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Informal Report

**Uranium Hydrogeochemical and
Stream Sediment Reconnaissance of the
Dixon Entrance NTMS and Prince Rupert
D-6 Quadrangles, Alaska,
Including Concentrations of
Forty-two Additional Elements**

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**Uranium Hydrogeochemical and Stream Sediment
Reconnaissance of the
Dixon Entrance NTMS and Prince Rupert
D-6 Quadrangles, Alaska,
Including Concentrations of
Forty-Two Additional Elements**

By

Richard G. Warren

Walter K. Hensley

Dixie E. Hanks

AND

William E. George - Fluorometric Analyses

Charles T. Apel - Arc-Source Emission Spectrography

James M. Hansel - X-Ray Fluorescence Analyses

Michael M. Minor - Neutron Activation Analyses

Carolyn Mills - Data Base Management

U. S. DEPARTMENT OF ENERGY
Assistant Secretary for Resource Applications
Grand Junction Office, Colorado

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URANIUM HYDROGEOCHEMICAL AND STREAM SEDIMENT RECONNAISSANCE
OF THE DIXON ENTRANCE NTMS AND PRINCE RUPERT D-6 QUADRANGLES, ALASKA,
INCLUDING CONCENTRATIONS OF FORTY-TWO ADDITIONAL ELEMENTS

by

Richard G. Warren, Walter K. Hensley, and Dixie Hanks

ABSTRACT

During August 1978, sediment and water samples were collected from 203 lakes, streams, and springs in the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska. Sediment samples that contain enough -100 mesh material collected from a stream center according to Los Alamos Scientific Laboratory (LASL) specifications are frequently difficult or impossible to collect in the fast-flowing and deep streams common in Alaska. Therefore, more readily available stream sediment samples were also obtained during collection and processing in order to compare their analytical results with those for the samples collected and processed according to specifications. Stream-deposited sediment samples were collected from a nearby bank at 24 locations to compare with those collected from the stream center, and splits of all sediment samples were sieved separately through 40-, 80-, 100-, 170-, and 230-mesh screens. All resulting 950 sediment samples were analyzed for uranium and 42 additional elements. Due to their low uranium concentrations, analytical results (uranium only) are presented without discussion for water samples.

Variations in concentrations of all 43 elements among the five sieve fractions at each location are generally less than analytical uncertainty. Therefore, elemental analyses are generally comparable for a wide range in sieve fractions for sediment sample locations in southeastern Alaska. However, at some few locations, several elemental concentrations increase with finer mesh size; for uranium, such an increase may be associated with mineralization.

Waterborne sediment samples collected from the center of a stream yield analyses essentially identical to those collected from the adjacent bank for most elements. Chlorine concentrations are generally higher in bank sediments, probably as a result of concentration of halogens in the vegetation that stabilizes the bank. At a few locations, concentrations of the ferrous elements, particularly manganese and cobalt, differ notably between the stream center and bank; such behavior is characteristic of mineralized areas.

Concentrations of the ferrous elements, particularly manganese and cobalt, are strikingly enriched in the stream sediments compared either to lake sediments or to crustal abundances. This suggests that this area might be a favorable location for strategic resources of these elements.

Uranium concentrations in all 950 sediment samples of all sieve fractions range from 0.54 to 22.80 parts per million (ppm), with a median of 2.70 ppm. A consideration of those sediment samples that exhibit high uranium concentrations and a multielement factor analysis were equally successful in defining the Bokan Mountain uranium deposit. Both methods of data evaluation defined three areas that are geochemically similar to the Bokan Mountain area within the quadrangle.

I. INTRODUCTION

This report contains uranium and other elemental data resulting from Hydrogeochemical and Stream Sediment Reconnaissance (HSSR) sampling of the Dixon Entrance National Topographic Map Series (NTMS) quadrangle and the Prince Rupert D-6 quadrangle, Alaska, by Los Alamos Scientific Laboratory (LASL). The LASL is responsible for conducting the HSSR primarily in the Rocky Mountain States of New Mexico, Colorado, Wyoming, and Montana, and in Alaska (Sharp, 1977). The HSSR data will ultimately be integrated with other components of the National Uranium Resource Evaluation (NURE), such as airborne radiometric surveys and geologic investigations. The NURE is designed to provide improved estimates of the availability and economics of nuclear fuel resources and information for use in the development and production of uranium resources by industry.

LASL personnel collected water and sediment samples from 203 locations throughout the 1300 km² land area of the Dixon Entrance NTMS and Prince Rupert D-6 quadrangles between August 22 and 26, 1978. Samples were collected inland from 105 lakes by float-equipped helicopter and along the coastline from 97 streams and 1 spring by boat. Two water samples were collected at all 202 locations where water was available; one sample was acidified only and the second was filtered and acidified. Analyses for uranium in all 404 of these water samples are found in Appendix I-A.

Streams in Alaska are often swift and deep; consequently, in some areas, a sediment sample may be difficult or impossible to collect from the stream center or it may not contain sufficient -100 mesh material to yield a sample according to LASL specifications (Sharp and Aamodt, 1978). Therefore, sediment samples were collected from the nearby bank in addition to the stream center at 24 locations and all samples were split and sieved through five sieves. Analytical results were compared to determine if more readily obtainable samples or coarser size fractions could be substituted when the desired -100 mesh stream center sediment samples cannot be obtained. Sediment samples were collected at all locations; a maximum of five sieve fractions (-40, -80, -100, -170, and -230 mesh) were obtained for each sediment sample. A -40 mesh fraction was obtained from 200 sediment sample locations and progressively finer fractions from fewer locations; the total is 950 sediment samples of all types and size fractions. Analyses for uranium, thorium, and 41 additional elements in all sediment sieve splits are found in Appendix I-B.

All field and analytical data (Appendix I) are also available on magnetic tape from GJOIS Project, UCC-ND, Computer Applications Department, 4500 North Building, Oak Ridge National Laboratory, P. O. Box X, Oak Ridge, Tennessee, 37830. Graphic overlays at a scale of 1:250 000 are found in the rear pocket of this report for use with the NTMS topographic maps of the Dixon Entrance and Prince Rupert quadrangles. Included are a geologic map (Plate I), a sample location overlay (Plate II), overlays for uranium concentrations (Plate III) and conductivities (Plate IV) in waters, and for uranium (Plate V) and thorium (Plate VI) concentrations in sediments.

II. GENERAL DESCRIPTION OF THE AREA

Location and Geographic Setting

The area sampled during August 1978 includes the entire portion of the Dixon Entrance NTMS quadrangle within the US and the small portion of land

within the Prince Rupert D-6 quadrangle to the east (Fig. 1). This area is virtually unpopulated; the nearest population center is Ketchikan, approximately 50 km northeast from the northeastern corner of the area. The entire area is administered by the Tongass National Forest, except for the 15 km² Forrester Island National Wildlife Refuge in the western part of the quadrangle. Although almost entirely within the Tongass National Forest, there has been almost no logging activity here within the last decade, and the only notable industry in the quadrangle has been uranium mining in the Bokan Mountain area.

The Dixon Entrance quadrangle lies at the southern end of the Alexander Archipelago, which is a series of large, coastal islands separated by narrow straits extending south from Cape Spencer. All of Long and Forrester Islands and the southern portions of Dall and Prince of Wales Islands are within the Dixon Entrance and Prince Rupert D-6 quadrangles. This land area is within the Prince of Wales Mountains physiographic division (Wahrhaftig, 1965) and consists of moderately rugged glaciated mountains with rounded summits, as high as 830 m elevation, drained by short, swift streams having numerous

Fig. 1. Location map of the Dixon Entrance NTMS and Prince Rupert D-6 quadrangles, Alaska.

lakes. The area is heavily timbered, with conifer forests extending up to timberline at about 600 m.

General Climate and Weather during the Sampling Period

A maritime climate, characterized by mild temperatures throughout the year and an average diurnal temperature variation of only 5°C, prevails throughout the Dixon Entrance quadrangle. There are no weather stations within the quadrangle, but extrapolation of data from nearby stations indicates that annual precipitation exceeds 4000 mm on Dall Island and is between 2500-4000 mm on Long and Prince of Wales Islands (Selkregg, 1976). A marked precipitation maximum occurs in October.

Monthly precipitation measurements at Annette Weather station, located about 30 km northeast from the quadrangle, were below normal during the entire period of July 1977 through August 1978 (NOAA, 1977 and 1978). Generally ideal weather conditions prevailed throughout the five-day sampling period, between August 22 and 26, 1978.

III. GEOLOGY

The Dixon Entrance quadrangle lies within a northwest-trending belt that includes all of Prince of Wales and Kuiu Island to the north. This terrain is separated from a younger metamorphic and plutonic terrain to the east (Berg et al, 1978) by the Clarence Strait fault.

Metamorphic rocks in the Dixon Entrance quadrangle are exposed throughout most of Dall and Long Islands and much of Prince of Wales Island (Fig. 2). They typically consist of metasedimentary and metavolcanic rocks of primarily Devonian through Ordovician and older ages (Plate I). Plutonic rocks, consisting primarily of quartz diorite, granodiorite, and quartz monzonite of Ordovician age (Lanphere et al, 1964), are exposed on Prince of Wales Island, and a mid-Devonian peralkaline granite (Thompson et al, 1980) has intruded the older plutonic and metamorphic sequence here at Bokan Mountain. Probable Jurassic or Cretaceous quartz diorite plutons are also exposed at the southern end of Dall Island and on Forrester Island (Plate I). Detailed descriptions of rock units in the eastern part of the area are available in MacKevett (1963).

Faults are abundant throughout the area (MacKevett, 1963) and probably control the orientation of many of the creeks and major inlets. The parallel, northwest-trending faults in the Cordova Bay area (Plate I) are probably major structural features.

IV. HYDROLOGY

Due to generally thin cover for both soil and alluvium along stream courses, almost all water flows as surface rather than ground water. The mean annual runoff is extremely high, ranging from about 1-2 cubic meters per second per square kilometer of catchment area (Selkregg, 1976). However, the longest stream course is only about 10 km; consequently, large rivers are not present within the area.

Surface water in southeast Alaska is generally a calcium bicarbonate type very low in total dissolved solids (TDS). Due to the high runoff, the TDS contents for waters collected within the Dixon Entrance quadrangle should

Fig. 2. Generalized geologic map of the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska.

be similar to the average value of about 30 mg/l for southeast Alaska (Selkregg, 1976). Due to the generally dense vegetative cover, suspended sediment concentrations in surface waters are also low. Maximum values for suspended sediment content of streams are estimated as less than 50 mg/l during peak flow periods of the summer months, particularly following storms (Selkregg, 1976).

V. ECONOMIC GEOLOGY

The entire Dixon Entrance quadrangle lies within a Cu-Pb-Zn-Au-Ag metal province (Clark et al, 1974), and deposits of these metals are widespread throughout the quadrangle (Fig. 3). Only a small amount of sulfide ore has been shipped, all from the Nelson and Tift property in the Prince Rupert D-6 quadrangle (MacKevett, 1963), but high-grade massive sulfide deposits are known in the Nichols Bay area on the southern tip of Prince of Wales Island (Dayton, 1979). Large deposits containing Cu, Au, Ag, Pb, and Zn occur just north of the quadrangle on Prince of Wales Island at the Niblack-Dolomi and Copper Mountain areas (Cobb, 1972c; Dayton, 1979).

At the present time, uranium has been the major mineral resource produced within the quadrangle. Nearly two million pounds of U_3O_8 has been produced at Bokan Mountain, mostly from ore grading nearly 1% U_3O_8 mined from the Ross-Adams deposit (Stephens, 1971). The uranium mineralization occurs primarily as veins or local replacements of hydrothermal origin within

Fig. 3. Metal-mining areas in the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska

the Bokan Mountain peralkaline granite or its associated albitized aureole. Uranium enrichment is also associated with late stage accessory minerals within the Bokan Mountain granite itself and with compositionally similar pegmatite and aplite dikes. The ore values are associated with primary uranium minerals of the uraninite-thorianite series (MacKevett, 1963). Other important associated minerals are thorite, allanite, bastnaesite, xenotime, and monazite, and consequently ore is also associated with high concentrations of thorium, rare-earth elements, as well as niobium, zirconium, beryllium, tin, molybdenum, and base-metal elements (Staat, 1978).

Two additional locations within the area are associated with occurrences of radioactive minerals. MacKevett (1963) indicates that weak radioactivity is associated with pegmatite dikes at Gardner Bay and with altered andesite dikes near Stone Rock Bay (Fig. 3).

VI. EVALUATION OF THE DATA

Uranium Concentrations in Water Samples

Two water samples were collected at all except one of the 203 locations in the quadrangle. One sample from each location was acidified only (the standard LASL treatment for HSSR samples collected in Alaska) and the other filtered and acidified (the standard LASL treatment for HSSR samples collected in the Rocky Mountain states). The acidified-only sample is listed first in Appendix I-A. Uranium values for these samples are very low (Fig. 4) and exhibit a median value for all 404 samples of 0.02 parts per billion (ppb), which is the limit of detection. The analytical procedure employed for these samples is a slight modification of the standard LASL fluorometric uranium analysis; it is described in Appendix II-A. However, due to their low uranium

NOTE: Only a single sample, A88913 (acidified only), was analyzed using a 0.2 ml aliquot.
The uranium concentration for this lake sample is 0.26 ppb. All other uranium concentrations were measured utilizing 2.0 ml aliquots.

a. All waters, all treatments.

b. All waters, acidified only.*

* This histogram includes 3 spring waters, acidified only.

c. Natural pond waters, acidified only.

d. Stream waters, acidified only.

Fig. 4. Histograms and statistical data for uranium concentrations in water samples from the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska.

contents (the maximum value reported is 0.56 ppb uranium), there will be no discussion of uranium results for water samples in this report.

Elemental Concentrations in Sediment Samples

Sediment samples were obtained for 105 lakes, 92 wet streams, 2 springs, and 1 dry stream. Additional samples were collected from stream banks at 24 locations, and several sieve fractions were generally obtained from each sample. Sediment samples were separated into five splits; each split was passed through a different sieve of 40, 80, 100, 170, or 230 mesh. A -40-mesh fraction was obtained from 200 locations and progressively finer fractions from fewer locations. Each size fraction for a particular location in Appendix I-B is identified by the two digit number that represents sample type (Appendix II-C). Except for stream bank sediments (see following section), the size fraction is described by the first digit, which is 1, 3, 4, 5, or 6 for -100, -40, -80, -170, or -230 mesh sieve fractions, respectively. Excluding stream bank sediments, a second digit of 1, 2, 3, or 5 identifies the sample source as a wet spring, wet stream, wet lake, or dry stream sediment, respectively. For example, a sample type of 63 signifies the -230-mesh fraction of a lake sediment sample (Table I).

These additional samples were collected to determine if more readily obtainable sediment samples give equivalent analytical results to those collected and processed in the standard LASL manner. Analytical results are compared below primarily by the use of scattergrams for selected elements and by correlation coefficients for a more comprehensive suite of elements. First, analytical results are compared for sieve fractions that are coarser (-40 mesh) and finer (-230 mesh) than the standard LASL sieve fraction (-100 mesh). Second, analytical results are compared for stream bank versus the standard LASL stream center sediment samples. Finally, areas where sediment

TABLE I

CORRESPONDENCE BETWEEN SIEVE FRACTION, SAMPLE SOURCE,
AND CODE FOR SAMPLE TYPE LISTED IN APPENDIXES I-B AND II-C
FOR THE DIXON ENTRANCE AND PRINCE RUPERT D-6 QUADRANGLES, ALASKA

<u>Sample Source</u>	<u>Sieve Fraction</u>				
	<u>-40</u>	<u>-80</u>	<u>-100</u>	<u>-170</u>	<u>-230</u>
Wet spring	31	41	11	51	61
Wet stream	32	42	12	52	62
Wet lake	33	43	13	53	63
Dry stream	35	45	15	55	65
Stream bank*	71	72	73	74	75

Code for sample type

* see following section for description.

samples are geochemically similar to those collected downstream from the Bokan Mountain uranium deposit are identified both by factor analysis and by association with high uranium concentrations. A comparison of these methods of data analyses is included to determine if a discussion simply based on high uranium concentrations is adequate to define known uranium resources.

Effect of Sieve Size on Elemental Concentrations. Elemental concentrations among sieve fractions and sample sources are graphically compared for uranium, thorium, copper, and iron in Figs. 5-8. The numbers shown within each plot are the total number of samples within the particular concentration ranges indicated for the two size fractions compared. For reference, a line of slope 1.00 is also shown; along this line, there is no difference in the measured elemental concentrations for the sieve fractions being compared. Several features are evident from these plots and from the data listings (Appendix I-B):

1. Sample populations do not deviate far from the line of unity slope, nor do individual values generally lie far from this line. Consequently, the choice of sieve fraction makes little difference in the elemental concentration measured for a particular sample location, and analytical values for the range of sieve fractions are generally comparable. Correlation coefficients for 23 selected elements (Table II, columns 1-4) are all significant at the 99% confidence level except for lead in streams. The lowest correlation coefficients are due to relatively poor analytical sensitivities for some elements (e.g., lead, potassium, zinc) or to one or more samples that exhibit considerable differences in concentrations among sieve fractions (manifested as an outlying point in Figs. 5-8).

