.0	13.0		15.0
00930	SODIUM	NA,DISS	MG/L	7.30	7.60	6.20	9.40	11.00	15.00	11.00		11.00
00931	SODIUM	ADSBTION	RATIO	.3	.3	.2	.3	.4	.5	.4		.3
00932	PERCENT	SODIUM	%	10	11	9	12	12	14	12		11
00935	PTSSIUM	K,DISS	MG/L	1.60	1.70	1.40	1.70	2.00	2.40	1.90		1.90
00940	CHLORIDE	TOTAL	MG/L	4	8	6	9	14	21	12		15
00945	SULFATE	SO4-TOT	MG/L	18	23	26	43	43	58	49		53
00950	FLUORIDE	F,DISS	MG/L	.20	.30	.30	.30	.30	.50	.30		.40
00955	SILICA	DISOLVED	MG/L	7.5	6.4	8.1	8.8	8.1	8.0	9.2		8.2
46570	CAL HARD	CA MG	MG/L	137$	138$	139$	150$	169$	202$	178$		194$
70301	DISS SOL	SUM	MG/L	159	167	167	193	217	255	221		252
70302	DISS SOL	TONS/DAY		8630.00	4280.00	5770.00	3330.00	2430.00	1430.00	2970.00		2930.00
70303	DISS SOL	TONS PER	ACRE-FT	.22	.23	.23	.26	.30	.35	.30		.34

INITIAL DATE				77/01/24	77/02/25	77/03/23	77/04/05	77/04/13	77/04/27	77/05/23	77/06/10	77/06/28
INITIAL TIME				1430	0830	0820	1212	0820	1015	0920	1045	1210
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	1.0	3.0	4.0	9.5	4.5	4.0	6.0	8.5	11.5
00011	WATER	TEMP	FAHN	33.8$	37.4$	39.2$	49.1$	40.1$	39.2$	42.8$	47.3$	52.7$

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				77/01/24	77/02/25	77/03/23	77/04/05	77/04/13	77/04/27	77/05/23	77/06/10	77/06/28
INITIAL TIME				1430	0830	0820	1212	0820	1015	0920	1045	1210
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00020	AIR	TEMP	CENT	-6.5	-4.0	3.0	16.0	7.5	11.0		15.5	26.0
00041	WEATHER	WMO CODE	4501	0	3		0	0	0		2	0
00061	STREAM	FLOW,	INST-CFS	2210	980	850	951	3140	7390	11400	12000	12100
00095	CNDUCTVY	AT 25C	MICROMHO	471	584	601	573	453	523	394	366	221
00300	DO		MG/L		10.4							
00301	DO	SATUR	PERCENT		93.0							
00400	PH		SU		7.70	8.30		7.40		8.10		8.20
00405	CO2		MG/L		8.3	1.9		12.0		2.2		1.5
00410	T ALK	CACO3	MG/L		213	197		156		139		120
00440	HCO3 ION	HCO3	MG/L		260	240		190		170		150
00445	CO3 ION	CO3	MG/L		0	0		0		0		0
00631	NO2&NO3	N-DISS	MG/L		1.5	.8		.3		.3		2.4
00665	PHOS-TOT		MG/L P		.010K	.010K		.030		.010		.010K
00900	TOT HARD	CACO3	MG/L		290	270		210		190		180
00902	NC HARD	CACO3	MG/L		77	73		54		51		53
00915	CALCIUM	CA,DISS	MG/L		85.0	75.0		60.0		55.0		49.0
00925	MGNSIUM	MG,DISS	MG/L		19.0	21.0		15.0		13.0		13.0
00930	SODIUM	NA,DISS	MG/L		23.00	25.00		14.00		11.00		9.60
00931	SODIUM	ADSBTION	RATIO		.6	.7		.4		.3		.3
00932	PERCENT	SODIUM	%		15	16		12		11		10
00935	PTSSIUM	K,DISS	MG/L		3.50	3.90		2.20		1.80		1.80
00940	CHLORIDE	TOTAL	MG/L		34	36		18		10		8
00945	SULFATE	SO4-TOT	MG/L		82	88		66		58		48
00950	FLUORIDE	F,DISS	MG/L		.40	.40		.40		.40		.40
00955	SILICA	DISOLVED	MG/L		7.2	7.4		9.3		7.5		8.5
01055	MANGNESE	MN	UG/L							2.0		
46570	CAL HARD	CA MG	MG/L		290$	274$		212$		191$		176$
70301	DISS SOL	SUM	MG/L		389	378		280		242		223
70302	DISS SOL	TONS/DAY			1030.00	868.00		2370.00		7450.00		7290.00
70303	DISS SOL	TONS PER	ACRE-FT		.53	.51		.38		.33		.30

INITIAL DATE				77/07/19	77/07/29	77/08/23	77/09/01	77/09/20	77/10/04	77/10/31	77/11/21	77/12/08
INITIAL TIME				1145	0930	1000	1450	1020	1335	1010	1300	1050
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	15.0	16.0	15.5	16.0	12.5	11.5	7.0	1.0	2.0
00011	WATER	TEMP	FAHN	59.0$	60.8$	59.9$	60.8$	54.5$	52.7$	44.6$	33.8$	35.6$
00020	AIR	TEMP	CENT	20.5	25.0	18.5	20.0	13.5	15.0	7.0	4.0	-2.0
00041	WEATHER	WMO CODE	4501	1	0	0	0	1	0	1		1

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			77/07/19	77/07/29	77/08/23	77/09/01	77/09/20	77/10/04	77/10/31	77/11/21	77/12/08
	INITIAL TIME			1145	0930	1000	1450	1020	1335	1010	1300	1050
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00061	STREAM	FLOW,	INST-CFS	11800	16900	13200	5860	4440	2010	1200	1540	1240
00070	TURB	JKSN	JTU									2.0
00095	CNDUCTVY	AT 25C	MICROMHO	326	468	313	367	358	430	562	546	495
00300	DO		MG/L									12.4
00301	DO	SATUR	PERCENT									120.0
00400	PH		SU		7.80	7.30		7.60		8.10		8.05
00405	CO2		MG/L		3.6	10.0		6.0		2.5		3.0
00410	T ALK	CACO3	MG/L		115	107		123		160		170
00440	HCO3 ION	HCO3	MG/L		140	130		150		200		210
00445	CO3 ION	CO3	MG/L		0	0		0		0		0
00610	NH3+NH4-	N TOTAL	MG/L									.020
00612	UN-IONZD	NH3-N	MG/L									.0002$
00619	UN-IONZD	NH3-NH3	MG/L									.0003$
00623	KJELDL N	DISS	MG/L									.330
00630	NO2&NO3	N-TOTAL	MG/L									.13
00631	NO2&NO3	N-DISS	MG/L		.05	.09		.1		.1		
00665	PHOS-TOT		MG/L P		.010	.020		.010		.010K		.010
00666	PHOS-DIS		MG/L P									.020
00680	T ORG C	C	MG/L									.8
00900	TOT HARD	CACO3	MG/L		140	160		170		240		250
00902	NC HARD	CACO3	MG/L		25	53		47		79		76
00915	CALCIUM	CA,DISS	MG/L		40.0	46.0		47.0		66.0		68.0
00925	MGNSIUM	MG,DISS	MG/L		9.8	10.0		12.0		19.0		19.0
00930	SODIUM	NA,DISS	MG/L		11.00	15.00		15.00		22.00		21.00
00931	SODIUM	ADSBTION	RATIO		.4	.5		.5		.6		.6
00932	PERCENT	SODIUM	%		14	17		16		16		15
00935	PTSSIUM	K,DISS	MG/L		2.00	3.20		2.60		3.30		3.50
00940	CHLORIDE	TOTAL	MG/L		8	14		17		25		28
00945	SULFATE	SO4-TOT	MG/L		36	42		49		81		80
00950	FLUORIDE	F,DISS	MG/L		.50	.60		.60		.60		.50
00955	SILICA	DISOLVED	MG/L		11.0	11.0		9.9		8.1		8.2
01000	ARSENIC	AS,DISS	UG/L									2
01001	ARSENIC	AS,SUSP	UG/L									1K
01002	ARSENIC	AS,TOT	UG/L									2
01005	BARIUM	BA,DISS	UG/L									100K
01006	BARIUM	BA,SUSP	UG/L									0
01007	BARIUM	BA,TOT	UG/L									100K
01025	CADMIUM	CD,DISS	UG/L									2K

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				77/07/19	77/07/29	77/08/23	77/09/01	77/09/20	77/10/04	77/10/31	77/11/21	77/12/08
INITIAL TIME				1145	0930	1000	1450	1020	1335	1010	1300	1050
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01026	CADMIUM	CD,SUSP	UG/L									0
01027	CADMIUM	CD,TOT	UG/L									2K
01030	CHROMIUM	CR,DISS	UG/L									0U
01031	CHROMIUM	CR,SUSP	UG/L									0
01034	CHROMIUM	CR,TOT	UG/L									0U
01035	COBALT	CO,DISS	UG/L									0U
01036	COBALT	CO,SUSP	UG/L									0
01037	COBALT	CO,TOTAL	UG/L									0U
01040	COPPER	CU,DISS	UG/L									3
01041	COPPER	CU,SUSP	UG/L									20
01042	COPPER	CU,TOT	UG/L									23
01045	IRON	FE,TOT	UG/L									80
01046	IRON	FE,DISS	UG/L									40
01049	LEAD	PB,DISS	UG/L									5
01050	LEAD	PB,SUSP	UG/L									15
01051	LEAD	PB,TOT	UG/L									20
01054	MANGNESE	MN,SUSP	UG/L									10.0
01055	MANGNESE	MN	UG/L									20.0
01056	MANGNESE	MN,DISS	UG/L									10.0K
01075	SILVER	AG,DISS	UG/L									.0U
01076	SILVER	AG,SUSP	UG/L									.0
01077	SILVER	AG,TOT	UG/L									.0U
01090	ZINC	ZN,DISS	UG/L									20
01091	ZINC	ZN,SUSP	UG/L									0
01092	ZINC	ZN,TOT	UG/L									20
01145	SELENIUM	SE,DISS	UG/L									1K
01146	SELENIUM	SE,SUSP	UG/L									0
01147	SELENIUM	SE,TOT	UG/L									1K
31625	FEC COLI	M-FCAGAD	/100 ML									1K
31673	FECSTREP	MFKFAGAR	/100ML									54
46570	CAL HARD	CA MG	MG/L		140$	156$		167$		243$		248$
70300	RESIDUE	DISS-180 C	MG/L									333
70301	DISS SOL	SUM	MG/L		187	206		228		324		332
70302	DISS SOL	TONS/DAY			8530.00	7340.00		2730.00		1050.00		1110.00
70303	DISS SOL	TONS PER	ACRE-FT		.25	.28		.31		.44		.45
70331	SUSP SED	PARTSIZE	%<.062MM									88
70332	SUSP SED	PARTSIZE	%<.125MM									100
71890	MERCURY	HG,DISS	UG/L									.1K

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

INITIAL DATE				78/07/24	78/07/26	78/08/25	78/08/30	78/09/06	78/10/30	78/11/27	78/12/04	78/12/27
INITIAL TIME				1100	1020	0945	1120	1115	1300	1145	1300	1230
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	11.5	12.0	12.5	13.5	14.6	8.0	3.0	4.0	1.0
00011	WATER	TEMP	FAHN	52.7$	53.6$	54.5$	56.3$	58.3$	46.4$	37.4$	39.2$	33.8$
00020	AIR	TEMP	CENT	20.0		19.0	25.5	23.0	17.5	4.0	1.5	-2.0
00022	LENGTH	OF EXPOS	URE-DAYS									23
00028	ANALYZE	AGENCY	CODE	80010				80010	80020		80010	80020
00041	WEATHER	WMO CODE	4501	0			0	3	1	10	1	71
00061	STREAM	FLOW,	INST-CFS	11900	11700	6920	6860	6640	2970	2190	2500	3730
00076	TURB	TRBIDMTR	HACH FTU	2.4				2.6	.1		.6	.7
00095	CNDUCTVY	AT 25C	MICROMHO	272			341	298	382	365	369	398
00300	DO		MG/L	8.6				8.7	10.0		9.3	13.6
00301	DO	SATUR	PERCENT	104.0				113.0	102.0		107.0	115.0
00400	PH		SU	7.90				8.20	8.30		7.40	7.50
00405	CO2		MG/L	2.8				1.4	1.4		11.0	8.6
00410	T ALK	CACO3	MG/L	115				115	139		148	139
00440	HCO3 ION	HCO3	MG/L	140				140	170		180	170
00445	CO3 ION	CO3	MG/L	0				0	0		0	0
00572	BIOMASS	PERPHYTN	G/SQ M									.090
00573	BIOMASS	PERPHYTN	DW G/M2									.16
00600	TOTAL N	N	MG/L	.30				3.60	.11		.42	.27
00605	ORG N	N	MG/L	.200				3.500	.020		.270	.090
00610	NH3+NH4-	N TOTAL	MG/L	.020				.010K	.020		.010	.010K
00612	UN-IONZD	NH3-N	MG/L	.0003$				.0004$	.0006$		.00003$	.00003$
00619	UN-IONZD	NH3-NH3	MG/L	.0004$				.0005$	.0007$		.00003$	.00003$
00623	KJELDL N	DISS	MG/L	.360				.280	.030		.300	.160
00624	KJELDL N	SUSP	MG/L	.000				3.200	.010		.000	.000
00625	TOT KJEL	N	MG/L	.220				3.500	.040		.280	.090
00630	NO2&NO3	N-TOTAL	MG/L	.08				.06	.07		.14	.18
00665	PHOS-TOT		MG/L P	.040				.010K	.010K		.020	.010K
00666	PHOS-DIS		MG/L P	.010				.010K	.010K		.010	.010K
00680	T ORG C	C	MG/L	5.0					1.1			1.6
00681	D ORG C	C	MG/L					3.0			1.7	
00689	S ORG C	C	MG/L					.6				
00900	TOT HARD	CACO3	MG/L	130				150	190		190	180
00902	NC HARD	CACO3	MG/L	13				35	51		42	41
00915	CALCIUM	CA,DISS	MG/L	37.0				44.0	56.0		54.0	50.0

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				78/07/24	78/07/26	78/08/25	78/08/30	78/09/06	78/10/30	78/11/27	78/12/04	78/12/27
INITIAL TIME				1100	1020	0945	1120	1115	1300	1145	1300	1230
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00925	MGNSIUM	MG,DISS	MG/L	8.6				10.0	13.0		14.0	13.0
00930	SODIUM	NA,DISS	MG/L	6.10				7.10	11.00		12.00	10.00
00931	SODIUM	ADSBTION	RATIO	.2				.3	.3		.4	.3
00932	PERCENT	SODIUM	%	9				9	11		12	11
00935	PTSSIUM	K,DISS	MG/L	1.40				1.50	1.90		2.20	2.00
00940	CHLORIDE	TOTAL	MG/L	5				2	13		11	11
00945	SULFATE	SO4-TOT	MG/L	23				35	52		54	51
00950	FLUORIDE	F,DISS	MG/L	.20				.20	.30		.30	.20
00955	SILICA	DISOLVED	MG/L	8.6				9.0	8.1		7.7	7.7
01000	ARSENIC	AS,DISS	UG/L	2				2	2		2	2
01001	ARSENIC	AS,SUSP	UG/L	1				1				
01002	ARSENIC	AS,TOT	UG/L	3				3	2		2	2
01005	BARIUM	BA,DISS	UG/L	50				100K	100K		100K	100K
01006	BARIUM	BA,SUSP	UG/L	200				100	0		100K	100K
01007	BARIUM	BA,TOT	UG/L	200				100K	100K		100K	100K
01025	CADMIUM	CD,DISS	UG/L	3				2K	2K		2K	2K
01026	CADMIUM	CD,SUSP	UG/L	0				0	0		1	0
01027	CADMIUM	CD,TOT	UG/L	2K				2K	2K		2	2K
01030	CHROMIUM	CR,DISS	UG/L	20K				0U	0U		0U	0U
01031	CHROMIUM	CR,SUSP	UG/L	0				0	0		100K	0
01034	CHROMIUM	CR,TOT	UG/L	0U				0U	0U		100K	0U
01035	COBALT	CO,DISS	UG/L	2				2K	0U		3K	3K
01036	COBALT	CO,SUSP	UG/L	0				0	0		0	0
01037	COBALT	CO,TOTAL	UG/L	2K				2K	0U		0U	2
01040	COPPER	CU,DISS	UG/L	6				6	2K		4	2K
01041	COPPER	CU,SUSP	UG/L	2				7	2		5	8
01042	COPPER	CU,TOT	UG/L	8				13	3		9	9
01044	IRON	FE,SUSP	UG/L	1500				40	20		30	40
01045	IRON	FE,TOT	UG/L	1500				80	50		40	40
01046	IRON	FE,DISS	UG/L	10K				40	30		10K	10K
01049	LEAD	PB,DISS	UG/L	13				16	7		7	4
01050	LEAD	PB,SUSP	UG/L	11				0	2		3	3
01051	LEAD	PB,TOT	UG/L	24				16	9		10	7
01054	MANGNESE	MN,SUSP	UG/L	20.0				10.0	.0		10.0K	20.0
01055	MANGNESE	MN	UG/L	30.0				20.0	10.0K		10.0K	20.0
01056	MANGNESE	MN,DISS	UG/L	6.0				10.0K	10.0K		10.0K	10.0K
01075	SILVER	AG,DISS	UG/L	.0U				.0U	.0U		.0U	.0U
01076	SILVER	AG,SUSP	UG/L	.0				.0	.0		.0	2.0

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				78/07/24	78/07/26	78/08/25	78/08/30	78/09/06	78/10/30	78/11/27	78/12/04	78/12/27
INITIAL TIME				1100	1020	0945	1120	1115	1300	1145	1300	1230
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01077	SILVER	AG,TOT	UG/L	.0U				.0U	.0U		.0U	2.0
01090	ZINC	ZN,DISS	UG/L	20				20K	20K		20	20K
01091	ZINC	ZN,SUSP	UG/L	0				0	0		0	30
01092	ZINC	ZN,TOT	UG/L	20				20K	20K		20	30
01145	SELENIUM	SE,DISS	UG/L	1K				1K	1		1	1K
01146	SELENIUM	SE,SUSP	UG/L	0				0	0		0	0
01147	SELENIUM	SE,TOT	UG/L	1K				1K	1K		1K	1K
31625	FEC COLI	M-FCAGAD	/100 ML	7B				8B	2B		3B	18
31673	FECSTREP	MFKFAGAR	/100ML	15B				13	56		76	88
46570	CAL HARD	CA MG	MG/L	128$				151$	193$		192$	178$
60050	ALGAE	TOTAL	/ML	330				140			57	
70300	RESIDUE	DISS-180 C	MG/L	157				180	241		257	237
70301	DISS SOL	SUM	MG/L	159				178	239		244	229
70302	DISS SOL	TONS/DAY		5040.00				3230.00	1930.00		1740.00	2390.00
70303	DISS SOL	TONS PER	ACRE-FT	.21				.24	.33		.35	.32
70331	SUSP SED	PARTSIZE	%(.062MM	85				80	100		100	100
70332	SUSP SED	PARTSIZE	%(.125MM	100				100				
70957	CHLRPHYL	A-PERIPH	CHFLUG/L									.2
70958	CHLRPHYL	B-PERIPH	CHFLUG/L									.0
71887	TOTAL N	AS NO3	MG/L	1.3				16.0	.5		1.9	1.2
71890	MERCURY	HG,DISS	UG/L	.1K				.1K	.1K		.1K	.1K
71895	MERCURY	HG,SUSP	UG/L	.0				.0	.5K		.0	.5K
71900	MERCURY	HG,TOTAL	UG/L	.1K				.1K	.5K		.1K	.5K
80154	SUSP SED	CONC	MG/L	4				2	3		1	2
80155	SUSP SED	DISCHARG	TONS/DAY	129.00				36.00	24.00		6.70	20.00
82028	RATIO	FEC COL	FEC STRP	.5$				.6$	.04$		.04$	.2$

INITIAL DATE				79/02/06	79/02/26	79/03/27	79/04/24	79/05/26	79/06/25	79/07/30	79/08/27	79/09/22
INITIAL TIME				1230	1700	1000	1230	1200	1330	1230	1400	1130
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	2.0	3.5	3.0	4.0	7.0	10.0	13.5	15.0	
00011	WATER	TEMP	FAHN	35.6$	38.3$	37.4$	39.2$	44.6$	50.0$	56.3$	59.0$	
00020	AIR	TEMP	CENT	-2.0	1.0	4.5	8.0	20.0	21.5	24.0	19.5	
00022	LENGTH	OF EXPOS	URE-DAYS				28		30			
00027	COLLECT	AGENCY	CODE			1028						
00028	ANALYZE	AGENCY	CODE	80020	80020	80010	80020	80010	80010	80020	80020	80010
00041	WEATHER	WMO CODE	4501	10	3	61	88	0	0	0	2	
00061	STREAM	FLOW,	INST-CFS	4020	4130	8470	7350	16100	11700	10500	5200	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			79/02/06	79/02/26	79/03/27	79/04/24	79/05/26	79/06/25	79/07/30	79/08/27	79/09/22
	INITIAL TIME			1230	1700	1000	1230	1200	1330	1230	1400	1130
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00076	TURB	TRBIDMTR	HACH FTU	.8	.7	1.0	1.5	6.6	2.6	1.0	.6	
00095	CNDUCTVY	AT 25C	MICROMHO	355	383	400	431	361	311	280	336	
00300	DO		MG/L	12.2	10.8	11.3	12.0	10.1	10.2	8.8	8.6	
00301	DO	SATUR	PERCENT	104.0	99.1	101.0	109.0	100.0	108.0	101.0	102.0	
00400	PH		SU	7.20	7.70	7.90	7.90	8.00	8.00	7.80	8.30	
00405	CO2		MG/L	16.0	5.1	4.2	3.4	2.6	2.2	3.6	1.2	
00410	T ALK	CACO3	MG/L	131	131	172	139	131	115	115	123	
00440	HCO3 ION	HCO3	MG/L	160	160	210	170	160	140	140	150	
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	
00556	OIL-GRSE	FREON-GR	MG/L		.00							
00572	BIOMASS	PERPHYTN	G/SQ M				27.500		6.850			.160
00573	BIOMASS	PERPHYTN	DW G/M2				31.80		7.56			.31
00600	TOTAL N	N	MG/L	.32	.41	.32	.26	.31	.20	.05	.28	
00602	DISS.	NITROGEN	MG/L N								.19	
00605	ORG N	N	MG/L	.140	.250	.090	.110	.240	.120	.000	.230	
00610	NH3+NH4-	N TOTAL	MG/L	.010	.010	.020	.040	.020	.030	.010	.010	
00612	UN-IONZD	NH3-N	MG/L	.00002$	.00005$	.0002$	.0004$	.0003$	.0005$	.0002$	.0005$	
00619	UN-IONZD	NH3-NH3	MG/L	.00002$	.00007$	.0002$	.0004$	.0004$	.0007$	.0002$	.0006$	
00623	KJELDL N	DISS	MG/L	.250	.220	.050	.240	.220	.240	1.100	.150	
00624	KJELDL N	SUSP	MG/L	.000	.040	.060	.000	.040	.000	.000	.090	
00625	TOT KJEL	N	MG/L	.150	.260	.110	.150	.260	.150	.100K	.240	
00630	NO2&NO3	N-TOTAL	MG/L	.17	.15	.21	.11	.05	.05	.05	.04	
00631	NO2&NO3	N-DISS	MG/L								.04	
00650	T PO4	PO4	MG/L			.03	.06	.03	.31			
00665	PHOS-TOT		MG/L P	.010K	.020	.010	.020	.010	.100	.010	.010	
00666	PHOS-DIS		MG/L P	.010K	.020	.010K	.010	.010K	.010	.020	.010	
00680	T ORG C	C	MG/L	.8	1.3		2.0	2.1		.8	1.1	
00681	D ORG C	C	MG/L			1.6			3.4			
00689	S ORG C	C	MG/L			3.0			.2			
00900	TOT HARD	CACO3	MG/L	200	200	200	190	170	130	120	150	
00902	NC HARD	CACO3	MG/L	69	69	25	51	39	15	5	27	
00915	CALCIUM	CA,DISS	MG/L	56.0	57.0	56.0	56.0	49.0	38.0	34.0	43.0	
00925	MGNSIUM	MG,DISS	MG/L	14.0	14.0	14.0	13.0	11.0	9.0	8.4	10.0	
00930	SODIUM	NA,DISS	MG/L	11.00	12.00	10.00	11.00	9.00	8.00	7.70	10.00	
00931	SODIUM	ADSBTION	RATIO	.3	.4	.3	.3	.3	.3	.3	.4	
00932	PERCENT	SODIUM	%	11	11	10	11	10	12	16	13	
00933	NA+K		MG/L					11.00	9.50	9.20	12.00	
00935	PTSSIUM	K,DISS	MG/L	1.90	1.80	1.50	2.00	1.80	1.50	1.50	1.60	

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			79/02/06	79/02/26	79/03/27	79/04/24	79/05/26	79/06/25	79/07/30	79/08/27	79/09/22
INITIAL TIME			1230	1700	1000	1230	1200	1330	1230	1400	1130
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00940 CHLORIDE	TOTAL	MG/L	11	15	10	11	9	7	7	8	
00945 SULFATE	SO4-TOT	MG/L	57	56	53	57	44	28	31	43	
00950 FLUORIDE	F,DISS	MG/L	.30	.30	.40	.40	.40	.30	.40	.40	
00955 SILICA	DISOLVED	MG/L	8.2	8.6	9.0	8.2	7.3	8.0	8.8	8.8	
01000 ARSENIC	AS,DISS	UG/L	3	2	2	2	2	2			
01002 ARSENIC	AS,TOT	UG/L	3	2	3	3	3	2			
01005 BARIUM	BA,DISS	UG/L	100K	100K	100K	100K	100K	100K			
01006 BARIUM	BA,SUSP	UG/L	100	0	100K	0	100	100K			
01007 BARIUM	BA,TOT	UG/L	100K	100K	100K	100K	100K	100K			
01025 CADMIUM	CD,DISS	UG/L	4	2K	2K	2K	2K	2			
01026 CADMIUM	CD,SUSP	UG/L	0	0	1	0	0	0			
01027 CADMIUM	CD,TOT	UG/L	2K	0U	2	2K	2K	2K			
01030 CHROMIUM	CR,DISS	UG/L	0U	20	20K	0U	0U	0U			
01031 CHROMIUM	CR,SUSP	UG/L	0	0	0	100K	100K	0			
01034 CHROMIUM	CR,TOT	UG/L	0U	100K	100K	100K	100K	0U			
01035 COBALT	CO,DISS	UG/L	3K	0U	3K	0U	0U	3K			
01036 COBALT	CO,SUSP	UG/L	0	2	2	0	0	0			
01037 COBALT	CO,TOTAL	UG/L	0U	2	5	0U	0U	0U			
01040 COPPER	CU,DISS	UG/L	15	0U	2K	2	3	2K			
01041 COPPER	CU,SUSP	UG/L	4	10	7	2	27	3			
01042 COPPER	CU,TOT	UG/L	19	20K	8	4	30	4			
01044 IRON	FE,SUSP	UG/L	0	20	90	50	300	110			
01045 IRON	FE,TOT	UG/L	20	50	90	110	310	120			
01046 IRON	FE,DISS	UG/L	20	30	10K	60	10K	10K			
01049 LEAD	PB,DISS	UG/L	3	4	6	16	3	6			
01050 LEAD	PB,SUSP	UG/L	8	5	7	39	26	4			
01051 LEAD	PB,TOT	UG/L	11	9	13	55	29	10			
01054 MANGNESE	MN,SUSP	UG/L	10.0	20.0	10.0	10.0	40.0	10.0			
01055 MANGNESE	MN	UG/L	20.0	20.0	20.0	20.0	40.0	20.0			
01056 MANGNESE	MN,DISS	UG/L	10.0K	10.0K	10.0K	10.0K	10.0K	10.0K			
01075 SILVER	AG,DISS	UG/L	.0U	.0U	.0U	.0U	.0U	.0U			
01076 SILVER	AG,SUSP	UG/L	.0	.0	.0	.0	.0	.0			
01077 SILVER	AG,TOT	UG/L	.0U	.0U	.0U	.0U	.0U	.0U			
01078 SILVER	SEDMG/KG	DRY WGT			9.00						
01090 ZINC	ZN,DISS	UG/L	30	20	20K	20	20	20K			
01091 ZINC	ZN,SUSP	UG/L	0	10	10	0	0	10K			
01092 ZINC	ZN,TOT	UG/L	20	30	20	20	20	20K			
01145 SELENIUM	SE,DISS	UG/L	1K	1K	1K	1K	1K	1K			

(SAMPLE CONTINUED ON NEXT PAGE)

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(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				79/02/06	79/02/26	79/03/27	79/04/24	79/05/26	79/06/25	79/07/30	79/08/27	79/09/22
INITIAL TIME				1230	1700	1000	1230	1200	1330	1230	1400	1130
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01146	SELENIUM	SE,SUSP	UG/L	0	1	0	0	0	0			
01147	SELENIUM	SE,TOT	UG/L	1K	1	1K	1K	1K	1K			
31625	FEC COLI	M-FCAGAD	/100 ML	12	1B	10B	15	25	5B	13B	6B	
31673	FECSTREP	MFKFAGAR	/100ML	3B	15B	290B	59	440B	1000B	410	2000L	
46570	CAL HARD	CA MG	MG/L	197$	200$	197$	193$	168$	132$	119$	149$	
60050	ALGAE	TOTAL	/ML			350		250		43		120
70300	RESIDUE	DISS-180	C MG/L	246	252	242	246	211	185	166	191	
70301	DISS SOL	SUM	MG/L	238	244	257	242	210	169	167	199	
70302	DISS SOL	TONS/DAY		2670.00	2810.00	5530.00	4880.00	9170.00	5840.00	4710.00	2680.00	
70303	DISS SOL	TONS PER	ACRE-FT	.33	.34	.33	.33	.29	.25	.23	.26	
70331	SUSP SED	PARTSIZE	%<.062MM	61				81	98	85	85	
70332	SUSP SED	PARTSIZE	%<.125MM	100								
70950	BIOMASS-	CHLRATIO	PERIUNIT				165.0		145.0			
70957	CHLRPHYL	A-PERIPH	CHFLUG/L				26.1		4.9			2.0
70958	CHLRPHYL	B-PERIPH	CHFLUG/L				.0		.5			1.3
71845	AMMONIA	TOT-NH4	MG/L			.02	.05	.02	.04	.01	.01	
71886	TOTAL P	AS PO4	MG/L			.03	.06	.03	.31	.03	.03	
71887	TOTAL N	AS NO3	MG/L	1.4	1.8	1.4	1.2	1.4	.9	.2	1.2	
71890	MERCURY	HG,DISS	UG/L	.1K	.1K	.1K	.1K	.1K	.1K			
71895	MERCURY	HG,SUSP	UG/L	.0	.0	.0	.5K	.5K	.0			
71900	MERCURY	HG,TOTAL	UG/L	.1K	.1K	.1K	.5K	.5K	.1K			
80154	SUSP SED	CONC	MG/L	2		4		26	7	5	4	
80155	SUSP SED	DISCHARG	TONS/DAY	22.00		91.00		1130.00	221.00	142.00	56.00	
82028	RATIO	FEC COL	FEC STRP	4$	.07$	.03$	.3$	.06$	.005$	.03$	.003$	
82398	SAMPLING	METHOD	(CODES)			8010						