The general similarity for elemental concentrations among a variety of sieve fractions is somewhat surprising, considering the tendency of many trace elements to concentrate in finer fractions (Plant et al, 1976). This similarity indicates that each sieve fraction generally contains a similar amount of clay-sized fraction that is highly enriched in most trace elements, or that such trace element enrichment generally does not occur in finer sieve fractions in this area.

2. Certain elemental concentrations show a tendency to increase slightly with finer sieve fractions. It must be emphasized that such differences in elemental concentrations among sieve fractions, where they exist, are generally very small. As seen in Figs. 5-8, values falling off the line of unity slope generally occur in the field of the finer mesh size. This tendency is most pronounced in the comparison of -40 versus -100 mesh fraction for stream sediments, but is less pronounced or absent for lake sediments. Examples of this tendency occur for uranium (Fig. 5), copper (Fig. 7), iron (Fig. 8), chlorine, manganese, and zinc; cobalt, cerium, vanadium, nickel, and lithium exhibit a similar, but less pronounced tendency. Only sodium and calcium concentrations show a tendency to decrease with finer sieve fraction. The results of previous LASL HSSR studies in other areas have also indicated that mean uranium concentrations are often slightly higher in the -230 mesh compared to the -100-mesh sieve fraction (Olsen, 1977; Aamodt, 1978). The same findings are reported for uranium in -200 mesh compared to -40 +100 mesh sieve fractions in the Karoo of South Africa (Hambleton-Jones et al, 1979).

Generally, uranium concentrations are nearly identical for all sieve fractions; however, in a few samples, uranium concentrations systematically increase with finer sieve fraction. For example, uranium concentrations for sample A86507 are 3.10, 5.50, 6.40, 7.70, and 8.10 ppm in order of finer sieve

a. Uranium concentrations in -40 mesh versus -100 mesh sieve fraction of stream sediment samples (sample type 32 versus 12).

b. Uranium concentrations in -230 mesh versus -100 mesh sieve fraction of stream sediment samples (sample type 62 versus 12).

c. Uranium concentrations in -40 mesh versus -100 mesh sieve fraction of lake sediment samples (sample type 33 versus 13).

d. Uranium concentrations in -230 mesh versus -100 mesh sieve fraction of lake sediment samples (sample type 63 versus 13).

Fig. 5. Scattergram plots for uranium concentrations in -40 mesh and in -230 mesh versus -100 mesh sieve fractions of sediment samples from the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska.

a. Thorium concentrations in -40 mesh versus -100 mesh sieve fraction of stream sediment samples (sample type 32 versus 12).

b. Thorium concentrations in -230 mesh versus -100 mesh sieve fraction of stream sediment samples (sample type 62 versus 12).

c. Thorium concentrations in -40 mesh versus -100 mesh sieve fraction of lake sediment samples (sample type 33 versus 13).

d. Thorium concentrations in -230 mesh versus -100 mesh sieve fraction of lake sediment samples (sample type 63 versus 13).

Fig. 6. Scattergram plots for thorium concentrations in -40 mesh and in -230 mesh versus -100 mesh sieve fractions of sediment samples from the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska.

a. Copper concentrations in -40 mesh versus -100 mesh sieve fraction of stream sediment samples (sample type 32 versus 12).

b. Copper concentrations in -230 mesh versus -100 mesh sieve fraction of stream sediment samples (sample type 62 versus 12).

c. Copper concentrations in -40 mesh versus -100 mesh sieve fraction of lake sediment samples (sample type 33 versus 13).

d. Copper concentrations in -230 mesh versus -100 mesh sieve fraction of lake sediment samples (sample type 63 versus 13).

Fig. 7. Scattergram plots for copper concentrations in -40 mesh and in -230 mesh versus -100 mesh sieve fractions of sediment samples from the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska.

a. Iron concentrations in -40 mesh versus -100 mesh sieve fraction of stream sediment samples (sample type 32 versus 12).

b. Iron concentrations in -230 mesh versus -100 mesh sieve fraction of stream sediment samples (sample type 62 versus 12).

c. Iron concentrations in -40 mesh versus -100 mesh sieve fraction of lake sediment samples (sample type 33 versus 13).

d. Iron concentrations in -230 mesh versus -100 mesh sieve fraction of lake sediment samples (sample type 63 versus 13).

Fig. 8 . Scattergram plots for iron concentrations in -40 mesh and in -230 mesh versus -100 mesh sieve fractions of sediment samples from the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska.

TABLE II

CORRELATION COEFFICIENTS FOR ELEMENTAL CONCENTRATIONS
 AMONG SIEVE FRACTIONS AND SAMPLE SOURCE FOR SAMPLES
 FROM THE DIXON ENTRANCE AND PRINCE RUPERT D-6 QUADRANGLES, ALASKA

<u>Element</u>	<u>-100 vs -40 mesh stream center (n ≤ 80)</u>	<u>-100 vs -230 mesh stream center (n ≤ 56)</u>	<u>-100 vs -40 mesh lake (n ≤ 92)</u>	<u>-100 vs -230 mesh lake (n ≤ 61)</u>	<u>-40 mesh stream center vs stream bank (n ≤ 24)</u>
Al	0.80	0.74	0.90	0.96	0.70
Ca	0.95	0.93	0.96	0.94	0.93
Ce	0.99	0.99	0.97	0.90	0.95
Cl	0.89	0.71	0.95	0.93	0.09
Co	0.87	0.93	0.49	0.90	0.72
Cr	0.96	0.90	0.95	0.97	0.91
Cu	0.76	0.63	0.52	0.65	0.95
Dy	0.80	0.85	0.99	0.98	0.86
Eu	0.98	0.97	0.98	0.94	0.81
Fe	0.82	0.93	0.96	0.98	0.64
Hf	0.97	0.92	0.96	0.98	0.97
K	0.64	0.64	0.89	0.87	0.93
Li	0.90	0.82	0.96	0.97	0.86
Mg	0.83	0.90	0.95	0.95	0.79
Mn	0.92	0.87	0.99	0.92	0.52
Na	0.87	0.85	0.92	0.96	0.88
Ni	0.92		0.92	0.90	0.74
Pb	0.27	0.04	0.93	0.94	0.53
Th	0.97	0.96	0.96	0.96	0.93
Ti	0.82	0.53	0.97	0.85	0.68
U	0.91	0.95	0.96	0.97	0.81
V	0.86	0.83	0.94	0.98	0.90
Zn	0.84	0.77	0.60	0.70	0.69

fraction (Appendix I-B). Uranium concentrations for samples that exhibit a twofold or greater range among sieve fractions are always lowest in the -40-mesh sieve fraction. With only two exceptions, uranium concentrations are highest in the finest fraction (Table III). Similar variations for other elements, particularly hafnium, rare earth elements (REE), and manganese are apparent for the sample locations listed in Table III (see Appendix I-B).

All sample locations listed in Table III that have uranium concentrations >8 parts per million (ppm) in the finest fraction also exhibit a notable increase in the uranium to thorium (U/Th) ratio with finer mesh fraction. The lack of association of uranium and thorium suggests the presence of soluble uranium at these locations. Because two such locations, A88903 and A89007, are directly downstream from Bokan Mountain, such an increase in uranium and U/Th ratios in finer mesh sizes might well be a geochemical signature of that uranium deposit.

Other elements, particularly tin and the ferrous and base metals, occasionally exhibit even larger concentration increases in the finest mesh fraction. For example, copper, nickel, lead, tin, and chromium concentrations in sample A89007 (Appendix I-B) increase dramatically in the -170 and -230 mesh

TABLE III

SEDIMENT SAMPLE LOCATIONS THAT EXHIBIT A TWOFOLD OR GREATER RANGE
IN URANIUM CONCENTRATIONS AMONG SIEVE FRACTIONS
FROM THE DIXON ENTRANCE AND PRINCE RUPERT D-6 QUADRANGLES, ALASKA

Sample Number	Sample Medium	Uranium (ppm)		Finest Sieve Fraction Available (mesh)
		-40 Mesh	Fine Fraction*	
A86503	Stream bank	3.00	8.80	-230
A86504	Stream center	1.25	6.30	-100
A86504	Stream bank	3.20	8.90	-230
A86507	Stream center	3.10	8.10	-230
A88903	Lake	9.90	22.80	-230
A88923	Lake	7.20	16.80	-170
A88962	Lake	2.20	5.50	-100
A89006	Stream bank	6.00	12.30	-100
A89007	Stream center	8.40	18.80*	-230
A89013	Stream bank	2.70	5.40	-100
A89051	Stream center	1.30	2.80	-230
A89054	Stream center	1.56	3.42*	-230

* The availability of fine material determined the finest mesh size reported. For all samples listed, the -40 mesh fraction contains the lowest uranium concentration, and except for two samples, the finest sieve fraction contains the highest uranium concentration. The exceptions are A89007 (18.80, 16.40, and 13.60 ppm uranium in the -100, -170, and -230 mesh fractions, respectively) and A89054 (3.42 and 2.87 ppm uranium in the -170 and -230 mesh fractions, respectively).

sieve fractions compared to concentrations in the coarser sieve fractions. This effect results in outliers in the scattergrams (e.g., Figs. 7a-d).

3. Significant differences exist for concentrations of certain elements in stream versus lake sediments (Table IV). The relative order of enrichment for these elements in stream compared to lake sediments is:

$Mn > (Co, Li) > (Mg, Fe, Ni, Cr) > (Na, Ca, V) > (Cu, Hf, Eu, Al).$

The order of enrichment for elements with similar concentrations in stream compared to lake sediments is:

$(Ti, Zn, K, U, Th, Ce) > Dy.$

Based on the relative proportion of samples that contain concentrations above their detection limits, only chlorine and lead appear to have higher concentrations in lake samples compared to stream samples.

The striking geochemical differences between stream and lake sediments (Table IV) are probably due to a different mineralogical composition of the two sample types. The mobile cations lithium, magnesium, and sodium all exhibit concentrations approximately equal to upper crustal abundances in stream samples; they are all depleted in lake sediments compared to upper crustal abundances (Table IV). The mobilization of these cations during the weathering process results in a soil that is depleted in lithium, magnesium, and sodium compared to the fresh rock (Wedepohl, 1978). Consequently, it appears that the stream sediment samples geochemically resemble unweathered rock whereas lake sediment samples resemble soil. If this is true, mean concentrations for sediment samples compared to crustal abundances (Table IV) indicate rocks in this region are strongly enriched in the ferrous elements (particularly manganese) and generally depleted in some incompatible elements such as the rare earth elements and thorium. The strong depletion of the rare earth elements, thorium, and potassium in stream sediments compared to their upper crustal abundances is surprising considering the presence of the Bokan Mountain uranium-thorium deposit. Uranium, however, is not depleted.

Comparison of Elemental Concentrations in Waterborne Sediment Samples Collected from Stream Centers versus Stream Banks. In addition to sediment samples collected in the center of streams according to the standard LASL procedure (Sharp and Aamodt, 1978), sediment samples were collected from the near-by stream bank at 24 locations. Care was taken to ensure that the bank material was stream deposited and not derived from colluvial sources. The stream bank samples were processed identically to the stream sediment samples and are distinguished by sample type code (Table I).

Correlation coefficients for 23 elements indicate no significant difference in concentrations of most elements for the stream bank versus stream center sediment (Table II, column 5). Except for chlorine, all correlations for the -40 mesh fraction of stream bank versus stream center are significant at the 99% confidence level. Only uranium (Fig. 9a), which is somewhat enriched in the stream center, and sodium (Fig. 9f) and chlorine (Fig. 9e), which are relatively enriched in the stream bank, exhibit an appreciable difference between concentrations in center versus bank. Only chlorine exhibits a large difference between concentrations in the two media. This may be due to a greater amount of vegetation growing in the stream bank and the strong tendency of the halogens to concentrate in this organic material (Wedepohl, 1978).

TABLE IV
COMPARISON OF MEAN CONCENTRATIONS FOR SELECTED ELEMENTS
IN LAKE AND IN STREAM SAMPLES
FROM THE DIXON ENTRANCE AND PRINCE RUPERT D-6 QUADRANGLES, ALASKA

<u>Element</u>	Mean Concentrations (ppm)		
	<u>Lakes^a</u>	<u>Streams^a</u>	<u>Upper Crustal^b</u>
Al	46600	64400	67000
Ca	8720	15700	36900
Ce	39	46	80
Cl	260	<200	200
Co	12	33	20
Cr	44	101	55
Cu	30	44	24
Dy	3.4	3.1	6
Eu	1.0	1.45	1.5
Fe	28400	63200	37000
Hf	2.2	3.4	5
K	5510	6600	18000
Li	7	18	20
Mg	5390	11900	15000
Mn	580	3340	700
Na	10650	18700	25000
Ni	<15	25	70
Pb	<5	<5	20
Th	2.8	3.5	12
Ti	3080	3880	4200
U	2.60	3.06	2.8
V	92	163	135
Zn	100	120	110

^a Value corresponding to mean of logarithmic concentrations for -100 mesh sieve fraction, or -40 mesh fraction if -100 mesh fraction not available.

^b Value estimated from data in Wedepohl (1978), except for Ca (from Mason, 1966).

A comparison of correlation coefficients (column 1 versus 5 in Table II) indicates that variations in elemental concentrations between stream center and stream bank sediments are similar to those among sieve fractions of stream center sediments. This indicates that a sample collected from a stream bank gives equivalent analytical results to one from a stream center for most elements. However, correlation coefficients for the ferrous elements iron, manganese, and cobalt are generally lower for stream bank sediments. Therefore, concentrations of these elements may in some cases differ significantly between

a. Uranium concentrations in -40 mesh sieve fraction of stream center versus stream bank sediment samples (sample type 32 versus 71).

b. Thorium concentrations in -40 mesh sieve fraction of stream center versus stream bank sediment samples (sample type 32 versus 71).

c. Copper concentrations in -40 mesh sieve fraction of stream center versus stream bank sediment samples (sample type 32 versus 71).

d. Iron concentrations in -40 mesh sieve fraction of stream center versus stream bank sediment samples (sample type 32 versus 71).

Fig. 9. Scattergram plots for concentrations of selected elements in -40 mesh sieve fractions of stream center versus stream bank sediment samples from the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska.

e. Chlorine concentrations in -40 mesh sieve fraction of stream center versus stream bank sediment samples (sample type 32 versus 71).

f. Sodium concentrations in -40 mesh sieve fraction of stream center versus stream bank sediment samples (sample type 32 versus 71).

g. Lithium concentrations in -40 mesh sieve fraction of stream center versus stream bank sediment samples (sample type 32 versus 71).

h. Vanadium concentrations in -40 mesh sieve fraction of stream center versus stream bank sediment samples (sample type 32 versus 71).

Fig. 9. (Cont). Scattergram plots for concentrations of selected elements in -40 mesh sieve fractions of stream center versus stream bank sediment samples from the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska.

the stream center and stream bank. Examples of these differences are apparent in Fig. 9d. Howarth and Lowenstein (1971) have shown that geochemical variations between two stream samples collected a few meters apart from localities in Great Britain exceeds analytical error only for elements that are mineralized upstream. Therefore, it may be highly significant that several ferrous elements exhibit such geochemical variations in the Dixon Entrance area; these same elements are strongly enriched in stream sediment samples compared to their crustal abundances (Table IV).

Uranium Concentrations in Sediment Samples. Uranium concentrations for all sieve fractions of all samples range from 0.54 to 22.80 ppm, with a median value of 2.70 ppm (Fig. 10a). This overall median is very similar to median uranium concentrations for the (LASL standard) -100 mesh fractions of stream (2.79 ppm) and lake (2.70 ppm) sediments (Figs. 10c and 10d). Thorium concentrations, which range from <0.9 ppm to 42.8 ppm in all sieve sizes of all samples, also exhibit nearly identical median values for all sieve sizes of all samples and the -100 mesh fractions of streams and lakes; they are 3.5, 3.5, and 3.4 ppm, respectively (Fig. 11).

Two methods of data evaluation, a simple discussion based on the highest uranium concentrations and one based on factor analysis, are presented and compared below. This comparison was made to determine whether the simple discussion of the highest uranium concentrations generally included with a LASL HSSR quadrangle report adequately defines uranium resources within the Dixon Entrance area. A threshold value of 8.00 ppm uranium in the -100 mesh fraction (or -40 mesh fraction if the -100 mesh fraction was not available) was selected for discussion. Both methods were tested for their ability to define the Bokan Mountain uranium-thorium deposit and two minor uranium occurrences (Fig. 3).

Factor analysis was performed using log transformed concentrations of 29 elements separately for stream and for lake sediment samples (Beyth et al, 1980). For each sample source (streams and lakes), six factors were identified. Only those which produced factor scores that showed a strong association with the Bokan Mountain deposit are listed in Table V; factors 1 and 2 produced generally large positive factor scores and factor 3 large negative scores in the Bokan Mountain area. For lakes, factor 1 exhibits large positive scores for samples with high concentrations of hafnium, the heavy rare earth elements, sodium, aluminum, lithium, and beryllium, and factor 2 for uranium, thorium, and the light rare earth elements. Factors 1 and 2 for lakes define the complete set of elements known to be associated with the Bokan Mountain deposit. These same elements are all combined into factor 1 for streams with the exception of sodium, aluminum, and lithium. This suggests that the albite alteration aureole associated with Bokan Mountain (MacKevett, 1963) can be detected in lake sediments only. Factor 3 scores large negative results with low concentrations of the ferrous metals: Sc, Fe, Cr, and Co for streams and Sc, V, Cr, Co, and Ti for lakes. Therefore, the Bokan Mountain deposit is associated with low concentrations of ferrous metals. In addition, factor 3 scores high negative values for lake samples that have low concentrations of Mg, Al, Ca, and Na, an assemblage characteristic of intermediate to mafic composition rocks.

The results of the factor analysis and locations for all samples that contain >8 ppm uranium are both represented in Fig. 12. High uranium concentrations and factor scores are both highly successful in defining the Bokan Mountain deposit (Table VI) and one of the two minor uranium occurrences in the Dixon Entrance area. There are three areas where at least two factor

a. All sediments, all treatments.

b. All -100 mesh sediments
 (excluding stream bank sediments).

c. Wet natural pond sediments (-100 mesh only).

d. Wet stream sediments (-100 mesh only).

Fig. 10. Histograms and statistical data for uranium concentrations in sediment samples from the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska.

a. All sediments, all treatments

b. All -100 mesh sediments
(excluding stream bank sediments).

c. Wet natural pond sediments (-100 mesh only).

d. Wet stream sediments (-100 mesh only).

Fig. 11. Histograms and statistical data for thorium concentrations in sediment samples from the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska.

TABLE V

MATRIX FOR FACTORS ASSOCIATED WITH BOKAN MOUNTAIN
FOR SEDIMENT SAMPLES FROM THE DIXON ENTRANCE
AND PRINCE RUPERT D-6 QUADRANGLES, ALASKA

<u>Element</u>	<u>STREAMS</u>		<u>LAKES</u>		
	<u>Factor 1</u>	<u>Factor 3</u>	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>
U	.51	-.56	.20	.73	-.12
Th	.74	-.38	.41	.72	-.04
Ce	.91	-.19	.31	.91	.11
La	.75	-.32	.29	.73	.01
Hf	.54	-.47	.82	.29	.01
Sm	.92	.12	.53	.71	.24
Lu	.66	-.10	.79	.34	.07
Eu	.78	.23	.41	.66	.31
Dy	.43	.07	.67	.40	.04
Yb	.56	.07	.72	.33	-.09
Li	.16	.24	.63	.38	.11
Be	.61	-.32	.54	.36	-.37
Cs	-.01	.04	.17	.17	.22
K	.17	-.12	.35	.14	.06
Na	.09	.02	.75	.25	.46
Ca	-.11	.11	-.14	-.15	.46
Ba	.13	-.15	.09	.15	.11
Al	.08	-.05	.52	.40	.59
Mg	-.12	.16	.34	.02	.66
Fe	.03	.74	.20	.17	.27
Mn	.02	.23	.10	.25	.09
Sc	-.17	.80	.12	-.07	.91
Ti	.05	.02	.18	-.14	.47
V	-.01	.17	-.08	.07	.82
Cu	.11	.21	.00	.01	.08
Pb	.09	-.17	.29	.32	-.30
Zn	.05	.05	.23	.28	.11
Co	-.10	.51	-.27	.27	.49
Cr	-.12	.52	.07	.25	.57

Fig. 12. Location of sediment samples containing >8 ppm uranium in the Dixon Entrance and Prince Rupert D-6 quadrangles, Alaska.

scores are similar to those at Bokan Mountain; all three are also associated with locations where uranium values are >8 ppm (Fig. 12). These three areas include Stone Rock Bay (locations A88920 and A89045), Forrester Island (locations A89057 and A89060), and Kassa Peninsula (location A88981). Uranium mineralization is known at Stone Rock Bay (Fig. 3), and a major structural discontinuity occurs very close to location A88981 on Kassa peninsula (Fig. 2). Sediment samples associated with the quartz diorite on Forrester Island are geochemically distinct from those associated with an identically mapped unit (Mzg) on the southwestern end of Dall Island (Fig. 2).

VII. SUMMARY AND CONCLUSIONS

Water and sediment samples were collected from 203 locations throughout the 1300 km² land area of the Dixon Entrance and Prince Rupert D-6 quadrangles during August 1978. Both a filtered and unfiltered water sample were collected from each of 202 lake or stream locations; all samples were acidified and analyzed at LASL for uranium. Sediment samples were collected primarily from lakes and stream centers; additional samples were collected at some stream locations from the nearby stream bank. All sediment samples were split into five fractions that were sieved through screens of either 40, 80, 100, 170, or 230 mesh. The additional samples and sieve fractions were collected to determine if more readily available samples or sieve fractions could be substituted for the -100-mesh fraction of stream center sediments when such standard LASL samples could not be obtained. The sediment passing these sieves was analyzed at LASL for uranium, thorium, and 41 additional elements.

Uranium concentrations in all 404 water samples range from below the detection limit of 0.02 to 0.56 ppb with a median value of 0.02 ppb. Due to

TABLE VI

FACTOR SCORES FOR SEDIMENT SAMPLES CONTAINING >8 PPM URANIUM
FROM THE DIXON ENTRANCE AND PRINCE RUPERT D-6 QUADRANGLES, ALASKA

Sample Number	Sample Source	Uranium (ppm)	Geologic Unit Upstream ^a	Factor Scores			Associated Elements ^b
				Factor 1	Factor 2	Factor 3	
*A88901	Lake	9.10	Dbm, Oqm	1.91	0.79	-1.78	Be, Hf, K, Li, Pb, REE, Th
*A88902	Lake	2.90	Oqm, Dbm	0.44	0.58	-1.49	Nb, Th, Zn
*A88903	Lake	14.10	Dbm	4.09	0.90	-4.20	Be, Hf, K, Li, Na, Pb, Rb, REE, Sn, Ta, Th, Zn
*A88904	Lake	17.80	Dbm	3.45	2.35	-3.27	Be, Hf, K, Li, Na, Nb, Pb, REE, Ta, Th
A88920	Lake	15.60	Og	0.52	1.24	-0.26	Ba, Be, Co, Cu, Mn, Pb, light REE, Th
A88923	Lake	15.00	SO	0.06	0.16	-0.17	Co
A88981	Lake	14.05	Ocpf, D	0.20	2.56	0.90	Au, Ba, Be, Ca, Cr, Na, REE, Sr, Th
A89000	Lake	11.52	Og	-1.96	2.57	-0.08	Pb, light REE, Th
A89005	Stream	10.40	SO	-0.08		-1.30	Ba, Cs, K, Rb, Sb, V, Zn
*A89007	Stream	18.80	Oqm, Dbm, Osl	3.39		-1.60	Cl, Hf, K, Li, Rb, REE, Sn, Th
*A89008	Stream	8.10	Ov, Oqm, Osl, Dbm	-0.01		-0.91	none
*A89015	Stream	11.30	Oqm, Dbm	1.08		0.21	Cd, Co, Mn
A89017	Stream	12.80	Oqd, Oqm	-0.42		-0.62	Sn
A89045	Stream	8.97	Oqm, Og	1.14		0.10	Be, Cl, Co, Cr, Cu, Mn, Pb, light REE, Th, V, Zn
A89057	Stream	12.15	KJqd	1.54		-2.96	Be, Co, Hf, Mn, light REE, Th, Zn
A89060	Dry stream	12.10	KJqd, SO				Cl, Th

^a Symbols defined in Plate I.

^b Concentration at least twice mean concentration listed for appropriate sample source in Table IV.

* Complete set of sample locations downstream from Bokan Mountain (includes sample which contains <8 ppm uranium).

the low uranium concentrations, no discussion of results for water samples is included.

Five splits were made of each sediment sample during processing at LASL; samples of -40, -80, -100, -170, and -230 mesh were obtained from these splits. The -80 mesh fraction is the standard sieve fraction utilized by the USGS for stream sediment reconnaissance whereas the -100 mesh fraction is employed by DOE laboratories for the HSSR. Generally, no appreciable difference among sieve fractions was found for a wide range of concentrations of all 43 elements reported herein. Therefore, the choice of a wide range of sieve fractions has little effect on the estimates for elemental concentrations associated with a specific location. Because -40 mesh fractions were obtained from 99.5% of the locations sampled, -100 mesh fractions from 86%, and -230 mesh fractions from only 59%, for geochemical surveys, it would be advantageous to split a sediment sample into halves. One half should be sieved through the desired standard size screen and the other half sieved through a screen of approximately 40 mesh if enough material of the desired finer sieve size cannot be obtained. Because systematically higher concentrations occur for groups of geochemically related elements (such as U, Hf, REE) in the finer sieve fractions of a few samples, the substitution of coarser sieve fractions may not provide comparable geochemical data in all cases. However, in the majority of cases, such substitution will provide an accurate geochemical characterization for a location that would otherwise not be available.

Many elements, particularly the ferrous elements (especially manganese), are highly enriched in stream sediments compared to both lake sediments and to crustal abundances. Due to the similarity of concentrations for the mobile cations lithium, sodium, and magnesium in stream sediments compared to crustal abundances, and the depletion of these elements in lake sediments, the stream sediments may be mineralogically similar to bedrock, whereas the lake sediments are similar to soil. Due to extreme relief and high runoff rates throughout southeastern Alaska, stream sediments might not develop a mineralogical composition characteristic of mature soil that lake sediments could develop.

In addition to samples collected from stream centers following the standard LASL procedure (Sharp and Aamodt, 1978), 24 waterborne sediment samples were collected from the nearby bank. These samples were processed identically to those collected from the stream centers. Except for chlorine, concentrations for all elements are very similar in the stream center compared to the stream bank sediment. The general enrichment of chlorine in bank sediments could be due to concentration of halogens in vegetation in the stream bank. Therefore, in cases where a stream center sediment cannot be obtained, a sediment collected from the bank would be essentially equivalent. However, there are several locations where the concentrations of the ferrous elements, notably manganese, are distinctly different between stream center and bank. Howarth and Lowenstein (1971) have shown for localities in England and Wales that chemical variation between stream samples collected a few meters apart exceeds the analytical error only where mineralization occurs. Considering the striking general enrichment of several ferrous elements, particularly manganese and cobalt, in stream sediment samples compared to their crustal abundances, the Dixon Entrance quadrangle seems to have considerable potential for economic mineralization of several strategically important ferrous elements.

Uranium concentrations in all 950 sediment samples range from 0.54 to 22.80 ppm, with a median value of 2.70 ppm. Although median uranium concentrations in lake and in stream sediments are similar, mean values for many elements are quite different for these sample sources, and consequently the

sample sources are treated separately during factor analysis. Factor analysis and a simple consideration of high uranium concentrations are both highly successful in defining the Bokan Mountain uranium deposit and both indicate the possibility of similar mineralization in three additional areas. These areas are Stone Rock Bay, where uranium mineralization is known, Kassa Peninsula, where a major structural discontinuity occurs, and Forrester Island, where plutonic rocks of poorly known age and composition are exposed; all should be further examined for the presence of uranium mineralization. The similarity of results based on factor analysis versus high uranium concentrations for this area suggests that in this area of southeastern Alaska, uranium is the most cost-effective indicator of its own deposits. This conclusion agrees with the opinions of workers engaged in previous regional geochemical surveys (Boyle, 1974; Sharp and Hill, 1978).

In summary, the following conclusions result from this study:

1. All elemental concentrations are generally identical for sediment sample locations among sieve fractions of -40, -80, -100, -170, and -230 mesh. The correspondence is poorest for elements with the poorest analytical sensitivities. Some elemental concentrations systematically increase with finer sieve fraction in a few samples.

2. All elemental concentrations, except chlorine, are generally identical for samples collected from either a stream center or its corresponding bank. Concentrations differ notably in a few samples only for the ferrous metals, particularly manganese and cobalt.

3. Considering the above conclusions and the expense required for sample collection, sediment samples should be collected from stream banks if center sediment is not obtainable, and a coarse sieve fraction analyzed if finer material is not available. Such deviations from standard collection and processing procedures should be identified for each sample.

4. Concentrations for the ferrous elements, notably manganese and cobalt, are highly enriched in stream sediments of the Dixon Entrance area when compared to lake sediments or crustal abundances. Because stream sediments are not depleted in mobile elements such as sodium, lithium, and magnesium, they are geochemically similar to bedrock, whereas lake sediments are depleted in these elements and geochemically similar to soil. Striking enrichments of manganese and cobalt in stream sediment samples indicate that the Dixon Entrance area might be a favorable location for economic deposits of these elements.

5. The use of the sophisticated technique of factor analysis is no more successful in defining the Bokan Mountain uranium deposit than a simple consideration of high uranium concentrations. Both methods define three areas where sediment samples exhibit similar geochemistry. For deposits similar to Bokan Mountain, uranium is the best and most cost-effective indicator of its own deposits in southeastern Alaska.

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APPENDIX I

LISTINGS OF FIELD DATA AND ELEMENTAL CONCENTRATIONS FOR SAMPLES
FROM THE DIXON ENTRANCE NTMS AND PRINCE RUPERT D-6 QUADRANGLES, ALASKA

APPENDIX I-A

Listings of Field Data and Uranium Concentrations for Water Samples
from the Dixon Entrance and Prince Rupert D-6 Quadrangles, Alaska
(Pages 30 through 37)

(See Appendix II for Code to Listings)