INITIAL DATE				79/09/25	79/10/29	79/11/26	79/12/21	80/01/28	80/02/25	80/04/25	80/05/27	80/06/24
INITIAL TIME				1130	1235	1409	1130	1209	1338	1131	1240	1406
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	14.0	8.0	4.0	3.0	.0	4.0	4.0	7.5	9.5
00011	WATER	TEMP	FAHN	57.2$	46.4$	39.2$	37.4$	32.0$	39.2$	39.2$	45.5$	49.1$
00020	AIR	TEMP	CENT	12.5	3.0	-.5	3.0	-18.0	5.0	10.0	13.5	25.5
00027	COLLECT	AGENCY	CODE			1028						
00028	ANALYZE	AGENCY	CODE	80020	80020	80010	80020	80020	80020	80020	80010	80010
00041	WEATHER	WMO CODE	4501	1	.000005	83		1	3			
00061	STREAM	FLOW,	INST-CFS	6210	1720	1290	1230	1970	1210	9500	18300	19700
00076	TURB	TRBIDMTR	HACH FTU	.9	1.1	.6	.7	.6	1.5	4.0	5.1	6.0
00095	CNDUCTVY	AT 25C	MICROMHO	348	455	492	471	560	448	382	323	308

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
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112WRD 17040104
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(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				79/09/25	79/10/29	79/11/26	79/12/21	80/01/28	80/02/25	80/04/25	80/05/27	80/06/24
INITIAL TIME				1130	1235	1409	1130	1209	1338	1131	1240	1406
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00300	DO		MG/L	8.7	9.2	12.4	9.5	10.6		10.7	10.2	9.7
00301	DO	SATUR	PERCENT	102.0	95.0	116.0	94.0	89.0		98.0	103.0	102.0
00400	PH		SU	8.30	8.10	7.70	8.50	8.20	7.80	7.50	7.50	8.00
00405	CO2		MG/L	1.2								
00410	T ALK	CACO3	MG/L	123	160	170	170	180	170	130	120	120
00440	HCO3 ION	HCO3	MG/L	150								
00445	CO3 ION	CO3	MG/L	0								
00530	RESIDUE	TOT NFLT	MG/L	0								
00572	BIOMASS	PERPHYTN	G/SQ M				.160					58.100
00573	BIOMASS	PERPHYTN	DW G/M2				.16					62.70
00600	TOTAL N	N	MG/L	.47	.60	.92	.46	.34	.31	.66		.78
00602	DISS.	NITROGEN	MG/L N	.37	.62	.41	.48	.22	.17	.73	.45	.77
00605	ORG N	N	MG/L	.420	.500	.810	.340	.160	.120	.530		.470
00607	ORG N	DISS-N	MG/L		.54	.30	.37	.02	.04	.55	.34	.47
00608	NH3+NH4-	N DISS	MG/L		.000	.010	.000	.010	.000	.020	.030	.030
00610	NH3+NH4-	N TOTAL	MG/L	.010K	.010	.030	.000	.000	.030	.000		.000
00612	UN-IONZD	NH3-N	MG/L	.0005$	.000$	.00005$	.000$	.0001$	.000$	.00006$	.0001$	.0004$
00619	UN-IONZD	NH3-NH3	MG/L	.0006$	.000$	.00006$	.000$	.0001$	.000$	.00007$	.0001$	.0005$
00623	KJELDL N	DISS	MG/L	.340	.540	.310	.370	.030	.040	.570	.370	.500
00624	KJELDL N	SUSP	MG/L	.080	.000	.530	.000	.130	.110	.000		.000
00625	TOT KJEL	N	MG/L	.420	.510	.840	.340	.160	.150	.530		.470
00630	NO2&NO3	N-TOTAL	MG/L	.05	.09	.08	.12	.18	.16	.13		.31
00631	NO2&NO3	N-DISS	MG/L	.03	.1K	.1K	.1	.2	.1	.2	.08	.3
00665	PHOS-TOT		MG/L P	.010K	.010	.000	.010	.030	.010	.100	.040	.000
00666	PHOS-DIS		MG/L P	.010	.000	.120	.010	.020	.000	.010	.020	.000
00680	T ORG C	C	MG/L		5.0	4.1		3.0	3.4	8.2	6.3	
00681	D ORG C	C	MG/L	1.5			12.0					6.0
00689	S ORG C	C	MG/L	.5			.1					.4
00900	TOT HARD	CACO3	MG/L	160	220	210	230	230	240	180	160	140
00902	NC HARD	CACO3	MG/L	32	61	43	65	55	71	51	38	22
00915	CALCIUM	CA,DISS	MG/L	44.0	62.0	59.0	66.0	66.0	67.0	51.0	45.0	41.0
00925	MGNSIUM	MG,DISS	MG/L	11.0	16.0	16.0	17.0	17.0	18.0	13.0	11.0	9.5
00930	SODIUM	NA,DISS	MG/L	9.80	19.00	18.00	20.00	25.00	20.00	11.00	8.80	8.20
00931	SODIUM	ADSBTION	RATIO	.3	.6	.5	.6	.7	.6	.4	.3	.3
00932	PERCENT	SODIUM	%	16	16	15	21	19	15	12	11	11
00933	NA+K		MG/L	12.00	22.00	21.00	23.00	28.00	23.00			
00935	PTSSIUM	K,DISS	MG/L	2.00	2.90	2.80	2.90	3.00	2.90	1.90	1.60	1.40
00940	CHLORIDE	TOTAL	MG/L	8	21	24	25	26	28	11	9	5

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(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				79/09/25	79/10/29	79/11/26	79/12/21	80/01/28	80/02/25	80/04/25	80/05/27	80/06/24
INITIAL TIME				1130	1235	1409	1130	1209	1338	1131	1240	1406
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00945	SULFATE	SO4-TOT	MG/L	46	63	70	72	75	71	56	43	32
00950	FLUORIDE	F,DISS	MG/L	.40	.30	.40	.40	.40	.40	.40	.30	.20
00955	SILICA	DISOLVED	MG/L	8.8	8.6	7.1	7.4	8.5	7.6	8.1	6.0	8.8
01000	ARSENIC	AS,DISS	UG/L	3			2					3
01001	ARSENIC	AS,SUSP	UG/L	1K			0					0
01002	ARSENIC	AS,TOT	UG/L	3			2					3
01005	BARIUM	BA,DISS	UG/L	100K			100K					100K
01006	BARIUM	BA,SUSP	UG/L	0			100					0
01007	BARIUM	BA,TOT	UG/L	100K			200					0
01025	CADMIUM	CD,DISS	UG/L	2K			1K					1
01026	CADMIUM	CD,SUSP	UG/L	0			0					0
01027	CADMIUM	CD,TOT	UG/L	0U			0					0
01030	CHROMIUM	CR,DISS	UG/L	20K			0					0
01031	CHROMIUM	CR,SUSP	UG/L	0			0					0
01034	CHROMIUM	CR,TOT	UG/L	100K			0					0
01035	COBALT	CO,DISS	UG/L	3K			3K					3K
01036	COBALT	CO,SUSP	UG/L	0			0					
01037	COBALT	CO,TOTAL	UG/L	0U			0					0
01040	COPPER	CU,DISS	UG/L	2K			0					9
01041	COPPER	CU,SUSP	UG/L	5			1					6
01042	COPPER	CU,TOT	UG/L	6			1					15
01044	IRON	FE,SUSP	UG/L				30					190
01045	IRON	FE,TOT	UG/L	50			50					210
01046	IRON	FE,DISS	UG/L	10K			20					20
01049	LEAD	PB,DISS	UG/L	0U			3					0
01050	LEAD	PB,SUSP	UG/L	4			7					7
01051	LEAD	PB,TOT	UG/L	4			10					7
01054	MANGNESE	MN,SUSP	UG/L	20.0			.0					20.0
01055	MANGNESE	MN	UG/L	20.0			.0					30.0
01056	MANGNESE	MN,DISS	UG/L	10.0K			10.0K					10.0K
01065	NICKEL	NI,DISS	UG/L				2					3
01066	NICKEL	NI,SUSP	UG/L				1					12
01067	NICKEL	NI,TOTAL	UG/L				3					15
01075	SILVER	AG,DISS	UG/L	.0U			.0					.0
01076	SILVER	AG,SUSP	UG/L	.0			.0					.0
01077	SILVER	AG,TOT	UG/L	.0U			.0	.0		.0	.0	.0
01090	ZINC	ZN,DISS	UG/L	20K			10					10
01091	ZINC	ZN,SUSP	UG/L	10K			0					50

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0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			79/09/25	79/10/29	79/11/26	79/12/21	80/01/28	80/02/25	80/04/25	80/05/27	80/06/24
INITIAL TIME			1130	1235	1409	1130	1209	1338	1131	1240	1406
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01092 ZINC	ZN,TOT	UG/L	20K			10					60
01145 SELENIUM	SE,DISS	UG/L	1K			0					0
01146 SELENIUM	SE,SUSP	UG/L	0			0					0
01147 SELENIUM	SE,TOT	UG/L	1K			0					0
31625 FEC COLI	M-FCAGAD	/100 ML	3B	2B	4B	1K	19	17	120	36B	130
31673 FECSTREP	MFKFAGAR	/100ML			32B	92	110	150	150	92	66
46570 CAL HARD	CA MG	MG/L	155$	221$	213$	235$	235$	241$	181$	158$	141$
60050 ALGAE	TOTAL	/ML			110					1100	
70300 RESIDUE	DISS-180	C MG/L	207	220	315	323	344	314	252	223	195
70301 DISS SOL	SUM	MG/L	204	286	296	309	330	318	231	197	179
70302 DISS SOL	TONS/DAY		3470.00	1020.00	1100.00	1070.00	1830.00	1030.00	6460.00	11000.00	10400.00
70303 DISS SOL	TONS PER	ACRE-FT	.28	.30	.43	.44	.47	.43	.34	.30	.27
70331 SUSP SED	PARTSIZE	%<.062MM	97						81	84	37
70950 BIOMASS-	CHLRATIO	PERIUNIT				.0					20.3
70957 CHLRPHYL	A-PERIPH	CHFLUG/L				.4					227.0
70958 CHLRPHYL	B-PERIPH	CHFLUG/L				.1					1.1
71845 AMMONIA	TOT-NH4	MG/L	.0	.01	.04	.0	.0	.04	.0		.0
71846 AMMONIA	DISS-NH4	MG/L		.00	.01	.00	.01	.00	.03	.04	.04
71886 TOTAL P	AS PO4	MG/L	.00	.03	.00	.03	.09	.03	.31	.12	.00
71887 TOTAL N	AS NO3	MG/L	2.1	2.7	4.1	2.0	1.5	1.4	2.9		3.5
71890 MERCURY	HG,DISS	UG/L	.1K			.0					.0
71895 MERCURY	HG,SUSP	UG/L	.0			.1					.0
71900 MERCURY	HG,TOTAL	UG/L	.1K			.1					.0
80154 SUSP SED	CONC	MG/L	19	1					31	30	22
80155 SUSP SED	DISCHARG	TONS/DAY	319.00	4.60					795.00	1480.00	1170.00
82028 RATIO	FEC COL	FEC STRP			.1$	.01$	.2$	.1$	.8$	.4$	2$
82398 SAMPLING	METHOD	(CODES)			8010						

INITIAL DATE			80/07/28	80/07/28	80/08/28	80/09/29	80/10/28	80/11/20	80/11/24	80/12/30	81/01/27
INITIAL TIME			1220	1351	1000	1433	1436	0930	1414	1114	1316
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010 WATER	TEMP	CENT	10.0		13.0	13.0	8.0	3.0	5.5	3.0	2.5
00011 WATER	TEMP	FAHN	50.0$		55.4$	55.4$	46.4$	37.4$	41.9$	37.4$	36.5$
00020 AIR	TEMP	CENT	28.6		23.0	26.0	14.0	1.5	3.0	6.0	3.5
00027 COLLECT	AGENCY	CODE		1028		1028			1028		
00028 ANALYZE	AGENCY	CODE	80010	1028	80020	80010	80010		80020	80020	80020
00041 WEATHER	WMO CODE	4501	.000005					0			
00061 STREAM	FLOW,	INST-CFS	12700		6090	3610	2580	1930	1690	1400	1230

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				80/07/28	80/07/28	80/08/28	80/09/29	80/10/28	80/11/20	80/11/24	80/12/30	81/01/27
INITIAL TIME				1220	1351	1000	1433	1436	0930	1414	1114	1316
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00076	TURB	TRBIDMTR	HACH FTU	1.6		.8	1.3	.4		1.6	1.0	.6
00094	CNDUCTVY	FIELD	MICROMHO					374				
00095	CNDUCTVY	AT 25C	MICROMHO	285		245	389	466	687	503	542	500
00300	DO		MG/L	9.6		8.9	9.0	11.8		12.5	11.7	12.1
00301	DO	SATUR	PERCENT	102.0		101.0	102.0	118.0		118.0	104.0	107.0
00400	PH		SU	8.00		8.10	8.70	8.65		8.60	7.95	8.15
00403	PH	LAB	SU					8.3		8.4	7.8	8.2
00410	T ALK	CACO3	MG/L	120		130	130	150				
00572	BIOMASS	PERPHYTN	G/SQ M					.157				
00573	BIOMASS	PERPHYTN	DW G/M2					.32				
00600	TOTAL N	N	MG/L	.60		2.70	.52	1.10		.32	.75	.52
00602	DISS.	NITROGEN	MG/L N	.71		.39	.53	.32			.46	.53
00605	ORG N	N	MG/L	.510		2.600	.510	1.100		.290	.610	.140
00607	ORG N	DISS-N	MG/L	.54		.27	.53	.31			.30	.25
00608	NH3+NH4-	N DISS	MG/L	.000		.040	.000	.010		.050	.060	.100
00610	NH3+NH4-	N TOTAL	MG/L	.000		.000	.000	.000		.030	.030	.190
00612	UN-IONZD	NH3-N	MG/L	.000$		.0009$	.000$	.0005$		.002$	.0005$	.001$
00619	UN-IONZD	NH3-NH3	MG/L	.000$		.001$	.000$	.0007$		.002$	.0006$	.001$
00623	KJELDL N	DISS	MG/L	.540		.310	.530	.320			.360	.350
00624	KJELDL N	SUSP	MG/L	.000		2.300	.000	.780			.280	.000
00625	TOT KJEL	N	MG/L	.510		2.600	.510	1.100		.320	.640	.330
00630	NO2&NO3	N-TOTAL	MG/L	.09		.05	.01	.00		.00	.11	.19
00631	NO2&NO3	N-DISS	MG/L	.2		.08	.0	.0		.0	.1	.2
00665	PHOS-TOT		MG/L P	.030		.020	.060	.020		.020	.030	.010
00666	PHOS-DIS		MG/L P	.020		.040	.010	.010		.040	.030	.010
00680	T ORG C	C	MG/L	2.7		1.8		4.5				2.4
00681	D ORG C	C	MG/L				16.0			3.4		
00689	S ORG C	C	MG/L							.2		
00900	TOT HARD	CACO3	MG/L	130		150	170	200		210	220	230
00902	NC HARD	CACO3	MG/L	8		23	44	52		47	53	62
00915	CALCIUM	CA,DISS	MG/L	37.0		43.0	50.0	56.0		58.0	63.0	65.0
00925	MGNSIUM	MG,DISS	MG/L	8.6		11.0	12.0	15.0		15.0	16.0	17.0
00930	SODIUM	NA,DISS	MG/L	7.70		9.30	12.00	15.00		17.00	18.00	20.00
00931	SODIUM	ADSBTION	RATIO	.3		.3	.4	.5		.5	.5	.6
00932	PERCENT	SODIUM	%	11		12	13	14		15	15	16
00935	PTSSIUM	K,DISS	MG/L	1.40		1.60	2.10	2.40		2.90	3.20	2.80
00940	CHLORIDE	TOTAL	MG/L	7		10	15	17		18	25	24
00945	SULFATE	SO4-TOT	MG/L	26		36	46	57		62	72	69

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			80/07/28	80/07/28	80/08/28	80/09/29	80/10/28	80/11/20	80/11/24	80/12/30	81/01/27
INITIAL TIME			1220	1351	1000	1433	1436	0930	1414	1114	1316
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00950 FLUORIDE	F,DISS	MG/L	.40		.30	.40	.40		.30	.30	.30
00955 SILICA	DISOLVED	MG/L	8.9		8.7	8.3	6.9		6.8	7.4	8.1
01000 ARSENIC	AS,DISS	UG/L				3			2		
01001 ARSENIC	AS,SUSP	UG/L				0			0		
01002 ARSENIC	AS,TOT	UG/L				3			2		
01005 BARIUM	BA,DISS	UG/L				100K			50		
01006 BARIUM	BA,SUSP	UG/L				100			0		
01007 BARIUM	BA,TOT	UG/L				100			0		
01025 CADMIUM	CD,DISS	UG/L				2			1		
01026 CADMIUM	CD,SUSP	UG/L				0			0		
01027 CADMIUM	CD,TOT	UG/L				0			1		
01030 CHROMIUM	CR,DISS	UG/L				20			0		
01031 CHROMIUM	CR,SUSP	UG/L				0			20		
01034 CHROMIUM	CR,TOT	UG/L				0			20		
01035 COBALT	CO,DISS	UG/L				3K			3K		
01037 COBALT	CO,TOTAL	UG/L				0			0		
01040 COPPER	CU,DISS	UG/L				4			2		
01041 COPPER	CU,SUSP	UG/L				2			11		
01042 COPPER	CU,TOT	UG/L				6			13		
01045 IRON	FE,TOT	UG/L				70			100		
01046 IRON	FE,DISS	UG/L				10K			10K		
01049 LEAD	PB,DISS	UG/L				1			2		
01050 LEAD	PB,SUSP	UG/L				0			4		
01051 LEAD	PB,TOT	UG/L				1			6		
01054 MANGNESE	MN,SUSP	UG/L				10.0K			8.0		
01055 MANGNESE	MN	UG/L				10.0			10.0		
01056 MANGNESE	MN,DISS	UG/L				10.0K			2.0		
01065 NICKEL	NI,DISS	UG/L				0			0		
01066 NICKEL	NI,SUSP	UG/L				3			2		
01067 NICKEL	NI,TOTAL	UG/L				3			2		
01075 SILVER	AG,DISS	UG/L				.0			.0		
01076 SILVER	AG,SUSP	UG/L				.0			.0		
01077 SILVER	AG,TOT	UG/L	.0		.0	.0	1.0		.0		
01090 ZINC	ZN,DISS	UG/L				10K			7		
01091 ZINC	ZN,SUSP	UG/L				10K			70		
01092 ZINC	ZN,TOT	UG/L				10			80		
01145 SELENIUM	SE,DISS	UG/L				0			0		
01146 SELENIUM	SE,SUSP	UG/L				0			0		

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
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112WRD 17040104
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(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				80/07/28	80/07/28	80/08/28	80/09/29	80/10/28	80/11/20	80/11/24	80/12/30	81/01/27
INITIAL TIME				1220	1351	1000	1433	1436	0930	1414	1114	1316
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01147	SELENIUM	SE,TOT	UG/L				0			0		
31625	FEC COLI	M-FCAGAD	/100 ML	27		26	20	1B			2B	45
31673	FECSTREP	MFKFAGAR	/100ML	90		110	25	6B			15B	36
46570	CAL HARD	CA MG	MG/L	128$		153$	174$	202$		207$	223$	232$
60050	ALGAE	TOTAL	/ML	340			940					
70300	RESIDUE	DISS-180 C	MG/L	175		196	229	260		400	318	309
70301	DISS SOL	SUM	MG/L	169		198	224	260		276	308	309
70302	DISS SOL	TONS/DAY		6000.00		3220.00	2230.00	1810.00		1830.00	1200.00	1030.00
70303	DISS SOL	TONS PER	ACRE-FT	.24		.27	.31	.35		.54	.43	.42
70950	BIOMASS-	CHLRATIO	PERIUNIT					608.0				
70957	CHLRPHYL	A-PERIPH	CHFLUG/L					.3				
70958	CHLRPHYL	B-PERIPH	CHFLUG/L					.0				
71845	AMMONIA	TOT-NH4	MG/L	.0		.0	.0	.0		.04	.04	.2
71846	AMMONIA	DISS-NH4	MG/L	.00		.05	.00	.01		.06	.08	.13
71886	TOTAL P	AS PO4	MG/L	.09		.06	.18	.06		.06	.09	.03
71887	TOTAL N	AS NO3	MG/L	2.7		12.0	2.3	4.9		1.4	3.3	2.3
71890	MERCURY	HG,DISS	UG/L				.0			.0		
71895	MERCURY	HG,SUSP	UG/L				.0			.0		
71900	MERCURY	HG,TOTAL	UG/L				.0			.0		
80154	SUSP SED	CONC	MG/L	4								
80155	SUSP SED	DISCHARG	TONS/DAY	137.00								
82028	RATIO	FEC COL	FEC STRP	.3$		.2$	.8$	.2$			.1$	1$
82068	POTAS-40	K-40,DIS	PC/LITER									2.10
82398	SAMPLING	METHOD	(CODES)		8010		8010			8010		

INITIAL DATE				81/02/24	81/03/27	81/04/30	81/05/28	81/06/04	81/06/09	81/06/30	81/07/29	81/08/27
INITIAL TIME				1516	1138	1030	0907	1115	0915	0810	1050	1146
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	5.0	3.0	5.0	5.0	10.5	8.5	9.0	13.0	15.5
00011	WATER	TEMP	FAHN	41.0$	37.4$	41.0$	41.0$	50.9$	47.3$	48.2$	55.4$	59.9$
00020	AIR	TEMP	CENT	11.0	9.0	18.0	15.5	21.0		13.5	22.0	26.5
00027	COLLECT	AGENCY	CODE		1028					1028		
00028	ANALYZE	AGENCY	CODE	80020	80010	80020	80010		80020	80010	80010	80010
00041	WEATHER	WMO CODE	4501		2			1				
00061	STREAM	FLOW,	INST-CFS	1280	2610	7180	17200	19800	21700	16400	11400	8890
00076	TURB	TRBIDMTR	HACH FTU	2.3	3.1	5.6	3.7			3.8	2.5	1.2
00095	CNDUCTVY	AT 25C	MICROMHO	549	438	400	397	412	348	304	297	337
00300	DO		MG/L	13.2	10.7	10.4	7.8		9.7	9.9	8.9	8.5

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				81/02/24	81/03/27	81/04/30	81/05/28	81/06/04	81/06/09	81/06/30	81/07/29	81/08/27
INITIAL TIME				1516	1138	1030	0907	1115	0915	0810	1050	1146
MEDIUM-USGS		REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00301	DO	SATUR	PERCENT	126.0	97.3	97.0	74.0		100.0	102.0	102.0	101.0
00400	PH		SU	8.35	8.35	8.30	8.20		8.20	8.00	8.20	8.10
00403	PH	LAB	SU	8.2	8.2	8.1	7.9		7.9	8.0	8.0	8.2
00405	CO2		MG/L						1.5			
00600	TOTAL N	N	MG/L	.54	.66	.80	1.20			1.10	.71	1.10
00602	DISS.	NITROGEN	MG/L N	.58	.56	.72	.81			.88	.52	1.00
00605	ORG N	N	MG/L	.380	.300	.630	.950			.590	.390	.840
00607	ORG N	DISS-N	MG/L	.42	.28	.49	.66			.46	.17	.72
00608	NH3+NH4-	N DISS	MG/L	.070	.080	.130	.090			.110	.200	.150
00610	NH3+NH4-	N TOTAL	MG/L	.070	.080	.100	.150			.210	.170	.140
00612	UN-IONZD	NH3-N	MG/L	.002$	.002$	.003$	.001$			.002$	.006$	.004$
00613	NO2-N	DISS	MG/L							.000		
00618	NO3-N	DISS	MG/L							.31		
00619	UN-IONZD	NH3-NH3	MG/L	.002$	.002$	.003$	.002$			.002$	.007$	.005$
00623	KJELDL N	DISS	MG/L	.490	.360	.620	.750			.570	.370	.870
00624	KJELDL N	SUSP	MG/L	.000	.020	.110	.350			.230	.190	.110
00625	TOT KJEL	N	MG/L	.450	.380	.730	1.100			.800	.560	.980
00630	NO2&NO3	N-TOTAL	MG/L	.09	.28	.07	.12			.29	.15	.14
00631	NO2&NO3	N-DISS	MG/L	.09	.2	.1	.06		.2	.3	.2	.2
00660	ORTHOPO4	PO4	MG/L							.15		
00665	PHOS-TOT		MG/L P	.070	.030	.050	.060		.050	.050	.010	.040
00666	PHOS-DIS		MG/L P	.020	.020	.050	.020			.050	.020	.030
00671	PHOS-DIS	ORTHO	MG/L P							.050		
00680	T ORG C	C	MG/L	4.2		4.4				3.1	1.7	
00681	D ORG C	C	MG/L		3.3		8.2					4.4
00689	S ORG C	C	MG/L		.2		.8					.1
00900	TOT HARD	CACO3	MG/L	230	210	180	180		170	140	130	140
00915	CALCIUM	CA,DISS	MG/L	66.0	59.0	52.0	51.0		48.0	41.0	38.0	40.0
00925	MGNSIUM	MG,DISS	MG/L	17.0	15.0	13.0	12.0		12.0	9.8	8.6	10.0
00930	SODIUM	NA,DISS	MG/L	20.00	15.00	11.00	10.00		10.00	11.00	8.60	8.90
00931	SODIUM	ADSBTION	RATIO	.6	.5	.4	.3		.3	.4	.3	.3
00932	PERCENT	SODIUM	%	15	13	11	11		11	14	12	12
00935	PTSSIUM	K,DISS	MG/L	2.90	2.30	2.30	1.70		1.70	2.00	1.40	1.90
00940	CHLORIDE	TOTAL	MG/L	25	17	11	8		8	7	21	8
00945	SULFATE	SO4-TOT	MG/L	74	61	53	52		47	40	30	39
00950	FLUORIDE	F,DISS	MG/L	.30	.40	.40	.30		.30	.30	.30	.40
00955	SILICA	DISOLVED	MG/L	7.5	8.4	7.0	6.6		8.0	8.5	9.9	9.0
01000	ARSENIC	AS,DISS	UG/L		2		4					5

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				81/02/24	81/03/27	81/04/30	81/05/28	81/06/04	81/06/09	81/06/30	81/07/29	81/08/27
INITIAL TIME				1516	1138	1030	0907	1115	0915	0810	1050	1146
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01001	ARSENIC	AS,SUSP	UG/L		2		0					0
01002	ARSENIC	AS,TOT	UG/L		4		4					5
01005	BARIUM	BA,DISS	UG/L		70		70		60			60
01006	BARIUM	BA,SUSP	UG/L		0		30					0
01007	BARIUM	BA,TOT	UG/L		0		100					0
01010	BERYLIUM	BE,DISS	UG/L						1.00K			
01025	CADMIUM	CD,DISS	UG/L		1K		1K		1K			1K
01027	CADMIUM	CD,TOT	UG/L		0		1					0
01030	CHROMIUM	CR,DISS	UG/L		10		10		0			0
01031	CHROMIUM	CR,SUSP	UG/L		0		0					0
01034	CHROMIUM	CR,TOT	UG/L		10		10					0
01035	COBALT	CO,DISS	UG/L		3K		3K		3K			3K
01037	COBALT	CO,TOTAL	UG/L		2		0					0
01040	COPPER	CU,DISS	UG/L		5		2		10K			2
01041	COPPER	CU,SUSP	UG/L		19		3					11
01042	COPPER	CU,TOT	UG/L		24		5					13
01044	IRON	FE,SUSP	UG/L				680					
01045	IRON	FE,TOT	UG/L		370		690					80
01046	IRON	FE,DISS	UG/L		10K		10		10K			10K
01049	LEAD	PB,DISS	UG/L		0		3		10K			0
01050	LEAD	PB,SUSP	UG/L		16		1					22
01051	LEAD	PB,TOT	UG/L		16		4					22
01054	MANGNESE	MN,SUSP	UG/L		20.0		30.0					20.0
01055	MANGNESE	MN	UG/L		30.0		40.0					20.0
01056	MANGNESE	MN,DISS	UG/L		7.0		7.0		7.0			4.0
01060	MOLY	MO,DISS	UG/L						10K			
01065	NICKEL	NI,DISS	UG/L		4		1					1
01066	NICKEL	NI,SUSP	UG/L		0		2					4
01067	NICKEL	NI,TOTAL	UG/L		2		3					5
01075	SILVER	AG,DISS	UG/L		.0		1.0					.0
01076	SILVER	AG,SUSP	UG/L		.0		.0					.0
01077	SILVER	AG,TOT	UG/L		.0		1.0					.0
01080	STRONTUM	SR,DISS	UG/L						280			
01085	VANADIUM	V,DISS	UG/L						6K			
01090	ZINC	ZN,DISS	UG/L		7		5		3K			8
01091	ZINC	ZN,SUSP	UG/L		50		5					2
01092	ZINC	ZN,TOT	UG/L		60		10					10
01106	ALUMINUM	AL,DISS	UG/L						0			

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				81/02/24	81/03/27	81/04/30	81/05/28	81/06/04	81/06/09	81/06/30	81/07/29	81/08/27
INITIAL TIME				1516	1138	1030	0907	1115	0915	0810	1050	1146
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01130	LITHIUM	LI,DISS	UG/L						19			
01145	SELENIUM	SE,DISS	UG/L		0		0					0
01146	SELENIUM	SE,SUSP	UG/L		0		0					0
01147	SELENIUM	SE,TOT	UG/L		0		0					0
31625	FEC COLI	M-FCAGAD	/100 ML	23	116	120	150			138	57	42
31673	FECSTREP	MFKFAGAR	/100ML	21	69	64	82			188	34	630
46570	CAL HARD	CA MG	MG/L	235$	209$	183$	177$		169$	143$	130$	141$
60050	ALGAE	TOTAL	/ML		240		1500			230	320	9700
70300	RESIDUE	DISS-180	C MG/L	317	294	251	249			189	166	199
70301	DISS SOL	SUM	MG/L	315	269	234	227		208	187	170	190
70302	DISS SOL	TONS/DAY		1100.00	2070.00	4870.00	11600.00		12200.00	8370.00	5110.00	4780.00
70303	DISS SOL	TONS PER	ACRE-FT	.43	.40	.34	.34		.28	.26	.23	.27
70331	SUSP SED	PARTSIZE	%<.062MM		97	86		58		53	58	41
71846	AMMONIA	DISS-NH4	MG/L	.09	.10	.17	.12			.14	.26	.19
71851	NITRATE	DISS-NO3	MG/L							1.4		
71856	NITRITE	DISS-NO2	MG/L							.00		
71886	TOTAL P	AS PO4	MG/L	.21	.09	.15	.18		.15	.15	.03	.12
71887	TOTAL N	AS NO3	MG/L	2.4	2.9	3.5	5.4			4.8	3.1	5.0
71890	MERCURY	HG,DISS	UG/L		.0		.0					.0
71895	MERCURY	HG,SUSP	UG/L		.0		.2					.1
71900	MERCURY	HG,TOTAL	UG/L		.0		.2					.1
80154	SUSP SED	CONC	MG/L		41	20		38		12	8	5
80155	SUSP SED	DISCHARG	TONS/DAY		289.00	388.00		2030.00		531.00	246.00	120.00
82028	RATIO	FEC COL	FEC STRP	1$	2$	2$	2$			.7$	2$	.07$
82068	POTAS-40	K-40,DIS	PC/LITER	2.20	1.70	1.70	1.30		1.30	1.50		
82081	C12/C13	RATIO	PER MIL						-8.300			
82082	H2/H1 RA	TIO PER	MIL						-132.000			
82085	018/016	RATIO	PER MIL						-17.700			
82086	S34/S32	RATIO	PER MIL						13.800			
82398	SAMPLING	METHOD	(CODES)		8010					8010		

INITIAL DATE				81/09/30	81/10/30	81/11/25	81/12/30	82/01/27	82/02/24	82/03/30	82/04/07	82/04/28
INITIAL TIME				1000	1151	1300	1108	1432	1130	1520	1140	1005
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	11.0	8.5	2.0	.0	2.0	1.0	2.0	3.0	5.0
00011	WATER	TEMP	FAHN	51.8$	47.3$	35.6$	32.0$	35.6$	33.8$	35.6$	37.4$	41.0$
00020	AIR	TEMP	CENT	9.5	13.0	1.0	1.0	.5	-6.0	1.5	5.0	12.5
00027	COLLECT	AGENCY	CODE	1028	80020	1028	1028	80020	1028	80020	1028	1028

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			81/09/30	81/10/30	81/11/25	81/12/30	82/01/27	82/02/24	82/03/30	82/04/07	82/04/28
	INITIAL TIME			1000	1151	1300	1108	1432	1130	1520	1140	1005
	MEDIUM-USGS	REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00028	ANALYZE	AGENCY	CODE	80010	80020	1028	1028	80020	1028	80020	80020	1028
00041	WEATHER	WMO CODE	4501	1								
00061	STREAM	FLOW,	INST-CFS	3180	1310	1290	1360	1300	2410	14500	9330	14800
00076	TURB	TRBIDMTR	HACH FTU	1.5	2.2			2.0		2.7		
00095	CNDUCTVY	AT 25C	MICROMHO	385	493	563	551	539	540	432	416	363
00300	DO		MG/L	8.4	9.8	12.8	12.3	11.2	12.8	11.4		
00301	DO	SATUR	PERCENT	90.3	99.0	112.0	106.0	102.0	107.0	101.0		
00400	PH		SU	8.35	8.10	8.50	7.60	7.75	8.50	8.50	7.72	
00403	PH	LAB	SU	7.6	8.0			8.0		8.1	7.9	
00600	TOTAL N	N	MG/L	1.30								
00602	DISS.	NITROGEN	MG/L N	.59								
00605	ORG N	N	MG/L	.950								
00607	ORG N	DISS-N	MG/L	.24								
00608	NH3+NH4-	N DISS	MG/L	.150	.070			.150				
00610	NH3+NH4-	N TOTAL	MG/L	.150								
00612	UN-IONZD	NH3-N	MG/L	.005$	.001$			.0007$				
00619	UN-IONZD	NH3-NH3	MG/L	.006$	.001$			.0008$				
00623	KJELDL N	DISS	MG/L	.390								
00624	KJELDL N	SUSP	MG/L	.710								
00625	TOT KJEL	N	MG/L	1.100	.280			.560		.490		
00630	NO2&NO3	N-TOTAL	MG/L	.20								
00631	NO2&NO3	N-DISS	MG/L	.2	.1K			.1		.3	.2	
00660	ORTHOPO4	PO4	MG/L		.03			.03				
00665	PHOS-TOT		MG/L P	.020	.020			.010		.010K	.080	
00666	PHOS-DIS		MG/L P	.070	.020			.010		.010K		
00671	PHOS-DIS	ORTHO	MG/L P		.010			.010				
00680	T ORG C	C	MG/L	2.4								
00900	TOT HARD	CACO3	MG/L	180	230			230		190	180	
00915	CALCIUM	CA,DISS	MG/L	52.0	62.0			66.0		52.0	52.0	
00925	MGNSIUM	MG,DISS	MG/L	13.0	18.0			17.0		14.0	13.0	
00930	SODIUM	NA,DISS	MG/L	13.00	20.00			21.00		12.00	13.00	
00931	SODIUM	ADSBTION	RATIO	.4	.6			.6		.4	.4	
00932	PERCENT	SODIUM	%	13	16			16		12	13	
00935	PTSSIUM	K,DISS	MG/L	2.30	3.00			3.10		1.90	2.10	
00940	CHLORIDE	TOTAL	MG/L	15				24		13	12	
00945	SULFATE	SO4-TOT	MG/L	53				74		59	58	
00950	FLUORIDE	F,DISS	MG/L	.50	.40			.40		.20	.50	
00955	SILICA	DISOLVED	MG/L	8.9	6.8			7.6		9.8	10.0	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			81/09/30	81/10/30	81/11/25	81/12/30	82/01/27	82/02/24	82/03/30	82/04/07	82/04/28
INITIAL TIME			1000	1151	1300	1108	1432	1130	1520	1140	1005
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01000 ARSENIC	AS,DISS	UG/L		6					5		
01001 ARSENIC	AS,SUSP	UG/L		1					0		
01002 ARSENIC	AS,TOT	UG/L		7					5		
01005 BARIUM	BA,DISS	UG/L		100K					100K	100	
01006 BARIUM	BA,SUSP	UG/L		100							
01007 BARIUM	BA,TOT	UG/L		200					100K		
01025 CADMIUM	CD,DISS	UG/L		1K					3		
01027 CADMIUM	CD,TOT	UG/L		1K					1		
01030 CHROMIUM	CR,DISS	UG/L		10K					10K		
01034 CHROMIUM	CR,TOT	UG/L		10K					20		
01035 COBALT	CO,DISS	UG/L		3					1K		
01037 COBALT	CO,TOTAL	UG/L		1					1		
01040 COPPER	CU,DISS	UG/L		1					2		
01041 COPPER	CU,SUSP	UG/L		3					23		
01042 COPPER	CU,TOT	UG/L		4					25		
01044 IRON	FE,SUSP	UG/L							250		
01045 IRON	FE,TOT	UG/L		90					260		
01046 IRON	FE,DISS	UG/L		10K					10		
01049 LEAD	PB,DISS	UG/L		1					1K		
01050 LEAD	PB,SUSP	UG/L		13							
01051 LEAD	PB,TOT	UG/L		14					3		
01054 MANGNESE	MN,SUSP	UG/L		7.0					30.0		
01055 MANGNESE	MN	UG/L		10.0					40.0		
01056 MANGNESE	MN,DISS	UG/L		10.0K					10.0K		
01065 NICKEL	NI,DISS	UG/L		1K					1K		
01067 NICKEL	NI,TOTAL	UG/L		2					2		
01075 SILVER	AG,DISS	UG/L		1.0K					1.0		
01077 SILVER	AG,TOT	UG/L		1.0K					1.0K		
01080 STRONTUM	SR,DISS	UG/L								360	
01090 ZINC	ZN,DISS	UG/L		19					10	10	
01091 ZINC	ZN,SUSP	UG/L		0					10		
01092 ZINC	ZN,TOT	UG/L		10					20		
01106 ALUMINUM	AL,DISS	UG/L								10	
01130 LITHIUM	LI,DISS	UG/L								30	
01145 SELENIUM	SE,DISS	UG/L		1K					1K		
01147 SELENIUM	SE,TOT	UG/L		1K					1K		
31625 FEC COLI	M-FCAGAD	/100 ML	7B	36B	13B	17B	8B	8B	6B		
31673 FECSTREP	MFKFAGAR	/100ML	4B	52	6B	4B	4B	13	3B		

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				81/09/30	81/10/30	81/11/25	81/12/30	82/01/27	82/02/24	82/03/30	82/04/07	82/04/28
INITIAL TIME				1000	1151	1300	1108	1432	1130	1520	1140	1005
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
46570	CAL HARD	CA MG	MG/L	183$	229$			235$		187$	183$	
60050	ALGAE	TOTAL	/ML	37000								
70300	RESIDUE	DISS-180	C MG/L	252	322			323		250		
70301	DISS SOL	SUM	MG/L	243				321		246	246	
70302	DISS SOL	TONS/DAY		2160.00	1140.00			1130.00		9790.00	6200.00	
70303	DISS SOL	TONS PER	ACRE-FT	.34	.44			.44		.34	.33	
70331	SUSP SED	PARTSIZE	X<.062MM	80			67	31		41		
71846	AMMONIA	DISS-NH4	MG/L	.19	.09			.19				
71886	TOTAL P	AS PO4	MG/L	.06	.06			.03			.25	
71887	TOTAL N	AS NO3	MG/L	5.8								
71890	MERCURY	HG,DISS	UG/L		.1K					.1K		
71895	MERCURY	HG,SUSP	UG/L		.1							
71900	MERCURY	HG,TOTAL	UG/L		.1					.1		
80154	SUSP SED	CONC	MG/L	1		10	93	14		70		
80155	SUSP SED	DISCHARG	TONS/DAY	8.60		35.00	341.00	49.00		2740.00		
82028	RATIO	FEC COL	FEC STRP	2$	.7$	2$	4$	2$	.6$	2$		
82081	C12/C13	RATIO	PER MIL								-9.100	
82082	H2/H1 RA	TIO PER	MIL								-135.000	
82085	O18/O16	RATIO	PER MIL								-17.700	
82086	S34/S32	RATIO	PER MIL								17.500	
82398	SAMPLING	METHOD	(CODES)	8010								

INITIAL DATE				82/04/28	82/05/26	82/06/28	82/06/28	82/07/28	82/08/30	82/09/29	82/10/28	82/11/29
INITIAL TIME				1302	1245	1325	1508	1044	1230	1330	1410	1208
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT		9.0	11.5		12.5	14.5	11.5	8.0	5.5
00011	WATER	TEMP	FAHN		48.2$	52.7$		54.5$	58.1$	52.7$	46.4$	41.9$
00020	AIR	TEMP	CENT		17.5	24.5		22.5	20.0	10.5	7.0	3.5
00027	COLLECT	AGENCY	CODE	1028	1028	1028	1028	80020	1028	80020	1028	80020
00028	ANALYZE	AGENCY	CODE	1028	80020	1028	1028	80020	1028	80020	1028	80020
00041	WEATHER	WMO CODE	4501								1	
00061	STREAM	FLOW,	INST-CFS		18800	16300		16600	7850	8390	5000	3770
00076	TURB	TRBIDMTR	HACH FTU		25.0			5.8		1.2		1.0
00095	CNDUCTVY	AT 25C	MICROMHO		313			263		327	382	372
00300	DO		MG/L		9.3			9.3				10.7
00301	DO	SATUR	PERCENT		97.0			103.0				102.0
00400	PH		SU		8.30			7.40		8.60		8.20
00403	PH	LAB	SU		8.2			8.1		8.4		8.0

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			82/04/28	82/05/26	82/06/28	82/06/28	82/07/28	82/08/30	82/09/29	82/10/28	82/11/29
INITIAL TIME			1302	1245	1325	1508	1044	1230	1330	1410	1208
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00608 NH3+NH4-	N DISS	MG/L		.180			.090		.090		.060
00612 UN-IONZD	NH3-N	MG/L		.005$			.0004$		.006$		.0010$
00619 UN-IONZD	NH3-NH3	MG/L		.006$			.0005$		.007$		.001$
00625 TOT KJEL	N	MG/L		1.100			.800		.400		.900
00631 NO2&NO3	N-DISS	MG/L		.2			.1		.2		.2
00660 ORTHOPO4	PO4	MG/L					.15		.06		
00665 PHOS-TOT		MG/L P		.100			.090		.030		.010
00666 PHOS-DIS		MG/L P		.040			.020		.010K		
00671 PHOS-DIS	ORTHO	MG/L P		.010K			.050		.020		.010K
00900 TOT HARD	CACO3	MG/L		150			120		150		180
00915 CALCIUM	CA,DISS	MG/L		45.0			36.0		44.0		50.0
00925 MGNSIUM	MG,DISS	MG/L		9.4			8.2		10.0		13.0
00930 SODIUM	NA,DISS	MG/L		7.80			6.10		8.00		11.00
00931 SODIUM	ADSBTION	RATIO		.3			.3		.3		.4
00932 PERCENT	SODIUM	%		10			10		10		12
00935 PTSSIUM	K,DISS	MG/L		1.40			1.50		1.60		1.90
00940 CHLORIDE	TOTAL	MG/L		6			5		8		12
00945 SULFATE	SO4-TOT	MG/L		28			24		33		49
00950 FLUORIDE	F,DISS	MG/L		.30			.20		.30		.30
00955 SILICA	DISOLVED	MG/L		8.7			8.7		9.1		8.2
01000 ARSENIC	AS,DISS	UG/L		4					5		4
01001 ARSENIC	AS,SUSP	UG/L		0					0		
01002 ARSENIC	AS,TOT	UG/L		3					5		
01005 BARIUM	BA,DISS	UG/L		100K					100K		61
01006 BARIUM	BA,SUSP	UG/L		100					40		
01007 BARIUM	BA,TOT	UG/L		200					100		
01010 BERYLIUM	BE,DISS	UG/L									.70
01025 CADMIUM	CD,DISS	UG/L		3					1K		1K
01027 CADMIUM	CD,TOT	UG/L		1K					1K		
01030 CHROMIUM	CR,DISS	UG/L		10K					10K		1K
01034 CHROMIUM	CR,TOT	UG/L		10K					10K		
01035 COBALT	CO,DISS	UG/L		1K					1K		3K
01037 COBALT	CO,TOTAL	UG/L		1					1K		
01040 COPPER	CU,DISS	UG/L		3					1K		3
01041 COPPER	CU,SUSP	UG/L		35							
01042 COPPER	CU,TOT	UG/L		38					13		
01044 IRON	FE,SUSP	UG/L		930					210		
01045 IRON	FE,TOT	UG/L		950					220		

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				82/04/28	82/05/26	82/06/28	82/06/28	82/07/28	82/08/30	82/09/29	82/10/28	82/11/29
INITIAL TIME				1302	1245	1325	1508	1044	1230	1330	1410	1208
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01046	IRON	FE,DISS	UG/L		25					15		13
01049	LEAD	PB,DISS	UG/L		1K					1K		3
01051	LEAD	PB,TOT	UG/L		4					20		
01054	MANGNESE	MN,SUSP	UG/L		70.0					40.0		
01055	MANGNESE	MN	UG/L		80.0					40.0		
01056	MANGNESE	MN,DISS	UG/L		10.0K					10.0K		5.0
01060	MOLY	MO,DISS	UG/L									10K
01065	NICKEL	NI,DISS	UG/L		1K					5		1K
01067	NICKEL	NI,TOTAL	UG/L		4					1K		
01075	SILVER	AG,DISS	UG/L		1.0K					1.0K		1.0K
01077	SILVER	AG,TOT	UG/L		1.0					1.0K		
01080	STRONTUM	SR,DISS	UG/L		230							300
01085	VANADIUM	V,DISS	UG/L									6K
01090	ZINC	ZN,DISS	UG/L		12					32		19
01091	ZINC	ZN,SUSP	UG/L							0		
01092	ZINC	ZN,TOT	UG/L		20					30		
01106	ALUMINUM	AL,DISS	UG/L		20							10
01130	LITHIUM	LI,DISS	UG/L		24							38
01145	SELENIUM	SE,DISS	UG/L		1K					1K		1
01147	SELENIUM	SE,TOT	UG/L		1K					1K		
31625	FEC COLI	M-FCAGAD	/100 ML		25			28		7B		3B
31673	FECSTREP	MFKFAGAR	/100ML		40			46		46		25
46570	CAL HARD	CA MG	MG/L		151$			124$		151$		178$
70300	RESIDUE	DISS-180	C MG/L		182			158		180		230
70301	DISS SOL	SUM	MG/L		183			157		184		232
70302	DISS SOL	TONS/DAY			9240.00			7080.00		4080.00		2340.00
70303	DISS SOL	TONS PER	ACRE-FT		.25			.21		.24		.31
70331	SUSP SED	PARTSIZE	%<.062MM	84	77		74					
71846	AMMONIA	DISS-NH4	MG/L		.23			.12		.12		.08
71886	TOTAL P	AS PO4	MG/L		.31			.28		.09		.09
71890	MERCURY	HG,DISS	UG/L		.1K					.1K		.1K
71900	MERCURY	HG,TOTAL	UG/L		.1					.1		
80154	SUSP SED	CONC	MG/L	30	61		30	11	4	5	4	
80155	SUSP SED	DISCHARG	TONS/DAY		3100.00			493.00	85.00	113.00	54.00	
82028	RATIO	FEC COL	FEC STRP		.6$			.6$		.2$		.1$
82081	C12/C13	RATIO	PER MIL		-9.200							
82082	H2/H1 RA	TIO PER	MIL		-135.000							
82085	O18/O16	RATIO	PER MIL		-18.200							

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				82/04/28	82/05/26	82/06/28	82/06/28	82/07/28	82/08/30	82/09/29	82/10/28	82/11/29
INITIAL TIME				1302	1245	1325	1508	1044	1230	1330	1410	1208
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
82086	S34/S32	RATIO	PER MIL		13.300							

INITIAL DATE				82/12/29	83/01/28	83/02/28	83/03/30	83/04/28	83/05/27	83/06/29	83/07/28	83/08/30
INITIAL TIME				0750	1130	0915	1300	1302	1515	1300	1440	1100
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	.0	20.0	2.5	2.5	5.0	8.5	15.5	12.0	14.0
00011	WATER	TEMP	FAHN	32.0$	68.0$	36.5$	36.5$	41.0$	47.3$	59.9$	53.6$	57.2$
00020	AIR	TEMP	CENT	-12.5	-.5	6.0	10.0	12.5	22.5	24.5	14.5	24.0
00025	BAROMTRC	PRESSURE	MM OF HG		634				638		638	
00027	COLLECT	AGENCY	CODE	1028	80020	1028	1028	1028	1028	1028	1028	1028
00028	ANALYZE	AGENCY	CODE	1028	80020	1028	80020	80020	80020	80020	80020	80020
00041	WEATHER	WMO CODE	4501	0	3	1	1		1	2		1
00061	STREAM	FLOW,	INST-CFS	6130	4450	2800	6600	13100	17800	22300	12100	8170
00065	STREAM	STAGE	FEET						6.61		5.27	
00076	TURB	TRBIDMTR	HACH FTU		.8		1.0		42.0		2.5	
00095	CNDUCTVY	AT 25C	MICROMHO	411	367	448	428	378	358	295	272	313
00300	DO		MG/L		10.6		11.2	10.6	10.1		8.4	
00301	DO	SATUR	PERCENT		92.0		97.0	99.0	84.9$		77.8$	
00400	PH		SU		7.70		8.10		8.30		8.30	
00403	PH	LAB	SU		8.3		8.2		8.1		8.4	
00608	NH3+NH4-	N DISS	MG/L		.060		.060		.120		.040	
00612	UN-IONZD	NH3-N	MG/L		.0010$		.0006$		.003$		.001$	
00619	UN-IONZD	NH3-NH3	MG/L		.001$		.0008$		.004$		.002$	
00625	TOT KJEL	N	MG/L		2.100		.500		.600		.600	
00631	NO2&NO3	N-DISS	MG/L		.2		.2		.1		.1	
00665	PHOS-TOT		MG/L P		.020		.030		.140		.120	
00666	PHOS-DIS		MG/L P		.020		.020		.010		.040	
00671	PHOS-DIS	ORTHO	MG/L P		.010K		.020		.020		.030	
00900	TOT HARD	CACO3	MG/L		180		190					
00915	CALCIUM	CA,DISS	MG/L		50.0		52.0		50.0		41.0	
00925	MGNSIUM	MG,DISS	MG/L		13.0		14.0		12.0		9.7	
00930	SODIUM	NA,DISS	MG/L		11.00		12.00		8.70		8.10	
00931	SODIUM	ADSBTION	RATIO		.4		.4					
00932	PERCENT	SODIUM	%		12		12					
00935	PTSSIUM	K,DISS	MG/L		1.80		1.90		1.70		1.50	
00940	CHLORIDE	TOTAL	MG/L		12		14		8		7	
00945	SULFATE	SO4-TOT	MG/L		49		57		39		27	
00950	FLUORIDE	F,DISS	MG/L		.40		.30		.30		.30	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				82/12/29	83/01/28	83/02/28	83/03/30	83/04/28	83/05/27	83/06/29	83/07/28	83/08/30
INITIAL TIME				0750	1130	0915	1300	1302	1515	1300	1440	1100
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00955	SILICA	DISOLVED	MG/L		8.4		9.2		8.4		8.4	
01000	ARSENIC	AS,DISS	UG/L				4		2			
01005	BARIUM	BA,DISS	UG/L				65		71			
01010	BERYLIUM	BE,DISS	UG/L				.50		1.00			
01025	CADMIUM	CD,DISS	UG/L				1K		1K			
01030	CHROMIUM	CR,DISS	UG/L				1K		1K			
01035	COBALT	CO,DISS	UG/L				3K		3K			
01040	COPPER	CU,DISS	UG/L				5		3			
01046	IRON	FE,DISS	UG/L				6		13			
01049	LEAD	PB,DISS	UG/L				4		4			
01056	MANGNESE	MN,DISS	UG/L				6.0		7.0			
01060	MOLY	MO,DISS	UG/L				10K		10K			
01065	NICKEL	NI,DISS	UG/L				1K		6			
01075	SILVER	AG,DISS	UG/L				1.0K		1.0K			
01080	STRONTUM	SR,DISS	UG/L				330		280			
01085	VANADIUM	V,DISS	UG/L				6K		6K			
01090	ZINC	ZN,DISS	UG/L				10		16			
01106	ALUMINUM	AL,DISS	UG/L				20		30			
01130	LITHIUM	LI,DISS	UG/L				30		20			
01145	SELENIUM	SE,DISS	UG/L				1		1K			
31625	FEC COLI	M-FCAGAD	/100 ML		2B		10	8B	55		13	
31673	FECSTREP	MFKFAGAR	/100ML		3B		6B	11	45		19	
46570	CAL HARD	CA MG	MG/L		178$		187$		174$		142$	
70300	RESIDUE	DISS-180	C MG/L		239		240		212		170	
70301	DISS SOL	SUM	MG/L		231		247					
70302	DISS SOL	TONS/DAY			2870.00							
70303	DISS SOL	TONS PER	ACRE-FT		.33							
70331	SUSP SED	PARTSIZE	%<.062MM						94	53		
71846	AMMONIA	DISS-NH4	MG/L		.08		.08					
71886	TOTAL P	AS PO4	MG/L		.06		.09		.43		.37	
71890	MERCURY	HG,DISS	UG/L				.1K		.1K			
80154	SUSP SED	CONC	MG/L		11		58		113	30	10	
82028	RATIO	FEC COL	FEC STRP		.7$		2$	.7$	1$		.7$	

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

INITIAL DATE				83/09/28	83/11/30	84/01/30	84/02/28	84/03/29	84/05/18	84/05/30	84/06/15	84/07/20
INITIAL TIME				1300	1410	1330	1250	1336	1437	1044	1400	1038
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	12.5	3.5	1.5	2.0	4.0	7.0	7.0		12.0
00011	WATER	TEMP	FAHN	54.5$	38.3$	34.7$	35.6$	39.2$	44.6$	44.6$		53.6$
00020	AIR	TEMP	CENT	10.0	-5.0	-2.0	4.0	8.5	19.0	22.0		22.0
00025	BAROMTRC	PRESSURE	MM OF HG	638	636	676		634		635		642
00027	COLLECT	AGENCY	CODE	1028	1028	1028	1028	1028	1028	1028	1028	1028
00028	ANALYZE	AGENCY	CODE	80020	80020	80020	80020	80020	80020	80020	80020	80020
00041	WEATHER	WMO CODE	4501				1		0			1
00061	STREAM	FLOW,	INST-CFS	6290	4890	6150	2530	8310	14000	20800		15300
00065	STREAM	STAGE	FEET	3.46	3.00	3.56						
00076	TURB	TRBIDMTR	HACH FTU	1.2	1.2	.6		2.8		26.0		3.3
00095	CNDUCTVY	AT 25C	MICROMHO	365	401	414	450	415	377	338		305
00300	DO		MG/L	8.4	11.3	12.4		11.0		10.0		9.4
00301	DO	SATUR	PERCENT	77.8$	83.7$	87.3$		84.0$		82.0$		87.0$
00400	PH		SU	8.20	8.50	8.70		8.40		6.50		8.20
00403	PH	LAB	SU	8.3	8.1	7.9		8.2		8.1		8.2
00608	NH3+NH4-	N DISS	MG/L	.040	.040	.010K		.030		.060		.020
00612	UN-IONZD	NH3-N	MG/L	.001$	.001$	.0004$		.0007$		.00002$		.0005$
00619	UN-IONZD	NH3-NH3	MG/L	.001$	.001$	.0004$		.0008$		.00003$		.0007$
00625	TOT KJEL	N	MG/L	.400	.500	.200		.200		.500		.200
00631	NO2&NO3	N-DISS	MG/L	.1	.1	.1		.2		.2		.1K
00665	PHOS-TOT		MG/L P	.030	.020	.010K		.010		.130		.020
00666	PHOS-DIS		MG/L P	.010	.010	.010K		.010		.030		.010
00671	PHOS-DIS	ORTHO	MG/L P	.030	.020	.020		.020		.010K		.010
00915	CALCIUM	CA,DISS	MG/L	47.0	51.0	50.0		51.0		50.0		42.0
00925	MGNSIUM	MG,DISS	MG/L	11.0	13.0	13.0		14.0		11.0		9.6
00930	SODIUM	NA,DISS	MG/L	10.00	11.00	11.00		11.00		8.30		6.80
00935	PTSSIUM	K,DISS	MG/L	1.70	1.90	1.80		2.00		1.50		1.40
00940	CHLORIDE	TOTAL	MG/L	11	10	12		11		7		5
00945	SULFATE	SO4-TOT	MG/L	36	41	43		51		30		26
00950	FLUORIDE	F,DISS	MG/L	.30	.40	.30		.40		.30		.30
00955	SILICA	DISOLVED	MG/L	9.3	7.8	7.6		9.0		8.7		8.2
01000	ARSENIC	AS,DISS	UG/L	2	2			2		1		
01005	BARIUM	BA,DISS	UG/L	55	57			53		75		
01010	BERYLIUM	BE,DISS	UG/L	1.00	.50K			.50K		1.00K		
01025	CADMIUM	CD,DISS	UG/L	1K	1K			3		1K		

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				83/09/28	83/11/30	84/01/30	84/02/28	84/03/29	84/05/18	84/05/30	84/06/15	84/07/20
INITIAL TIME				1300	1410	1330	1250	1336	1437	1044	1400	1038
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01030	CHROMIUM	CR,DISS	UG/L	1K	1K			1K		1K		
01035	COBALT	CO,DISS	UG/L	3K	3K			3K		3K		
01040	COPPER	CU,DISS	UG/L	6	1			2		2		
01046	IRON	FE,DISS	UG/L	17	3			3K		20		
01049	LEAD	PB,DISS	UG/L	2	1			1K		1		
01056	MANGNESE	MN,DISS	UG/L	4.0	3.0			3.0		8.0		
01060	MOLY	MO,DISS	UG/L	10K	10K			10K		10K		
01065	NICKEL	NI,DISS	UG/L	2	8			1		1K		
01075	SILVER	AG,DISS	UG/L	1.0K	1.0K			1.0K		1.0K		
01080	STRONTUM	SR,DISS	UG/L	260	300			310		270		
01085	VANADIUM	V,DISS	UG/L	6K	6K			6K		6K		
01090	ZINC	ZN,DISS	UG/L	9	14			14		17		
01106	ALUMINUM	AL,DISS	UG/L	30	10K			10K		30		
01130	LITHIUM	LI,DISS	UG/L	29	34			29		21		
01145	SELENIUM	SE,DISS	UG/L	1K	1K			1K		1K		
31625	FEC COLI	M-FCAGAD	/100 ML	17	4B	2B		17B		32B		58
31673	FECSTREP	MFKFAGAR	/100ML	20	2B	7B		18B		100		220
46570	CAL HARD	CA MG	MG/L	163$	181$	178$		185$		170$		144$
70300	RESIDUE	DISS-180	C MG/L	211	216	222		246		182		166
70331	SUSP SED	PARTSIZE	%<.062MM							62	83	72
71886	TOTAL P	AS PO4	MG/L	.09	.06			.03				
71890	MERCURY	HG,DISS	UG/L	.1	.1K			.1		.2		
80154	SUSP SED	CONC	MG/L	6						125	20	17
80164	BED MATL	PARTSIZE	%<.062MM	2								
82028	RATIO	FEC COL	FEC STRP	.9$	2$	.3$		.9$		.3$		.3$
82398	SAMPLING	METHOD	(CODES)					10		10		10

INITIAL DATE				84/08/17	84/09/13	84/10/26	84/11/14	84/12/14	85/01/09	85/02/15	85/03/20	85/04/19
INITIAL TIME				1249	1345	1250	0803	1332	1419	1320	1520	1200
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	16.5	14.5	8.0	6.0	.0	2.0	1.0	3.0	3.5
00011	WATER	TEMP	FAHN	61.7$	58.1$	46.4$	42.8$	32.0$	35.6$	33.8$	37.4$	38.3$
00020	AIR	TEMP	CENT	23.0	25.0	4.0	-1.0	-9.0	5.5	2.0	5.5	10.5
00025	BAROMTRC	PRESSURE	MM OF HG		637		636		638		640	
00027	COLLECT	AGENCY	CODE	1028	1028	1028	1028	1028	1028	1028	1028	1028
00028	ANALYZE	AGENCY	CODE	80020	80020	80020	80020	80020	80020	80020	80020	80020
00041	WEATHER	WMO CODE	4501	0		66		1		0		1
00061	STREAM	FLOW,	INST-CFS	8340	10300	4440	4800	4370	6150	3880	4580	7560