APPENDIX I-A. Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION					
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (nCi/gm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	WATER SAMPLES ANALYZED BY FLUOROMETRY (* IF NOT BY STANDARD PROCEDURE) UNITS IN ppb
							DATE	HOUR																							
02-54.9022-131.9928-2-09-						0-AR6501-08/23/78-	9-		12-16.3-	-5-	5.6-	47-		-3-7-5-6-	-3-1-	-1-3-5-2-	-1-													9.1-	.C7
02-54.9022-131.9928-2-29-						0-AR6501-08/23/78-	9-		12-16.3-	-5-	5.6-	47-		-3-7-5-6-	-3-1-	-1-3-5-2-	-1-													9.1-	.13
02-54.9675-131.9856-2-07-						0-AR6502-08/22/78-17-			17-11.1-	-5-	7.1-	40-		9-2-7-1-7-3-2-1-2-1-4-4-2-	-1-															7.7-	.01
02-54.9675-131.9856-2-27-						0-AR6502-08/22/78-17-			17-11.1-	-5-	7.1-	40-		9-2-7-1-7-3-2-1-2-1-4-4-2-	-1-															7.7-	.C1
02-54.9481-131.9789-2-07-						0-AR6503-08/23/78-	9-		17-10.8-	-5-	4.8-	150-		6-3-1-2-3-3-3-1-2-1-5-5-2-	-1-															9.8-	.01
02-54.9481-131.9789-2-27-						0-AR6503-08/23/78-	9-		17-10.8-	-5-	4.8-	150-		6-3-1-2-3-3-3-1-2-1-5-5-2-	-1-															9.8-	.C4
02-54.9272-131.9875-2-07-						0-AR6504-08/23/78-10-			18-10.5-	-C-5-	7.0-	69-		22-3-1-2-6-3-3-1-2-1-5-4-2-	-1-															10.0-	.17
02-54.9272-131.9875-2-27-						0-AR6504-08/23/78-10-			18-10.5-	-C-5-	7.0-	69-		22-3-1-2-6-3-3-1-2-1-5-4-2-	-1-															10.0-	.3C
02-54.8319-131.9972-2-07-						0-AR6505-08/23/78-10-			17-10.2-	-C-5-	6.0-	77-		13-3-1-2-6-4-3-1-2-1-5-5-2-	-1-															10.0-	.C1
02-54.8319-131.9972-2-27-						0-AR6505-08/23/78-10-			17-10.2-	-C-5-	6.0-	77-		13-3-1-2-6-4-3-1-2-1-5-5-2-	-1-															10.0-	.03
02-54.7997-131.9972-2-07-						0-AR6506-08/23/78-11-			20-10.6-	-C-5-	6.1-	132-		13-3-1-1-6-4-3-1-2-1-5-5-2-	-1-															P.4-	.C1
02-54.7997-131.9972-2-27-						0-AR6506-08/23/78-11-			20-10.6-	-C-5-	6.1-	132-		13-3-1-1-6-4-3-1-2-1-5-5-2-	-1-															P.4-	.03
02-54.8800-131.9733-2-07-						0-AR6507-08/22/78-21-			10-14.6-	-C-5-	6.6-	69-		6-3-7-1-7-4-2-1-2-2-4-4-2-	-1-															8.4-	.18
02-54.8800-131.9733-2-27-						0-AR6507-08/22/78-21-			10-14.6-	-C-5-	6.6-	69-		6-3-7-1-7-4-2-1-2-2-4-4-2-	-1-															8.4-	.14
02-54.9364-132.1469-2-09-						0-AR6508-08/23/78-	8-		11-13.6-	-5-	6.5-	20-		-3-7-5-6-	-3-1-	-1-4-5-2-	-1-													P.5-	.14
02-54.9364-132.1469-2-29-						0-AR6508-08/23/78-	8-		11-13.6-	-5-	6.5-	20-		-3-7-5-6-	-3-1-	-1-4-5-2-	-1-													8.5-	.16
02-54.9350-132.1744-2-09-						0-AR6502-08/23/78-	8-		11-14.5-	-5-	5.5-	13-		-3-7-5-6-	-3-1-	-1-2-5-2-	-1-													8.4-	.C4
02-54.9350-132.1744-2-29-						0-AR6502-08/23/78-	8-		11-14.5-	-5-	5.5-	13-		-3-7-5-6-	-3-1-	-1-2-5-2-	-1-													8.4-	.C3
02-54.9228-132.1756-2-09-						0-AR6503-08/23/78-	8-		11-11.1-	-C-5-	6.2-	12-		-3-7-4-6-	-3-1-	-1-5-2-	-1-													9.0-	.14
02-54.9228-132.1756-2-29-						0-AR6503-08/23/78-	8-		11-11.1-	-C-5-	6.2-	12-		-3-7-4-6-	-3-1-	-1-5-2-	-1-													9.0-	.31
02-54.9228-132.1628-2-09-						0-AR6504-08/23/78-	8-		11-13.3-	-5-	5.4-	10-		-3-7-5-6-	-3-1-	-1-5-2-	-1-													9.5-	.C7
02-54.9228-132.1628-2-29-						0-AR6504-08/23/78-	8-		11-13.3-	-5-	5.4-	10-		-3-7-5-6-	-3-1-	-1-5-2-	-1-													9.5-	.10
02-54.9492-132.0956-2-09-						0-AR6505-08/23/78-	9-		11-16.0-	-5-	5.6-	31-		-4- -4-6-	-3-1-	-1-5-4-2-	-1-													8.6-	.02
02-54.9492-132.0956-2-29-						0-AR6505-08/23/78-	9-		11-16.0-	-5-	5.6-	31-		-4- -4-6-	-3-1-	-1-5-4-2-	-1-													8.6-	.C2
02-54.9408-132.0664-2-09-						0-AR6506-08/23/78-	9-		11-15.1-	-5-	6.8-	32-		-2-7-4-6-	-3-1-	-1-4-4-2-	-1-													9.2-	.C3
02-54.9408-132.0664-2-29-						0-AR6506-08/23/78-	9-		11-15.1-	-5-	6.8-	32-		-2-7-4-6-	-3-1-	-1-4-4-2-	-1-													9.2-	.01
02-54.9556-132.0164-2-09-						0-AR6507-08/23/78-	9-		12-13.2-	-5-	4.7-	33-		-2-7-5-6-	-3-1-	-1-4-4-2-	-1-													8.2-	.C1
02-54.9556-132.0164-2-29-						0-AR6507-08/23/78-	9-		12-13.2-	-5-	4.7-	33-		-2-7-5-6-	-3-1-	-1-4-4-2-	-1-													8.2-	.02
02-54.9150-132.0561-2-09-						0-AR6508-08/23/78-	9-		12-15.5-	-5-	5.6-	31-		-3-7-4-6-	-3-1-	-1-3-5-2-	-1-													9.0-	.05
02-54.9150-132.0561-2-29-						0-AR6508-08/23/78-	9-		12-15.5-	-5-	5.6-	31-		-3-7-4-6-	-3-1-	-1-3-5-2-	-1-													9.0-	.C3
02-54.8681-132.1086-2-09-						0-AR6509-08/23/78-	9-		12-14.9-	-5-	5.7-	24-		-3-7-4-6-	-3-1-	-1-4-4-2-	-1-													9.1-	.02
02-54.8681-132.1086-2-29-						0-AR6509-08/23/78-	9-		12-14.9-	-5-	5.7-	24-		-3-7-4-6-	-3-1-	-1-4-4-2-	-1-													9.1-	.C1
02-54.8611-132.1022-2-09-						0-AR6510-08/23/78-	9-		12-14.9-	-5-	5.9-	25-		-3-7-4-6-	-3-1-	-1-4-5-2-	-1-													9.2-	.03
02-54.8611-132.1022-2-29-						0-AR6510-08/23/78-	9-		12-14.9-	-5-	5.9-	25-		-3-7-4-6-	-3-1-	-1-4-5-2-	-1-													9.2-	.01
02-54.8361-132.1722-2-09-						0-AR6511-08/23/78-	9-		12-15.7-	-5-	5.8-	26-		-4- -5-6-	-3-1-	-1-3-3-2-	-1-													7.8-	.01
02-54.8361-132.1722-2-29-						0-AR6511-08/23/78-	9-		12-15.7-	-5-	5.8-	26-		-4- -5-6-	-3-1-	-1-3-3-2-	-1-													7.8-	.C5
02-54.8247-132.1669-2-09-						0-AR6512-08/23/78-10-			13-15.8-	-5-	5.6-	30-		-4- -4-6-	-3-1-	-1-4-4-2-	-1-													8.1-	.02
02-54.8247-132.1669-2-29-						0-AR6512-08/23/78-10-			13-15.8-	-5-	5.6-	30-		-4- -4-6-	-3-1-	-1-4-4-2-	-1-													8.1-	.C1
02-54.8067-132.1425-2-09-						0-AR6513-08/23/78-10-			13-15.7-	-5-	5.8-	26-		-4- -5-6-	-3-1-	-1-5-3-2-	-1-													8.2-	.C5
02-54.8067-132.1425-2-29-						0-AR6513-08/23/78-10-			13-15.7-	-5-	5.8-	26-		-4- -5-6-	-3-1-	-1-5-3-2-	-1-													8.2-	.26*
02-54.8200-132.0981-2-09-						0-AR6514-08/23/78-10-			13-13.1-	-5-	6.0-	31-		-3-7-4-6-	-3-1-	-1-5-4-1-	-1-													8.0-	.C4
02-54.8200-132.0981-2-29-						0-AR6514-08/23/78-10-			13-13.1-	-5-	6.0-	31-		-3-7-4-6-	-3-1-	-1-5-4-1-	-1-													8.0-	.04
02-54.8278-132.0494-2-09-						0-AR6515-08/23/78-10-			13-11.2-	-5-	6.5-	20-		-2-7-4-6-	-3-1-	-1-4-5-1-	-1-													9.5-	.C2
02-54.8278-132.0494-2-29-						0-AR6515-08/23/78-10-			13-11.2-	-5-	6.5-	20-		-2-7-4-6-	-3-1-	-1-4-5-1-	-1-													9.5-	.03
02-54.8081-132.0864-2-09-						0-AR6516-08/23/78-10-			14-11.1-	-5-	6.6-	31-		-2-8-4-6-	-3-1-	-1-4-4-1-	-1-													9.5-	.22
02-54.8081-132.0864-2-29-						0-AR6516-08/23/78-10-			14-11.1-	-5-	6.6-	31-		-2-8-4-6-	-3-1-	-1-4-4-1-	-1-													9.5-	.01
02-54.7956-132.1100-2-09-						0-AR6517-08/23/78-10-			15-13.1-	-5-	6.7-	32-		-4- -5-6-	-3-1-	-1-2-4-1-	-1-													9.2-	.03
02-54.7956-132.1100-2-29-						0-AR6517-08/23/78-10-			15-13.1-	-5-	6.7-	32-		-4- -5-6-	-3-1-	-1-2-4-1-	-1-													9.2-	.01
02-54.7708-132.0669-2-09-						0-AR6518-08/23/78-10-			15-15.3-	-5-	6.0-	31-		-4- -3-6-	-3-1-	-1-5-4-1-	-1-													8.6-	.C5
02-54.7708-132.0669-2-29-						0-AR6518-08/23/78-10-			15-15.3-																						

APPENDIX I-A. (continued). Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION					
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILOMETER (eU ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	WATER SAMPLES ANALYZED BY FLUOROMETRY (• IF NOT BY STANDARD PROCEDURE) UNITS IN ppb
							DATE	HOUR																							
02-54.7742-132.0392-2-29-	0-ARR019-08/23/78-10-	15-15.5-	-S-	5.9-	31-	-4-	-5-6-	-3-1-	-1-5-4-1-	-1-	8.9-	.C1																			
02-54.7544-132.0589-2-09-	0-ARR020-08/23/78-10-	15-15.7-	-S-	6.0-	31-	-3-7-5-6-	-3-1-	-1-5-4-1-	-1-	9.0-	.C9																				
02-54.7544-132.0589-2-29-	0-ARR020-08/23/78-10-	15-15.7-	-S-	6.0-	31-	-3-7-5-6-	-3-1-	-1-5-4-1-	-1-	9.0-	.C1																				
02-54.7333-132.0603-2-09-	0-ARR021-08/23/78-10-	15-14.9-	-S-	6.1-	31-	-3-7-4-6-	-3-1-	-1-4-4-1-	-1-	8.7-	.09																				
02-54.7333-132.0603-2-29-	0-ARR021-08/23/78-10-	15-14.9-	-S-	6.1-	31-	-3-7-4-6-	-3-1-	-1-4-4-1-	-1-	8.7-	.C2																				
02-54.7042-132.1294-2-09-	0-ARR022-08/23/78-10-	14-13.9-	-S-	5.4-	44-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	7.8-	.C1																				
02-54.7042-132.1294-2-29-	0-ARR022-08/23/78-10-	14-13.9-	-S-	5.4-	44-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	7.8-	.03																				
02-54.7211-132.1600-2-09-	0-ARR023-08/23/78-10-	14-14.2-	-S-	6.2-	45-	-2-7-4-6-	-3-1-	-1-4-4-2-	-1-	8.7-	.09																				
02-54.7211-132.1600-2-29-	0-ARR023-08/23/78-10-	14-14.2-	-S-	6.2-	45-	-2-7-4-6-	-3-1-	-1-4-4-2-	-1-	8.7-	.C7																				
02-54.7361-132.2000-2-09-	0-ARR024-08/23/78-10-	14-15.5-	-S-	5.6-	61-	-2-7-4-6-	-3-1-	-1-4-4-2-	-1-	9.0-	.03																				
02-54.7361-132.2000-2-29-	0-ARR024-08/23/78-10-	14-15.5-	-S-	5.6-	61-	-2-7-4-6-	-3-1-	-1-4-4-2-	-1-	9.0-	.C5																				
02-54.7428-132.2164-2-09-	0-ARR025-08/23/78-11-	14-16.7-	-S-	5.9-	41-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.3-	.03																				
02-54.7428-132.2164-2-29-	0-ARR025-08/23/78-11-	14-16.7-	-S-	5.9-	41-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.3-	.03																				
02-54.7528-132.2181-2-09-	0-ARR026-08/23/78-11-	15-17.4-	-S-	6.6-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.6-	.C1																				
02-54.7528-132.2181-2-29-	0-ARR026-08/23/78-11-	15-17.4-	-S-	6.6-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.6-	.C1																				
02-54.7694-132.2031-2-09-	0-ARR027-08/23/78-11-	16-17.2-	-S-	6.6-	33-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	9.0-	.10																				
02-54.7694-132.2031-2-29-	0-ARR027-08/23/78-11-	16-17.2-	-S-	6.6-	33-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	9.0-	.11																				
02-54.7672-132.1789-2-09-	0-ARR028-08/23/78-11-	16-16.3-	-S-	6.0-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	7.5-	.C1																				
02-54.7672-132.1789-2-29-	0-ARR028-08/23/78-11-	16-16.3-	-S-	6.0-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	7.5-	.C1																				
02-54.7603-132.1553-2-09-	0-ARR029-08/23/78-11-	16-16.6-	-S-	6.5-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.1-	.C1																				
02-54.7603-132.1553-2-29-	0-ARR029-08/23/78-11-	16-16.6-	-S-	6.5-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.1-	.C8																				
02-54.8922-132.1717-2-09-	0-ARR030-08/23/78-12-	14-13.5-C-S-	4.6-	19-	-2-7-6-6-	-3-2-	-1-4-4-2-	-1-	9.1-	.C1																					
02-54.8922-132.1717-2-29-	0-ARR030-08/23/78-12-	14-13.5-C-S-	4.6-	19-	-2-7-6-6-	-3-2-	-1-4-4-2-	-1-	9.1-	.01																					
02-54.8808-132.1583-2-09-	0-ARR031-08/23/78-12-	14-15.5-	-S-	5.7-	25-	-2-7-6-6-	-3-1-	-1-5-4-2-	-1-	8.9-	.22																				
02-54.8808-132.1583-2-29-	0-ARR031-08/23/78-12-	14-15.5-	-S-	5.7-	25-	-2-7-6-6-	-3-1-	-1-5-4-2-	-1-	8.9-	.08																				
02-54.8686-132.1439-2-09-	0-ARR032-08/23/78-12-	14-16.2-C-S-	6.0-	40-	-4-	-6-6-	-2-3-	-1-4-3-2-	-1-	5.1-	.C1																				
02-54.8686-132.1439-2-29-	0-ARR032-08/23/78-12-	14-16.2-C-S-	6.0-	40-	-4-	-6-6-	-2-3-	-1-4-3-2-	-1-	5.1-	.C3																				
02-54.8653-132.1908-2-09-	0-ARR033-08/23/78-12-	14-13.3-	-S-	6.2-	30-	-4-	-5-6-	-3-1-	-1-4-3-2-	-1-	9.2-	.22																			
02-54.8653-132.1908-2-29-	0-ARR033-08/23/78-12-	14-13.3-	-S-	6.2-	30-	-4-	-5-6-	-3-1-	-1-4-3-2-	-1-	9.2-	.C6																			
02-54.8589-132.2467-2-09-	0-ARR034-08/23/78-12-	17-16.6-	-S-	6.6-	39-	-4-	-6-6-	-3-1-	-1-4-4-2-	-1-	8.2-	.C4																			
02-54.8589-132.2467-2-29-	0-ARR034-08/23/78-12-	17-16.6-	-S-	6.6-	39-	-4-	-6-6-	-3-1-	-1-4-4-2-	-1-	8.2-	.C1																			
02-54.8364-132.2344-2-09-	0-ARR035-08/23/78-12-	17-16.1-	-S-	6.4-	32-	-4-	-5-6-	-3-1-	-1-4-2-2-	-1-	8.6-	.C2																			
02-54.8364-132.2344-2-29-	0-ARR035-08/23/78-12-	17-16.1-	-S-	6.4-	32-	-4-	-5-6-	-3-1-	-1-4-2-2-	-1-	8.6-	.C1																			
02-54.8347-132.2167-2-09-	0-ARR036-08/23/78-12-	17-15.6-	-S-	6.1-	30-	-4-	-6-6-	-3-1-	-1-4-3-2-	-1-	9.7-	.C1																			
02-54.8347-132.2167-2-29-	0-ARR036-08/23/78-12-	17-15.6-	-S-	6.1-	30-	-4-	-6-6-	-3-1-	-1-4-3-2-	-1-	9.7-	.C1																			
02-54.8072-132.2192-2-09-	0-ARR037-08/23/78-12-	17-17.7-	-S-	6.3-	28-	-4-	-6-6-	-3-1-	-1-3-4-2-	-1-	8.9-	.01																			
02-54.8072-132.2192-2-29-	0-ARR037-08/23/78-12-	17-17.7-	-S-	6.3-	28-	-4-	-6-6-	-3-1-	-1-3-4-2-	-1-	8.9-	.C3																			
02-54.7942-132.2139-2-09-	0-ARR038-08/23/78-12-	17-17.2-	-S-	6.3-	26-	-4-	-6-6-	-3-1-	-1-3-3-2-	-1-	9.2-	.01																			
02-54.7942-132.2139-2-29-	0-ARR038-08/23/78-12-	17-17.2-	-S-	6.3-	26-	-4-	-6-6-	-3-1-	-1-3-3-2-	-1-	9.2-	.03																			
02-54.7881-132.1642-2-09-	0-ARR039-08/23/78-13-	18-16.9-	-S-	5.7-	28-	-4-	-5-6-	-3-1-	-1-5-4-2-	-1-	8.4-	.C1																			
02-54.7881-132.1642-2-29-	0-ARR039-08/23/78-13-	18-16.9-	-S-	5.7-	28-	-4-	-5-6-	-3-1-	-1-5-4-2-	-1-	8.4-	.C1																			
02-54.7231-132.2903-2-09-	0-ARR040-08/23/78-13-	18-17.9-	-S-	6.4-	63-	-4-	-6-6-	-3-1-	-1-4-4-2-	-1-	8.0-	.C1																			
02-54.7231-132.2903-2-29-	0-ARR040-08/23/78-13-	18-17.9-	-S-	6.4-	63-	-4-	-6-6-	-3-1-	-1-4-4-2-	-1-	8.0-	.01																			
02-54.7408-132.2933-2-09-	0-ARR041-08/23/78-13-	18-18.1-	-S-	7.1-	38-	-4-	-6-6-	-3-1-	-1-5-4-2-	-1-	9.5-	.C3																			
02-54.7408-132.2933-2-29-	0-ARR041-08/23/78-13-	18-18.1-	-S-	7.1-	38-	-4-	-6-6-	-3-1-	-1-5-4-2-	-1-	9.5-	.C5																			
02-54.6814-132.7069-2-09-	0-ARR042-08/23/78-13-	16-15.7-C-S-	4.7-	40-	-4-	-6-6-	-3-1-	-1-4-4-2-	-1-	6.8-	.C1																				
02-54.6814-132.7069-2-29-	0-ARR042-08/23/78-13-	16-15.7-C-S-	4.7-	40-	-4-	-6-6-	-3-1-	-1-4-4-2-	-1-	6.8-	.06																				
02-54.7339-132.7631-2-09-	0-ARR043-08/23/78-13-	14-14.3-	-S-	6.1-	25-	-4-	-6-6-	-3-2-	-1-4-4-2-	-1-	8.3-	.C2																			
02-54.7339-132.7631-2-29-	0-ARR043-08/23/78-13-	14-14.3-	-S-	6.1-	25-	-4-	-6-6-	-3-2-	-1-4-4-2-	-1-	8.3-	.C7																			
02-54.7733-132.7594-2-09-	0-ARR044-08/23/78-14-	16-17.2-	-S-	6.7-	32-	-2-7-5-6-	-3-1-	-1-3-4-2-	-1-	8.7-	.01																				
02-54.7733-132.7594-2-29-	0-ARR044-08/23/78-14-	16-17.2-	-S-	6.7-	32-	-2-7-5-6-	-3-1-	-1-3-4-2-	-1-	8.7-	.C9																				