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				84/08/17	84/09/13	84/10/26	84/11/14	84/12/14	85/01/09	85/02/15	85/03/20	85/04/19
INITIAL TIME				1249	1345	1250	0803	1332	1419	1320	1520	1200
MEDIUM-USGS	REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00076	TURB	TRBIDMTR	HACH FTU		1.6		2.3		.8		1.0	
00095	CNDUCTVY	AT 25C	MICROMHO	351	337	400	362	438	374	425	429	399
00300	DO		MG/L		8.8		10.9		12.8		12.5	
00301	DO	SATUR	PERCENT		84.6$		87.2$		92.8$		92.6$	
00400	PH		SU		8.50		8.20		8.10		8.20	
00403	PH	LAB	SU		8.4		8.3		8.0		8.1	
00410	T ALK	CACO3	MG/L				142		136		135	
00608	NH3+NH4-	N DISS	MG/L		.030		.030		.030		.070	
00612	UN-IONZD	NH3-N	MG/L		.002$		.0005$		.0003$		.0010$	
00619	UN-IONZD	NH3-NH3	MG/L		.002$		.0006$		.0004$		.001$	
00625	TOT KJEL	N	MG/L		.200K		.200		.500		.300	
00631	NO2&NO3	N-DISS	MG/L		.1K		.1		.1		.2	
00665	PHOS-TOT		MG/L P		.020		.010K		.010K		.010K	
00666	PHOS-DIS		MG/L P		.010		.010		.030		.010	
00671	PHOS-DIS	ORTHO	MG/L P		.010		.010K		.020		.010K	
00915	CALCIUM	CA,DISS	MG/L		42.0		50.0		50.0		56.0	
00925	MGNSIUM	MG,DISS	MG/L		9.8		12.0		12.0		15.0	
00930	SODIUM	NA,DISS	MG/L		8.40		11.00		11.00		14.00	
00935	PTSSIUM	K,DISS	MG/L		1.80		2.10		1.70		2.10	
00940	CHLORIDE	TOTAL	MG/L		7		11		10		13	
00945	SULFATE	SO4-TOT	MG/L		31		45		44		56	
00950	FLUORIDE	F,DISS	MG/L		.40		.40		.40		.40	
00955	SILICA	DISOLVED	MG/L		8.9		8.6		8.5		9.5	
01000	ARSENIC	AS,DISS	UG/L		2		2				2	
01005	BARIUM	BA,DISS	UG/L		51		54				58	
01010	BERYLIUM	BE,DISS	UG/L		1.00K		.50K				.50K	
01025	CADMIUM	CD,DISS	UG/L		1K		1K				1	
01030	CHROMIUM	CR,DISS	UG/L		1K		1K				1K	
01035	COBALT	CO,DISS	UG/L		3K		3K				3K	
01040	COPPER	CU,DISS	UG/L		2		3				3	
01046	IRON	FE,DISS	UG/L		3K		3				3K	
01049	LEAD	PB,DISS	UG/L		5		1K				1K	
01056	MANGNESE	MN,DISS	UG/L		4.0		4.0				6.0	
01060	MOLY	MO,DISS	UG/L		10K		10K				10K	
01065	NICKEL	NI,DISS	UG/L		4		1K				1K	
01075	SILVER	AG,DISS	UG/L		1.0K		1.0K				1.0K	
01080	STRONTUM	SR,DISS	UG/L		230		280				350	
01085	VANADIUM	V,DISS	UG/L		6K		6K				6K	

(SAMPLE CONTINUED ON NEXT PAGE)

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SNAKE RIVER NR HEISE,ID
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				84/08/17	84/09/13	84/10/26	84/11/14	84/12/14	85/01/09	85/02/15	85/03/20	85/04/19
INITIAL TIME				1249	1345	1250	0803	1332	1419	1320	1520	1200
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01090	ZINC	ZN,DISS	UG/L		6		5				9	
01106	ALUMINUM	AL,DISS	UG/L		10K		10K				20	
01130	LITHIUM	LI,DISS	UG/L		24		30				31	
01145	SELENIUM	SE,DISS	UG/L		1K		1K				1K	
31625	FEC COLI	M-FCAGAD	/100 ML		36B		42		24B		42	
31673	FECSTREP	MFKFAGAR	/100ML		110		140		54B		18B	
46570	CAL HARD	CA MG	MG/L		145$		174$		174$		202$	
70300	RESIDUE	DISS-180 C	MG/L		191		233		210		259	
70331	SUSP SED	PARTSIZE	%(.062MM		90							
71890	MERCURY	HG,DISS	UG/L		.2		.2				.1	
80154	SUSP SED	CONC	MG/L		7							
82028	RATIO	FEC COL	FEC STRP		.3$		.3$		.4$		2$	
82398	SAMPLING	METHOD	(CODES)		10		10		10		10	

INITIAL DATE				85/05/17	85/05/17	85/06/21	85/07/19	85/07/19	85/08/23	85/09/17	85/10/10	85/10/10
INITIAL TIME				1300	1400	1404	1515	1915	1109	1527	1110	1735
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	7.0	7.0	10.0	15.0	15.0	14.0	14.0	2.0	10.0
00011	WATER	TEMP	FAHN	44.6$	44.6$	50.0$	59.0$	59.0$	57.2$	57.2$	35.6$	50.0$
00020	AIR	TEMP	CENT	18.0	18.0	21.0	31.0	31.0	23.0	11.5	2.0	9.0
00025	BAROMTRC	PRESSURE	MM OF HG	637				639		630		
00027	COLLECT	AGENCY	CODE	1028	1028	1028	1028	1028	1028	1028	1028	1028
00028	ANALYZE	AGENCY	CODE	80020	80020	80020	80020	80020	80020	80020	80020	80020
00041	WEATHER	WMO CODE	4501		1	0	1		0			
00061	STREAM	FLOW,	INST-CFS	9980	10000	11800	10600	10600	8120	3810	285	2700
00065	STREAM	STAGE	FEET							2.51		
00076	TURB	TRBIDMTR	HACH FTU	19.0				1.8		.6		
00095	CNDUCTVY	AT 25C	MICROMHO	384	359	299	306	306	338	380	341	345
00300	DO		MG/L	10.3				8.8		9.1		
00301	DO	SATUR	PERCENT	84.4$				86.3$		87.5$		
00400	PH		SU	8.20				8.30		8.30		
00403	PH	LAB	SU	8.0				8.4		8.5		
00410	T ALK	CACO3	MG/L	118				116		163		
00608	NH3+NH4-	N DISS	MG/L	.070				.030		.030		
00612	UN-IONZD	NH3-N	MG/L	.001$				.001$		.001$		
00619	UN-IONZD	NH3-NH3	MG/L	.002$				.002$		.001$		
00625	TOT KJEL	N	MG/L	.600				.200		.200		
00631	NO2&NO3	N-DISS	MG/L	.1				.1K		.1K		

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				85/05/17	85/05/17	85/06/21	85/07/19	85/07/19	85/08/23	85/09/17	85/10/10	85/10/10
INITIAL TIME				1300	1400	1404	1515	1915	1109	1527	1110	1735
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00665	PHOS-TOT		MG/L P	.030				.020		.010K		
00666	PHOS-DIS		MG/L P	.010K				.030		.010K		
00671	PHOS-DIS	ORTHO	MG/L P	.010				.010		.010K		
00915	CALCIUM	CA,DISS	MG/L	49.0				38.0		50.0		
00925	MGNSIUM	MG,DISS	MG/L	11.0				10.0		13.0		
00930	SODIUM	NA,DISS	MG/L	11.00				9.00		14.00		
00935	PTSSIUM	K,DISS	MG/L	1.80				1.50		2.10		
00940	CHLORIDE	TOTAL	MG/L	10				7		12		
00945	SULFATE	SO4-TOT	MG/L	41				30		48		
00950	FLUORIDE	F,DISS	MG/L	.40				.40		.40		
00955	SILICA	DISOLVED	MG/L	9.7				9.3		9.2		
01000	ARSENIC	AS,DISS	UG/L	2						3		
01005	BARIUM	BA,DISS	UG/L	59						57		
01010	BERYLIUM	BE,DISS	UG/L	.50K						.50K		
01025	CADMIUM	CD,DISS	UG/L	1K						1K		
01030	CHROMIUM	CR,DISS	UG/L	1K						3		
01035	COBALT	CO,DISS	UG/L	3K						3K		
01040	COPPER	CU,DISS	UG/L	3						2		
01046	IRON	FE,DISS	UG/L	8						3K		
01049	LEAD	PB,DISS	UG/L	7						1K		
01056	MANGNESE	MN,DISS	UG/L	6.0						3.0		
01060	MOLY	MO,DISS	UG/L	10K						10K		
01065	NICKEL	NI,DISS	UG/L	5						2		
01075	SILVER	AG,DISS	UG/L	1.0K						1.0		
01080	STRONTUM	SR,DISS	UG/L	270						300		
01085	VANADIUM	V,DISS	UG/L	6K						6K		
01090	ZINC	ZN,DISS	UG/L	4						95		
01106	ALUMINUM	AL,DISS	UG/L	10						20		
01130	LITHIUM	LI,DISS	UG/L	31						31		
01145	SELENIUM	SE,DISS	UG/L	1K						1K		
31625	FEC COLI	M-FCAGAD	/100 ML	5B				12B		14B		
31673	FECSTREP	MFKFAGAR	/100ML	10B				48		83		
46570	CAL HARD	CA MG	MG/L	168$				136$		178$		
70300	RESIDUE	DISS-180	C MG/L	197				179		235		
70331	SUSP SED	PARTSIZE	%<.062MM	85				67				
71886	TOTAL P	AS PO4	MG/L	.09				.06				
71890	MERCURY	HG,DISS	UG/L							.2		
80154	SUSP SED	CONC	MG/L	13				7				

(SAMPLE CONTINUED ON NEXT PAGE)

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SNAKE RIVER NR HEISE,ID
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0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				85/05/17	85/05/17	85/06/21	85/07/19	85/07/19	85/08/23	85/09/17	85/10/10	85/10/10
INITIAL TIME				1300	1400	1404	1515	1915	1109	1527	1110	1735
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
82028	RATIO	FEC COL	FEC STRP	.5$				.3$		.2$		
82398	SAMPLING	METHOD	(CODES)	10				10		10		

INITIAL DATE				85/11/19	85/12/20	86/01/15	86/02/24	86/03/26	86/04/18	86/05/09	86/07/18	86/08/22
INITIAL TIME				1439	1400	1451	1640	1450	1345	1320	1510	1550
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	3.5	.5	2.0	6.0	6.0	5.5	6.0	12.0	15.5
00011	WATER	TEMP	FAHN	38.3$	32.9$	35.6$	42.8$	42.8$	41.9$	42.8$	53.6$	59.9$
00020	AIR	TEMP	CENT	-2.5	-1.5	2.5	11.0	22.0	15.0	7.0	18.0	27.0
00025	BAROMTRC	PRESSURE	MM OF HG	641		635		640		631	638	
00027	COLLECT	AGENCY	CODE	1028	1028	1028		1028		1028	1028	
00028	ANALYZE	AGENCY	CODE	80020	80020	80020		80020		80020	80020	
00061	STREAM	FLOW,	INST-CFS	2420	2800	2920	2590	17400	16	18600	14000	8410
00065	STREAM	STAGE	FEET	1.76		2.14		6.47		6.93	5.74	
00076	TURB	TRBIDMTR	HACH FTU	14.0		1.0		2.5		3.0	3.0	
00095	CNDUCTVY	AT 25C	MICROMHO	444	488	438	430	396	370	361	270	314
00300	DO		MG/L	12.1		11.7				9.9	9.4	
00301	DO	SATUR	PERCENT	106.0		102.0				101.0	104.0	
00400	PH		SU	8.20		8.20		8.40		7.50	8.40	
00403	PH	LAB	SU	8.3		8.3		8.2		8.1	8.4	
00410	T ALK	CACO3	MG/L	176		165		140		142	144	
00440	HCO3 ION	HCO3	MG/L	215				166		173		
00445	CO3 ION	CO3	MG/L					2				
00608	NH3+NH4-	N DISS	MG/L	.030				.070		.050	.030	
00610	NH3+NH4-	N TOTAL	MG/L	.030		.030		.050		.070	.010	
00612	UN-IONZD	NH3-N	MG/L	.0004$		.0005$		.002$		.0002$	.001$	
00613	NO2-N	DISS	MG/L	.010K				.020		.010	.010K	
00619	UN-IONZD	NH3-NH3	MG/L	.0005$		.0006$		.002$		.0002$	.002$	
00625	TOT KJEL	N	MG/L	.200K		.200		.300		.200K	.300	
00631	NO2&NO3	N-DISS	MG/L	.1K				.3		.2	.1K	
00665	PHOS-TOT		MG/L P	.010K		.010		.060		.050	.010	
00666	PHOS-DIS		MG/L P	.010K		.010K		.050		.010	.010	
00671	PHOS-DIS	ORTHO	MG/L P	.020				.060		.020	.010	
00900	TOT HARD	CACO3	MG/L	210		200						
00902	NC HARD	CACO3	MG/L	31		36						
00915	CALCIUM	CA,DISS	MG/L	58.0		56.0		51.0		46.0	44.0	
00925	MGNSIUM	MG,DISS	MG/L	15.0		15.0		13.0		11.0	13.0	
00930	SODIUM	NA,DISS	MG/L	16.00		15.00		12.00		10.00	1.60	

(SAMPLE CONTINUED ON NEXT PAGE)

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SNAKE RIVER NR HEISE,ID
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130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			85/11/19	85/12/20	86/01/15	86/02/24	86/03/26	86/04/18	86/05/09	86/07/18	86/08/22
	INITIAL TIME			1439	1400	1451	1640	1450	1345	1320	1510	1550
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00931	SODIUM	ADSBTION	RATIO	.5		.5						
00932	PERCENT	SODIUM	%	14		14						
00935	PTSSIUM	K,DISS	MG/L	2.60		2.20		1.90		1.90	.60	
00940	CHLORIDE	TOTAL	MG/L	22		13		8		9	.7	
00945	SULFATE	SO4-TOT	MG/L	59		61		51		34	4	
00950	FLUORIDE	F,DISS	MG/L	.40		.40		.40		.30	.10K	
00955	SILICA	DISOLVED	MG/L	7.2		8.3		9.5		9.2	4.4	
01000	ARSENIC	AS,DISS	UG/L	2				3		2		
01005	BARIUM	BA,DISS	UG/L	54				66		77		
01010	BERYLIUM	BE,DISS	UG/L	.50K				.50L		.50K		
01025	CADMIUM	CD,DISS	UG/L	1K				1K		1K		
01030	CHROMIUM	CR,DISS	UG/L	1				1K		1K		
01035	COBALT	CO,DISS	UG/L	3K				3K		3K		
01040	COPPER	CU,DISS	UG/L	4				5		2		
01046	IRON	FE,DISS	UG/L	10				3K		10		
01049	LEAD	PB,DISS	UG/L	5				1		2		
01056	MANGNESE	MN,DISS	UG/L	2.0				3.0		7.0		
01060	MOLY	MO,DISS	UG/L	10K				10K		10K		
01065	NICKEL	NI,DISS	UG/L	4				1K		1		
01075	SILVER	AG,DISS	UG/L	1.0K				1.0K		1.0K		
01080	STRONTUM	SR,DISS	UG/L	350				310		270		
01085	VANADIUM	V,DISS	UG/L	6K				6K		6K		
01090	ZINC	ZN,DISS	UG/L	13				23		23		
01106	ALUMINUM	AL,DISS	UG/L	20				10		20		
01130	LITHIUM	LI,DISS	UG/L	37				28		24		
01145	SELENIUM	SE,DISS	UG/L	1K				1K		1K		
31625	FEC COLI	M-FCAGAD	/100 ML	8B		8B		1K		19B	2B	
31673	FECSTREP	MFKFAGAR	/100ML	26		21		12B		7B	21	
34472	PYRENE	SEDUG/KG	DRY WGT							6.000		
46570	CAL HARD	CA MG	MG/L	207$		202$		181$		160$	163$	
70300	RESIDUE	DISS-180 C	MG/L	275		253		237		214	159	
70301	DISS SOL	SUM	MG/L	273		261						
70331	SUSP SED	PARTSIZE	%<.062MM	90				75		71	92	
71846	AMMONIA	DISS-NH4	MG/L	.04								
71890	MERCURY	HG,DISS	UG/L	.2				.2		.2		
80154	SUSP SED	CONC	MG/L	53				52		33	7	
82028	RATIO	FEC COL	FEC STRP	.3$		.4$		.08$		3$	1$	
82398	SAMPLING	METHOD	(CODES)	10		10		10		10	10	

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SNAKE RIVER NR HEISE,ID
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0000 FEET DEPTH

INITIAL DATE				86/09/19	86/11/21	86/12/19	87/01/16	87/02/06	87/03/11	87/03/18	87/04/10	87/05/22
INITIAL TIME				1145	1015	1215	1209	1400	1720	1100	1330	1616
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	11.5	6.5	1.0	.0	2.0	5.0	5.0	4.0	8.0
00011	WATER	TEMP	FAHN	52.7$	43.7$	33.8$	32.0$	35.6$	41.0$	41.0$	39.2$	46.4$
00020	AIR	TEMP	CENT	7.0	3.5	-3.0	-25.0	4.0	10.0	11.0	12.0	11.0
00025	BAROMTRC	PRESSURE	MM OF HG	632	632		634			625		637
00027	COLLECT	AGENCY	CODE	1028	1028	1028	1028	1028	1028	1028	1028	1028
00028	ANALYZE	AGENCY	CODE	80020	80020	80020	80020	80020	80020	80020	80020	80020
00061	STREAM	FLOW,	INST-CFS	8340	4360	4840	3560	2840	1530	1470	4860	10600
00065	STREAM	STAGE	FEET	4.10	2.86		2.49			1.32		4.89
00076	TURB	TRBIDMTR	HACH FTU		.9		.5			7.2		1.8
00095	CNDUCTVY	AT 25C	MICROMHO	330	380	388	387	581	497	530	457	394
00300	DO		MG/L	9.7	10.1		12.5			11.1		10.1
00301	DO	SATUR	PERCENT	105.0	97.0		102.0			106.0		102.0
00400	PH		SU	7.80	8.15		7.80			8.25		8.60
00403	PH	LAB	SU		8.1		7.8			8.0		8.2
00410	T ALK	CACO3	MG/L	143	142		149			182		150
00419	ALKALIN.	CARB.IT	FLD MG/L		147.0		149.0			182.0		151.0
00440	HCO3 ION	HCO3	MG/L	174	179							
00447	CARBNAT.	IT FIELD	CO3 MG/L		.0		.0			.0		18.0
00450	BICARB.	IT HCO3	FLD MG/L		179.0		182.0			222.0		146.0
00608	NH3+NH4-	N DISS	MG/L	.050	.050		.050			.060		.060
00610	NH3+NH4-	N TOTAL	MG/L	.070	.020		.060			.060		.060
00612	UN-IONZD	NH3-N	MG/L	.0005$	.0008$		.0002$			.001$		.003$
00613	NO2-N	DISS	MG/L	.010K	.010K		.010K			.010K		.010K
00619	UN-IONZD	NH3-NH3	MG/L	.0007$	.0010$		.0003$			.001$		.004$
00625	TOT KJEL	N	MG/L	.300	.400		.400			.500		.500
00631	NO2&NO3	N-DISS	MG/L	.1	.1K		.2			.2		.1K
00665	PHOS-TOT		MG/L P	.200	.030		.030			.140		.010
00666	PHOS-DIS		MG/L P	.030	.010K		.010			.090		.020
00671	PHOS-DIS	ORTHO	MG/L P	.010	.010K		.020			.080		.010K
00915	CALCIUM	CA,DISS	MG/L		52.0		55.0			67.0		53.0
00925	MGNSIUM	MG,DISS	MG/L		13.0		14.0			18.0		13.0
00930	SODIUM	NA,DISS	MG/L		12.00		13.00			20.00		10.00
00935	PTSSIUM	K,DISS	MG/L		2.10		1.90			2.90		1.80
00940	CHLORIDE	TOTAL	MG/L		11		16			26		14
00945	SULFATE	SO4-TOT	MG/L		49		56			68		52

(SAMPLE CONTINUED ON NEXT PAGE)

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SNAKE RIVER NR HEISE,ID
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0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				77/07/19	77/07/29	77/08/23	77/09/01	77/09/20	77/10/04	77/10/31	77/11/21	77/12/08
INITIAL TIME				1145	0930	1000	1450	1020	1335	1010	1300	1050
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
71895	MERCURY	HG,SUSP	UG/L									.0
71900	MERCURY	HG,TOTAL	UG/L									.1K
80154	SUSP SED	CONC	MG/L									3
80155	SUSP SED	DISCHARG	TONS/DAY									10.00
82028	RATIO	FEC COL	FEC STRP									.02$

INITIAL DATE				78/01/09	78/01/24	78/01/24	78/02/24	78/03/24	78/04/26	78/05/25	78/06/26	78/06/27
INITIAL TIME				1030	1300	1810	1245	0800	1045	1500	1600	1140
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	2.0	.5		3.0	2.5	6.0	8.0	13.0	11.5
00011	WATER	TEMP	FAHN	35.6$	32.9$		37.4$	36.5$	42.8$	46.4$	55.4$	52.7$
00020	AIR	TEMP	CENT	.0	-5.0		4.0	3.0	8.0	15.0	23.0	15.0
00022	LENGTH	OF EXPOS	URE-DAYS		47			28			32	
00027	COLLECT	AGENCY	CODE			1028		1028				
00028	ANALYZE	AGENCY	CODE			1028		1028			80020	
00041	WEATHER	WMO CODE	4501		1		3	3		3	0	
00061	STREAM	FLOW,	INST-CFS	1330	1810		1700	2580	9480	15000	17000	17600
00070	TURB	JKSN	JTU		1.0		3.0	2.0		6.0		
00076	TURB	TRBIDMTR	HACH FTU								4.2	
00095	CNDUCTVY	AT 25C	MICROMHO		603		511	446		369	326	
00300	DO		MG/L		12.8		11.5	10.8		10.8	9.3	
00301	DO	SATUR	PERCENT		119.0		115.0	106.0		123.0	117.0	
00400	PH		SU		7.70		7.20	7.60		8.00	8.30	
00405	CO2		MG/L		5.9		20.0	8.8		2.2	1.1	
00410	T ALK	CACO3	MG/L		152		160	180		115	115	
00440	HCO3 ION	HCO3	MG/L		185		200	220		140	140	
00445	CO3 ION	CO3	MG/L		0		0	0		0	0	
00572	BIOMASS	PERPHYTN	G/SQ M		2.280			16.400			.315	
00573	BIOMASS	PERPHYTN	DW G/M2		3.39			18.50			.79	
00600	TOTAL N	N	MG/L		.77		.29	.89		.78	.53	
00605	ORG N	N	MG/L		.590		.080	.690		.670	.500	
00610	NH3+NH4-	N TOTAL	MG/L		.020		.020	.010K		.010	.010K	
00612	UN-IONZD	NH3-N	MG/L		.00009$		.00003$	.00004$		.0002$	.0004$	
00619	UN-IONZD	NH3-NH3	MG/L		.0001$		.00004$	.00005$		.0002$	.0005$	
00623	KJELDL N	DISS	MG/L		.180		.220	.360		.260	.310	
00624	KJELDL N	SUSP	MG/L		.430		.000	.330		.420	.190	
00625	TOT KJEL	N	MG/L		.610		.100	.690		.680	.500	
00630	NO2&NO3	N-TOTAL	MG/L		.16		.19	.20		.10	.03	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				78/01/09	78/01/24	78/01/24	78/02/24	78/03/24	78/04/26	78/05/25	78/06/26	78/06/27
INITIAL TIME				1030	1300	1810	1245	0800	1045	1500	1600	1140
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01049	LEAD	PB,DISS	UG/L		3		2	16		19	7	
01050	LEAD	PB,SUSP	UG/L		2		5	52		11	17	
01051	LEAD	PB,TOT	UG/L		5		7	68		30	24	
01054	MANGNESE	MN,SUSP	UG/L		.0		10.0	30.0		.0	10.0	
01055	MANGNESE	MN	UG/L		10.0K		20.0	40.0		40.0	20.0	
01056	MANGNESE	MN,DISS	UG/L		10.0K		10.0K	10.0K		40.0	10.0K	
01075	SILVER	AG,DISS	UG/L		.0U		.0U	.0U		.0U	.0U	
01076	SILVER	AG,SUSP	UG/L		1.0		1.0	1.0		.0	.0	
01077	SILVER	AG,TOT	UG/L		2.0K		2.0K	2.0K		.0U	.0U	
01090	ZINC	ZN,DISS	UG/L		30		20K	20K		30	20	
01091	ZINC	ZN,SUSP	UG/L		20		10	0		0	10	
01092	ZINC	ZN,TOT	UG/L		50		20	20K		30	30	
01145	SELENIUM	SE,DISS	UG/L		1K		1K	13		1K	1K	
01146	SELENIUM	SE,SUSP	UG/L		0		1	1		0	0	
01147	SELENIUM	SE,TOT	UG/L		1K		1	14		1K	1K	
31625	FEC COLI	M-FCAGAD	/100 ML		10B		3B	5B		12B	26	
31673	FECSTREP	MFKFAGAR	/100ML		13B		5B	26		31	130	
46570	CAL HARD	CA MG	MG/L		258$		241$	249$		169$	141$	
60050	ALGAE	TOTAL	/ML					230		960	1600	
70300	RESIDUE	DISS-180	C MG/L		340		316	296		202	169	
70301	DISS SOL	SUM	MG/L		316		313	311		189	166	
70302	DISS SOL	TONS/DAY			1660.00		1450.00	2060.00		8180.00	7760.00	
70303	DISS SOL	TONS PER	ACRE-FT		.46		.43	.40		.27	.23	
70331	SUSP SED	PARTSIZE	%<.062MM				91	97		78	92	
70332	SUSP SED	PARTSIZE	%<.125MM				100	100		90	98	
70333	SUSP SED	PARTSIZE	%<.250MM							99	100	
70334	SUSP SED	PARTSIZE	%<.500MM							100		
70957	CHLRPHYL	A-PERIPH	CHFLUG/L		1.7			10.4			.1	
70958	CHLRPHYL	B-PERIPH	CHFLUG/L		.0			1.6			.01	
71887	TOTAL N	AS NO3	MG/L		3.4		1.3	3.9		3.5	2.3	
71890	MERCURY	HG,DISS	UG/L		.1K		.1K	.1K		.5	.1K	
71895	MERCURY	HG,SUSP	UG/L		1.0		.0	.0		.0	.0	
71900	MERCURY	HG,TOTAL	UG/L		1.0		.1K	.1K		.1K	.1K	
80154	SUSP SED	CONC	MG/L		13		18	6		33	14	
80155	SUSP SED	DISCHARG	TONS/DAY		64.00		83.00	42.00		1340.00	643.00	
82028	RATIO	FEC COL	FEC STRP		.8$		.6$	.2$		.4$	.2$	
82398	SAMPLING	METHOD	(CODES)			8010		8010				

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

INITIAL DATE			78/07/24	78/07/26	78/08/25	78/08/30	78/09/06	78/10/30	78/11/27	78/12/04	78/12/27
INITIAL TIME			1100	1020	0945	1120	1115	1300	1145	1300	1230
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010 WATER	TEMP	CENT	11.5	12.0	12.5	13.5	14.6	8.0	3.0	4.0	1.0
00011 WATER	TEMP	FAHN	52.7$	53.6$	54.5$	56.3$	58.3$	46.4$	37.4$	39.2$	33.8$
00020 AIR	TEMP	CENT	20.0		19.0	25.5	23.0	17.5	4.0	1.5	-2.0
00022 LENGTH	OF EXPOS	URE-DAYS									23
00028 ANALYZE	AGENCY	CODE	80010				80010	80020		80010	80020
00041 WEATHER	WMO CODE	4501	0			0	3	1	10	1	71
00061 STREAM	FLOW,	INST-CFS	11900	11700	6920	6860	6640	2970	2190	2500	3730
00076 TURB	TRBIDMTR	HACH FTU	2.4				2.6	.1		.6	.7
00095 CNDUCTVY	AT 25C	MICROMHO	272			341	298	382	365	369	398
00300 DO		MG/L	8.6				8.7	10.0		9.3	13.6
00301 DO	SATUR	PERCENT	104.0				113.0	102.0		107.0	115.0
00400 PH		SU	7.90				8.20	8.30		7.40	7.50
00405 CO2		MG/L	2.8				1.4	1.4		11.0	8.6
00410 T ALK	CACO3	MG/L	115				115	139		148	139
00440 HCO3 ION	HCO3	MG/L	140				140	170		180	170
00445 CO3 ION	CO3	MG/L	0				0	0		0	0
00572 BIOMASS	PERPHYTN	G/SQ M									.090
00573 BIOMASS	PERPHYTN	DW G/M2									.16
00600 TOTAL N	N	MG/L	.30				3.60	.11		.42	.27
00605 ORG N	N	MG/L	.200				3.500	.020		.270	.090
00610 NH3+NH4-	N TOTAL	MG/L	.020				.010K	.020		.010	.010K
00612 UN-IONZD	NH3-N	MG/L	.0003$				.0004$	.0006$		.00003$	.00003$
00619 UN-IONZD	NH3-NH3	MG/L	.0004$				.0005$	.0007$		.00003$	.00003$
00623 KJELDL N	DISS	MG/L	.360				.280	.030		.300	.160
00624 KJELDL N	SUSP	MG/L	.000				3.200	.010		.000	.000
00625 TOT KJEL	N	MG/L	.220				3.500	.040		.280	.090
00630 NO2&NO3	N-TOTAL	MG/L	.08				.06	.07		.14	.18
00665 PHOS-TOT		MG/L P	.040				.010K	.010K		.020	.010K
00666 PHOS-DIS		MG/L P	.010				.010K	.010K		.010	.010K
00680 T ORG C	C	MG/L	5.0					1.1			1.6
00681 D ORG C	C	MG/L					3.0			1.7	
00689 S ORG C	C	MG/L					.6				
00900 TOT HARD	CACO3	MG/L	130				150	190		190	180
00902 NC HARD	CACO3	MG/L	13				35	51		42	41
00915 CALCIUM	CA,DISS	MG/L	37.0				44.0	56.0		54.0	50.0

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				78/07/24	78/07/26	78/08/25	78/08/30	78/09/06	78/10/30	78/11/27	78/12/04	78/12/27
INITIAL TIME				1100	1020	0945	1120	1115	1300	1145	1300	1230
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00925	MGNSIUM	MG,DISS	MG/L	8.6				10.0	13.0		14.0	13.0
00930	SODIUM	NA,DISS	MG/L	6.10				7.10	11.00		12.00	10.00
00931	SODIUM	ADSBTION	RATIO	.2				.3	.3		.4	.3
00932	PERCENT	SODIUM	%	9				9	11		12	11
00935	PTSSIUM	K,DISS	MG/L	1.40				1.50	1.90		2.20	2.00
00940	CHLORIDE	TOTAL	MG/L	5				2	13		11	11
00945	SULFATE	SO4-TOT	MG/L	23				35	52		54	51
00950	FLUORIDE	F,DISS	MG/L	.20				.20	.30		.30	.20
00955	SILICA	DISOLVED	MG/L	8.6				9.0	8.1		7.7	7.7
01000	ARSENIC	AS,DISS	UG/L	2				2	2		2	2
01001	ARSENIC	AS,SUSP	UG/L	1				1				
01002	ARSENIC	AS,TOT	UG/L	3				3	2		2	2
01005	BARIUM	BA,DISS	UG/L	50				100K	100K		100K	100K
01006	BARIUM	BA,SUSP	UG/L	200				100	0		100K	100K
01007	BARIUM	BA,TOT	UG/L	200				100K	100K		100K	100K
01025	CADMIUM	CD,DISS	UG/L	3				2K	2K		2K	2K
01026	CADMIUM	CD,SUSP	UG/L	0				0	0		1	0
01027	CADMIUM	CD,TOT	UG/L	2K				2K	2K		2	2K
01030	CHROMIUM	CR,DISS	UG/L	20K				0U	0U		0U	0U
01031	CHROMIUM	CR,SUSP	UG/L	0				0	0		100K	0
01034	CHROMIUM	CR,TOT	UG/L	0U				0U	0U		100K	0U
01035	COBALT	CO,DISS	UG/L	2				2K	0U		3K	3K
01036	COBALT	CO,SUSP	UG/L	0				0	0		0	0
01037	COBALT	CO,TOTAL	UG/L	2K				2K	0U		0U	2
01040	COPPER	CU,DISS	UG/L	6				6	2K		4	2K
01041	COPPER	CU,SUSP	UG/L	2				7	2		5	8
01042	COPPER	CU,TOT	UG/L	8				13	3		9	9
01044	IRON	FE,SUSP	UG/L	1500				40	20		30	40
01045	IRON	FE,TOT	UG/L	1500				80	50		40	40
01046	IRON	FE,DISS	UG/L	10K				40	30		10K	10K
01049	LEAD	PB,DISS	UG/L	13				16	7		7	4
01050	LEAD	PB,SUSP	UG/L	11				0	2		3	3
01051	LEAD	PB,TOT	UG/L	24				16	9		10	7
01054	MANGNESE	MN,SUSP	UG/L	20.0				10.0	.0		10.0K	20.0
01055	MANGNESE	MN	UG/L	30.0				20.0	10.0K		10.0K	20.0
01056	MANGNESE	MN,DISS	UG/L	6.0				10.0K	10.0K		10.0K	10.0K
01075	SILVER	AG,DISS	UG/L	.0U				.0U	.0U		.0U	.0U
01076	SILVER	AG,SUSP	UG/L	.0				.0	.0		.0	2.0