APPENDIX I-A. (continued). Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																							U CONCENTRATION		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (µmho/cm)	SCINTILLOMETER (cU ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	WATER SAMPLES ANALYZED BY FLUOROMETRY (* IF NOT BY STANDARD PROCEDURE) UNITS IN ppb
							DATE	HOUR																							
02-54.8158-132.6656-2-09-	02-54.8158-132.6656-2-09-	02-54.8158-132.6656-2-09-	0-888945-0P/23/78-14-	16-13.4-	-S-	5.2-	26-	-4-	-5-6-	-3-2-	-1-3-3-2-	-1-	9.4-	.01																	
02-54.8158-132.6656-2-09-	02-54.8158-132.6656-2-09-	02-54.8158-132.6656-2-09-	0-888946-0P/23/78-14-	16-13.4-	-S-	5.2-	26-	-4-	-5-6-	-3-2-	-1-3-3-2-	-1-	9.4-	.03																	
02-54.8344-132.7236-2-09-	02-54.8344-132.7236-2-09-	02-54.8344-132.7236-2-09-	0-888946-0P/23/78-15-	16-17.4-	-S-	6.3-	168-	-4-	-5-6-	-3-2-	-1-4-3-2-	-1-	8.5-	.01																	
02-54.8344-132.7236-2-09-	02-54.8344-132.7236-2-09-	02-54.8344-132.7236-2-09-	0-888946-0P/23/78-15-	16-17.4-	-S-	6.3-	168-	-4-	-5-6-	-3-2-	-1-4-3-2-	-1-	8.5-	.05																	
02-54.8597-132.6853-2-09-	02-54.8597-132.6853-2-09-	02-54.8597-132.6853-2-09-	0-888947-0P/23/78-15-	18-14.7-	-S-	7.5-	186-	-4-	-5-6-	-3-1-	-1-4-3-2-	-1-	9.1-	.02																	
02-54.8597-132.6853-2-09-	02-54.8597-132.6853-2-09-	02-54.8597-132.6853-2-09-	0-888947-0P/23/78-15-	18-14.7-	-S-	7.5-	186-	-4-	-5-6-	-3-1-	-1-4-3-2-	-1-	9.1-	.14																	
02-54.8828-132.6986-2-09-	02-54.8828-132.6986-2-09-	02-54.8828-132.6986-2-09-	0-888948-0P/23/78-15-	18-17.4-	-S-	7.7-	198-	-4-	-5-6-	-3-2-	-1-5-3-2-	-1-	8.4-	.03																	
02-54.8828-132.6986-2-09-	02-54.8828-132.6986-2-09-	02-54.8828-132.6986-2-09-	0-888948-0P/23/78-15-	18-17.4-	-S-	7.7-	198-	-4-	-5-6-	-3-2-	-1-5-3-2-	-1-	8.4-	.05																	
02-54.8972-132.7072-2-09-	02-54.8972-132.7072-2-09-	02-54.8972-132.7072-2-09-	0-888949-0P/23/78-15-	19-16.9-	-S-	7.5-	96-	-4-	-5-6-	-2-2-	-1-4-3-2-	-1-	6.8-	.03																	
02-54.8972-132.7072-2-09-	02-54.8972-132.7072-2-09-	02-54.8972-132.7072-2-09-	0-888949-0P/23/78-15-	19-16.9-	-S-	7.5-	96-	-4-	-5-6-	-2-2-	-1-4-3-2-	-1-	6.8-	.34																	
02-54.9097-132.7533-2-09-	02-54.9097-132.7533-2-09-	02-54.9097-132.7533-2-09-	0-888950-0P/23/78-15-	18-15.9-	-S-	5.5-	22-	-4-	-5-6-	-3-2-	-1-4-4-2-	-1-	8.2-	.01																	
02-54.9097-132.7533-2-09-	02-54.9097-132.7533-2-09-	02-54.9097-132.7533-2-09-	0-888950-0P/23/78-15-	18-15.9-	-S-	5.5-	22-	-4-	-5-6-	-3-2-	-1-4-4-2-	-1-	8.2-	.04																	
02-54.8892-132.7492-2-09-	02-54.8892-132.7492-2-09-	02-54.8892-132.7492-2-09-	0-888951-0P/23/78-18-	18-12.6-	-S-	6.7-	230-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	1.3-	.01																	
02-54.8892-132.7492-2-09-	02-54.8892-132.7492-2-09-	02-54.8892-132.7492-2-09-	0-888951-0P/23/78-18-	18-12.6-	-S-	6.7-	230-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	1.3-	.05																	
02-54.7581-132.8078-2-09-	02-54.7581-132.8078-2-09-	02-54.7581-132.8078-2-09-	0-888952-0P/23/78-18-	18-15.2-	-S-	7.6-	27-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.5-	.01																		
02-54.7581-132.8078-2-09-	02-54.7581-132.8078-2-09-	02-54.7581-132.8078-2-09-	0-888952-0P/23/78-18-	18-15.2-	-S-	7.6-	27-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.5-	.10																		
02-54.7719-132.8425-2-09-	02-54.7719-132.8425-2-09-	02-54.7719-132.8425-2-09-	0-888953-0P/23/78-18-	18-15.0-	-S-	7.5-	28-	-2-7-5-6-	-3-1-	-1-2-5-1-	-1-	10.0-	.01																		
02-54.7719-132.8425-2-09-	02-54.7719-132.8425-2-09-	02-54.7719-132.8425-2-09-	0-888953-0P/23/78-18-	18-15.0-	-S-	7.5-	28-	-2-7-5-6-	-3-1-	-1-2-5-1-	-1-	10.0-	.06																		
02-54.7839-132.8425-2-09-	02-54.7839-132.8425-2-09-	02-54.7839-132.8425-2-09-	0-888954-0P/23/78-18-	18-13.2-	-S-	6.7-	47-	-2-7-5-6-	-3-1-	-1-4-5-1-	-1-	8.6-	.08																		
02-54.7839-132.8425-2-09-	02-54.7839-132.8425-2-09-	02-54.7839-132.8425-2-09-	0-888954-0P/23/78-18-	18-13.2-	-S-	6.7-	47-	-2-7-5-6-	-3-1-	-1-4-5-1-	-1-	8.6-	.03																		
02-54.8136-132.8453-2-09-	02-54.8136-132.8453-2-09-	02-54.8136-132.8453-2-09-	0-888955-0P/23/78-18-	18-17.0-	-S-	7.4-	41-	-2-7-5-6-	-3-1-	-1-4-5-1-	-1-	9.2-	.01																		
02-54.8136-132.8453-2-09-	02-54.8136-132.8453-2-09-	02-54.8136-132.8453-2-09-	0-888955-0P/23/78-18-	18-17.0-	-S-	7.4-	41-	-2-7-5-6-	-3-1-	-1-4-5-1-	-1-	9.2-	.05																		
02-54.8183-132.8819-2-09-	02-54.8183-132.8819-2-09-	02-54.8183-132.8819-2-09-	0-888956-0P/23/78-19-	17-15.9-	-S-	7.8-	90-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.5-	.05																		
02-54.8183-132.8819-2-09-	02-54.8183-132.8819-2-09-	02-54.8183-132.8819-2-09-	0-888956-0P/23/78-19-	17-15.9-	-S-	7.8-	90-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.5-	.04																		
02-54.8111-132.9178-2-09-	02-54.8111-132.9178-2-09-	02-54.8111-132.9178-2-09-	0-888957-0P/23/78-19-	17-17.6-	-S-	4.9-	21-	-2-7-5-6-	-3-1-	-1-3-4-1-	-1-	8.6-	.01																		
02-54.8111-132.9178-2-09-	02-54.8111-132.9178-2-09-	02-54.8111-132.9178-2-09-	0-888957-0P/23/78-19-	17-17.6-	-S-	4.9-	21-	-2-7-5-6-	-3-1-	-1-3-4-1-	-1-	8.6-	.05																		
02-54.8489-132.8900-2-09-	02-54.8489-132.8900-2-09-	02-54.8489-132.8900-2-09-	0-888958-0P/23/78-19-	17-18.7-	-S-	6.5-	32-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	8.8-	.01																		
02-54.8489-132.8900-2-09-	02-54.8489-132.8900-2-09-	02-54.8489-132.8900-2-09-	0-888958-0P/23/78-19-	17-18.7-	-S-	6.5-	32-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	8.8-	.16																		
02-54.8611-132.9311-2-09-	02-54.8611-132.9311-2-09-	02-54.8611-132.9311-2-09-	0-888959-0P/23/78-19-	17-12.9-	-S-	7.0-	111-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	10.4-	.01																		
02-54.8611-132.9311-2-09-	02-54.8611-132.9311-2-09-	02-54.8611-132.9311-2-09-	0-888959-0P/23/78-19-	17-12.9-	-S-	7.0-	111-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	10.4-	.07																		
02-54.8653-132.9528-2-09-	02-54.8653-132.9528-2-09-	02-54.8653-132.9528-2-09-	0-888960-0P/23/78-19-	16-17.9-	-S-	7.4-	22-	-2-7-5-6-	-3-1-	-1-3-5-1-	-1-	8.9-	.04																		
02-54.8653-132.9528-2-09-	02-54.8653-132.9528-2-09-	02-54.8653-132.9528-2-09-	0-888960-0P/23/78-19-	16-17.9-	-S-	7.4-	22-	-2-7-5-6-	-3-1-	-1-3-5-1-	-1-	8.9-	.01																		
02-54.8744-132.9742-2-09-	02-54.8744-132.9742-2-09-	02-54.8744-132.9742-2-09-	0-888961-0P/23/78-19-	16-15.9-	-S-	7.6-	30-	-2-7-4-7-	-3-1-	-1-4-5-1-	-1-	9.4-	.02																		
02-54.8744-132.9742-2-09-	02-54.8744-132.9742-2-09-	02-54.8744-132.9742-2-09-	0-888961-0P/23/78-19-	16-15.9-	-S-	7.6-	30-	-2-7-4-7-	-3-1-	-1-4-5-1-	-1-	9.4-	.01																		
02-54.8875-132.9469-2-09-	02-54.8875-132.9469-2-09-	02-54.8875-132.9469-2-09-	0-888962-0P/23/78-19-	16-17.7-	-S-	7.6-	79-	-2-7-5-6-	-3-1-	-1-4-5-1-	-1-	9.0-	.02																		
02-54.8875-132.9469-2-09-	02-54.8875-132.9469-2-09-	02-54.8875-132.9469-2-09-	0-888962-0P/23/78-19-	16-17.7-	-S-	7.6-	79-	-2-7-5-6-	-3-1-	-1-4-5-1-	-1-	9.0-	.03																		
02-54.9108-132.9508-2-09-	02-54.9108-132.9508-2-09-	02-54.9108-132.9508-2-09-	0-888963-0P/23/78-19-	16-15.4-	-S-	5.5-	11-	-3-1-5-6-	-3-1-	-1-3-5-1-	-1-	10.1-	.01																		
02-54.9108-132.9508-2-09-	02-54.9108-132.9508-2-09-	02-54.9108-132.9508-2-09-	0-888963-0P/23/78-19-	16-15.4-	-S-	5.5-	11-	-3-1-5-6-	-3-1-	-1-3-5-1-	-1-	10.1-	.02																		
02-54.9961-132.3269-2-09-	02-54.9961-132.3269-2-09-	02-54.9961-132.3269-2-09-	0-888964-0P/24/78-10-	18-15.3-	-S-	7.4-	15-	-2-7-5-6-	-3-2-	-1-2-4-2-	-1-	8.9-	.10																		
02-54.9961-132.3269-2-09-	02-54.9961-132.3269-2-09-	02-54.9961-132.3269-2-09-	0-888964-0P/24/78-10-	18-15.3-	-S-	7.4-	15-	-2-7-5-6-	-3-2-	-1-2-4-2-	-1-	8.9-	.09																		
02-54.9611-132.3061-2-09-	02-54.9611-132.3061-2-09-	02-54.9611-132.3061-2-09-	0-888965-0P/24/78-10-	16-13.7-	-S-	6.8-	19-	-2-7-5-8-	-3-2-	-1-4-5-2-	-1-	9.8-	.01																		
02-54.9611-132.3061-2-09-	02-54.9611-132.3061-2-09-	02-54.9611-132.3061-2-09-	0-888965-0P/24/78-10-	16-13.7-	-S-	6.8-	19-	-2-7-5-8-	-3-2-	-1-4-5-2-	-1-	9.8-	.01																		
02-54.9756-132.3636-2-09-	02-54.9756-132.3636-2-09-	02-54.9756-132.3636-2-09-	0-888966-0P/24/78-10-	18-15.3-	-S-	6.8-	22-	-4- -5-6-	-3-1-	-1-3-4-2-	-1-	9.0-	.02																		
02-54.9756-132.3636-2-09-	02-54.9756-132.3636-2-09-	02-54.9756-132.3636-2-09-	0-888966-0P/24/78-10-	18-15.3-	-S-	6.8-	22-	-4- -5-6-	-3-1-	-1-3-4-2-	-1-	9.0-	.06																		
02-54.9747-132.5244-2-09-	02-54.9747-132.5244-2-09-	02-54.9747-132.5244-2-09-	0-888967-0P/24/78-10-	19-15.9-	-S-	6.9-	14-	-2-7-5-6-	-3-2-	-1-3-4-2-	-1-	8.9-	.01																		
02-54.9747-132.5244-2-09-	02-54.9747-132.5244-2-09-	02-54.9747-132.5244-2-09-	0-888967-0P/24/78-10-	19-15.9-	-S-	6.9-	14-	-2-7-5-6-	-3-2-	-1-3-4-2-	-1-	8.9-	.03																		
02-54.9944-132.9875-2-09-	02-54.9944-132.9875-2-09-	02-54.9944-132.9875-2-09-	0-888968-0P/24/78-11-	17-10.4-	-S-	7.3-	65-	-2-7-5-6-	-2-2-	-1-4-4-2-	-1-	10.3-	.02																		
02-54.9944-132.9875-2-09-	02-54.9944-132.9875-2-09-	02-54.9944-132.9875-2-09-	0-888968-0P/24/78-11-	17-10.4-	-S-	7.3-	65-	-2-7-5-6-	-2-2-	-1-4-4-2-	-1-	10.3-	.13																		
02-54.9672-132.9608-2-09-	02-54.9672-132.9608-2-09-	02-54.9672-132.9608-2-09-	0-888969-0P/24/78-11-	18-16.7-	-S-	7.4-	66-	-4- -5-6-	-3-1-	-1-5-4-2-	-1-	8.3-	.03																		
02-54.9672-132.9608-2-09-	02-54.9672-132.9608-2-09-	02-54.9672-132.9608-2-09-	0-888969-0P/24/78-11-	18-16.7-	-S-	7.4-	66-	-4- -5-6-	-3-1-	-1-5-4-2-	-1-	8.3-	.05																		
02-54.9536-132.9917-2-09-	02-54.9536-132.9917-2-09-	02-54.9536-132.9917-2-09-	0-888970-0P/24/78-11-	18-15.6-	-S-	6.8-	23-	-4- -5-6-	-3-1-	-1-5-4-2-	-1-	7.7-	.01																		

APPENDIX I-A. (continued). Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION					
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (eU ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	WATER SAMPLES ANALYZED BY FLUOROMETRY (* IF NOT BY STANDARD PROCEDURE) UNITS IN ppb
							DATE	HOUR																							
02-54	9536-132.9917	2-29	0-888970	08/24/78	11	18-15.6	-S-	6.8	23	-4-	-5-6-	-3-1-	-1-5-4-2-	-1-	7.7-	.09															
02-54	9689-133.0181	2-09	0-888971	08/24/78	11	18-15.5	-S-	6.6	21	-4-	-6-6-	-3-1-	-1-5-4-2-	-1-	8.0-	.03															
02-54	9689-133.0181	2-29	0-888971	08/24/78	11	18-15.5	-S-	6.6	21	-4-	-6-6-	-3-1-	-1-5-4-2-	-1-	8.0-	.07															
02-54	9647-133.0281	2-09	0-888972	08/24/78	11	18-14.2	-C-S-	4.9	15	-2-7-5-6-	-3-2-	-1-4-4-2-	-1-	9.2-	.01																
02-54	9647-133.0281	2-29	0-888972	08/24/78	11	18-14.2	-C-S-	4.9	15	-2-7-5-6-	-3-2-	-1-4-4-2-	-1-	9.2-	.01																
02-54	9683-133.0375	2-09	0-888973	08/24/78	11	18-10.9	-S-	6.7	84	-4-	-4-7-	-3-1-	-1-5-4-2-	-1-	10.5-	.13															
02-54	9683-133.0375	2-29	0-888973	08/24/78	11	18-10.9	-S-	6.7	84	-4-	-4-7-	-3-1-	-1-5-4-2-	-1-	10.5-	.12															
02-54	9897-133.0764	2-09	0-888974	08/24/78	11	18-15.3	-S-	7.6	50	-2-7-5-6-	-3-1-	-1-5-4-2-	-1-	9.3-	.01																
02-54	9897-133.0764	2-29	0-888974	08/24/78	11	18-15.3	-S-	7.6	50	-2-7-5-6-	-3-1-	-1-5-4-2-	-1-	9.3-	.01																
02-54	9744-133.0911	2-09	0-888975	08/24/78	11	19-15.2	-S-	7.7	61	-4-	-5-6-	-3-2-	-1-5-4-2-	-1-	9.2-	.01															
02-54	9744-133.0911	2-29	0-888975	08/24/78	11	19-15.2	-S-	7.7	61	-4-	-5-6-	-3-2-	-1-5-4-2-	-1-	9.2-	.01															
02-54	9636-133.1081	2-09	0-888976	08/24/78	12	19-15.3	-S-	7.8	58	-4-	-5-6-	-3-1-	-1-5-4-2-	-1-	9.4-	.01															
02-54	9636-133.1081	2-29	0-888976	08/24/78	12	19-15.3	-S-	7.8	58	-4-	-5-6-	-3-1-	-1-5-4-2-	-1-	9.4-	.03															
02-54	9317-133.0886	2-09	0-888977	08/24/78	12	21-17.1	-C-S-	7.3	30	-2-7-5-6-	-3-1-	-1-5-4-2-	-1-	8.4-	.01																
02-54	9317-133.0886	2-29	0-888977	08/24/78	12	21-17.1	-C-S-	7.3	30	-2-7-5-6-	-3-1-	-1-5-4-2-	-1-	8.4-	.03																
02-54	8817-133.0267	2-09	0-888978	08/24/78	12	20-17.0	-S-	6.6	32	-4-	-5-6-	-3-1-	-1-5-4-2-	-1-	8.4-	.04															
02-54	8817-133.0267	2-29	0-888978	08/24/78	12	20-17.0	-S-	6.6	32	-4-	-5-6-	-3-1-	-1-5-4-2-	-1-	8.4-	.01															
02-54	9022-132.9861	2-09	0-888979	08/24/78	12	20-15.9	-S-	7.1	77	-4-	-5-6-	-3-1-	-1-5-4-2-	-1-	9.4-	.02															
02-54	9022-132.9861	2-29	0-888979	08/24/78	12	20-15.9	-S-	7.1	77	-4-	-5-6-	-3-1-	-1-5-4-2-	-1-	9.4-	.05															
02-54	9256-132.9967	2-09	0-888980	08/24/78	12	20-16.7	-S-	7.9	109	-2-7-5-6-	-3-1-	-1-5-4-2-	-1-	9.3-	.04																
02-54	9256-132.9967	2-29	0-888980	08/24/78	12	20-16.7	-S-	7.9	109	-2-7-5-6-	-3-1-	-1-5-4-2-	-1-	9.3-	.01																
02-54	9267-132.4728	2-09	0-888981	08/24/78	14	20-18.7	-S-	7.2	31	-2-7-4-6-	-3-1-	-1-3-5-1-	-1-	8.3-	.03																
02-54	9267-132.4728	2-29	0-888981	08/24/78	14	20-18.7	-S-	7.2	31	-2-7-4-6-	-3-1-	-1-3-5-1-	-1-	8.3-	.07																
02-54	9483-132.3578	2-09	0-888982	08/24/78	14	22-15.6	-S-	5.4	22	-2-7-5-6-	-3-1-	-1-4-5-1-	-1-	8.9-	.03																
02-54	9483-132.3578	2-29	0-888982	08/24/78	14	22-15.6	-S-	5.4	22	-2-7-5-6-	-3-1-	-1-4-5-1-	-1-	8.9-	.01																
02-54	9183-132.3419	2-09	0-888983	08/24/78	14	22-18.7	-S-	5.9	29	-2-6-5-6-	-3-1-	-1-4-5-1-	-1-	8.4-	.03																
02-54	9183-132.3419	2-29	0-888983	08/24/78	14	22-18.7	-S-	5.9	29	-2-6-5-6-	-3-1-	-1-4-5-1-	-1-	8.4-	.18																
02-54	8997-132.3244	2-09	0-888984	08/24/78	14	22-19.3	-S-	6.5	31	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.6-	.05															
02-54	8997-132.3244	2-29	0-888984	08/24/78	14	22-19.3	-S-	6.5	31	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.6-	.01															
02-54	8764-132.2811	2-09	0-888985	08/24/78	14	22-18.9	-S-	6.7	30	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.7-	.01															
02-54	8764-132.2811	2-29	0-888985	08/24/78	14	22-18.9	-S-	6.7	30	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.7-	.01															
02-54	8500-132.2686	2-09	0-888986	08/24/78	14	22-19.0	-S-	6.5	30	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	7.9-	.02															
02-54	8500-132.2686	2-29	0-888986	08/24/78	14	22-19.0	-S-	6.5	30	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	7.9-	.01															
02-54	8236-132.2986	2-09	0-888987	08/24/78	14	22-18.7	-S-	6.7	31	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.9-	.01															
02-54	8236-132.2986	2-29	0-888987	08/24/78	14	22-18.7	-S-	6.7	31	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.9-	.01															
02-54	8100-132.3008	2-09	0-888988	08/24/78	14	22-19.2	-S-	6.7	36	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.9-	.01															
02-54	8100-132.3008	2-29	0-888988	08/24/78	14	22-19.2	-S-	6.7	36	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.9-	.09															
02-54	8014-132.3242	2-09	0-888989	08/24/78	14	21-17.4	-S-	6.8	65	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.2-	.01															
02-54	8014-132.3242	2-29	0-888989	08/24/78	14	21-17.4	-S-	6.8	65	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.2-	.01															
02-54	7783-132.3211	2-09	0-888990	08/24/78	15	21-19.1	-S-	5.4	47	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	8.5-	.02																
02-54	7783-132.3211	2-29	0-888990	08/24/78	15	21-19.1	-S-	5.4	47	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	8.5-	.24																
02-54	7750-132.2931	2-09	0-888991	08/24/78	15	21-19.4	-S-	5.7	51	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.4-	.56																
02-54	7750-132.2931	2-29	0-888991	08/24/78	15	21-19.4	-S-	5.7	51	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.4-	.01																
02-54	7556-132.2739	2-09	0-888992	08/24/78	15	20-17.4	-S-	5.3	63	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.2-	.03																
02-54	7556-132.2739	2-29	0-888992	08/24/78	15	20-17.4	-S-	5.3	63	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.2-	.01																
02-54	7867-132.2486	2-09	0-888993	08/24/78	15	20-17.6	-S-	5.8	29	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	8.7-	.14																
02-54	7867-132.2486	2-29	0-888993	08/24/78	15	20-17.6	-S-	5.8	29	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	8.7-	.01																
02-54	8864-132.2289	2-09	0-888994	08/24/78	15	22-18.9	-S-	6.3	29	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.4-	.03															
02-54	8864-132.2289	2-29	0-888994	08/24/78	15	22-18.9	-S-	6.3	29	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.4-	.01															
02-54	8906-132.2511	2-09	0-888995	08/24/78	15	22-18.9	-S-	6.4	22	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.5-	.04															
02-54	8906-132.2511	2-29	0-888995	08/24/78	15	22-18.9	-S-	6.4	22	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-	8.5-	.01															

APPENDIX I-A. (continued). Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																								U CONCENTRATION		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REF/CATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (cpm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	WATER SAMPLES ANALYZED BY FLUOROMETRY (* IF NOT BY STANDARD PROCEDURE) UNITS IN ppb	
							DATE	HOUR																								
02-54.9094-132.2631-2-09-						0-AR999A-08/24/78-15-	22-17.6-	-5-	6.7-	26-						-4-	-5-	-6-	-3-1-	-1-4-4-1-	-1-									9.1-	.07	
02-54.9094-132.2631-2-29-						0-AR999A-08/24/78-15-	22-17.6-	-5-	6.7-	26-						-4-	-5-	-6-	-3-1-	-1-4-4-1-	-1-									9.1-	.03	
02-54.9233-132.2903-2-09-						0-AR9997-08/24/78-15-	22-16.8-	-5-	6.6-	22-						-4-	-5-	-6-	-3-1-	-1-4-4-1-	-1-									9.0-	.01	
02-54.9233-132.2903-2-29-						0-AR9997-08/24/78-15-	22-16.8-	-5-	6.6-	22-						-4-	-5-	-6-	-3-1-	-1-4-4-1-	-1-									9.0-	.03	
02-54.9522-132.2644-2-09-						0-AR999A-08/24/78-15-	22-18.8-	-5-	6.9-	23-						-2-7-5-6-	-3-1-	-1-3-4-1-	-1-											8.9-	.01	
02-54.9522-132.2644-2-29-						0-AR9998-08/24/78-15-	22-18.8-	-5-	6.9-	23-						-2-7-5-6-	-3-1-	-1-3-4-1-	-1-											8.9-	.01	
02-54.9289-132.2381-2-09-						0-AR9999-08/24/78-15-	22-18.4-	-5-	7.1-	23-						-4-	-5-	-6-	-3-1-	-1-4-3-1-	-1-									9.1-	.01	
02-54.9289-132.2381-2-29-						0-AR9999-08/24/78-15-	22-18.4-	-5-	7.1-	23-						-4-	-5-	-6-	-3-1-	-1-4-3-1-	-1-									9.1-	.01	
02-54.9111-132.2189-2-09-						0-AR9000-08/24/78-15-	22-18.3-	-5-	7.0-	28-						-4-	-5-	-6-	-3-1-	-1-4-4-1-	-1-									9.3-	.01	
02-54.9111-132.2189-2-29-						0-AR9000-08/24/78-15-	22-18.3-	-5-	7.0-	28-						-4-	-5-	-6-	-3-1-	-1-4-4-1-	-1-									9.3-	.07	
02-54.9531-132.2261-2-09-						0-AR9001-08/24/78-15-	22-18.1-	-5-	7.3-	22-						-2-7-5-6-	-3-1-	-1-4-4-1-	-1-											9.4-	.01	
02-54.9531-132.2261-2-29-						0-AR9001-08/24/78-15-	22-18.1-	-5-	7.3-	22-						-2-7-5-6-	-3-1-	-1-4-4-1-	-1-											9.4-	.05	
02-54.9703-132.2275-2-09-						0-AR9002-08/24/78-16-	22-15.9-	-5-	7.0-	20-						-4-	-5-	-6-	-3-1-	-1-4-4-1-	-1-									9.5-	.01	
02-54.9703-132.2275-2-29-						0-AR9002-08/24/78-16-	22-15.9-	-5-	7.0-	20-						-4-	-5-	-6-	-3-1-	-1-4-4-1-	-1-									9.5-	.02	
02-54.9778-132.1925-2-09-						0-AR9003-08/24/78-16-	22-17.4-	-5-	6.8-	21-						-4-	-5-	-6-	-3-1-	-1-4-4-1-	-1-									9.2-	.01	
02-54.9778-132.1925-2-29-						0-AR9003-08/24/78-16-	22-17.4-	-5-	6.8-	21-						-4-	-5-	-6-	-3-1-	-1-4-4-1-	-1-									9.2-	.02	
02-54.9875-132.1858-2-09-						0-AR9004-08/24/78-16-	22-18.0-	-5-	6.2-	20-						-2-7-5-1-	-3-1-	-1-4-4-1-	-1-											8.7-	.03	
02-54.9875-132.1858-2-29-						0-AR9004-08/24/78-16-	22-18.0-	-5-	6.2-	20-						-2-7-5-1-	-3-1-	-1-4-4-1-	-1-											8.7-	.03	
02-54.9814-132.3136-2-07-						0-AR9005-08/22/78-14-	-11.8-	-5-	7.2-	59-						20-2-8-3-8-4-3-1-2-1-4-5-3-1-														9.7-	.01	
02-54.9814-132.3136-2-27-						0-AR9005-08/22/78-14-	-11.8-	-5-	7.2-	59-						20-2-8-3-8-4-3-1-2-1-4-5-3-1-														9.7-	.01	
02-54.9986-132.2875-2-07-						0-AR9006-08/22/78-15-	20-14.2-C-	-5-	6.9-	73-						2-2-8-2-8-3-3-1-2-1-3-5-2-	-1-													10.5-	.01	
02-54.9986-132.2875-2-27-						0-AR9006-08/22/78-15-	20-14.2-C-	-5-	6.9-	73-						2-2-8-2-8-3-3-1-2-1-3-5-2-	-1-													10.5-	.03	
02-54.9464-132.1742-2-07-						0-AR9007-08/22/78-15-	15-12.9-C-	-5-	7.0-	765-						18-2-6-3-6-2-3-1-2-1-4-5-2-	-1-													10.3-	.09	
02-54.9464-132.1742-2-27-						0-AR9007-08/22/78-15-	15-12.9-C-	-5-	7.0-	765-						18-2-6-3-6-2-3-1-2-1-4-5-2-	-1-													10.3-	.09	
02-54.9297-132.1972-2-07-						0-AR9008-08/22/78-16-	20-12.5-C-	-5-	7.3-	67-						2-4-	-2-6-3-2-1-2-1-4-5-3-	-1-													9.5-	.02
02-54.9297-132.1972-2-27-						0-AR9008-08/22/78-16-	20-12.5-C-	-5-	7.3-	67-						2-4-	-2-6-3-2-1-2-1-4-5-3-	-1-													9.5-	.03
02-54.9411-132.2156-2-07-						0-AR9009-08/22/78-15-	20-15.3-C-	-5-	7.1-	31-						4-2-1-1-6-4-3-1-2-1-5-5-2-	-1-													9.5-	.01	
02-54.9411-132.2156-2-27-						0-AR9009-08/22/78-15-	20-15.3-C-	-5-	7.1-	31-						4-2-1-1-6-4-3-1-2-1-5-5-2-	-1-													9.5-	.07	
02-54.9378-132.2225-2-07-						0-AR9010-08/22/78-15-	20-15.1-C-	-5-	7.1-	33-						11-2-1-2-6-3-3-1-2-1-4-5-2-	-1-													9.5-	.01	
02-54.9378-132.2225-2-27-						0-AR9010-08/22/78-15-	20-15.1-C-	-5-	7.1-	33-						11-2-1-2-6-3-3-1-2-1-4-5-2-	-1-													9.5-	.01	
02-54.9736-132.1100-2-07-						0-AR9011-08/22/78-16-	20-15.7-	-5-	6.9-	42-						2-2-1-2-1-3-3-1-2-1-5-5-2-	-1-													9.3-	.01	
02-54.9736-132.1100-2-27-						0-AR9011-08/22/78-16-	20-15.7-	-5-	6.9-	42-						2-2-1-2-1-3-3-1-2-1-5-5-2-	-1-													9.3-	.02	
02-54.9711-132.0600-2-07-						0-AR9012-08/22/78-19-	18-11.7-	-5-	7.1-	113-						13-3-8-3-8-3-3-1-2-1-5-4-2-	-1-													8.7-	.02	
02-54.9711-132.0600-2-27-						0-AR9012-08/22/78-19-	18-11.7-	-5-	7.1-	113-						13-3-8-3-8-3-3-1-2-1-5-4-2-	-1-													8.7-	.05	
02-54.9072-132.0244-2-07-						0-AR9013-08/23/78-8-	15-11.4-C-	-5-	7.0-	220-						9-3-1-2-3-3-3-1-2-1-5-5-2-	-1-													10.0-	.09	
02-54.9072-132.0244-2-27-						0-AR9013-08/23/78-8-	15-11.4-C-	-5-	7.0-	220-						9-3-1-2-3-3-3-1-2-1-5-5-2-	-1-													10.0-	.01	
02-54.8233-132.0569-2-07-						0-AR9014-08/23/78-12-	22-12.3-	-5-	6.7-	126-						2-3-1-2-6-3-3-1-2-1-5-5-2-	-1-													9.6-	.01	
02-54.8233-132.0569-2-27-						0-AR9014-08/23/78-12-	22-12.3-	-5-	6.7-	126-						2-3-1-2-6-3-3-1-2-1-5-5-2-	-1-													9.6-	.04	
02-54.9036-132.1119-2-07-						0-AR9015-08/22/78-17-	12-10.7-	-5-	7.8-	41-						5-2-6-3-6-3-3-1-3-1-5-4-3-	-1-													9.1-	.02	
02-54.9036-132.1119-2-27-						0-AR9015-08/22/78-17-	12-10.7-	-5-	7.8-	41-						5-2-6-3-6-3-3-1-3-1-5-4-3-	-1-													9.1-	.11	
02-54.9089-132.0881-2-07-						0-AR9016-08/22/78-22-	12-11.4-	-5-	5.4-	25-						10-2-7-3-7-3-2-1-3-1-4-4-3-	-1-													7.7-	.02	
02-54.9089-132.0881-2-27-						0-AR9016-08/22/78-22-	12-11.4-	-5-	5.4-	25-						10-2-7-3-7-3-2-1-3-1-4-4-3-	-1-													7.7-	.21	
02-54.8792-132.0692-2-07-						0-AR9017-08/22/78-18-	12-11.5-	-5-	7.2-	47-						7-2-7-3-7-3-2-3-1-4-4-3-	-1-													9.4-	.05	
02-54.8792-132.0692-2-27-						0-AR9017-08/22/78-18-	12-11.5-	-5-	7.2-	47-						7-2-7-3-7-3-2-3-1-4-4-3-	-1-													9.4-	.10	
02-54.8522-132.0419-2-07-						0-AR9018-08/22/78-19-	-8.3-	-5-	5.7-	32-						11-3-1-2-1-2-2-1-2-2-3-4-2-	-1-													6.4-	.01	
02-54.8522-132.0419-2-27-						0-AR9018-08/22/78-19-	-8.3-	-5-	5.7-	32-						11-3-1-2-1-2-2-1-2-2-3-4-2-	-1-													6.4-	.07	
02-54.8381-132.0636-2-07-						0-AR901																										