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				78/07/24	78/07/26	78/08/25	78/08/30	78/09/06	78/10/30	78/11/27	78/12/04	78/12/27
INITIAL TIME				1100	1020	0945	1120	1115	1300	1145	1300	1230
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01077	SILVER	AG,TOT	UG/L	.0U				.0U	.0U		.0U	2.0
01090	ZINC	ZN,DISS	UG/L	20				20K	20K		20	20K
01091	ZINC	ZN,SUSP	UG/L	0				0	0		0	30
01092	ZINC	ZN,TOT	UG/L	20				20K	20K		20	30
01145	SELENIUM	SE,DISS	UG/L	1K				1K	1		1	1K
01146	SELENIUM	SE,SUSP	UG/L	0				0	0		0	0
01147	SELENIUM	SE,TOT	UG/L	1K				1K	1K		1K	1K
31625	FEC COLI	M-FCAGAD	/100 ML	7B				8B	2B		3B	18
31673	FECSTREP	MFKFAGAR	/100ML	15B				13	56		76	88
46570	CAL HARD	CA MG	MG/L	128$				151$	193$		192$	178$
60050	ALGAE	TOTAL	/ML	330				140			57	
70300	RESIDUE	DISS-180	C MG/L	157				180	241		257	237
70301	DISS SOL	SUM	MG/L	159				178	239		244	229
70302	DISS SOL	TONS/DAY		5040.00				3230.00	1930.00		1740.00	2390.00
70303	DISS SOL	TONS PER	ACRE-FT	.21				.24	.33		.35	.32
70331	SUSP SED	PARTSIZE	%<.062MM	85				80	100		100	100
70332	SUSP SED	PARTSIZE	%<.125MM	100				100				
70957	CHLRPHYL	A-PERIPH	CHFLUG/L									.2
70958	CHLRPHYL	B-PERIPH	CHFLUG/L									.0
71887	TOTAL N	AS NO3	MG/L	1.3				16.0	.5		1.9	1.2
71890	MERCURY	HG,DISS	UG/L	.1K				.1K	.1K		.1K	.1K
71895	MERCURY	HG,SUSP	UG/L	.0				.0	.5K		.0	.5K
71900	MERCURY	HG,TOTAL	UG/L	.1K				.1K	.5K		.1K	.5K
80154	SUSP SED	CONC	MG/L	4				2	3		1	2
80155	SUSP SED	DISCHARG	TONS/DAY	129.00				36.00	24.00		6.70	20.00
82028	RATIO	FEC COL	FEC STRP	.5$				.6$	.04$		.04$	.2$

INITIAL DATE				79/02/06	79/02/26	79/03/27	79/04/24	79/05/26	79/06/25	79/07/30	79/08/27	79/09/22
INITIAL TIME				1230	1700	1000	1230	1200	1330	1230	1400	1130
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	2.0	3.5	3.0	4.0	7.0	10.0	13.5	15.0	
00011	WATER	TEMP	FAHN	35.6$	38.3$	37.4$	39.2$	44.6$	50.0$	56.3$	59.0$	
00020	AIR	TEMP	CENT	-2.0	1.0	4.5	8.0	20.0	21.5	24.0	19.5	
00022	LENGTH	OF EXPOS	URE-DAYS				28		30			
00027	COLLECT	AGENCY	CODE			1028						
00028	ANALYZE	AGENCY	CODE	80020	80020	80010	80020	80010	80010	80020	80020	80010
00041	WEATHER	WMO CODE	4501	10	3	61	88	0	0	0	2	
00061	STREAM	FLOW,	INST-CFS	4020	4130	8470	7350	16100	11700	10500	5200	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				79/02/06	79/02/26	79/03/27	79/04/24	79/05/26	79/06/25	79/07/30	79/08/27	79/09/22
INITIAL TIME				1230	1700	1000	1230	1200	1330	1230	1400	1130
MEDIUM-USGS		REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00076	TURB	TRBIDMTR	HACH FTU	.8	.7	1.0	1.5	6.6	2.6	1.0	.6	
00095	CNDUCTVY	AT 25C	MICROMHO	355	383	400	431	361	311	280	336	
00300	DO		MG/L	12.2	10.8	11.3	12.0	10.1	10.2	8.8	8.6	
00301	DO	SATUR	PERCENT	104.0	99.1	101.0	109.0	100.0	108.0	101.0	102.0	
00400	PH		SU	7.20	7.70	7.90	7.90	8.00	8.00	7.80	8.30	
00405	CO2		MG/L	16.0	5.1	4.2	3.4	2.6	2.2	3.6	1.2	
00410	T ALK	CACO3	MG/L	131	131	172	139	131	115	115	123	
00440	HCO3 ION	HCO3	MG/L	160	160	210	170	160	140	140	150	
00445	CO3 ION	CO3	MG/L	0	0	0	0	0	0	0	0	
00556	OIL-GRSE	FREON-GR	MG/L		.00							
00572	BIOMASS	PERPHYTN	G/SQ M				27.500		6.850			.160
00573	BIOMASS	PERPHYTN	DW G/M2				31.80		7.56			.31
00600	TOTAL N	N	MG/L	.32	.41	.32	.26	.31	.20	.05	.28	
00602	DISS.	NITROGEN	MG/L N								.19	
00605	ORG N	N	MG/L	.140	.250	.090	.110	.240	.120	.000	.230	
00610	NH3+NH4-	N TOTAL	MG/L	.010	.010	.020	.040	.020	.030	.010	.010	
00612	UN-IONZD	NH3-N	MG/L	.00002$	.00005$	.0002$	.0004$	.0003$	.0005$	.0002$	.0005$	
00619	UN-IONZD	NH3-NH3	MG/L	.00002$	.00007$	.0002$	.0004$	.0004$	.0007$	.0002$	.0006$	
00623	KJELDL N	DISS	MG/L	.250	.220	.050	.240	.220	.240	1.100	.150	
00624	KJELDL N	SUSP	MG/L	.000	.040	.060	.000	.040	.000	.000	.090	
00625	TOT KJEL	N	MG/L	.150	.260	.110	.150	.260	.150	.100K	.240	
00630	NO2&NO3	N-TOTAL	MG/L	.17	.15	.21	.11	.05	.05	.05	.04	
00631	NO2&NO3	N-DISS	MG/L								.04	
00650	T PO4	PO4	MG/L			.03	.06	.03	.31			
00665	PHOS-TOT		MG/L P	.010K	.020	.010	.020	.010	.100	.010	.010	
00666	PHOS-DIS		MG/L P	.010K	.020	.010K	.010	.010K	.010	.020	.010	
00680	T ORG C	C	MG/L	.8	1.3		2.0	2.1		.8	1.1	
00681	D ORG C	C	MG/L			1.6			3.4			
00689	S ORG C	C	MG/L			3.0			.2			
00900	TOT HARD	CACO3	MG/L	200	200	200	190	170	130	120	150	
00902	NC HARD	CACO3	MG/L	69	69	25	51	39	15	5	27	
00915	CALCIUM	CA,DISS	MG/L	56.0	57.0	56.0	56.0	49.0	38.0	34.0	43.0	
00925	MGNSIUM	MG,DISS	MG/L	14.0	14.0	14.0	13.0	11.0	9.0	8.4	10.0	
00930	SODIUM	NA,DISS	MG/L	11.00	12.00	10.00	11.00	9.00	8.00	7.70	10.00	
00931	SODIUM	ADSBTION	RATIO	.3	.4	.3	.3	.3	.3	.3	.4	
00932	PERCENT	SODIUM	%	11	11	10	11	10	12	16	13	
00933	NA+K		MG/L					11.00	9.50	9.20	12.00	
00935	PTSSIUM	K,DISS	MG/L	1.90	1.80	1.50	2.00	1.80	1.50	1.50	1.60	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			79/02/06	79/02/26	79/03/27	79/04/24	79/05/26	79/06/25	79/07/30	79/08/27	79/09/22
INITIAL TIME			1230	1700	1000	1230	1200	1330	1230	1400	1130
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00940 CHLORIDE	TOTAL	MG/L	11	15	10	11	9	7	7	8	
00945 SULFATE	SO4-TOT	MG/L	57	56	53	57	44	28	31	43	
00950 FLUORIDE	F,DISS	MG/L	.30	.30	.40	.40	.40	.30	.40	.40	
00955 SILICA	DISOLVED	MG/L	8.2	8.6	9.0	8.2	7.3	8.0	8.8	8.8	
01000 ARSENIC	AS,DISS	UG/L	3	2	2	2	2	2			
01002 ARSENIC	AS,TOT	UG/L	3	2	3	3	3	2			
01005 BARIUM	BA,DISS	UG/L	100K	100K	100K	100K	100K	100K			
01006 BARIUM	BA,SUSP	UG/L	100	0	100K	0	100	100K			
01007 BARIUM	BA,TOT	UG/L	100K	100K	100K	100K	100K	100K			
01025 CADMIUM	CD,DISS	UG/L	4	2K	2K	2K	2K	2			
01026 CADMIUM	CD,SUSP	UG/L	0	0	1	0	0	0			
01027 CADMIUM	CD,TOT	UG/L	2K	0U	2	2K	2K	2K			
01030 CHROMIUM	CR,DISS	UG/L	0U	20	20K	0U	0U	0U			
01031 CHROMIUM	CR,SUSP	UG/L	0	0	0	100K	100K	0			
01034 CHROMIUM	CR,TOT	UG/L	0U	100K	100K	100K	100K	0U			
01035 COBALT	CO,DISS	UG/L	3K	0U	3K	0U	0U	3K			
01036 COBALT	CO,SUSP	UG/L	0	2	2	0	0	0			
01037 COBALT	CO,TOTAL	UG/L	0U	2	5	0U	0U	0U			
01040 COPPER	CU,DISS	UG/L	15	0U	2K	2	3	2K			
01041 COPPER	CU,SUSP	UG/L	4	10	7	2	27	3			
01042 COPPER	CU,TOT	UG/L	19	20K	8	4	30	4			
01044 IRON	FE,SUSP	UG/L	0	20	90	50	300	110			
01045 IRON	FE,TOT	UG/L	20	50	90	110	310	120			
01046 IRON	FE,DISS	UG/L	20	30	10K	60	10K	10K			
01049 LEAD	PB,DISS	UG/L	3	4	6	16	3	6			
01050 LEAD	PB,SUSP	UG/L	8	5	7	39	26	4			
01051 LEAD	PB,TOT	UG/L	11	9	13	55	29	10			
01054 MANGNESE	MN,SUSP	UG/L	10.0	20.0	10.0	10.0	40.0	10.0			
01055 MANGNESE	MN	UG/L	20.0	20.0	20.0	20.0	40.0	20.0			
01056 MANGNESE	MN,DISS	UG/L	10.0K	10.0K	10.0K	10.0K	10.0K	10.0K			
01075 SILVER	AG,DISS	UG/L	.0U	.0U	.0U	.0U	.0U	.0U			
01076 SILVER	AG,SUSP	UG/L	.0	.0	.0	.0	.0	.0			
01077 SILVER	AG,TOT	UG/L	.0U	.0U	.0U	.0U	.0U	.0U			
01078 SILVER	SEDMG/KG	DRY WGT			9.00						
01090 ZINC	ZN,DISS	UG/L	30	20	20K	20	20	20K			
01091 ZINC	ZN,SUSP	UG/L	0	10	10	0	0	10K			
01092 ZINC	ZN,TOT	UG/L	20	30	20	20	20	20K			
01145 SELENIUM	SE,DISS	UG/L	1K	1K	1K	1K	1K	1K			

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				79/02/06	79/02/26	79/03/27	79/04/24	79/05/26	79/06/25	79/07/30	79/08/27	79/09/22
INITIAL TIME				1230	1700	1000	1230	1200	1330	1230	1400	1130
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01146	SELENIUM	SE,SUSP	UG/L	0	1	0	0	0	0			
01147	SELENIUM	SE,TOT	UG/L	1K	1	1K	1K	1K	1K			
31625	FEC COLI	M-FCAGAD	/100 ML	12	1B	10B	15	25	5B	13B	6B	
31673	FECSTREP	MFKFAGAR	/100ML	3B	15B	290B	59	440B	1000B	410	2000L	
46570	CAL HARD	CA MG	MG/L	197$	200$	197$	193$	168$	132$	119$	149$	
60050	ALGAE	TOTAL	/ML			350		250		43		120
70300	RESIDUE	DISS-180	C MG/L	246	252	242	246	211	185	166	191	
70301	DISS SOL	SUM	MG/L	238	244	257	242	210	169	167	199	
70302	DISS SOL	TONS/DAY		2670.00	2810.00	5530.00	4880.00	9170.00	5840.00	4710.00	2680.00	
70303	DISS SOL	TONS PER	ACRE-FT	.33	.34	.33	.33	.29	.25	.23	.26	
70331	SUSP SED	PARTSIZE	%<.062MM	61				81	98	85	85	
70332	SUSP SED	PARTSIZE	%<.125MM	100								
70950	BIOMASS-	CHLRATIO	PERIUNIT				165.0		145.0			
70957	CHLRPHYL	A-PERIPH	CHFLUG/L				26.1		4.9			2.0
70958	CHLRPHYL	B-PERIPH	CHFLUG/L				.0		.5			1.3
71845	AMMONIA	TOT-NH4	MG/L			.02	.05	.02	.04	.01	.01	
71886	TOTAL P	AS PO4	MG/L			.03	.06	.03	.31	.03	.03	
71887	TOTAL N	AS NO3	MG/L	1.4	1.8	1.4	1.2	1.4	.9	.2	1.2	
71890	MERCURY	HG,DISS	UG/L	.1K	.1K	.1K	.1K	.1K	.1K			
71895	MERCURY	HG,SUSP	UG/L	.0	.0	.0	.5K	.5K	.0			
71900	MERCURY	HG,TOTAL	UG/L	.1K	.1K	.1K	.5K	.5K	.1K			
80154	SUSP SED	CONC	MG/L	2		4		26	7	5	4	
80155	SUSP SED	DISCHARG	TONS/DAY	22.00		91.00		1130.00	221.00	142.00	56.00	
82028	RATIO	FEC COL	FEC STRP	4$	.07$	.03$	.3$	.06$	.005$	.03$	.003$	
82398	SAMPLING	METHOD	(CODES)			8010						

INITIAL DATE				79/09/25	79/10/29	79/11/26	79/12/21	80/01/28	80/02/25	80/04/25	80/05/27	80/06/24
INITIAL TIME				1130	1235	1409	1130	1209	1338	1131	1240	1406
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	14.0	8.0	4.0	3.0	.0	4.0	4.0	7.5	9.5
00011	WATER	TEMP	FAHN	57.2$	46.4$	39.2$	37.4$	32.0$	39.2$	39.2$	45.5$	49.1$
00020	AIR	TEMP	CENT	12.5	3.0	-.5	3.0	-18.0	5.0	10.0	13.5	25.5
00027	COLLECT	AGENCY	CODE			1028						
00028	ANALYZE	AGENCY	CODE	80020	80020	80010	80020	80020	80020	80020	80010	80010
00041	WEATHER	WMO CODE	4501	1	.000005	83		1	3			
00061	STREAM	FLOW,	INST-CFS	6210	1720	1290	1230	1970	1210	9500	18300	19700
00076	TURB	TRBIDMTR	HACH FTU	.9	1.1	.6	.7	.6	1.5	4.0	5.1	6.0
00095	CNDUCTVY	AT 25C	MICROMHO	348	455	492	471	560	448	382	323	308

(SAMPLE CONTINUED ON NEXT PAGE)

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SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			79/09/25	79/10/29	79/11/26	79/12/21	80/01/28	80/02/25	80/04/25	80/05/27	80/06/24
	INITIAL TIME			1130	1235	1409	1130	1209	1338	1131	1240	1406
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00300	DO		MG/L	8.7	9.2	12.4	9.5	10.6		10.7	10.2	9.7
00301	DO	SATUR	PERCENT	102.0	95.0	116.0	94.0	89.0		98.0	103.0	102.0
00400	PH		SU	8.30	8.10	7.70	8.50	8.20	7.80	7.50	7.50	8.00
00405	CO2		MG/L	1.2								
00410	T ALK	CACO3	MG/L	123	160	170	170	180	170	130	120	120
00440	HCO3 ION	HCO3	MG/L	150								
00445	CO3 ION	CO3	MG/L	0								
00530	RESIDUE	TOT NFLT	MG/L	0								
00572	BIOMASS	PERPHYTN	G/SQ M				.160					58.100
00573	BIOMASS	PERPHYTN	DW G/M2				.16					62.70
00600	TOTAL N	N	MG/L	.47	.60	.92	.46	.34	.31	.66		.78
00602	DISS.	NITROGEN	MG/L N	.37	.62	.41	.48	.22	.17	.73	.45	.77
00605	ORG N	N	MG/L	.420	.500	.810	.340	.160	.120	.530		.470
00607	ORG N	DISS-N	MG/L		.54	.30	.37	.02	.04	.55	.34	.47
00608	NH3+NH4-	N DISS	MG/L		.000	.010	.000	.010	.000	.020	.030	.030
00610	NH3+NH4-	N TOTAL	MG/L	.010K	.010	.030	.000	.000	.030	.000		.000
00612	UN-IONZD	NH3-N	MG/L	.0005$	.000$	.00005$	.000$	.0001$	.000$	.00006$	.0001$	.0004$
00619	UN-IONZD	NH3-NH3	MG/L	.0006$	.000$	.00006$	.000$	.0001$	.000$	.00007$	.0001$	.0005$
00623	KJELDL N	DISS	MG/L	.340	.540	.310	.370	.030	.040	.570	.370	.500
00624	KJELDL N	SUSP	MG/L	.080	.000	.530	.000	.130	.110	.000		.000
00625	TOT KJEL	N	MG/L	.420	.510	.840	.340	.160	.150	.530		.470
00630	NO2&NO3	N-TOTAL	MG/L	.05	.09	.08	.12	.18	.16	.13		.31
00631	NO2&NO3	N-DISS	MG/L	.03	.1K	.1K	.1	.2	.1	.2	.08	.3
00665	PHOS-TOT		MG/L P	.010K	.010	.000	.010	.030	.010	.100	.040	.000
00666	PHOS-DIS		MG/L P	.010	.000	.120	.010	.020	.000	.010	.020	.000
00680	T ORG C	C	MG/L		5.0	4.1		3.0	3.4	8.2	6.3	
00681	D ORG C	C	MG/L	1.5			12.0					6.0
00689	S ORG C	C	MG/L	.5			.1					.4
00900	TOT HARD	CACO3	MG/L	160	220	210	230	230	240	180	160	140
00902	NC HARD	CACO3	MG/L	32	61	43	65	55	71	51	38	22
00915	CALCIUM	CA,DISS	MG/L	44.0	62.0	59.0	66.0	66.0	67.0	51.0	45.0	41.0
00925	MGNSIUM	MG,DISS	MG/L	11.0	16.0	16.0	17.0	17.0	18.0	13.0	11.0	9.5
00930	SODIUM	NA,DISS	MG/L	9.80	19.00	18.00	20.00	25.00	20.00	11.00	8.80	8.20
00931	SODIUM	ADSBTION	RATIO	.3	.6	.5	.6	.7	.6	.4	.3	.3
00932	PERCENT	SODIUM	%	16	16	15	21	19	15	12	11	11
00933	NA+K		MG/L	12.00	22.00	21.00	23.00	28.00	23.00			
00935	PTSSIUM	K,DISS	MG/L	2.00	2.90	2.80	2.90	3.00	2.90	1.90	1.60	1.40
00940	CHLORIDE	TOTAL	MG/L	8	21	24	25	26	28	11	9	5

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				79/09/25	79/10/29	79/11/26	79/12/21	80/01/28	80/02/25	80/04/25	80/05/27	80/06/24
INITIAL TIME				1130	1235	1409	1130	1209	1338	1131	1240	1406
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00945	SULFATE	SO4-TOT	MG/L	46	63	70	72	75	71	56	43	32
00950	FLUORIDE	F,DISS	MG/L	.40	.30	.40	.40	.40	.40	.40	.30	.20
00955	SILICA	DISOLVED	MG/L	8.8	8.6	7.1	7.4	8.5	7.6	8.1	6.0	8.8
01000	ARSENIC	AS,DISS	UG/L	3			2					3
01001	ARSENIC	AS,SUSP	UG/L	1K			0					0
01002	ARSENIC	AS,TOT	UG/L	3			2					3
01005	BARIUM	BA,DISS	UG/L	100K			100K					100K
01006	BARIUM	BA,SUSP	UG/L	0			100					0
01007	BARIUM	BA,TOT	UG/L	100K			200					0
01025	CADMIUM	CD,DISS	UG/L	2K			1K					1
01026	CADMIUM	CD,SUSP	UG/L	0			0					0
01027	CADMIUM	CD,TOT	UG/L	0U			0					0
01030	CHROMIUM	CR,DISS	UG/L	20K			0					0
01031	CHROMIUM	CR,SUSP	UG/L	0			0					0
01034	CHROMIUM	CR,TOT	UG/L	100K			0					0
01035	COBALT	CO,DISS	UG/L	3K			3K					3K
01036	COBALT	CO,SUSP	UG/L	0			0					
01037	COBALT	CO,TOTAL	UG/L	0U			0					0
01040	COPPER	CU,DISS	UG/L	2K			0					9
01041	COPPER	CU,SUSP	UG/L	5			1					6
01042	COPPER	CU,TOT	UG/L	6			1					15
01044	IRON	FE,SUSP	UG/L				30					190
01045	IRON	FE,TOT	UG/L	50			50					210
01046	IRON	FE,DISS	UG/L	10K			20					20
01049	LEAD	PB,DISS	UG/L	0U			3					0
01050	LEAD	PB,SUSP	UG/L	4			7					7
01051	LEAD	PB,TOT	UG/L	4			10					7
01054	MANGNESE	MN,SUSP	UG/L	20.0			.0					20.0
01055	MANGNESE	MN	UG/L	20.0			.0					30.0
01056	MANGNESE	MN,DISS	UG/L	10.0K			10.0K					10.0K
01065	NICKEL	NI,DISS	UG/L				2					3
01066	NICKEL	NI,SUSP	UG/L				1					12
01067	NICKEL	NI,TOTAL	UG/L				3					15
01075	SILVER	AG,DISS	UG/L	.0U			.0					.0
01076	SILVER	AG,SUSP	UG/L	.0			.0					.0
01077	SILVER	AG,TOT	UG/L	.0U			.0	.0		.0	.0	.0
01090	ZINC	ZN,DISS	UG/L	20K			10					10
01091	ZINC	ZN,SUSP	UG/L	10K			0					50

(SAMPLE CONTINUED ON NEXT PAGE)

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SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				79/09/25	79/10/29	79/11/26	79/12/21	80/01/28	80/02/25	80/04/25	80/05/27	80/06/24
INITIAL TIME				1130	1235	1409	1130	1209	1338	1131	1240	1406
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01092	ZINC	ZN,TOT	UG/L	20K			10					60
01145	SELENIUM	SE,DISS	UG/L	1K			0					0
01146	SELENIUM	SE,SUSP	UG/L	0			0					0
01147	SELENIUM	SE,TOT	UG/L	1K			0					0
31625	FEC COLI	M-FCAGAD	/100 ML	3B	2B	4B	1K	19	17	120	36B	130
31673	FECSTREP	MFKFAGAR	/100ML			32B	92	110	150	150	92	66
46570	CAL HARD	CA MG	MG/L	155$	221$	213$	235$	235$	241$	181$	158$	141$
60050	ALGAE	TOTAL	/ML			110					1100	
70300	RESIDUE	DISS-180 C	MG/L	207	220	315	323	344	314	252	223	195
70301	DISS SOL	SUM	MG/L	204	286	296	309	330	318	231	197	179
70302	DISS SOL	TONS/DAY		3470.00	1020.00	1100.00	1070.00	1830.00	1030.00	6460.00	11000.00	10400.00
70303	DISS SOL	TONS PER	ACRE-FT	.28	.30	.43	.44	.47	.43	.34	.30	.27
70331	SUSP SED	PARTSIZE	%<.062MM	97						81	84	37
70950	BIOMASS-	CHLRATIO	PERIUNIT				.0					20.3
70957	CHLRPHYL	A-PERIPH	CHFLUG/L				.4					227.0
70958	CHLRPHYL	B-PERIPH	CHFLUG/L				.1					1.1
71845	AMMONIA	TOT-NH4	MG/L	.0	.01	.04	.0	.0	.04	.0		.0
71846	AMMONIA	DISS-NH4	MG/L		.00	.01	.00	.01	.00	.03	.04	.04
71886	TOTAL P	AS PO4	MG/L	.00	.03	.00	.03	.09	.03	.31	.12	.00
71887	TOTAL N	AS NO3	MG/L	2.1	2.7	4.1	2.0	1.5	1.4	2.9		3.5
71890	MERCURY	HG,DISS	UG/L	.1K			.0					.0
71895	MERCURY	HG,SUSP	UG/L	.0			.1					.0
71900	MERCURY	HG,TOTAL	UG/L	.1K			.1					.0
80154	SUSP SED	CONC	MG/L	19	1					31	30	22
80155	SUSP SED	DISCHARG	TONS/DAY	319.00	4.60					795.00	1480.00	1170.00
82028	RATIO	FEC COL	FEC STRP			.1$	.01$	.2$	.1$	.8$	.4$	2$
82398	SAMPLING	METHOD	(CODES)			8010						

INITIAL DATE				80/07/28	80/07/28	80/08/28	80/09/29	80/10/28	80/11/20	80/11/24	80/12/30	81/01/27
INITIAL TIME				1220	1351	1000	1433	1436	0930	1414	1114	1316
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	10.0		13.0	13.0	8.0	3.0	5.5	3.0	2.5
00011	WATER	TEMP	FAHN	50.0$		55.4$	55.4$	46.4$	37.4$	41.9$	37.4$	36.5$
00020	AIR	TEMP	CENT	28.6		23.0	26.0	14.0	1.5	3.0	6.0	3.5
00027	COLLECT	AGENCY	CODE		1028		1028			1028		
00028	ANALYZE	AGENCY	CODE	80010	1028	80020	80010	80010		80020	80020	80020
00041	WEATHER	WMO CODE	4501	.000005					0			
00061	STREAM	FLOW,	INST-CFS	12700		6090	3610	2580	1930	1690	1400	1230

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
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112WRD 17040104
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(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				80/07/28	80/07/28	80/08/28	80/09/29	80/10/28	80/11/20	80/11/24	80/12/30	81/01/27
INITIAL TIME				1220	1351	1000	1433	1436	0930	1414	1114	1316
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00076	TURB	TRBIDMTR	HACH FTU	1.6		.8	1.3	.4		1.6	1.0	.6
00094	CNDUCTVY	FIELD	MICROMHO					374				
00095	CNDUCTVY	AT 25C	MICROMHO	285		245	389	466	687	503	542	500
00300	DO		MG/L	9.6		8.9	9.0	11.8		12.5	11.7	12.1
00301	DO	SATUR	PERCENT	102.0		101.0	102.0	118.0		118.0	104.0	107.0
00400	PH		SU	8.00		8.10	8.70	8.65		8.60	7.95	8.15
00403	PH	LAB	SU					8.3		8.4	7.8	8.2
00410	T ALK	CACO3	MG/L	120		130	130	150				
00572	BIOMASS	PERPHYTN	G/SQ M					.157				
00573	BIOMASS	PERPHYTN	DW G/M2					.32				
00600	TOTAL N	N	MG/L	.60		2.70	.52	1.10		.32	.75	.52
00602	DISS.	NITROGEN	MG/L N	.71		.39	.53	.32			.46	.53
00605	ORG N	N	MG/L	.510		2.600	.510	1.100		.290	.610	.140
00607	ORG N	DISS-N	MG/L	.54		.27	.53	.31			.30	.25
00608	NH3+NH4-	N DISS	MG/L	.000		.040	.000	.010		.050	.060	.100
00610	NH3+NH4-	N TOTAL	MG/L	.000		.000	.000	.000		.030	.030	.190
00612	UN-IONZD	NH3-N	MG/L	.000$		.0009$	.000$	.0005$		.002$	.0005$	.001$
00619	UN-IONZD	NH3-NH3	MG/L	.000$		.001$	.000$	.0007$		.002$	.0006$	.001$
00623	KJELDL N	DISS	MG/L	.540		.310	.530	.320			.360	.350
00624	KJELDL N	SUSP	MG/L	.000		2.300	.000	.780			.280	.000
00625	TOT KJEL	N	MG/L	.510		2.600	.510	1.100		.320	.640	.330
00630	NO2&NO3	N-TOTAL	MG/L	.09		.05	.01	.00		.00	.11	.19
00631	NO2&NO3	N-DISS	MG/L	.2		.08	.0	.0		.0	.1	.2
00665	PHOS-TOT		MG/L P	.030		.020	.060	.020		.020	.030	.010
00666	PHOS-DIS		MG/L P	.020		.040	.010	.010		.040	.030	.010
00680	T ORG C	C	MG/L	2.7		1.8		4.5				2.4
00681	D ORG C	C	MG/L				16.0			3.4		
00689	S ORG C	C	MG/L							.2		
00900	TOT HARD	CACO3	MG/L	130		150	170	200		210	220	230
00902	NC HARD	CACO3	MG/L	8		23	44	52		47	53	62
00915	CALCIUM	CA,DISS	MG/L	37.0		43.0	50.0	56.0		58.0	63.0	65.0
00925	MGNSIUM	MG,DISS	MG/L	8.6		11.0	12.0	15.0		15.0	16.0	17.0
00930	SODIUM	NA,DISS	MG/L	7.70		9.30	12.00	15.00		17.00	18.00	20.00
00931	SODIUM	ADSBTION	RATIO	.3		.3	.4	.5		.5	.5	.6
00932	PERCENT	SODIUM	%	11		12	13	14		15	15	16
00935	PTSSIUM	K,DISS	MG/L	1.40		1.60	2.10	2.40		2.90	3.20	2.80
00940	CHLORIDE	TOTAL	MG/L	7		10	15	17		18	25	24
00945	SULFATE	SO4-TOT	MG/L	26		36	46	57		62	72	69