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DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION					
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (eu ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	WATER SAMPLES ANALYZED BY FLUOROMETRY (• IF NOT BY STANDARD PROCEDURE)
							DATE	HOUR																							
02-54.8956-132.3397-2-27-	0-A89021-08/23/78-14-	17-13.5-	-S-	6.2-	30-	4-2-6-3-6-3-2-1-2-1-3-2-2-	-1-	8.9-	.05																						
02-54.9192-132.3772-2-07-	0-A89022-08/23/78-15-	16-10.7-	-S-	6.1-	27-	24-2-6-3-6-2-2-1-2-2-3-3-2-	-1-	8.2-	.07																						
02-54.9192-132.3772-2-27-	0-A89022-08/23/78-15-	16-10.7-	-S-	6.1-	27-	24-2-6-3-6-2-2-1-2-2-3-3-2-	-1-	8.2-	.03																						
02-54.9622-132.4272-2-07-	0-A89023-08/23/78-16-	17-11.1-	-S-	6.8-	30-	18-2-7-2-7-3-2-1-2-2-1-3-3-2-	-1-	8.9-	.01																						
02-54.9622-132.4272-2-27-	0-A89023-08/23/78-16-	17-11.1-	-S-	6.8-	30-	18-2-7-2-7-3-2-1-2-2-1-3-3-2-	-1-	8.9-	.11																						
02-54.9783-132.4306-2-07-	0-A89024-08/23/78-16-	16-10.8-	-S-	7.9-	66-	8-2-7-2-7-3-2-1-2-1-3-5-2-	-1-	9.1-	.03																						
02-54.9783-132.4306-2-27-	0-A89024-08/23/78-16-	16-10.8-	-S-	7.9-	66-	8-2-7-2-7-3-2-1-2-1-3-5-2-	-1-	9.1-	.10																						
02-54.9975-132.4319-2-07-	0-A89025-08/23/78-17-	16-11.2-	-S-	7.3-	44-	12-3-7-2-7-3-2-1-2-2-3-3-2-	-1-	8.9-	.02																						
02-54.9975-132.4319-2-27-	0-A89025-08/23/78-17-	16-11.2-	-S-	7.3-	44-	12-3-7-2-7-3-2-1-2-2-3-3-2-	-1-	8.9-	.05																						
02-54.9253-132.4347-2-07-	0-A89026-08/23/78-17-	15-11.0-	-S-	6.8-	33-	12-2-7-2-7-3-2-1-2-2-1-4-4-2-	-1-	9.0-	.03																						
02-54.9253-132.4347-2-27-	0-A89026-08/23/78-17-	15-11.0-	-S-	6.8-	33-	12-2-7-2-7-3-2-1-2-2-1-4-4-2-	-1-	9.0-	.01																						
02-54.9081-132.4811-2-07-	0-A89027-08/23/78-18-	16-17.3-	-S-	6.1-	44-	12-2-7-1-7-4-2-1-2-1-3-4-2-	-1-	7.1-	.04																						
02-54.9081-132.4811-2-27-	0-A89027-08/23/78-18-	16-17.3-	-S-	6.1-	44-	12-2-7-1-7-4-2-1-2-1-3-4-2-	-1-	7.1-	.01																						
02-54.9128-132.5133-2-07-	0-A89028-08/23/78-19-	15-13.7-	-S-	6.7-	49-	8-4-6-6-2-2-1-3-1-4-4-2-	-1-	6.3-	.01																						
02-54.9128-132.5133-2-27-	0-A89028-08/23/78-19-	15-13.7-	-S-	6.7-	49-	8-4-6-6-2-2-1-3-1-4-4-2-	-1-	6.3-	.03																						
02-54.8472-132.6333-2-06-	0-A89029-08/23/78-21-	15-8.8-C-	-S-	7.5-	270-	10-2-7-2-7-3-2-1-1-3-3-2-	-1-	7.5-	.06																						
02-54.8472-132.6333-2-26-	0-A89029-08/23/78-21-	15-8.8-C-	-S-	7.5-	270-	10-2-7-2-7-3-2-1-1-3-3-2-	-1-	7.5-	.01																						
02-54.9392-132.4722-2-07-	0-A89030-08/24/78-9-	13-12.3-	-S-	7.2-	55-	22-2-7-2-7-3-2-1-2-1-4-3-2-	-1-	8.9-	.05																						
02-54.9392-132.4722-2-27-	0-A89030-08/24/78-9-	13-12.3-	-S-	7.2-	55-	22-2-7-2-7-3-2-1-2-1-4-3-2-	-1-	8.9-	.02																						
02-54.9581-132.4669-2-07-	0-A89031-08/24/78-9-	15-10.1-	-S-	7.3-	51-	10-2-7-1-7-4-2-1-2-1-4-5-2-	-1-	9.2-	.01																						
02-54.9581-132.4669-2-27-	0-A89031-08/24/78-9-	15-10.1-	-S-	7.3-	51-	10-2-7-1-7-4-2-1-2-1-4-5-2-	-1-	9.2-	.02																						
02-54.9808-132.4583-2-07-	0-A89032-08/24/78-10-	15-9.9-	-S-	7.3-	71-	13-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.1-	.10																						
02-54.9808-132.4583-2-27-	0-A89032-08/24/78-10-	15-9.9-	-S-	7.3-	71-	13-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.1-	.01																						
02-54.9944-132.4661-2-07-	0-A89033-08/24/78-11-	16-10.2-	-S-	7.6-	81-	8-2-7-2-7-2-2-1-2-2-3-3-2-	-1-	6.8-	.06																						
02-54.9944-132.4661-2-27-	0-A89033-08/24/78-11-	16-10.2-	-S-	7.6-	81-	8-2-7-2-7-2-2-1-2-2-3-3-2-	-1-	6.8-	.01																						
02-54.9706-132.5042-2-07-	0-A89034-08/24/78-10-	16-10.7-	-S-	6.5-	59-	4-2-6-2-6-3-2-1-2-2-1-3-3-2-	-1-	7.3-	.03																						
02-54.9706-132.5042-2-27-	0-A89034-08/24/78-10-	16-10.7-	-S-	6.5-	59-	4-2-6-2-6-3-2-1-2-2-1-3-3-2-	-1-	7.3-	.01																						
02-54.9656-132.5161-2-07-	0-A89035-08/24/78-12-	16-12.5-C-	-S-	7.2-	20-	2-2-7-7-7-5-2-1-2-1-4-4-1-	-1-	9.4-	.03																						
02-54.9656-132.5161-2-27-	0-A89035-08/24/78-12-	16-12.5-C-	-S-	7.2-	20-	2-2-7-7-7-5-2-1-2-1-4-4-1-	-1-	9.4-	.01																						
02-54.9517-132.5372-2-07-	0-A89036-08/24/78-13-	16-10.0-C-	-S-	8.0-	116-	10-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	7.1-	.09																						
02-54.9517-132.5372-2-27-	0-A89036-08/24/78-13-	16-10.0-C-	-S-	8.0-	116-	10-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	7.1-	.05																						
02-54.9464-132.5681-2-07-	0-A89037-08/24/78-13-	16-10.7-	-S-	7.5-	44-	6-2-6-2-6-3-2-1-2-1-3-4-2-	-1-	9.3-	.03																						
02-54.9464-132.5681-2-27-	0-A89037-08/24/78-13-	16-10.7-	-S-	7.5-	44-	6-2-6-2-6-3-2-1-2-1-3-4-2-	-1-	9.3-	.03																						
02-54.9781-132.5672-2-07-	0-A89038-08/24/78-14-	17-10.3-	-S-	7.5-	42-	6-2-6-2-6-3-2-1-2-1-3-3-1-	-1-	9.0-	.01																						
02-54.9781-132.5672-2-27-	0-A89038-08/24/78-14-	17-10.3-	-S-	7.5-	42-	6-2-6-2-6-3-2-1-2-1-3-3-1-	-1-	9.0-	.01																						
02-54.9911-132.5347-2-07-	0-A89039-08/24/78-15-	17-13.8-	-S-	7.5-	66-	5-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.8-	.02																						
02-54.9911-132.5347-2-27-	0-A89039-08/24/78-15-	17-13.8-	-S-	7.5-	66-	5-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.8-	.01																						
02-54.9836-132.7272-2-06-	0-A89040-08/24/78-16-	17-12.2-C-	-S-	6.2-	55-	4-2-7-7-7-2-2-1-2-4-4-2-	-1-	4.7-	.01																						
02-54.9836-132.7272-2-26-	0-A89040-08/24/78-16-	17-12.2-C-	-S-	6.2-	55-	4-2-7-7-7-2-2-1-2-4-4-2-	-1-	4.7-	.01																						
02-54.9875-132.9700-2-07-	0-A89041-08/24/78-17-	16-9.8-	-S-	7.8-	80-	5-2-6-2-6-3-3-1-2-1-4-5-1-	-1-	9.1-	.07																						
02-54.9875-132.9700-2-27-	0-A89041-08/24/78-17-	16-9.8-	-S-	7.8-	80-	5-2-6-2-6-3-3-1-2-1-4-5-1-	-1-	9.1-	.01																						
02-54.9553-132.9819-2-07-	0-A89042-08/24/78-18-	16-10.0-C-	-S-	8.0-	116-	10-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	7.1-	.09																						
02-54.9553-132.9819-2-27-	0-A89042-08/24/78-18-	16-10.0-C-	-S-	8.0-	116-	10-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	7.1-	.05																						
02-54.9400-132.9614-2-07-	0-A89043-08/24/78-18-	16-11.0-	-S-	7.7-	82-	6-2-7-2-7-3-2-1-2-2-4-5-1-	-1-	8.3-	.01																						
02-54.9400-132.9614-2-27-	0-A89043-08/24/78-18-	16-11.0-	-S-	7.7-	82-	6-2-7-2-7-3-2-1-2-2-4-5-1-	-1-	8.3-	.01																						
02-54.8017-132.0583-2-07-	0-A89044-08/23/78-12-	22-10.9-	-S-	6.9-	63-	33-3-1-2-6-4-3-1-2-1-5-5-2-	-1-	10.0-	.01																						
02-54.8017-132.0583-2-27-	0-A89044-08/23/78-12-	22-10.9-	-S-	6.9-	63-	33-3-1-2-6-4-3-1-2-1-5-5-2-	-1-	10.0-	.10																						
02-54.7631-132.0167-2-07-	0-A89045-08/23/78-13-	22-15.2-C-	-S-	7.0-	27-	2-3-1-1-6-4-3-1-2-1-5-5-2-	-1-	9.7-	.01																						
02-54.7631-132.0167-2-27-	0-A89045-08/23/78-13-	22-15.2-C-	-S-	7.0-	27-	2-3-1-1-6-4-3-1-2-1-5-5-2-	-1-	9.7-	.05																						
02-54.7589-132.3692-2-07-	0-A89046-08/23/78-14-	22-12.4-C-	-S-	4.7-	245-	-3-1-2-6-2-2-2-2-2-1-5-3-2-	-1-	5.7-	.01																						
02-54.7589-132.3692-2-27-	0-A89046-08/23/78-14-	22-12.4-C-	-S-	4.7-	245-	-3-1-2-6-2-2-2-2-2-1-5-3-2-	-1-	5.7-	.01																						