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				80/07/28	80/07/28	80/08/28	80/09/29	80/10/28	80/11/20	80/11/24	80/12/30	81/01/27
INITIAL TIME				1220	1351	1000	1433	1436	0930	1414	1114	1316
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00950	FLUORIDE	F,DISS	MG/L	.40		.30	.40	.40		.30	.30	.30
00955	SILICA	DISOLVED	MG/L	8.9		8.7	8.3	6.9		6.8	7.4	8.1
01000	ARSENIC	AS,DISS	UG/L				3			2		
01001	ARSENIC	AS,SUSP	UG/L				0			0		
01002	ARSENIC	AS,TOT	UG/L				3			2		
01005	BARIUM	BA,DISS	UG/L				100K			50		
01006	BARIUM	BA,SUSP	UG/L				100			0		
01007	BARIUM	BA,TOT	UG/L				100			0		
01025	CADMIUM	CD,DISS	UG/L				2			1		
01026	CADMIUM	CD,SUSP	UG/L				0			0		
01027	CADMIUM	CD,TOT	UG/L				0			1		
01030	CHROMIUM	CR,DISS	UG/L				20			0		
01031	CHROMIUM	CR,SUSP	UG/L				0			20		
01034	CHROMIUM	CR,TOT	UG/L				0			20		
01035	COBALT	CO,DISS	UG/L				3K			3K		
01037	COBALT	CO,TOTAL	UG/L				0			0		
01040	COPPER	CU,DISS	UG/L				4			2		
01041	COPPER	CU,SUSP	UG/L				2			11		
01042	COPPER	CU,TOT	UG/L				6			13		
01045	IRON	FE,TOT	UG/L				70			100		
01046	IRON	FE,DISS	UG/L				10K			10K		
01049	LEAD	PB,DISS	UG/L				1			2		
01050	LEAD	PB,SUSP	UG/L				0			4		
01051	LEAD	PB,TOT	UG/L				1			6		
01054	MANGNESE	MN,SUSP	UG/L				10.0K			8.0		
01055	MANGNESE	MN	UG/L				10.0			10.0		
01056	MANGNESE	MN,DISS	UG/L				10.0K			2.0		
01065	NICKEL	NI,DISS	UG/L				0			0		
01066	NICKEL	NI,SUSP	UG/L				3			2		
01067	NICKEL	NI,TOTAL	UG/L				3			2		
01075	SILVER	AG,DISS	UG/L				.0			.0		
01076	SILVER	AG,SUSP	UG/L				.0			.0		
01077	SILVER	AG,TOT	UG/L	.0		.0	.0	1.0		.0		
01090	ZINC	ZN,DISS	UG/L				10K			7		
01091	ZINC	ZN,SUSP	UG/L				10K			70		
01092	ZINC	ZN,TOT	UG/L				10			80		
01145	SELENIUM	SE,DISS	UG/L				0			0		
01146	SELENIUM	SE,SUSP	UG/L				0			0		

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				80/07/28	80/07/28	80/08/28	80/09/29	80/10/28	80/11/20	80/11/24	80/12/30	81/01/27
INITIAL TIME				1220	1351	1000	1433	1436	0930	1414	1114	1316
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01147	SELENIUM	SE,TOT	UG/L				0			0		
31625	FEC COLI	M-FCAGAD	/100 ML	27		26	20	18			28	45
31673	FECSTREP	MFKFAGAR	/100ML	90		110	25	68			158	36
46570	CAL HARD	CA MG	MG/L	128$		153$	174$	202$		207$	223$	232$
60050	ALGAE	TOTAL	/ML	340			940					
70300	RESIDUE	DISS-180	C MG/L	175		196	229	260		400	318	309
70301	DISS SOL	SUM	MG/L	169		198	224	260		276	308	309
70302	DISS SOL	TONS/DAY		6000.00		3220.00	2230.00	1810.00		1830.00	1200.00	1030.00
70303	DISS SOL	TONS PER	ACRE-FT	.24		.27	.31	.35		.54	.43	.42
70950	BIOMASS-	CHLRATIO	PERIUNIT					608.0				
70957	CHLRPHYL	A-PERIPH	CHFLUG/L					.3				
70958	CHLRPHYL	B-PERIPH	CHFLUG/L					.0				
71845	AMMONIA	TOT-NH4	MG/L	.0		.0	.0	.0		.04	.04	.2
71846	AMMONIA	DISS-NH4	MG/L	.00		.05	.00	.01		.06	.08	.13
71886	TOTAL P	AS PO4	MG/L	.09		.06	.18	.06		.06	.09	.03
71887	TOTAL N	AS NO3	MG/L	2.7		12.0	2.3	4.9		1.4	3.3	2.3
71890	MERCURY	HG,DISS	UG/L				.0			.0		
71895	MERCURY	HG,SUSP	UG/L				.0			.0		
71900	MERCURY	HG,TOTAL	UG/L				.0			.0		
80154	SUSP SED	CONC	MG/L	4								
80155	SUSP SED	DISCHARG	TONS/DAY	137.00								
82028	RATIO	FEC COL	FEC STRP	.3$		.2$	.8$	.2$			.1$	1$
82068	POTAS-40	K-40,DIS	PC/LITER									2.10
82398	SAMPLING	METHOD	(CODES)		8010		8010			8010		

INITIAL DATE				81/02/24	81/03/27	81/04/30	81/05/28	81/06/04	81/06/09	81/06/30	81/07/29	81/08/27
INITIAL TIME				1516	1138	1030	0907	1115	0915	0810	1050	1146
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	5.0	3.0	5.0	5.0	10.5	8.5	9.0	13.0	15.5
00011	WATER	TEMP	FAHN	41.0$	37.4$	41.0$	41.0$	50.9$	47.3$	48.2$	55.4$	59.9$
00020	AIR	TEMP	CENT	11.0	9.0	18.0	15.5	21.0		13.5	22.0	26.5
00027	COLLECT	AGENCY	CODE		1028					1028		
00028	ANALYZE	AGENCY	CODE	80020	80010	80020	80010		80020	80010	80010	80010
00041	WEATHER	WMO CODE	4501		2			1				
00061	STREAM	FLOW,	INST-CFS	1280	2610	7180	17200	19800	21700	16400	11400	8890
00076	TURB	TRBIDMTR	HACH FTU	2.3	3.1	5.6	3.7			3.8	2.5	1.2
00095	CNDUCTVY	AT 25C	MICROMHO	549	438	400	397	412	348	304	297	337
00300	DO		MG/L	13.2	10.7	10.4	7.8		9.7	9.9	8.9	8.5

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				81/02/24	81/03/27	81/04/30	81/05/28	81/06/04	81/06/09	81/06/30	81/07/29	81/08/27
INITIAL TIME				1516	1138	1030	0907	1115	0915	0810	1050	1146
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00301	DO	SATUR	PERCENT	126.0	97.3	97.0	74.0		100.0	102.0	102.0	101.0
00400	PH		SU	8.35	8.35	8.30	8.20		8.20	8.00	8.20	8.10
00403	PH	LAB	SU	8.2	8.2	8.1	7.9		7.9	8.0	8.0	8.2
00405	CO2		MG/L						1.5			
00600	TOTAL N	N	MG/L	.54	.66	.80	1.20			1.10	.71	1.10
00602	DISS.	NITROGEN	MG/L N	.58	.56	.72	.81			.88	.52	1.00
00605	ORG N	N	MG/L	.380	.300	.630	.950			.590	.390	.840
00607	ORG N	DISS-N	MG/L	.42	.28	.49	.66			.46	.17	.72
00608	NH3+NH4-	N DISS	MG/L	.070	.080	.130	.090			.110	.200	.150
00610	NH3+NH4-	N TOTAL	MG/L	.070	.080	.100	.150			.210	.170	.140
00612	UN-IONZD	NH3-N	MG/L	.002$	.002$	.003$	.001$			.002$	.006$	.004$
00613	NO2-N	DISS	MG/L							.000		
00618	NO3-N	DISS	MG/L							.31		
00619	UN-IONZD	NH3-NH3	MG/L	.002$	.002$	.003$	.002$			.002$	.007$	.005$
00623	KJELDL N	DISS	MG/L	.490	.360	.620	.750			.570	.370	.870
00624	KJELDL N	SUSP	MG/L	.000	.020	.110	.350			.230	.190	.110
00625	TOT KJEL	N	MG/L	.450	.380	.730	1.100			.800	.560	.980
00630	NO2&NO3	N-TOTAL	MG/L	.09	.28	.07	.12			.29	.15	.14
00631	NO2&NO3	N-DISS	MG/L	.09	.2	.1	.06		.2	.3	.2	.2
00660	ORTHOPO4	PO4	MG/L							.15		
00665	PHOS-TOT		MG/L P	.070	.030	.050	.060		.050	.050	.010	.040
00666	PHOS-DIS		MG/L P	.020	.020	.050	.020			.050	.020	.030
00671	PHOS-DIS	ORTHO	MG/L P							.050		
00680	T ORG C	C	MG/L	4.2		4.4				3.1	1.7	
00681	D ORG C	C	MG/L		3.3		8.2					4.4
00689	S ORG C	C	MG/L		.2		.8					.1
00900	TOT HARD	CACO3	MG/L	230	210	180	180		170	140	130	140
00915	CALCIUM	CA,DISS	MG/L	66.0	59.0	52.0	51.0		48.0	41.0	38.0	40.0
00925	MGNSIUM	MG,DISS	MG/L	17.0	15.0	13.0	12.0		12.0	9.8	8.6	10.0
00930	SODIUM	NA,DISS	MG/L	20.00	15.00	11.00	10.00		10.00	11.00	8.60	8.90
00931	SODIUM	ADSBTION	RATIO	.6	.5	.4	.3		.3	.4	.3	.3
00932	PERCENT	SODIUM	%	15	13	11	11		11	14	12	12
00935	PTSSIUM	K,DISS	MG/L	2.90	2.30	2.30	1.70		1.70	2.00	1.40	1.90
00940	CHLORIDE	TOTAL	MG/L	25	17	11	8		8	7	21	8
00945	SULFATE	SO4-TOT	MG/L	74	61	53	52		47	40	30	39
00950	FLUORIDE	F,DISS	MG/L	.30	.40	.40	.30		.30	.30	.30	.40
00955	SILICA	DISOLVED	MG/L	7.5	8.4	7.0	6.6		8.0	8.5	9.9	9.0
01000	ARSENIC	AS,DISS	UG/L		2		4					5

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			81/02/24	81/03/27	81/04/30	81/05/28	81/06/04	81/06/09	81/06/30	81/07/29	81/08/27
INITIAL TIME			1516	1138	1030	0907	1115	0915	0810	1050	1146
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01001 ARSENIC	AS,SUSP	UG/L		2		0					0
01002 ARSENIC	AS,TOT	UG/L		4		4					5
01005 BARIUM	BA,DISS	UG/L		70		70		60			60
01006 BARIUM	BA,SUSP	UG/L		0		30					0
01007 BARIUM	BA,TOT	UG/L		0		100					0
01010 BERYLIUM	BE,DISS	UG/L						1.00K			
01025 CADMIUM	CD,DISS	UG/L		1K		1K		1K			1K
01027 CADMIUM	CD,TOT	UG/L		0		1					0
01030 CHROMIUM	CR,DISS	UG/L		10		10		0			0
01031 CHROMIUM	CR,SUSP	UG/L		0		0					0
01034 CHROMIUM	CR,TOT	UG/L		10		10					0
01035 COBALT	CO,DISS	UG/L		3K		3K		3K			3K
01037 COBALT	CO,TOTAL	UG/L		2		0					0
01040 COPPER	CU,DISS	UG/L		5		2		10K			2
01041 COPPER	CU,SUSP	UG/L		19		3					11
01042 COPPER	CU,TOT	UG/L		24		5					13
01044 IRON	FE,SUSP	UG/L				680					
01045 IRON	FE,TOT	UG/L		370		690					80
01046 IRON	FE,DISS	UG/L		10K		10		10K			10K
01049 LEAD	PB,DISS	UG/L		0		3		10K			0
01050 LEAD	PB,SUSP	UG/L		16		1					22
01051 LEAD	PB,TOT	UG/L		16		4					22
01054 MANGNESE	MN,SUSP	UG/L		20.0		30.0					20.0
01055 MANGNESE	MN	UG/L		30.0		40.0					20.0
01056 MANGNESE	MN,DISS	UG/L		7.0		7.0		7.0			4.0
01060 MOLY	MO,DISS	UG/L						10K			
01065 NICKEL	NI,DISS	UG/L		4		1					1
01066 NICKEL	NI,SUSP	UG/L		0		2					4
01067 NICKEL	NI,TOTAL	UG/L		2		3					5
01075 SILVER	AG,DISS	UG/L		.0		1.0					.0
01076 SILVER	AG,SUSP	UG/L		.0		.0					.0
01077 SILVER	AG,TOT	UG/L		.0		1.0					.0
01080 STRONTUM	SR,DISS	UG/L						280			
01085 VANADIUM	V,DISS	UG/L						6K			
01090 ZINC	ZN,DISS	UG/L		7		5		3K			8
01091 ZINC	ZN,SUSP	UG/L		50		5					2
01092 ZINC	ZN,TOT	UG/L		60		10					10
01106 ALUMINUM	AL,DISS	UG/L						0			

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0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				81/02/24	81/03/27	81/04/30	81/05/28	81/06/04	81/06/09	81/06/30	81/07/29	81/08/27
INITIAL TIME				1516	1138	1030	0907	1115	0915	0810	1050	1146
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01130	LITHIUM	LI,DISS	UG/L						19			
01145	SELENIUM	SE,DISS	UG/L		0		0					0
01146	SELENIUM	SE,SUSP	UG/L		0		0					0
01147	SELENIUM	SE,TOT	UG/L		0		0					0
31625	FEC COLI	M-FCAGAD	/100 ML	23	116	120	150			138	57	42
31673	FECSTREP	MFKFAGAR	/100ML	21	69	64	82			188	34	630
46570	CAL HARD	CA MG	MG/L	235$	209$	183$	177$		169$	143$	130$	141$
60050	ALGAE	TOTAL	/ML		240		1500			230	320	9700
70300	RESIDUE	DISS-180	C MG/L	317	294	251	249			189	166	199
70301	DISS SOL	SUM	MG/L	315	269	234	227		208	187	170	190
70302	DISS SOL	TONS/DAY		1100.00	2070.00	4870.00	11600.00		12200.00	8370.00	5110.00	4780.00
70303	DISS SOL	TONS PER	ACRE-FT	.43	.40	.34	.34		.28	.26	.23	.27
70331	SUSP SED	PARTSIZE	%<.062MM		97	86		58		53	58	41
71846	AMMONIA	DISS-NH4	MG/L	.09	.10	.17	.12			.14	.26	.19
71851	NITRATE	DISS-NO3	MG/L							1.4		
71856	NITRITE	DISS-NO2	MG/L							.00		
71886	TOTAL P	AS PO4	MG/L	.21	.09	.15	.18		.15	.15	.03	.12
71887	TOTAL N	AS NO3	MG/L	2.4	2.9	3.5	5.4			4.8	3.1	5.0
71890	MERCURY	HG,DISS	UG/L		.0		.0					.0
71895	MERCURY	HG,SUSP	UG/L		.0		.2					.1
71900	MERCURY	HG,TOTAL	UG/L		.0		.2					.1
80154	SUSP SED	CONC	MG/L		41	20		38		12	8	5
80155	SUSP SED	DISCHARG	TONS/DAY		289.00	388.00		2030.00		531.00	246.00	120.00
82028	RATIO	FEC COL	FEC STRP	1$	2$	2$	2$			.7$	2$	.07$
82068	POTAS-40	K-40,DIS	PC/LITER	2.20	1.70	1.70	1.30		1.30	1.50		
82081	C12/C13	RATIO	PER MIL						-8.300			
82082	H2/H1 RA	TIO PER	MIL						-132.000			
82085	018/016	RATIO	PER MIL						-17.700			
82086	S34/S32	RATIO	PER MIL						13.800			
82398	SAMPLING	METHOD	(CODES)		8010					8010		

INITIAL DATE				81/09/30	81/10/30	81/11/25	81/12/30	82/01/27	82/02/24	82/03/30	82/04/07	82/04/28
INITIAL TIME				1000	1151	1300	1108	1432	1130	1520	1140	1005
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	11.0	8.5	2.0	.0	2.0	1.0	2.0	3.0	5.0
00011	WATER	TEMP	FAHN	51.8$	47.3$	35.6$	32.0$	35.6$	33.8$	35.6$	37.4$	41.0$
00020	AIR	TEMP	CENT	9.5	13.0	1.0	1.0	.5	-6.0	1.5	5.0	12.5
00027	COLLECT	AGENCY	CODE	1028	80020	1028	1028	80020	1028	80020	1028	1028

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

	INITIAL DATE			81/09/30	81/10/30	81/11/25	81/12/30	82/01/27	82/02/24	82/03/30	82/04/07	82/04/28
	INITIAL TIME			1000	1151	1300	1108	1432	1130	1520	1140	1005
	MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00028	ANALYZE	AGENCY	CODE	80010	80020	1028	1028	80020	1028	80020	80020	1028
00041	WEATHER	WMO CODE	4501	1								
00061	STREAM	FLOW,	INST-CFS	3180	1310	1290	1360	1300	2410	14500	9330	14800
00076	TURB	TRBIDMTR	HACH FTU	1.5	2.2			2.0		2.7		
00095	CNDUCTVY	AT 25C	MICROMHO	385	493	563	551	539	540	432	416	363
00300	DO		MG/L	8.4	9.8	12.8	12.3	11.2	12.8	11.4		
00301	DO	SATUR	PERCENT	90.3	99.0	112.0	106.0	102.0	107.0	101.0		
00400	PH		SU	8.35	8.10	8.50	7.60	7.75	8.50	8.50	7.72	
00403	PH	LAB	SU	7.6	8.0			8.0		8.1	7.9	
00600	TOTAL N	N	MG/L	1.30								
00602	DISS.	NITROGEN	MG/L N	.59								
00605	ORG N	N	MG/L	.950								
00607	ORG N	DISS-N	MG/L	.24								
00608	NH3+NH4-	N DISS	MG/L	.150	.070			.150				
00610	NH3+NH4-	N TOTAL	MG/L	.150								
00612	UN-IONZD	NH3-N	MG/L	.005$	.001$			.0007$				
00619	UN-IONZD	NH3-NH3	MG/L	.006$	.001$			.0008$				
00623	KJELDL N	DISS	MG/L	.390								
00624	KJELDL N	SUSP	MG/L	.710								
00625	TOT KJEL	N	MG/L	1.100	.280			.560		.490		
00630	NO2&NO3	N-TOTAL	MG/L	.20								
00631	NO2&NO3	N-DISS	MG/L	.2	.1K			.1		.3	.2	
00660	ORTHOPO4	PO4	MG/L		.03			.03				
00665	PHOS-TOT		MG/L P	.020	.020			.010		.010K	.080	
00666	PHOS-DIS		MG/L P	.070	.020			.010		.010K		
00671	PHOS-DIS	ORTHO	MG/L P		.010			.010				
00680	T ORG C	C	MG/L	2.4								
00900	TOT HARD	CACO3	MG/L	180	230			230		190	180	
00915	CALCIUM	CA,DISS	MG/L	52.0	62.0			66.0		52.0	52.0	
00925	MGNSIUM	MG,DISS	MG/L	13.0	18.0			17.0		14.0	13.0	
00930	SODIUM	NA,DISS	MG/L	13.00	20.00			21.00		12.00	13.00	
00931	SODIUM	ADSBTION	RATIO	.4	.6			.6		.4	.4	
00932	PERCENT	SODIUM	%	13	16			16		12	13	
00935	PTSSIUM	K,DISS	MG/L	2.30	3.00			3.10		1.90	2.10	
00940	CHLORIDE	TOTAL	MG/L	15				24		13	12	
00945	SULFATE	SO4-TOT	MG/L	53				74		59	58	
00950	FLUORIDE	F,DISS	MG/L	.50	.40			.40		.20	.50	
00955	SILICA	DISOLVED	MG/L	8.9	6.8			7.6		9.8	10.0	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				81/09/30	81/10/30	81/11/25	81/12/30	82/01/27	82/02/24	82/03/30	82/04/07	82/04/28
INITIAL TIME				1000	1151	1300	1108	1432	1130	1520	1140	1005
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01000	ARSENIC	AS,DISS	UG/L		6					5		
01001	ARSENIC	AS,SUSP	UG/L		1					0		
01002	ARSENIC	AS,TOT	UG/L		7					5		
01005	BARIUM	BA,DISS	UG/L		100K					100K	100	
01006	BARIUM	BA,SUSP	UG/L		100							
01007	BARIUM	BA,TOT	UG/L		200					100K		
01025	CADMIUM	CD,DISS	UG/L		1K					3		
01027	CADMIUM	CD,TOT	UG/L		1K					1		
01030	CHROMIUM	CR,DISS	UG/L		10K					10K		
01034	CHROMIUM	CR,TOT	UG/L		10K					20		
01035	COBALT	CO,DISS	UG/L		3					1K		
01037	COBALT	CO,TOTAL	UG/L		1					1		
01040	COPPER	CU,DISS	UG/L		1					2		
01041	COPPER	CU,SUSP	UG/L		3					23		
01042	COPPER	CU,TOT	UG/L		4					25		
01044	IRON	FE,SUSP	UG/L							250		
01045	IRON	FE,TOT	UG/L		90					260		
01046	IRON	FE,DISS	UG/L		10K					10		
01049	LEAD	PB,DISS	UG/L		1					1K		
01050	LEAD	PB,SUSP	UG/L		13							
01051	LEAD	PB,TOT	UG/L		14					3		
01054	MANGNESE	MN,SUSP	UG/L		7.0					30.0		
01055	MANGNESE	MN	UG/L		10.0					40.0		
01056	MANGNESE	MN,DISS	UG/L		10.0K					10.0K		
01065	NICKEL	NI,DISS	UG/L		1K					1K		
01067	NICKEL	NI,TOTAL	UG/L		2					2		
01075	SILVER	AG,DISS	UG/L		1.0K					1.0		
01077	SILVER	AG,TOT	UG/L		1.0K					1.0K		
01080	STRONTUM	SR,DISS	UG/L								360	
01090	ZINC	ZN,DISS	UG/L		19					10	10	
01091	ZINC	ZN,SUSP	UG/L		0					10		
01092	ZINC	ZN,TOT	UG/L		10					20		
01106	ALUMINUM	AL,DISS	UG/L								10	
01130	LITHIUM	LI,DISS	UG/L								30	
01145	SELENIUM	SE,DISS	UG/L		1K					1K		
01147	SELENIUM	SE,TOT	UG/L		1K					1K		
31625	FEC COLI	M-FCAGAD	/100 ML	7B	36B	13B	17B	8B	8B	6B		
31673	FECSTREP	MFKFAGAR	/100ML	4B	52	6B	4B	4B	13	3B		

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
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130691

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112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				81/09/30	81/10/30	81/11/25	81/12/30	82/01/27	82/02/24	82/03/30	82/04/07	82/04/28
INITIAL TIME				1000	1151	1300	1108	1432	1130	1520	1140	1005
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
46570	CAL HARD	CA MG	MG/L	183$	229$			235$		187$	183$	
60050	ALGAE	TOTAL	/ML	37000								
70300	RESIDUE	DISS-180	C MG/L	252	322			323		250		
70301	DISS SOL	SUM	MG/L	243				321		246	246	
70302	DISS SOL	TONS/DAY		2160.00	1140.00			1130.00		9790.00	6200.00	
70303	DISS SOL	TONS PER	ACRE-FT	.34	.44			.44		.34	.33	
70331	SUSP SED	PARTSIZE	X<.062MM	80			67	31		41		
71846	AMMONIA	DISS-NH4	MG/L	.19	.09			.19				
71886	TOTAL P	AS PO4	MG/L	.06	.06			.03			.25	
71887	TOTAL N	AS NO3	MG/L	5.8								
71890	MERCURY	HG,DISS	UG/L		.1K					.1K		
71895	MERCURY	HG,SUSP	UG/L		.1							
71900	MERCURY	HG,TOTAL	UG/L		.1					.1		
80154	SUSP SED	CONC	MG/L	1		10	93	14		70		
80155	SUSP SED	DISCHARG	TONS/DAY	8.60		35.00	341.00	49.00		2740.00		
82028	RATIO	FEC COL	FEC STRP	2$	.7$	2$	4$	2$	.6$	2$		
82081	C12/C13	RATIO	PER MIL								-9.100	
82082	H2/H1 RA	TIO PER	MIL								-135.000	
82085	O18/O16	RATIO	PER MIL								-17.700	
82086	S34/S32	RATIO	PER MIL								17.500	
82398	SAMPLING	METHOD	(CODES)	8010								

INITIAL DATE				82/04/28	82/05/26	82/06/28	82/06/28	82/07/28	82/08/30	82/09/29	82/10/28	82/11/29
INITIAL TIME				1302	1245	1325	1508	1044	1230	1330	1410	1208
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT		9.0	11.5		12.5	14.5	11.5	8.0	5.5
00011	WATER	TEMP	FAHN		48.2$	52.7$		54.5$	58.1$	52.7$	46.4$	41.9$
00020	AIR	TEMP	CENT		17.5	24.5		22.5	20.0	10.5	7.0	3.5
00027	COLLECT	AGENCY	CODE	1028	1028	1028	1028	80020	1028	80020	1028	80020
00028	ANALYZE	AGENCY	CODE	1028	80020	1028	1028	80020	1028	80020	1028	80020
00041	WEATHER	WMO CODE	4501								1	
00061	STREAM	FLOW,	INST-CFS		18800	16300		16600	7850	8390	5000	3770
00076	TURB	TRBIDMTR	HACH FTU		25.0			5.8		1.2		1.0
00095	CNDUCTVY	AT 25C	MICROMHO		313			263		327	382	372
00300	DO		MG/L		9.3			9.3				10.7
00301	DO	SATUR	PERCENT		97.0			103.0				102.0
00400	PH		SU		8.30			7.40		8.60		8.20
00403	PH	LAB	SU		8.2			8.1		8.4		8.0

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				82/04/28	82/05/26	82/06/28	82/06/28	82/07/28	82/08/30	82/09/29	82/10/28	82/11/29
INITIAL TIME				1302	1245	1325	1508	1044	1230	1330	1410	1208
MEDIUM-USGS	REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00608	NH3+NH4-	N DISS	MG/L		.180			.090		.090		.060
00612	UN-IONZD	NH3-N	MG/L		.005$			.0004$		.006$		.0010$
00619	UN-IONZD	NH3-NH3	MG/L		.006$			.0005$		.007$		.001$
00625	TOT KJEL	N	MG/L		1.100			.800		.400		.900
00631	NO2&NO3	N-DISS	MG/L		.2			.1		.2		.2
00660	ORTHOPO4	PO4	MG/L					.15		.06		
00665	PHOS-TOT		MG/L P		.100			.090		.030		.010
00666	PHOS-DIS		MG/L P		.040			.020		.010K		
00671	PHOS-DIS	ORTHO	MG/L P		.010K			.050		.020		.010K
00900	TOT HARD	CACO3	MG/L		150			120		150		180
00915	CALCIUM	CA,DISS	MG/L		45.0			36.0		44.0		50.0
00925	MGNSIUM	MG,DISS	MG/L		9.4			8.2		10.0		13.0
00930	SODIUM	NA,DISS	MG/L		7.80			6.10		8.00		11.00
00931	SODIUM	ADSBTION	RATIO		.3			.3		.3		.4
00932	PERCENT	SODIUM	%		10			10		10		12
00935	PTSSIUM	K,DISS	MG/L		1.40			1.50		1.60		1.90
00940	CHLORIDE	TOTAL	MG/L		6			5		8		12
00945	SULFATE	SO4-TOT	MG/L		28			24		33		49
00950	FLUORIDE	F,DISS	MG/L		.30			.20		.30		.30
00955	SILICA	DISOLVED	MG/L		8.7			8.7		9.1		8.2
01000	ARSENIC	AS,DISS	UG/L		4					5		4
01001	ARSENIC	AS,SUSP	UG/L		0					0		
01002	ARSENIC	AS,TOT	UG/L		3					5		
01005	BARIUM	BA,DISS	UG/L		100K					100K		61
01006	BARIUM	BA,SUSP	UG/L		100					40		
01007	BARIUM	BA,TOT	UG/L		200					100		
01010	BERYLIUM	BE,DISS	UG/L									.70
01025	CADMIUM	CD,DISS	UG/L		3					1K		1K
01027	CADMIUM	CD,TOT	UG/L		1K					1K		
01030	CHROMIUM	CR,DISS	UG/L		10K					10K		1K
01034	CHROMIUM	CR,TOT	UG/L		10K					10K		
01035	COBALT	CO,DISS	UG/L		1K					1K		3K
01037	COBALT	CO,TOTAL	UG/L		1					1K		
01040	COPPER	CU,DISS	UG/L		3					1K		3
01041	COPPER	CU,SUSP	UG/L		35							
01042	COPPER	CU,TOT	UG/L		38					13		
01044	IRON	FE,SUSP	UG/L		930					210		
01045	IRON	FE,TOT	UG/L		950					220		

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				82/04/28	82/05/26	82/06/28	82/06/28	82/07/28	82/08/30	82/09/29	82/10/28	82/11/29
INITIAL TIME				1302	1245	1325	1508	1044	1230	1330	1410	1208
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01046	IRON	FE,DISS	UG/L		25					15		13
01049	LEAD	PB,DISS	UG/L		1K					1K		3
01051	LEAD	PB,TOT	UG/L		4					20		
01054	MANGNESE	MN,SUSP	UG/L		70.0					40.0		
01055	MANGNESE	MN	UG/L		80.0					40.0		
01056	MANGNESE	MN,DISS	UG/L		10.0K					10.0K		5.0
01060	MOLY	MO,DISS	UG/L									10K
01065	NICKEL	NI,DISS	UG/L		1K					5		1K
01067	NICKEL	NI,TOTAL	UG/L		4					1K		
01075	SILVER	AG,DISS	UG/L		1.0K					1.0K		1.0K
01077	SILVER	AG,TOT	UG/L		1.0					1.0K		
01080	STRONTUM	SR,DISS	UG/L		230							300
01085	VANADIUM	V,DISS	UG/L									6K
01090	ZINC	ZN,DISS	UG/L		12					32		19
01091	ZINC	ZN,SUSP	UG/L							0		
01092	ZINC	ZN,TOT	UG/L		20					30		
01106	ALUMINUM	AL,DISS	UG/L		20							10
01130	LITHIUM	LI,DISS	UG/L		24							38
01145	SELENIUM	SE,DISS	UG/L		1K					1K		1
01147	SELENIUM	SE,TOT	UG/L		1K					1K		
31625	FEC COLI	M-FCAGAD	/100 ML		25			28		7B		3B
31673	FECSTREP	MFKFAGAR	/100ML		40			46		46		25
46570	CAL HARD	CA MG	MG/L		151$			124$		151$		178$
70300	RESIDUE	DISS-180 C	MG/L		182			158		180		230
70301	DISS SOL	SUM	MG/L		183			157		184		232
70302	DISS SOL	TONS/DAY			9240.00			7080.00		4080.00		2340.00
70303	DISS SOL	TONS PER	ACRE-FT		.25			.21		.24		.31
70331	SUSP SED	PARTSIZE	%(.062MM	84	77		74					
71846	AMMONIA	DISS-NH4	MG/L		.23			.12		.12		.08
71886	TOTAL P	AS PO4	MG/L		.31			.28		.09		.09
71890	MERCURY	HG,DISS	UG/L		.1K					.1K		.1K
71900	MERCURY	HG,TOTAL	UG/L		.1					.1		
80154	SUSP SED	CONC	MG/L	30	61		30	11	4	5	4	
80155	SUSP SED	DISCHARG	TONS/DAY		3100.00			493.00	85.00	113.00	54.00	
82028	RATIO	FEC COL	FEC STRP		.6$			.6$		.2$		.1$
82081	C12/C13	RATIO	PER MIL		-9.200							
82082	H2/H1 RA	TIO PER	MIL		-135.000							
82085	018/016	RATIO	PER MIL		-18.200							

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				82/04/28	82/05/26	82/06/28	82/06/28	82/07/28	82/08/30	82/09/29	82/10/28	82/11/29
INITIAL TIME				1302	1245	1325	1508	1044	1230	1330	1410	1208
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
82086	S34/S32	RATIO	PER MIL		13.300							

INITIAL DATE				82/12/29	83/01/28	83/02/28	83/03/30	83/04/28	83/05/27	83/06/29	83/07/28	83/08/30
INITIAL TIME				0750	1130	0915	1300	1302	1515	1300	1440	1100
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	.0	20.0	2.5	2.5	5.0	8.5	15.5	12.0	14.0
00011	WATER	TEMP	FAHN	32.0$	68.0$	36.5$	36.5$	41.0$	47.3$	59.9$	53.6$	57.2$
00020	AIR	TEMP	CENT	-12.5	-.5	6.0	10.0	12.5	22.5	24.5	14.5	24.0
00025	BAROMTRC	PRESSURE	MM OF HG		634				638		638	
00027	COLLECT	AGENCY	CODE	1028	80020	1028	1028	1028	1028	1028	1028	1028
00028	ANALYZE	AGENCY	CODE	1028	80020	1028	80020	80020	80020	80020	80020	80020
00041	WEATHER	WMO CODE	4501	0	3	1	1		1	2		1
00061	STREAM	FLOW,	INST-CFS	6130	4450	2800	6600	13100	17800	22300	12100	8170
00065	STREAM	STAGE	FEET						6.61		5.27	
00076	TURB	TRBIDMTR	HACH FTU		.8		1.0		42.0		2.5	
00095	CNDUCTVY	AT 25C	MICROMHO	411	367	448	428	378	358	295	272	313
00300	DO		MG/L		10.6		11.2	10.6	10.1		8.4	
00301	DO	SATUR	PERCENT		92.0		97.0	99.0	84.9$		77.8$	
00400	PH		SU		7.70		8.10		8.30		8.30	
00403	PH	LAB	SU		8.3		8.2		8.1		8.4	
00608	NH3+NH4-	N DISS	MG/L		.060		.060		.120		.040	
00612	UN-IONZD	NH3-N	MG/L		.0010$		.0006$		.003$		.001$	
00619	UN-IONZD	NH3-NH3	MG/L		.001$		.0008$		.004$		.002$	
00625	TOT KJEL	N	MG/L		2.100		.500		.600		.600	
00631	NO2&NO3	N-DISS	MG/L		.2		.2		.1		.1	
00665	PHOS-TOT		MG/L P		.020		.030		.140		.120	
00666	PHOS-DIS		MG/L P		.020		.020		.010		.040	
00671	PHOS-DIS	ORTHO	MG/L P		.010K		.020		.020		.030	
00900	TOT HARD	CACO3	MG/L		180		190					
00915	CALCIUM	CA,DISS	MG/L		50.0		52.0		50.0		41.0	
00925	MGNSIUM	MG,DISS	MG/L		13.0		14.0		12.0		9.7	
00930	SODIUM	NA,DISS	MG/L		11.00		12.00		8.70		8.10	
00931	SODIUM	ADSBTION	RATIO		.4		.4					
00932	PERCENT	SODIUM	%		12		12					
00935	PTSSIUM	K,DISS	MG/L		1.80		1.90		1.70		1.50	
00940	CHLORIDE	TOTAL	MG/L		12		14		8		7	
00945	SULFATE	SO4-TOT	MG/L		49		57		39		27	
00950	FLUORIDE	F,DISS	MG/L		.40		.30		.30		.30	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				82/12/29	83/01/28	83/02/28	83/03/30	83/04/28	83/05/27	83/06/29	83/07/28	83/08/30
INITIAL TIME				0750	1130	0915	1300	1302	1515	1300	1440	1100
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00955	SILICA	DISOLVED	MG/L		8.4		9.2		8.4		8.4	
01000	ARSENIC	AS,DISS	UG/L				4		2			
01005	BARIUM	BA,DISS	UG/L				65		71			
01010	BERYLIUM	BE,DISS	UG/L				.50		1.00			
01025	CADMIUM	CD,DISS	UG/L				1K		1K			
01030	CHROMIUM	CR,DISS	UG/L				1K		1K			
01035	COBALT	CO,DISS	UG/L				3K		3K			
01040	COPPER	CU,DISS	UG/L				5		3			
01046	IRON	FE,DISS	UG/L				6		13			
01049	LEAD	PB,DISS	UG/L				4		4			
01056	MANGNESE	MN,DISS	UG/L				6.0		7.0			
01060	MOLY	MO,DISS	UG/L				10K		10K			
01065	NICKEL	NI,DISS	UG/L				1K		6			
01075	SILVER	AG,DISS	UG/L				1.0K		1.0K			
01080	STRONTUM	SR,DISS	UG/L				330		280			
01085	VANADIUM	V,DISS	UG/L				6K		6K			
01090	ZINC	ZN,DISS	UG/L				10		16			
01106	ALUMINUM	AL,DISS	UG/L				20		30			
01130	LITHIUM	LI,DISS	UG/L				30		20			
01145	SELENIUM	SE,DISS	UG/L				1		1K			
31625	FEC COLI	M-FCAGAD	/100 ML		2B		10	8B	55		13	
31673	FECSTREP	MFKFAGAR	/100ML		3B		6B	11	45		19	
46570	CAL HARD	CA MG	MG/L		178$		187$		174$		142$	
70300	RESIDUE	DISS-180 C	MG/L		239		240		212		170	
70301	DISS SOL	SUM	MG/L		231		247					
70302	DISS SOL	TONS/DAY			2870.00							
70303	DISS SOL	TONS PER	ACRE-FT		.33							
70331	SUSP SED	PARTSIZE	%<.062MM						94	53		
71846	AMMONIA	DISS-NH4	MG/L		.08		.08					
71886	TOTAL P	AS PO4	MG/L		.06		.09		.43		.37	
71890	MERCURY	HG,DISS	UG/L				.1K		.1K			
80154	SUSP SED	CONC	MG/L		11		58		113	30	10	
82028	RATIO	FEC COL	FEC STRP		.7$		2$	.7$	1$		.7$	

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

INITIAL DATE				83/09/28	83/11/30	84/01/30	84/02/28	84/03/29	84/05/18	84/05/30	84/06/15	84/07/20
INITIAL TIME				1300	1410	1330	1250	1336	1437	1044	1400	1038
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	12.5	3.5	1.5	2.0	4.0	7.0	7.0		12.0
00011	WATER	TEMP	FAHN	54.5$	38.3$	34.7$	35.6$	39.2$	44.6$	44.6$		53.6$
00020	AIR	TEMP	CENT	10.0	-5.0	-2.0	4.0	8.5	19.0	22.0		22.0
00025	BAROMTRC	PRESSURE	MM OF HG	638	636	676		634		635		642
00027	COLLECT	AGENCY	CODE	1028	1028	1028	1028	1028	1028	1028	1028	1028
00028	ANALYZE	AGENCY	CODE	80020	80020	80020	80020	80020	80020	80020	80020	80020
00041	WEATHER	WMO CODE	4501				1		0			1
00061	STREAM	FLOW,	INST-CFS	6290	4890	6150	2530	8310	14000	20800		15300
00065	STREAM	STAGE	FEET	3.46	3.00	3.56						
00076	TURB	TRBIDMTR	HACH FTU	1.2	1.2	.6		2.8		26.0		3.3
00095	CNDUCTVY	AT 25C	MICROMHO	365	401	414	450	415	377	338		305
00300	DO		MG/L	8.4	11.3	12.4		11.0		10.0		9.4
00301	DO	SATUR	PERCENT	77.8$	83.7$	87.3$		84.0$		82.0$		87.0$
00400	PH		SU	8.20	8.50	8.70		8.40		6.50		8.20
00403	PH	LAB	SU	8.3	8.1	7.9		8.2		8.1		8.2
00608	NH3+NH4-	N DISS	MG/L	.040	.040	.010K		.030		.060		.020
00612	UN-IONZD	NH3-N	MG/L	.001$	.001$	.0004$		.0007$		.00002$		.0005$
00619	UN-IONZD	NH3-NH3	MG/L	.001$	.001$	.0004$		.0008$		.00003$		.0007$
00625	TOT KJEL	N	MG/L	.400	.500	.200		.200		.500		.200
00631	NO2&NO3	N-DISS	MG/L	.1	.1	.1		.2		.2		.1K
00665	PHOS-TOT		MG/L P	.030	.020	.010K		.010		.130		.020
00666	PHOS-DIS		MG/L P	.010	.010	.010K		.010		.030		.010
00671	PHOS-DIS	ORTHO	MG/L P	.030	.020	.020		.020		.010K		.010
00915	CALCIUM	CA,DISS	MG/L	47.0	51.0	50.0		51.0		50.0		42.0
00925	MGNSIUM	MG,DISS	MG/L	11.0	13.0	13.0		14.0		11.0		9.6
00930	SODIUM	NA,DISS	MG/L	10.00	11.00	11.00		11.00		8.30		6.80
00935	PTSSIUM	K,DISS	MG/L	1.70	1.90	1.80		2.00		1.50		1.40
00940	CHLORIDE	TOTAL	MG/L	11	10	12		11		7		5
00945	SULFATE	SO4-TOT	MG/L	36	41	43		51		30		26
00950	FLUORIDE	F,DISS	MG/L	.30	.40	.30		.40		.30		.30
00955	SILICA	DISOLVED	MG/L	9.3	7.8	7.6		9.0		8.7		8.2
01000	ARSENIC	AS,DISS	UG/L	2	2			2		1		
01005	BARIUM	BA,DISS	UG/L	55	57			53		75		
01010	BERYLIUM	BE,DISS	UG/L	1.00	.50K			.50K		1.00K		
01025	CADMIUM	CD,DISS	UG/L	1K	1K			3		1K		

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				83/09/28	83/11/30	84/01/30	84/02/28	84/03/29	84/05/18	84/05/30	84/06/15	84/07/20
INITIAL TIME				1300	1410	1330	1250	1336	1437	1044	1400	1038
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01030	CHROMIUM	CR,DISS	UG/L	1K	1K			1K		1K		
01035	COBALT	CO,DISS	UG/L	3K	3K			3K		3K		
01040	COPPER	CU,DISS	UG/L	6	1			2		2		
01046	IRON	FE,DISS	UG/L	17	3			3K		20		
01049	LEAD	PB,DISS	UG/L	2	1			1K		1		
01056	MANGNESE	MN,DISS	UG/L	4.0	3.0			3.0		8.0		
01060	MOLY	MO,DISS	UG/L	10K	10K			10K		10K		
01065	NICKEL	NI,DISS	UG/L	2	8			1		1K		
01075	SILVER	AG,DISS	UG/L	1.0K	1.0K			1.0K		1.0K		
01080	STRONTUM	SR,DISS	UG/L	260	300			310		270		
01085	VANADIUM	V,DISS	UG/L	6K	6K			6K		6K		
01090	ZINC	ZN,DISS	UG/L	9	14			14		17		
01106	ALUMINUM	AL,DISS	UG/L	30	10K			10K		30		
01130	LITHIUM	LI,DISS	UG/L	29	34			29		21		
01145	SELENIUM	SE,DISS	UG/L	1K	1K			1K		1K		
31625	FEC COLI	M-FCAGAD	/100 ML	17	4B	2B		17B		32B		58
31673	FECSTREP	MFKFAGAR	/100ML	20	2B	7B		18B		100		220
46570	CAL HARD	CA MG	MG/L	163$	181$	178$		185$		170$		144$
70300	RESIDUE	DISS-180 C	MG/L	211	216	222		246		182		166
70331	SUSP SED	PARTSIZE	%<.062MM							62	83	72
71886	TOTAL P	AS PO4	MG/L	.09	.06			.03				
71890	MERCURY	HG,DISS	UG/L	.1	.1K			.1		.2		
80154	SUSP SED	CONC	MG/L	6						125	20	17
80164	BED MATL	PARTSIZE	%<.062MM	2								
82028	RATIO	FEC COL	FEC STRP	.9$	2$	.3$		.9$		.3$		.3$
82398	SAMPLING	METHOD	(CODES)					10		10		10

INITIAL DATE				84/08/17	84/09/13	84/10/26	84/11/14	84/12/14	85/01/09	85/02/15	85/03/20	85/04/19
INITIAL TIME				1249	1345	1250	0803	1332	1419	1320	1520	1200
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	16.5	14.5	8.0	6.0	.0	2.0	1.0	3.0	3.5
00011	WATER	TEMP	FAHN	61.7$	58.1$	46.4$	42.8$	32.0$	35.6$	33.8$	37.4$	38.3$
00020	AIR	TEMP	CENT	23.0	25.0	4.0	-1.0	-9.0	5.5	2.0	5.5	10.5
00025	BAROMTRC	PRESSURE	MM OF HG		637		636		638		640	
00027	COLLECT	AGENCY	CODE	1028	1028	1028	1028	1028	1028	1028	1028	1028
00028	ANALYZE	AGENCY	CODE	80020	80020	80020	80020	80020	80020	80020	80020	80020
00041	WEATHER	WMO CODE	4501	0		66		1		0		1
00061	STREAM	FLOW,	INST-CFS	8340	10300	4440	4800	4370	6150	3880	4580	7560

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				84/08/17	84/09/13	84/10/26	84/11/14	84/12/14	85/01/09	85/02/15	85/03/20	85/04/19
INITIAL TIME				1249	1345	1250	0803	1332	1419	1320	1520	1200
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00076	TURB	TRBIDMTR	HACH FTU		1.6		2.3		.8		1.0	
00095	CNDUCTVY	AT 25C	MICROMHO	351	337	400	362	438	374	425	429	399
00300	DO		MG/L		8.8		10.9		12.8		12.5	
00301	DO	SATUR	PERCENT		84.6$		87.2$		92.8$		92.6$	
00400	PH		SU		8.50		8.20		8.10		8.20	
00403	PH	LAB	SU		8.4		8.3		8.0		8.1	
00410	T ALK	CACO3	MG/L				142		136		135	
00608	NH3+NH4-	N DISS	MG/L		.030		.030		.030		.070	
00612	UN-IONZD	NH3-N	MG/L		.002$		.0005$		.0003$		.0010$	
00619	UN-IONZD	NH3-NH3	MG/L		.002$		.0006$		.0004$		.001$	
00625	TOT KJEL	N	MG/L		.200K		.200		.500		.300	
00631	NO2&NO3	N-DISS	MG/L		.1K		.1		.1		.2	
00665	PHOS-TOT		MG/L P		.020		.010K		.010K		.010K	
00666	PHOS-DIS		MG/L P		.010		.010		.030		.010	
00671	PHOS-DIS	ORTHO	MG/L P		.010		.010K		.020		.010K	
00915	CALCIUM	CA,DISS	MG/L		42.0		50.0		50.0		56.0	
00925	MGNSIUM	MG,DISS	MG/L		9.8		12.0		12.0		15.0	
00930	SODIUM	NA,DISS	MG/L		8.40		11.00		11.00		14.00	
00935	PTSSIUM	K,DISS	MG/L		1.80		2.10		1.70		2.10	
00940	CHLORIDE	TOTAL	MG/L		7		11		10		13	
00945	SULFATE	SO4-TOT	MG/L		31		45		44		56	
00950	FLUORIDE	F,DISS	MG/L		.40		.40		.40		.40	
00955	SILICA	DISOLVED	MG/L		8.9		8.6		8.5		9.5	
01000	ARSENIC	AS,DISS	UG/L		2		2				2	
01005	BARIUM	BA,DISS	UG/L		51		54				58	
01010	BERYLIUM	BE,DISS	UG/L		1.00K		.50K				.50K	
01025	CADMIUM	CD,DISS	UG/L		1K		1K				1	
01030	CHROMIUM	CR,DISS	UG/L		1K		1K				1K	
01035	COBALT	CO,DISS	UG/L		3K		3K				3K	
01040	COPPER	CU,DISS	UG/L		2		3				3	
01046	IRON	FE,DISS	UG/L		3K		3				3K	
01049	LEAD	PB,DISS	UG/L		5		1K				1K	
01056	MANGNESE	MN,DISS	UG/L		4.0		4.0				6.0	
01060	MOLY	MO,DISS	UG/L		10K		10K				10K	
01065	NICKEL	NI,DISS	UG/L		4		1K				1K	
01075	SILVER	AG,DISS	UG/L		1.0K		1.0K				1.0K	
01080	STRONTUM	SR,DISS	UG/L		230		280				350	
01085	VANADIUM	V,DISS	UG/L		6K		6K				6K	

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				84/08/17	84/09/13	84/10/26	84/11/14	84/12/14	85/01/09	85/02/15	85/03/20	85/04/19
INITIAL TIME				1249	1345	1250	0803	1332	1419	1320	1520	1200
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01090	ZINC	ZN,DISS	UG/L		6		5				9	
01106	ALUMINUM	AL,DISS	UG/L		10K		10K				20	
01130	LITHIUM	LI,DISS	UG/L		24		30				31	
01145	SELENIUM	SE,DISS	UG/L		1K		1K				1K	
31625	FEC COLI	M-FCAGAD	/100 ML		36B		42		24B		42	
31673	FECSTREP	MFKFAGAR	/100ML		110		140		54B		18B	
46570	CAL HARD	CA MG	MG/L		145$		174$		174$		202$	
70300	RESIDUE	DISS-180 C	MG/L		191		233		210		259	
70331	SUSP SED	PARTSIZE	%<.062MM		90							
71890	MERCURY	HG,DISS	UG/L		.2		.2				.1	
80154	SUSP SED	CONC	MG/L		7							
82028	RATIO	FEC COL	FEC STRP		.3$		.3$		.4$		2$	
82398	SAMPLING	METHOD	(CODES)		10		10		10		10	

INITIAL DATE				85/05/17	85/05/17	85/06/21	85/07/19	85/07/19	85/08/23	85/09/17	85/10/10	85/10/10
INITIAL TIME				1300	1400	1404	1515	1915	1109	1527	1110	1735
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	7.0	7.0	10.0	15.0	15.0	14.0	14.0	2.0	10.0
00011	WATER	TEMP	FAHN	44.6$	44.6$	50.0$	59.0$	59.0$	57.2$	57.2$	35.6$	50.0$
00020	AIR	TEMP	CENT	18.0	18.0	21.0	31.0	31.0	23.0	11.5	2.0	9.0
00025	BAROMTRC	PRESSURE	MM OF HG	637				639		630		
00027	COLLECT	AGENCY	CODE	1028	1028	1028	1028	1028	1028	1028	1028	1028
00028	ANALYZE	AGENCY	CODE	80020	80020	80020	80020	80020	80020	80020	80020	80020
00041	WEATHER	WMO CODE	4501		1	0	1		0			
00061	STREAM	FLOW,	INST-CFS	9980	10000	11800	10600	10600	8120	3810	285	2700
00065	STREAM	STAGE	FEET							2.51		
00076	TURB	TRBIDMTR	HACH FTU	19.0				1.8		.6		
00095	CNDUCTVY	AT 25C	MICROMHO	384	359	299	306	306	338	380	341	345
00300	DO		MG/L	10.3				8.8		9.1		
00301	DO	SATUR	PERCENT	84.4$				86.3$		87.5$		
00400	PH		SU	8.20				8.30		8.30		
00403	PH	LAB	SU	8.0				8.4		8.5		
00410	T ALK	CACO3	MG/L	118				116		163		
00608	NH3+NH4-	N DISS	MG/L	.070				.030		.030		
00612	UN-IONZD	NH3-N	MG/L	.001$				.001$		.001$		
00619	UN-IONZD	NH3-NH3	MG/L	.002$				.002$		.001$		
00625	TOT KJEL	N	MG/L	.600				.200		.200		
00631	NO2&NO3	N-DISS	MG/L	.1				.1K		.1K		

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			85/05/17	85/05/17	85/06/21	85/07/19	85/07/19	85/08/23	85/09/17	85/10/10	85/10/10
INITIAL TIME			1300	1400	1404	1515	1915	1109	1527	1110	1735
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00665 PHOS-TOT		MG/L P	.030				.020		.010K		
00666 PHOS-DIS		MG/L P	.010K				.030		.010K		
00671 PHOS-DIS	ORTHO	MG/L P	.010				.010		.010K		
00915 CALCIUM	CA,DISS	MG/L	49.0				38.0		50.0		
00925 MGNSIUM	MG,DISS	MG/L	11.0				10.0		13.0		
00930 SODIUM	NA,DISS	MG/L	11.00				9.00		14.00		
00935 PTSSIUM	K,DISS	MG/L	1.80				1.50		2.10		
00940 CHLORIDE	TOTAL	MG/L	10				7		12		
00945 SULFATE	SO4-TOT	MG/L	41				30		48		
00950 FLUORIDE	F,DISS	MG/L	.40				.40		.40		
00955 SILICA	DISOLVED	MG/L	9.7				9.3		9.2		
01000 ARSENIC	AS,DISS	UG/L	2						3		
01005 BARIUM	BA,DISS	UG/L	59						57		
01010 BERYLIUM	BE,DISS	UG/L	.50K						.50K		
01025 CADMIUM	CD,DISS	UG/L	1K						1K		
01030 CHROMIUM	CR,DISS	UG/L	1K						3		
01035 COBALT	CO,DISS	UG/L	3K						3K		
01040 COPPER	CU,DISS	UG/L	3						2		
01046 IRON	FE,DISS	UG/L	8						3K		
01049 LEAD	PB,DISS	UG/L	7						1K		
01056 MANGNESE	MN,DISS	UG/L	6.0						3.0		
01060 MOLY	MO,DISS	UG/L	10K						10K		
01065 NICKEL	NI,DISS	UG/L	5						2		
01075 SILVER	AG,DISS	UG/L	1.0K						1.0		
01080 STRONTUM	SR,DISS	UG/L	270						300		
01085 VANADIUM	V,DISS	UG/L	6K						6K		
01090 ZINC	ZN,DISS	UG/L	4						95		
01106 ALUMINUM	AL,DISS	UG/L	10						20		
01130 LITHIUM	LI,DISS	UG/L	31						31		
01145 SELENIUM	SE,DISS	UG/L	1K						1K		
31625 FEC COLI	M-FCAGAD	/100 ML	5B				12B		14B		
31673 FECSTREP	MFKFAGAR	/100ML	10B				4B		83		
46570 CAL HARD	CA MG	MG/L	168$				136$		178$		
70300 RESIDUE	DISS-180 C	MG/L	197				179		235		
70331 SUSP SED	PARTSIZE	%<.062MM	85				67				
71886 TOTAL P	AS PO4	MG/L	.09				.06				
71890 MERCURY	HG,DISS	UG/L							.2		
80154 SUSP SED	CONC	MG/L	13				7				

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				85/05/17	85/05/17	85/06/21	85/07/19	85/07/19	85/08/23	85/09/17	85/10/10	85/10/10
INITIAL TIME				1300	1400	1404	1515	1915	1109	1527	1110	1735
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
82028	RATIO	FEC COL	FEC STRP	.5$				.3$		.2$		
82398	SAMPLING	METHOD	(CODES)	10				10		10		

INITIAL DATE				85/11/19	85/12/20	86/01/15	86/02/24	86/03/26	86/04/18	86/05/09	86/07/18	86/08/22
INITIAL TIME				1439	1400	1451	1640	1450	1345	1320	1510	1550
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	3.5	.5	2.0	6.0	6.0	5.5	6.0	12.0	15.5
00011	WATER	TEMP	FAHN	38.3$	32.9$	35.6$	42.8$	42.8$	41.9$	42.8$	53.6$	59.9$
00020	AIR	TEMP	CENT	-2.5	-1.5	2.5	11.0	22.0	15.0	7.0	18.0	27.0
00025	BAROMTRC	PRESSURE	MM OF HG	641		635		640		631	638	
00027	COLLECT	AGENCY	CODE	1028	1028	1028		1028		1028	1028	
00028	ANALYZE	AGENCY	CODE	80020	80020	80020		80020		80020	80020	
00061	STREAM	FLOW,	INST-CFS	2420	2800	2920	2590	17400	16	18600	14000	8410
00065	STREAM	STAGE	FEET	1.76		2.14		6.47		6.93	5.74	
00076	TURB	TRBIDMTR	HACH FTU	14.0		1.0		2.5		3.0	3.0	
00095	CNDUCTVY	AT 25C	MICROMHO	444	488	438	430	396	370	361	270	314
00300	DO		MG/L	12.1		11.7				9.9	9.4	
00301	DO	SATUR	PERCENT	106.0		102.0				101.0	104.0	
00400	PH		SU	8.20		8.20		8.40		7.50	8.40	
00403	PH	LAB	SU	8.3		8.3		8.2		8.1	8.4	
00410	T ALK	CACO3	MG/L	176		165		140		142	144	
00440	HCO3 ION	HCO3	MG/L	215				166		173		
00445	CO3 ION	CO3	MG/L					2				
00608	NH3+NH4-	N DISS	MG/L	.030				.070		.050	.030	
00610	NH3+NH4-	N TOTAL	MG/L	.030		.030		.050		.070	.010	
00612	UN-IONZD	NH3-N	MG/L	.0004$		.0005$		.002$		.0002$	.001$	
00613	NO2-N	DISS	MG/L	.010K				.020		.010	.010K	
00619	UN-IONZD	NH3-NH3	MG/L	.0005$		.0006$		.002$		.0002$	.002$	
00625	TOT KJEL	N	MG/L	.200K		.200		.300		.200K	.300	
00631	NO2&NO3	N-DISS	MG/L	.1K				.3		.2	.1K	
00665	PHOS-TOT		MG/L P	.010K		.010		.060		.050	.010	
00666	PHOS-DIS		MG/L P	.010K		.010K		.050		.010	.010	
00671	PHOS-DIS	ORTHO	MG/L P	.020				.060		.020	.010	
00900	TOT HARD	CACO3	MG/L	210		200						
00902	NC HARD	CACO3	MG/L	31		36						
00915	CALCIUM	CA,DISS	MG/L	58.0		56.0		51.0		46.0	44.0	
00925	MGNSIUM	MG,DISS	MG/L	15.0		15.0		13.0		11.0	13.0	
00930	SODIUM	NA,DISS	MG/L	16.00		15.00		12.00		10.00	1.60	

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				85/11/19	85/12/20	86/01/15	86/02/24	86/03/26	86/04/18	86/05/09	86/07/18	86/08/22
INITIAL TIME				1439	1400	1451	1640	1450	1345	1320	1510	1550
MEDIUM-USGS	REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00931	SODIUM	ADSBTION	RATIO	.5		.5						
00932	PERCENT	SODIUM	%	14		14						
00935	PTSSIUM	K,DISS	MG/L	2.60		2.20		1.90		1.90	.60	
00940	CHLORIDE	TOTAL	MG/L	22		13		8		9	.7	
00945	SULFATE	SO4-TOT	MG/L	59		61		51		34	4	
00950	FLUORIDE	F,DISS	MG/L	.40		.40		.40		.30	.10K	
00955	SILICA	DISOLVED	MG/L	7.2		8.3		9.5		9.2	4.4	
01000	ARSENIC	AS,DISS	UG/L	2				3		2		
01005	BARIUM	BA,DISS	UG/L	54				66		77		
01010	BERYLIUM	BE,DISS	UG/L	.50K				.50L		.50K		
01025	CADMIUM	CD,DISS	UG/L	1K				1K		1K		
01030	CHROMIUM	CR,DISS	UG/L	1				1K		1K		
01035	COBALT	CO,DISS	UG/L	3K				3K		3K		
01040	COPPER	CU,DISS	UG/L	4				5		2		
01046	IRON	FE,DISS	UG/L	10				3K		10		
01049	LEAD	PB,DISS	UG/L	5				1		2		
01056	MANGNESE	MN,DISS	UG/L	2.0				3.0		7.0		
01060	MOLY	MO,DISS	UG/L	10K				10K		10K		
01065	NICKEL	NI,DISS	UG/L	4				1K		1		
01075	SILVER	AG,DISS	UG/L	1.0K				1.0K		1.0K		
01080	STRONTUM	SR,DISS	UG/L	350				310		270		
01085	VANADIUM	V,DISS	UG/L	6K				6K		6K		
01090	ZINC	ZN,DISS	UG/L	13				23		23		
01106	ALUMINUM	AL,DISS	UG/L	20				10		20		
01130	LITHIUM	LI,DISS	UG/L	37				28		24		
01145	SELENIUM	SE,DISS	UG/L	1K				1K		1K		
31625	FEC COLI	M-FCAGAD	/100 ML	8B		8B		1K		19B	28	
31673	FECSTREP	MFKFAGAR	/100ML	26		21		12B		7B	21	
34472	PYRENE	SEDUG/KG	DRY WGT							6.000		
46570	CAL HARD	CA MG	MG/L	207$		202$		181$		160$	163$	
70300	RESIDUE	DISS-180	C MG/L	275		253		237		214	159	
70301	DISS SOL	SUM	MG/L	273		261						
70331	SUSP SED	PARTSIZE	%<.062MM	90				75		71	92	
71846	AMMONIA	DISS-NH4	MG/L	.04								
71890	MERCURY	HG,DISS	UG/L	.2				.2		.2		
80154	SUSP SED	CONC	MG/L	53				52		33	7	
82028	RATIO	FEC COL	FEC STRP	.3$		.4$		.08$		3$	1$	
82398	SAMPLING	METHOD	(CODES)	10		10		10		10	10	

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SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

	INITIAL DATE			86/09/19	86/11/21	86/12/19	87/01/16	87/02/06	87/03/11	87/03/18	87/04/10	87/05/22
	INITIAL TIME			1145	1015	1215	1209	1400	1720	1100	1330	1616
	MEDIUM-USGS	REMARK		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	11.5	6.5	1.0	.0	2.0	5.0	5.0	4.0	8.0
00011	WATER	TEMP	FAHN	52.7$	43.7$	33.8$	32.0$	35.6$	41.0$	41.0$	39.2$	46.4$
00020	AIR	TEMP	CENT	7.0	3.5	-3.0	-25.0	4.0	10.0	11.0	12.0	11.0
00025	BAROMTRC	PRESSURE	MM OF HG	632	632		634			625		637
00027	COLLECT	AGENCY	CODE	1028	1028	1028	1028	1028	1028	1028	1028	1028
00028	ANALYZE	AGENCY	CODE	80020	80020	80020	80020	80020	80020	80020	80020	80020
00061	STREAM	FLOW,	INST-CFS	8340	4360	4840	3560	2840	1530	1470	4860	10600
00065	STREAM	STAGE	FEET	4.10	2.86		2.49			1.32		4.89
00076	TURB	TRBIDMTR	HACH FTU		.9		.5			7.2		1.8
00095	CNDUCTVY	AT 25C	MICROMHO	330	380	388	387	581	497	530	457	394
00300	DO		MG/L	9.7	10.1		12.5			11.1		10.1
00301	DO	SATUR	PERCENT	105.0	97.0		102.0			106.0		102.0
00400	PH		SU	7.80	8.15		7.80			8.25		8.60
00403	PH	LAB	SU		8.1		7.8			8.0		8.2
00410	T ALK	CACO3	MG/L	143	142		149			182		150
00419	ALKALIN.	CARB.IT	FLD MG/L		147.0		149.0			182.0		151.0
00440	HCO3 ION	HCO3	MG/L	174	179							
00447	CARBNAT.	IT FIELD	CO3 MG/L		.0		.0			.0		18.0
00450	BICARB.	IT HCO3	FLD MG/L		179.0		182.0			222.0		146.0
00608	NH3+NH4-	N DISS	MG/L	.050	.050		.050			.060		.060
00610	NH3+NH4-	N TOTAL	MG/L	.070	.020		.060			.060		.060
00612	UN-IONZD	NH3-N	MG/L	.0005$	.0008$		.0002$			.001$		.003$
00613	NO2-N	DISS	MG/L	.010K	.010K		.010K			.010K		.010K
00619	UN-IONZD	NH3-NH3	MG/L	.0007$	.0010$		.0003$			.001$		.004$
00625	TOT KJEL	N	MG/L	.300	.400		.400			.500		.500
00631	NO2&NO3	N-DISS	MG/L	.1	.1K		.2			.2		.1K
00665	PHOS-TOT		MG/L P	.200	.030		.030			.140		.010
00666	PHOS-DIS		MG/L P	.030	.010K		.010			.090		.020
00671	PHOS-DIS	ORTHO	MG/L P	.010	.010K		.020			.080		.010K
00915	CALCIUM	CA,DISS	MG/L		52.0		55.0			67.0		53.0
00925	MGNSIUM	MG,DISS	MG/L		13.0		14.0			18.0		13.0
00930	SODIUM	NA,DISS	MG/L		12.00		13.00			20.00		10.00
00935	PTSSIUM	K,DISS	MG/L		2.10		1.90			2.90		1.80
00940	CHLORIDE	TOTAL	MG/L		11		16			26		14
00945	SULFATE	SO4-TOT	MG/L		49		56			68		52

(SAMPLE CONTINUED ON NEXT PAGE)

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43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			86/09/19	86/11/21	86/12/19	87/01/16	87/02/06	87/03/11	87/03/18	87/04/10	87/05/22
INITIAL TIME			1145	1015	1215	1209	1400	1720	1100	1330	1616
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00950 FLUORIDE	F,DISS	MG/L		.40		.40			.40		.40
00955 SILICA	DISOLVED	MG/L		8.3		9.2			8.4		7.9
01000 ARSENIC	AS,DISS	UG/L		3					1K		2
01005 BARIUM	BA,DISS	UG/L		50					54		60
01010 BERYLIUM	BE,DISS	UG/L		.50K					.50K		.50K
01025 CADMIUM	CD,DISS	UG/L		1					1K		1K
01030 CHROMIUM	CR,DISS	UG/L		1K					1K		4
01035 COBALT	CO,DISS	UG/L		3K					3K		3K
01040 COPPER	CU,DISS	UG/L		4					2		2
01046 IRON	FE,DISS	UG/L		4					4		4
01049 LEAD	PB,DISS	UG/L		11					5K		5K
01056 MANGNESE	MN,DISS	UG/L		1.0K					8.0		2.0
01060 MOLY	MO,DISS	UG/L		10K					10K		10K
01065 NICKEL	NI,DISS	UG/L		1K					1K		1K
01075 SILVER	AG,DISS	UG/L		1.0K					1.0K		1.0K
01080 STRONTUM	SR,DISS	UG/L		290					400		320
01085 VANADIUM	V,DISS	UG/L		6K					6K		6K
01090 ZINC	ZN,DISS	UG/L		22					24		10
01106 ALUMINUM	AL,DISS	UG/L		10K					10		30
01130 LITHIUM	LI,DISS	UG/L		29					41		21
01145 SELENIUM	SE,DISS	UG/L		1K					1K		1K
31625 FEC COLI	M-FCAGAD	/100 ML	10B	7B		3B			14B		21B
31673 FECSTREP	MFKFAGAR	/100ML	37	4B		2B			6B		10B
46570 CAL HARD	CA MG	MG/L		183$		195$			241$		186$
70300 RESIDUE	DISS-180 C	MG/L		240		253			322		232
70331 SUSP SED	PARTSIZE	%<.062MM	90	69					57		91
71890 MERCURY	HG,DISS	UG/L		.3					.6		.3
80154 SUSP SED	CONC	MG/L	17	11					59		8
82028 RATIO	FEC COL	FEC STRP	.3$	2$		2$			2$		2$
82398 SAMPLING	METHOD	(CODES)	10	10		70			10		10

INITIAL DATE			87/07/17	87/08/21	87/09/17	87/10/23	87/11/23	87/12/11	88/01/15	88/02/02	88/02/19
INITIAL TIME			1445	1040	1000	1245	1400	1245	1100	1410	0935
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010 WATER	TEMP	CENT	13.0	16.0	10.0	6.5	4.0	4.5	3.0	1.0	.5
00011 WATER	TEMP	FAHN	55.4$	60.8$	50.0$	43.7$	39.2$	40.1$	37.4$	33.8$	32.9$
00020 AIR	TEMP	CENT	19.0	24.0	12.0	14.0	3.0	2.0	2.0	-1.0	-4.5
00025 BAROMTRC	PRESSURE	MM OF HG	627		642		637		551		

(SAMPLE CONTINUED ON NEXT PAGE)

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SNAKE RIVER NR HEISE,ID
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/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				87/07/17	87/08/21	87/09/17	87/10/23	87/11/23	87/12/11	88/01/15	88/02/02	88/02/19
INITIAL TIME				1445	1040	1000	1245	1400	1245	1100	1410	0935
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00027	COLLECT	AGENCY	CODE	1028	1028	80020	1028	80020	1028	80020	1028	1028
00028	ANALYZE	AGENCY	CODE	80020	1028	80020	1028	80020	1028	80020	1028	1028
00061	STREAM	FLOW,	INST-CFS	11500	9260	6490	1570	1180	1130	1220	1140	1040
00065	STREAM	STAGE	FEET	5.04								
00076	TURB	TRBIDMTR	HACH FTU	.7		.5		.6		1.3		
00095	CNDUCTVY	AT 25C	MICROMHO	333	349	360	465	573	507	577	555	484
00300	DO		MG/L	8.6		9.7		12.0		10.2		
00301	DO	SATUR	PERCENT	100.0		102.0		91.6$		75.6$		
00400	PH		SU	8.20		8.30		8.20		7.80		
00403	PH	LAB	SU	8.4		8.3		8.3		8.1		
00410	T ALK	CACO3	MG/L	127		141		186		184		
00419	ALKALIN.	CARB.IT	FLD MG/L	128.0		140.0		186.0		187.0		
00447	CARBNAT.	IT FIELD	CO3 MG/L	.0		.0		.0		.0		
00450	BICARB.	IT HCO3	FLD MG/L	156.0		171.0		227.0		228.0		
00608	NH3+NH4-	N DISS	MG/L	.080		.040		.030		.020		
00610	NH3+NH4-	N TOTAL	MG/L	.050		.020		.040		.030		
00612	UN-IONZD	NH3-N	MG/L	.002$		.001$		.0004$		.0001$		
00613	NO2-N	DISS	MG/L	.010K		.010K		.010K		.010K		
00619	UN-IONZD	NH3-NH3	MG/L	.003$		.001$		.0005$		.0001$		
00625	TOT KJEL	N	MG/L	.700		.300		.200K		.200K		
00631	NO2&NO3	N-DISS	MG/L	.1K		.1K		.1K		.2		
00665	PHOS-TOT		MG/L P	.070		.010K		.020		.010		
00666	PHOS-DIS		MG/L P	.040		.010K		1.000		.010K		
00671	PHOS-DIS	ORTHO	MG/L P	.040		.010K		.980		.010K		
00915	CALCIUM	CA,DISS	MG/L	45.0		49.0		72.0		73.0		
00925	MGNSIUM	MG,DISS	MG/L	11.0		12.0		19.0		19.0		
00930	SODIUM	NA,DISS	MG/L	8.50		12.00		23.00		24.00		
00935	PTSSIUM	K,DISS	MG/L	1.60		2.30		3.40		3.50		
00940	CHLORIDE	TOTAL	MG/L	8		10		30		29		
00945	SULFATE	SO4-TOT	MG/L	37		44		76		76		
00950	FLUORIDE	F,DISS	MG/L	.30		.40		.40		.40		
00955	SILICA	DISOLVED	MG/L	8.7		8.8		6.7		7.6		
01000	ARSENIC	AS,DISS	UG/L			3		2				
01005	BARIUM	BA,DISS	UG/L			50		52				
01010	BERYLIUM	BE,DISS	UG/L			.50K		.50K				
01025	CADMIUM	CD,DISS	UG/L			1		1K				
01030	CHROMIUM	CR,DISS	UG/L			1K		1K				
01035	COBALT	CO,DISS	UG/L			3K		3K				

(SAMPLE CONTINUED ON NEXT PAGE)

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SNAKE RIVER NR HEISE,ID
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130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				87/07/17	87/08/21	87/09/17	87/10/23	87/11/23	87/12/11	88/01/15	88/02/02	88/02/19
INITIAL TIME				1445	1040	1000	1245	1400	1245	1100	1410	0935
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01040	COPPER	CU,DISS	UG/L			4		3				
01046	IRON	FE,DISS	UG/L			6		4				
01049	LEAD	PB,DISS	UG/L			5K		5K				
01056	MANGNESE	MN,DISS	UG/L			4.0		4.0				
01060	MOLY	MO,DISS	UG/L			10K		10K				
01065	NICKEL	NI,DISS	UG/L			2		5				
01075	SILVER	AG,DISS	UG/L			1.0K		1.0K				
01080	STRONTUM	SR,DISS	UG/L			280		430				
01085	VANADIUM	V,DISS	UG/L			6K		6K				
01090	ZINC	ZN,DISS	UG/L			9		9				
01106	ALUMINUM	AL,DISS	UG/L			10K		10				
01130	LITHIUM	LI,DISS	UG/L			47		50				
01145	SELENIUM	SE,DISS	UG/L			1K		1K				
31625	FEC COLI	M-FCAGAD	/100 ML	25		7B		1K		7B		
31673	FECSTREP	MFKFAGAR	/100ML	15B		3B		1B		7B		
46570	CAL HARD	CA MG	MG/L	158$		172$		258$		261$		
70300	RESIDUE	DISS-180	C MG/L	199		231		350		355		
70331	SUSP SED	PARTSIZE	%<.062MM	59		58		77		47		
71890	MERCURY	HG,DISS	UG/L			.2		.2				
80154	SUSP SED	CONC	MG/L	20		6		53		48		
82028	RATIO	FEC COL	FEC STRP	2$		2$		1$		1$		
82398	SAMPLING	METHOD	(CODES)	10								
84000	GEOLOGIC	AGE	CODE			110S						
84001	AQUIFER	NAME	CODE			KRV						

INITIAL DATE				88/03/18	88/04/08	88/05/11	88/06/09	88/07/15	88/09/16	88/11/18	88/12/07	89/02/09
INITIAL TIME				1130	1600	1245	1440	1630	1100	1130	1710	1355
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	4.0	6.0	5.5	8.0	15.0	13.0	5.0	3.0	.0
00011	WATER	TEMP	FAHN	39.2$	42.8$	41.9$	46.4$	59.0$	55.4$	41.0$	37.4$	32.0$
00020	AIR	TEMP	CENT	10.5	8.0	26.0	24.0	30.5	19.0	-2.0		-8.0
00025	BAROMTRC	PRESSURE	MM OF HG	643		644		635	635	637		
00027	COLLECT	AGENCY	CODE	80020	1028	80020	1028	80020	1028	1028	1028	1028
00028	ANALYZE	AGENCY	CODE	80020	1028	80020	1028	80020	80020	80020	1028	1028
00061	STREAM	FLOW,	INST-CFS	1080	1280	9120	15400	14600	5310	1110	1080	1130
00076	TURB	TRBIDMTR	HACH FTU	.6		2.7		1.7	1.3	1.1		
00095	CNDUCTVY	AT 25C	MICROMHO	613	523	423	395	320	385	560	612	640
00300	DO		MG/L	10.0		11.6		8.2	9.6	10.6		

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				88/03/18	88/04/08	88/05/11	88/06/09	88/07/15	88/09/16	88/11/18	88/12/07	89/02/09
INITIAL TIME				1130	1600	1245	1440	1630	1100	1130	1710	1355
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00301	DO	SATUR	PERCENT	76.4$		90.6$		80.4$	109.0	82.8$		
00400	PH		SU	7.90		8.40		8.40	8.36	8.35		
00403	PH	LAB	SU	8.3		8.3		8.4	8.3	8.1		
00410	T ALK	CACO3	MG/L	146		148		114	137	193		
00419	ALKALIN.	CARB.IT	FLD MG/L	149.0		147.0		114.0	137.0	191.0		
00447	CARBNAT.	IT FIELD	CO3 MG/L	.0		2.0		3.0	6.0	3.0		
00450	BICARB.	IT HCO3	FLD MG/L	181.0		174.0		132.0	156.0	226.0		
00608	NH3+NH4-	N DISS	MG/L	.040		.030		.010K	.010K	.020		
00610	NH3+NH4-	N TOTAL	MG/L	.040		.010K		.010K	.010K	.020		
00612	UN-IONZD	NH3-N	MG/L	.0003$		.0008$		.0005$	.0004$	.0004$		
00613	NO2-N	DISS	MG/L	.010K		.010K		.010K	.010K	.010K		
00619	UN-IONZD	NH3-NH3	MG/L	.0004$		.0009$		.0006$	.0005$	.0005$		
00625	TOT KJEL	N	MG/L	.300		.200K		.300	.500	.200K		
00631	NO2&NO3	N-DISS	MG/L	.1		.2		.1K	.1K	.2		
00665	PHOS-TOT		MG/L P	.010K		.010		.030	.020	.010K		
00666	PHOS-DIS		MG/L P	.010K		.020		.010	.020	.010K		
00671	PHOS-DIS	ORTHO	MG/L P	.010K		.010K		.010K	.010K	.010K		
00915	CALCIUM	CA,DISS	MG/L	64.0		57.0		42.0	49.0	76.0		
00925	MGNSIUM	MG,DISS	MG/L	17.0		14.0		9.9	13.0	20.0		
00930	SODIUM	NA,DISS	MG/L	22.00		12.00		8.00	12.00	25.00		
00935	PTSSIUM	K,DISS	MG/L	4.80		1.70		1.60	1.90	3.30		
00940	CHLORIDE	TOTAL	MG/L	31		12		7	11	30		
00945	SULFATE	SO4-TOT	MG/L	82		60		34	45	75		
00950	FLUORIDE	F,DISS	MG/L	.40		.40		.30	.30	.40		
00955	SILICA	DISOLVED	MG/L	7.4		8.4		9.1	8.4	6.9		
01000	ARSENIC	AS,DISS	UG/L	2		2		3	3	2		
01005	BARIUM	BA,DISS	UG/L	46		57		46	54	58		
01010	BERYLIUM	BE,DISS	UG/L	.50K		.50K		.50K	.50K	.50K		
01025	CADMIUM	CD,DISS	UG/L	1K		1K		1K	2	1K		
01030	CHROMIUM	CR,DISS	UG/L	1K		1K		1K	1K	1K		
01035	COBALT	CO,DISS	UG/L	3K		3K		3K	3K	3K		
01040	COPPER	CU,DISS	UG/L	1		2		6	2	2		
01046	IRON	FE,DISS	UG/L	5		19		5	14	3K		
01049	LEAD	PB,DISS	UG/L	5K		5K		5K	5K	5K		
01056	MANGNESE	MN,DISS	UG/L	7.0		8.0		5.0	4.0	2.0		
01060	MOLY	MO,DISS	UG/L	10K		10K		10K	10K	10K		
01065	NICKEL	NI,DISS	UG/L	1K		4		1	2	2		
01075	SILVER	AG,DISS	UG/L	1.0		1.0K		1.0K	1.0K	1.0K		

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEIBE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				88/03/18	88/04/08	88/05/11	88/06/09	88/07/15	88/09/16	88/11/18	88/12/07	89/02/09
INITIAL TIME				1130	1600	1245	1440	1630	1100	1130	1710	1355
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
01080	STRONTUM	SR,DISS	UG/L	400		350		230	270	450		
01085	VANADIUM	V,DISS	UG/L	6K		6K		6K	6K	6K		
01090	ZINC	ZN,DISS	UG/L	7		10		11	17	8		
01106	ALUMINUM	AL,DISS	UG/L	10K		10K		10K	10K	10K		
01130	LITHIUM	LI,DISS	UG/L	45		28		22	32	54		
01145	SELENIUM	SE,DISS	UG/L	1K		1K		1K	1K	1K		
31625	FEC COLI	M-FCAGAD	/100 ML	2B				8B	4B	7B		
31673	FECSTREP	MFKFAGAR	/100ML	2B				8B	167	5B		
46570	CAL HARD	CA MG	MG/L	230$		200$		146$	176$	272$		
70300	RESIDUE	DISS-180 C	MG/L	436		259		184	230	356		
70331	SUSP SED	PARTSIZE	%<.062MM	45		65		48	71	20		
71890	MERCURY	HG,DISS	UG/L	.1K		.1			.1K	.2		
80154	SUSP SED	CONC	MG/L	38		36		18	3	2		
82028	RATIO	FEC COL	FEC STRP	1$				1$	.02$	1$		

INITIAL DATE				89/04/14	89/06/09	89/08/25	89/10/27	89/11/06	89/12/15	90/01/18	90/02/09	90/03/23
INITIAL TIME				1430	0850	1250	1250	1120	1300	1305	1253	1112
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00010	WATER	TEMP	CENT	9.5	9.0	15.0	8.5	7.0	4.0	.0	2.0	5.5
00011	WATER	TEMP	FAHN	49.1$	48.2$	59.0$	47.3$	44.6$	39.2$	32.0$	35.6$	41.9$
00020	AIR	TEMP	CENT	15.0	15.5	15.5	8.5	1.6	.0	-4.0	13.0	7.0
00025	BAROMTRC	PRESSURE	MM OF HG					638		641		636
00027	COLLECT	AGENCY	CODE	1028	1028	1028	1028	80020	1028	80020	1028	80020
00028	ANALYZE	AGENCY	CODE	1028	1028	1028	1028	80020	1028	80020	1028	80020
00061	STREAM	FLOW,	INST-CFS	1520	10600	8030	3370	2190	1370	1570	1570	1680
00076	TURB	TRBIDMTR	HACH FTU					1.0		2.4		1.0
00095	CNDUCTVY	AT 25C	MICROMHO	521	373	334	386	443	501	520	501	508
00300	DO		MG/L					10.4		11.4		10.4
00301	DO	SATUR	PERCENT					85.3$		78.1$		81.3$
00400	PH		SU					7.84		8.33		8.19
00403	PH	LAB	SU					8.0		8.1		8.4
00410	T ALK	CACO3	MG/L					152		166		171
00419	ALKALIN.	CARB.IT	FLD MG/L					155.0				171.0
00447	CARBNAT.	IT FIELD	CO3 MG/L					.0		.1		.0
00450	BICARB.	IT HCO3	FLD MG/L					189.0		202.0		209.0
00608	NH3+NH4-	N DISS	MG/L					.060		.030		.010K
00610	NH3+NH4-	N TOTAL	MG/L					.020		.040		.010K
00612	UN-IONZD	NH3-N	MG/L					.0005$		.0004$		.0002$

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				89/04/14	89/06/09	89/08/25	89/10/27	89/11/06	89/12/15	90/01/18	90/02/09	90/03/23
INITIAL TIME				1430	0850	1250	1250	1120	1300	1305	1253	1112
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00613	NO2-N	DISS	MG/L					.010K		.010K		.010
00619	UN-IONZD	NH3-NH3	MG/L					.0006$		.0005$		.0002$
00625	TOT KJEL	N	MG/L					.400		.600		.500
00631	NO2&NO3	N-DISS	MG/L					.2		.2		.2
00665	PHOS-TOT		MG/L P					.010		.400		.140
00666	PHOS-DIS		MG/L P					.010		.400		.120
00671	PHOS-DIS	ORTHO	MG/L P					.090		.370		.120
00915	CALCIUM	CA,DISS	MG/L					59.0		62.0		63.0
00925	MGNSIUM	MG,DISS	MG/L					15.0		16.0		16.0
00930	SODIUM	NA,DISS	MG/L					17.00		19.00		18.00
00935	PTSSIUM	K,DISS	MG/L					2.70		3.30		2.60
00940	CHLORIDE	TOTAL	MG/L					17		23		21
00945	SULFATE	SO4-TOT	MG/L					57		63		63
00950	FLUORIDE	F,DISS	MG/L					.40		.30		.50
00955	SILICA	DISOLVED	MG/L					7.1		7.5		7.4
01000	ARSENIC	AS,DISS	UG/L					3				2
01005	BARIUM	BA,DISS	UG/L					50				49
01010	BERYLIUM	BE,DISS	UG/L					.50K				.50K
01025	CADMIUM	CD,DISS	UG/L					1K				1K
01030	CHROMIUM	CR,DISS	UG/L					1K				5K
01035	COBALT	CO,DISS	UG/L					3K				3K
01040	COPPER	CU,DISS	UG/L					3				10K
01046	IRON	FE,DISS	UG/L					4				6
01049	LEAD	PB,DISS	UG/L					3				10K
01056	MANGNESE	MN,DISS	UG/L					4.0				7.0
01060	MOLY	MO,DISS	UG/L					10K				10K
01065	NICKEL	NI,DISS	UG/L					1				10K
01075	SILVER	AG,DISS	UG/L					1.0K				1.0K
01080	STRONTUM	SR,DISS	UG/L					360				370
01085	VANADIUM	V,DISS	UG/L					6K				6K
01090	ZINC	ZN,DISS	UG/L					18				10
01106	ALUMINUM	AL,DISS	UG/L					10K				10K
01130	LITHIUM	LI,DISS	UG/L					38				36
01145	SELENIUM	SE,DISS	UG/L					1K				1K
31625	FEC COLI	M-FCAGAD	/100 ML					1B		1K		2B
31673	FECSTREP	MFKFAGAR	/100ML					19B		4B		6B
46570	CAL HARD	CA MG	MG/L					209$		221$		223$
70300	RESIDUE	DISS-180 C	MG/L					261		303		310

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				89/04/14	89/06/09	89/08/25	89/10/27	89/11/06	89/12/15	90/01/18	90/02/09	90/03/23
INITIAL TIME				1430	0850	1250	1250	1120	1300	1305	1253	1112
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
70331	SUSP SED	PARTSIZE	%(.062MM					67				19
71890	MERCURY	HG,DISS	UG/L					.1				.1
80154	SUSP SED	CONC	MG/L					5				17
82028	RATIO	FEC COL	FEC STRP					.07$		.3$		.3$

INITIAL DATE				90/04/13	90/05/18	90/07/13	90/07/13	90/08/15	90/10/19	
INITIAL TIME				1120	1600	0930	1230	1600	1347	
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER	
00010	WATER	TEMP	CENT	7.0	9.0	12.0	12.0	12.0	9.0	
00011	WATER	TEMP	FAHN	44.6$	48.2$	53.6$	53.6$	53.6$	48.2$	
00020	AIR	TEMP	CENT	12.0		22.0	22.0		10.0	
00025	BAROMTRC	PRESSURE	MM OF HG		632		643			
00027	COLLECT	AGENCY	CODE	1028	80020	1028	80020	1028	1028	
00028	ANALYZE	AGENCY	CODE	1028	80020	1028	80020	1028	1028	
00061	STREAM	FLOW,	INST-CFS	1890	11000	13100	13100	11000	3670	
00076	TURB	TRBIDMTR	HACH FTU		1.0		2.2			
00095	CNDUCTVY	AT 25C	MICROMHO	499	402	326	326	402	415	
00300	DO		MG/L		11.4		8.4			
00301	DO	SATUR	PERCENT		98.3$		77.8$			
00400	PH		SU		8.49		8.32			
00403	PH	LAB	SU		8.2		8.1			
00410	T ALK	CACO3	MG/L		119		115			
00419	ALKALIN.	CARB.IT	FLD MG/L		122.0		120.0			
00447	CARBNAT.	IT FIELD	CO3 MG/L		10.0		.5			
00450	BICARB.	IT HCO3	FLD MG/L		129.0		146.0			
00608	NH3+NH4-	N DISS	MG/L		.020		.020			
00610	NH3+NH4-	N TOTAL	MG/L		.010K		.010K			
00612	UN-IONZD	NH3-N	MG/L		.0008$		.0007$			
00613	NO2-N	DISS	MG/L		.010K		.010K			
00619	UN-IONZD	NH3-NH3	MG/L		.001$		.0009$			
00625	TOT KJEL	N	MG/L		.200K		.300			
00631	NO2&NO3	N-DISS	MG/L		.1		.1K			
00665	PHOS-TOT		MG/L P		.070		.020			
00666	PHOS-DIS		MG/L P		.060		.010			
00671	PHOS-DIS	ORTHO	MG/L P		.050		.010			
00915	CALCIUM	CA,DISS	MG/L		52.0		42.0			
00925	MGNSIUM	MG,DISS	MG/L		12.0		9.8			
00930	SODIUM	NA,DISS	MG/L		11.00		8.20			

(SAMPLE CONTINUED ON NEXT PAGE)

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE				90/04/13	90/05/18	90/07/13	90/07/13	90/08/15	90/10/19
INITIAL TIME				1120	1600	0930	1230	1600	1347
MEDIUM-USGS REMARK				WATER	WATER	WATER	WATER	WATER	WATER
00935	PTSSIUM	K,DISS	MG/L		1.70		1.60		
00940	CHLORIDE	TOTAL	MG/L		8		6		
00945	SULFATE	SO4-TOT	MG/L		50		36		
00950	FLUORIDE	F,DISS	MG/L		.30		1.50		
00955	SILICA	DISOLVED	MG/L		8.0		8.5		
01000	ARSENIC	AS,DISS	UG/L		3				
01005	BARIUM	BA,DISS	UG/L		50				
01010	BERYLIUM	BE,DISS	UG/L		.50K				
01025	CADMIUM	CD,DISS	UG/L		1K				
01030	CHROMIUM	CR,DISS	UG/L		2				
01035	COBALT	CO,DISS	UG/L		3K				
01040	COPPER	CU,DISS	UG/L		3				
01046	IRON	FE,DISS	UG/L		7				
01049	LEAD	PB,DISS	UG/L		1				
01056	MANGNESE	MN,DISS	UG/L		3.0				
01060	MOLY	MO,DISS	UG/L		10K				
01065	NICKEL	NI,DISS	UG/L		1K				
01075	SILVER	AG,DISS	UG/L		1.0K				
01080	STRONTUM	SR,DISS	UG/L		310				
01085	VANADIUM	V,DISS	UG/L		6K				
01090	ZINC	ZN,DISS	UG/L		9				
01106	ALUMINUM	AL,DISS	UG/L		10K				
01130	LITHIUM	LI,DISS	UG/L		23				
01145	SELENIUM	SE,DISS	UG/L		1K				
31625	FEC COLI	M-FCAGAD	/100 ML		2B		6B		
31673	FECSTREP	MFKFAGAR	/100ML		2B		10B		
46570	CAL HARD	CA MG	MG/L		179$		145$		
70300	RESIDUE	DISS-180 C	MG/L		233		190		
70331	SUSP SED	PARTSIZE	%<.062MM		65		59		
71890	MERCURY	HG,DISS	UG/L		.3				
80154	SUSP SED	CONC	MG/L		7		8		
82028	RATIO	FEC COL	FEC STRP		1$		.6$		

THAT'S ALL FOLKS

13037500
43 36 45.0 111 39 33.0 2
SNAKE RIVER NR HEISE,ID
16019 IDAHO BONNEVILLE
130691

/TYPA/AMBNT/STREAM

112WRD 17040104
0000 FEET DEPTH

(SAMPLE CONTINUED FROM PREVIOUS PAGE)

INITIAL DATE			78/01/09	78/01/24	78/01/24	78/02/24	78/03/24	78/04/26	78/05/25	78/06/26	78/06/27
INITIAL TIME			1030	1300	1810	1245	0800	1045	1500	1600	1140
MEDIUM-USGS REMARK			WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
00665 PHOS-TOT		MG/L P		.010		.050	.020		.040	.030	
00666 PHOS-DIS		MG/L P		.020		.010	.010		.010K	.010	
00680 T ORG C	C	MG/L				1.2			3.2		
00681 D ORG C	C	MG/L		1.0			1.7			3.0	
00689 S ORG C	C	MG/L		.4			.8			.8	
00900 TOT HARD	CACO3	MG/L		260		240	250		170	140	
00902 NC HARD	CACO3	MG/L		110		77	70		55	25	
00915 CALCIUM	CA,DISS	MG/L		72.0		67.0	70.0		48.0	41.0	
00925 MGNSIUM	MG,DISS	MG/L		19.0		18.0	18.0		12.0	9.5	
00930 SODIUM	NA,DISS	MG/L		21.00		18.00	15.00		8.80	7.10	
00931 SODIUM	ADSBTION	RATIO		.6		.5	.4		.3	.3	
00932 PERCENT	SODIUM	%		15		14	11		10	10	
00935 PTSSIUM	K,DISS	MG/L		3.30		2.80	2.60		1.60	1.40	
00940 CHLORIDE	TOTAL	MG/L		20		22	19		8	5	
00945 SULFATE	SO4-TOT	MG/L		80		76	68		33	24	
00950 FLUORIDE	F,DISS	MG/L		.50		.40	.40		.20	.30	
00955 SILICA	DISOLVED	MG/L		8.7		9.7	8.8		8.3	8.7	
01000 ARSENIC	AS,DISS	UG/L		2		2	2		2	4	
01001 ARSENIC	AS,SUSP	UG/L		1		1K	1		1	1K	
01002 ARSENIC	AS,TOT	UG/L		3		2	3		3	3	
01005 BARIUM	BA,DISS	UG/L		100K		100K	300		100K	50	
01006 BARIUM	BA,SUSP	UG/L		0		0	0		200	300	
01007 BARIUM	BA,TOT	UG/L		100K		100K	200		300	300	
01025 CADMIUM	CD,DISS	UG/L		2K		0U	2K		3	2	
01026 CADMIUM	CD,SUSP	UG/L		0		0	8			0	
01027 CADMIUM	CD,TOT	UG/L		2K		0U	9		0U	2K	
01030 CHROMIUM	CR,DISS	UG/L		0U		0U	0U		20K	0U	
01031 CHROMIUM	CR,SUSP	UG/L		10		10	0		0	0	
01034 CHROMIUM	CR,TOT	UG/L		20K		20K	0U		0U	0U	
01035 COBALT	CO,DISS	UG/L		0U		4	0U		2K	0U	
01036 COBALT	CO,SUSP	UG/L		0		0	0		1	3	
01037 COBALT	CO,TOTAL	UG/L		0U		0U	0U		2	3	
01040 COPPER	CU,DISS	UG/L		3		0U	0U		2K	2	
01041 COPPER	CU,SUSP	UG/L		6		7	3		9	11	
01042 COPPER	CU,TOT	UG/L		9		7	3		20K	13	
01044 IRON	FE,SUSP	UG/L								350	
01045 IRON	FE,TOT	UG/L		20		360	140		500	360	
01046 IRON	FE,DISS	UG/L		20		30	10K		20	10K	

(SAMPLE CONTINUED ON NEXT PAGE)