APPENDIX I-A. (continued). Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																						U CONCENTRATION			
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCHLUMMETER (au ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	WATER SAMPLES ANALYZED BY FLUOROMETRY (* IF NOT BY STANDARD PROCEDURE) UNITS IN ppb
							DATE	HOUR																							
02-54	8097-132.6408	-2-07-	0-A89047-08/23/78	17-	25-11.6-C-S	5.8-	87-	4-2-5-	-	-2-2-1-2-1-5-3-2-	-1-	4.3-	.01																		
02-54	8097-132.6408	-2-27-	0-A89047-08/23/78	17-	25-11.6-C-S	5.8-	87-	4-2-5-	-	-2-2-1-2-1-5-3-2-	-1-	4.3-	.03																		
02-54	7933-132.6317	-2-07-	0-A89048-08/23/78	17-	20-11.6-C-S	6.7-	91-	38-2-5-3-6-3-3-1-2-1-5-3-2-	-1-	9.6-	.01																				
02-54	7933-132.6317	-2-27-	0-A89048-08/23/78	17-	20-11.6-C-S	6.7-	91-	38-2-5-3-6-3-3-1-2-1-5-3-2-	-1-	9.6-	.07																				
02-54	7733-132.6131	-2-07-	0-A89049-08/23/78	18-	19-11.8-C-S	6.9-	102-	13-2-5-1-6-4-3-1-2-1-5-4-2-	-1-	9.4-	.01																				
02-54	7733-132.6131	-2-27-	0-A89049-08/23/78	18-	19-11.8-C-S	6.9-	102-	13-2-5-1-6-4-3-1-2-1-5-4-2-	-1-	9.4-	.01																				
02-54	7669-132.6272	-2-07-	0-A89050-08/23/78	18-	20-10.8-C-S	6.8-	126-	9-2-5-3-6-3-2-1-2-1-5-3-2-	-1-	9.6-	.01																				
02-54	7669-132.6272	-2-27-	0-A89050-08/23/78	18-	20-10.8-C-S	6.8-	126-	9-2-5-3-6-3-2-1-2-1-5-3-2-	-1-	9.6-	.09																				
02-54	7644-132.7514	-2-07-	0-A89051-08/23/78	19-	17-12.3-C-S	7.5-	95-	6-2-5-2-6-4-3-1-2-1-5-4-2-	-1-	10.2-	.02																				
02-54	7644-132.7514	-2-27-	0-A89051-08/23/78	19-	17-12.3-C-S	7.5-	95-	6-2-5-2-6-4-3-1-2-1-5-4-2-	-1-	10.2-	.03																				
02-54	7567-132.7500	-2-07-	0-A89052-08/23/78	20-	16-10.3-C-S	7.5-	111-	2-2-5-2-6-3-3-1-2-1-5-4-2-	-1-	10.1-	.01																				
02-54	7567-132.7500	-2-27-	0-A89052-08/23/78	20-	16-10.3-C-S	7.5-	111-	2-2-5-2-6-3-3-1-2-1-5-4-2-	-1-	10.1-	.01																				
02-54	7750-133.5325	-2-07-	0-A89053-08/24/78	9-	20-10.7-C-S	5.3-	143-	29-3-1-	-	4-3-1-2-1-5-5-1-	-1-	9.9-	.02																		
02-54	7750-133.5325	-2-27-	0-A89053-08/24/78	9-	20-10.7-C-S	5.3-	143-	29-3-1-	-	4-3-1-2-1-5-5-1-	-1-	9.9-	.01																		
02-54	7850-133.5164	-2-07-	0-A89054-08/23/78	10-	23-10.5-	4.1-	187-	11-3-1-1-1-4-3-1-2-1-5-5-1-	-1-	10.4-	.01																				
02-54	7850-133.5164	-2-27-	0-A89054-08/23/78	10-	23-10.5-	4.1-	187-	11-3-1-1-1-4-3-1-2-1-5-5-1-	-1-	10.4-	.05																				
02-54	7914-133.5164	-2-07-	0-A89055-08/23/78	11-	25-10.4-C-S	5.9-	183-	4-3-1-2-6-4-3-1-2-1-5-4-1-	-1-	10.6-	.01																				
02-54	7914-133.5164	-2-27-	0-A89055-08/23/78	11-	25-10.4-C-S	5.9-	183-	4-3-1-2-6-4-3-1-2-1-5-4-1-	-1-	10.6-	.01																				
02-54	8058-133.5186	-2-07-	0-A89056-08/23/78	12-	20-10.8-C-S	5.8-	174-	18-3-1-2-1-3-3-1-2-1-5-4-1-	-1-	8.7-	.01																				
02-54	8058-133.5186	-2-27-	0-A89056-08/23/78	12-	20-10.8-C-S	5.8-	174-	18-3-1-2-1-3-3-1-2-1-5-4-1-	-1-	8.7-	.03																				
02-54	8108-133.5217	-2-07-	0-A89057-08/23/78	13-	25-8.4-C-S	6.4-	337-	13-3-1-2-1-3-3-1-2-1-5-4-1-	-1-	11.1-	.01																				
02-54	8108-133.5217	-2-27-	0-A89057-08/23/78	13-	25-8.4-C-S	6.4-	337-	13-3-1-2-1-3-3-1-2-1-5-4-1-	-1-	11.1-	.03																				
02-54	8267-133.5250	-2-07-	0-A89058-08/23/78	13-	20-10.6-C-S	6.9-	298-	6-3-1-3-6-2-2-1-2-1-5-5-1-	-1-	8.3-	.03																				
02-54	8267-133.5250	-2-27-	0-A89058-08/23/78	13-	20-10.6-C-S	6.9-	298-	6-3-1-3-6-2-2-1-2-1-5-5-1-	-1-	8.3-	.03																				
02-54	9642-133.1419	-2-07-	0-A89059-08/23/78	16-	25-9.4-C-S	7.5-	191-	9-2-1-2-6-3-3-1-2-1-5-5-1-	-1-	11.1-	.01																				
02-54	9642-133.1419	-2-27-	0-A89059-08/23/78	16-	25-9.4-C-S	7.5-	191-	9-2-1-2-6-3-3-1-2-1-5-5-1-	-1-	11.1-	.03																				
02-54	9531-133.0931	-2-C7-	0-A89061-08/23/78	18-	25-11.0-C-S	8.1-	225-	20-2-7-2-6-3-2-1-2-1-5-5-1-	-1-	10.5-	.02																				
02-54	9531-133.0931	-2-27-	0-A89061-08/23/78	18-	25-11.0-C-S	8.1-	225-	20-2-7-2-6-3-2-1-2-1-5-5-1-	-1-	10.5-	.01																				
02-54	9403-133.0658	-2-07-	0-A89062-08/23/78	17-	25-7.7-C-S	7.9-	168-	4-2-7-2-6-2-2-1-2-1-5-5-1-	-1-	10.9-	.03																				
02-54	9403-133.0658	-2-27-	0-A89062-08/23/78	17-	25-7.7-C-S	7.9-	168-	4-2-7-2-6-2-2-1-2-1-5-5-1-	-1-	10.9-	.07																				
02-54	9472-133.0478	-2-07-	0-A89063-08/23/78	18-	25-8.7-C-S	7.9-	164-	4-2-1-2-6-2-2-1-2-1-5-5-1-	-1-	10.3-	.01																				
02-54	9472-133.0478	-2-27-	0-A89063-08/23/78	18-	25-8.7-C-S	7.9-	164-	4-2-1-2-6-2-2-1-2-1-5-5-1-	-1-	10.3-	.01																				
02-54	9306-132.9361	-2-07-	0-A89064-08/24/78	19-	15-10.6-	8.0-	108-	6-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	9.4-	.03																				
02-54	9306-132.9361	-2-27-	0-A89064-08/24/78	19-	15-10.6-	8.0-	108-	6-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	9.4-	.02																				
02-54	9072-132.9286	-2-07-	0-A89065-08/24/78	20-	15-9.8-	7.8-	81-	5-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	9.1-	.03																				
02-54	9072-132.9286	-2-27-	0-A89065-08/24/78	20-	15-9.8-	7.8-	81-	5-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	9.1-	.02																				
02-54	8964-132.8883	-2-07-	0-A89066-08/25/78	9-	13-8.7-	8.1-	145-	6-2-6-1-6-3-3-1-2-1-4-4-3-	-1-	9.2-	.01																				
02-54	8964-132.8883	-2-27-	0-A89066-08/25/78	9-	13-8.7-	8.1-	145-	6-2-6-1-6-3-3-1-2-1-4-4-3-	-1-	9.2-	.01																				
02-54	8800-132.8656	-2-07-	0-A89067-08/25/78	10-	15-11.1-	8.0-	74-	5-2-7-1-7-4-3-1-2-2-4-4-3-	-1-	8.3-	.01																				
02-54	8800-132.8656	-2-27-	0-A89067-08/25/78	10-	15-11.1-	8.0-	74-	5-2-7-1-7-4-3-1-2-2-4-4-3-	-1-	8.3-	.01																				
02-54	8667-132.8281	-2-07-	0-A89068-08/25/78	11-	15-10.7-	8.0-	155-	8-2-6-1-6-4-3-1-2-1-4-4-3-	-1-	9.2-	.02																				
02-54	8667-132.8281	-2-27-	0-A89068-08/25/78	11-	15-10.7-	8.0-	155-	8-2-6-1-6-4-3-1-2-1-4-4-3-	-1-	9.2-	.01																				
02-54	8472-132.8469	-2-07-	0-A89069-08/25/78	11-	15-10.6-	8.0-	112-	6-2-6-2-6-3-3-1-2-1-4-4-3-	-1-	9.4-	.02																				
02-54	8472-132.8469	-2-27-	0-A89069-08/25/78	11-	15-10.6-	8.0-	112-	6-2-6-2-6-3-3-1-2-1-4-4-3-	-1-	9.4-	.14																				
02-54	8250-132.7711	-2-07-	0-A89070-08/25/78	12-	16-14.2-	7.9-	114-	36-2-6-1-6-4-3-1-2-1-4-4-2-	-1-	7.3-	.07																				
02-54	8250-132.7711	-2-27-	0-A89070-08/25/78	12-	16-14.2-	7.9-	114-	36-2-6-1-6-4-3-1-2-1-4-4-2-	-1-	7.3-	.05																				
02-54	8106-132.7939	-2-07-	0-A89071-08/25/78	13-	16-11.9-	7.0-	55-	7-2-6-2-7-3-2-1-2-1-4-4-2-	-1-	8.7-	.01																				
02-54	8106-132.7939	-2-27-	0-A89071-08/25/78	13-	16-11.9-	7.0-	55-	7-2-6-2-7-3-2-1-2-1-4-4-2-	-1-	8.7-	.01																				
02-54	8044-132.7792	-2-07-	0-A89072-08/25/78	14-	16-10.7-	8.0-	102-	8-2-6-1-6-4-3-1-2-1-4-4-2-	-1-	8.8-	.03																				
02-54	8044-132.7792	-2-27-	0-A89072-08/25/78	14-	16-10.7-	8.0-	102-	8-2-6-1-6-4-3-1-2-1-4-4-2-	-1-	8.8-	.09																				
02-54	7697-132.6714	-2-07-	0-A89073-08/25/78	15-	15-11.9-	7.8-	63-	6-2-7-1-7-4-3-1-2-1-3-5-2-	-1-	7.9-	.01																				

APPENDIX I-A. (continued). Uranium Concentrations for Water Samples

DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																							U CONCENTRATION		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (eU ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	WATER SAMPLES ANALYZED BY FLUOROMETRY (* IF NOT BY STANDARD PROCEDURE) UNITS IN ppb
							DATE	HOUR																							
02-54	7697	-132.6714	-2-27-	0-A89073	08/25/78	15-	15-	11.9-	-5-	7.8-	63-	6-2-7-1-7-4-3-1-2-1-3-5-2-	-1-	7.9-																7.9-	C1
02-54	9253	-133.0989	-2-07-	0-A89074	08/24/78	13-	25-	9.0-C	-5-	7.1-	127-	29-2-7-1-7-4-3-1-2-1-5-5-1-	-1-	11.8-																11.8-	C6
02-54	9253	-133.0989	-2-27-	0-A89074	08/24/78	13-	25-	9.0-C	-5-	7.1-	127-	29-2-7-1-7-4-3-1-2-1-5-5-1-	-1-	11.8-																11.8-	C7
02-54	9139	-133.0447	-2-07-	0-A89075	08/24/78	14-	20-	10.2-C	-5-	7.5-	91-	6-2-7-2-7-4-3-1-2-1-5-5-1-	-1-	10.9-																10.9-	C4
02-54	9139	-133.0447	-2-27-	0-A89075	08/24/78	14-	20-	10.2-C	-5-	7.5-	91-	6-2-7-2-7-4-3-1-2-1-5-5-1-	-1-	10.9-																10.9-	C1
02-54	9203	-133.0214	-2-07-	0-A89076	08/24/78	14-	20-	10.0-C	-5-	7.9-	135-	2-	-	11.0-																11.0-	C2
02-54	9203	-133.0214	-2-27-	0-A89076	08/24/78	14-	20-	10.0-C	-5-	7.9-	135-	2-	-	11.0-																11.0-	C2
02-54	9317	-133.0206	-2-07-	0-A89077	08/24/78	15-	20-	4.4-C	-5-	8.0-	135-	-2-1-2-1-4-3-1-2-1-5-5-1-	-1-	12.6-															12.6-	C4	
02-54	9317	-133.0206	-2-27-	0-A89077	08/24/78	15-	20-	4.4-C	-5-	8.0-	135-	-2-1-2-1-4-3-1-2-1-5-5-1-	-1-	12.6-															12.6-	C2	
02-54	8531	-133.0153	-2-07-	0-A89078	08/24/78	15-	20-	9.4-C	-5-	8.3-	327-	6-2-8-2-8-3-3-1-2-1-5-5-1-	-1-	10.8-															10.8-	C2	
02-54	8531	-133.0153	-2-27-	0-A89078	08/24/78	15-	20-	9.4-C	-5-	8.3-	327-	6-2-8-2-8-3-3-1-2-1-5-5-1-	-1-	10.8-															10.8-	C1	
02-54	8400	-132.9578	-2-07-	0-A89079	08/24/78	15-	20-	10.7-C	-5-	8.2-	203-	13-2-5-2-5-4-3-1-2-1-5-5-1-	-1-	10.4-															10.4-	C3	
02-54	8400	-132.9578	-2-27-	0-A89079	08/24/78	15-	20-	10.7-C	-5-	8.2-	203-	13-2-5-2-5-4-3-1-2-1-5-5-1-	-1-	10.4-															10.4-	C2	
02-54	8222	-132.9389	-2-07-	0-A89080	08/24/78	15-	20-	8.8-C	-5-	7.5-	113-	11-2-7-2-7-3-2-1-2-1-5-5-1-	-1-	10.6-															10.6-	C1	
02-54	8222	-132.9389	-2-27-	0-A89080	08/24/78	15-	20-	8.8-C	-5-	7.5-	113-	11-2-7-2-7-3-2-1-2-1-5-5-1-	-1-	10.6-															10.6-	C5	
02-54	8281	-132.9247	-2-07-	0-A89081	08/24/78	15-	20-	10.7-C	-5-	8.2-	221-	9-2-1-1-1-4-3-1-2-1-5-5-1-	-1-	10.5-															10.5-	C1	
02-54	8281	-132.9247	-2-27-	0-A89081	08/24/78	15-	20-	10.7-C	-5-	8.2-	221-	9-2-1-1-1-4-3-1-2-1-5-5-1-	-1-	10.5-															10.5-	C5	
02-54	7903	-132.9403	-2-07-	0-A89082	08/24/78	17-	20-	9.9-C	-5-	8.1-	200-	-2-1-2-1-3-3-1-2-1-5-5-1-	-1-	10.1-															10.1-	C1	
02-54	7903	-132.9403	-2-27-	0-A89082	08/24/78	17-	20-	9.9-C	-5-	8.1-	200-	-2-1-2-1-3-3-1-2-1-5-5-1-	-1-	10.1-															10.1-	C1	
02-54	7475	-132.8458	-2-07-	0-A89083	08/24/78	18-	22-	12.7-C	-5-	7.8-	107-	6-2-7-2-7-3-3-1-2-1-5-5-1-	-1-	9.5-															9.5-	C1	
02-54	7475	-132.8458	-2-27-	0-A89083	08/24/78	18-	22-	12.7-C	-5-	7.8-	107-	6-2-7-2-7-3-3-1-2-1-5-5-1-	-1-	9.5-															9.5-	C1	
02-54	8267	-132.6806	-2-07-	0-A89084	08/25/78	17-	15-	7.9-	-5-	8.1-	180-	5-2-7-2-7-3-3-1-2-1-4-4-2-	-1-	10.5-															10.5-	C9	
02-54	8267	-132.6806	-2-27-	0-A89084	08/25/78	17-	15-	7.9-	-5-	8.1-	180-	5-2-7-2-7-3-3-1-2-1-4-4-2-	-1-	10.5-															10.5-	C6	
02-54	9031	-132.6725	-2-06-	0-A89085	08/26/78	8-	14-	10.0-C	-5-	7.9-	212-	3-2-7-1-7-2-2-1-	-1-4-3-1-	6.8-															6.8-	C1	
02-54	9031	-132.6725	-2-26-	0-A89085	08/26/78	8-	14-	10.0-C	-5-	7.9-	212-	3-2-7-1-7-2-2-1-	-1-4-3-1-	6.8-															6.8-	C1	
02-54	9089	-132.7300	-2-07-	0-A89086	08/26/78	8-	14-	8.4-	-5-	8.1-	206-	8-2-6-3-6-3-2-1-2-1-4-4-1-	-1-	8.2-															8.2-	C2	
02-54	9089	-132.7300	-2-27-	0-A89086	08/26/78	8-	14-	8.4-	-5-	8.1-	206-	8-2-6-3-6-3-2-1-2-1-4-4-1-	-1-	8.2-															8.2-	C6	
02-54	9214	-132.7628	-2-07-	0-A89087	08/26/78	9-	15-	10.2-	-5-	8.2-	179-	9-3-1-1-1-3-3-1-2-2-4-4-1-	-1-	7.3-															7.3-	C13	
02-54	9214	-132.7628	-2-27-	0-A89087	08/26/78	9-	15-	10.2-	-5-	8.2-	179-	9-3-1-1-1-3-3-1-2-2-4-4-1-	-1-	7.3-															7.3-	C9	
02-54	8933	-132.8025	-2-07-	0-A89088	08/26/78	11-	14-	7.0-C	-5-	7.8-	213-	5-3-6-2-6-2-2-1-2-1-4-4-6-	-1-	8.9-															8.9-	C6	
02-54	8933	-132.8025	-2-27-	0-A89088	08/26/78	11-	14-	7.0-C	-5-	7.8-	213-	5-3-6-2-6-2-2-1-2-1-4-4-6-	-1-	8.9-															8.9-	C4	
02-54	8581	-132.7750	-2-07-	0-A89089	08/26/78	12-	16-	9.7-	-5-	7.8-	169-	6-3-1-2-1-2-2-1-2-1-4-3-1-	-1-	7.7-															7.7-	C1	
02-54	8581	-132.7750	-2-27-	0-A89089	08/26/78	12-	16-	9.7-	-5-	7.8-	169-	6-3-1-2-1-2-2-1-2-1-4-3-1-	-1-	7.7-															7.7-	C1	
02-54	8208	-132.7072	-2-07-	0-A89090	08/26/78	12-	16-	14.5-	-5-	7.5-	223-	4-3-1-4-6-3-3-1-2-4-4-3-1-	-1-	6.3-															6.3-	C5	
02-54	8208	-132.7072	-2-27-	0-A89090	08/26/78	12-	16-	14.5-	-5-	7.5-	223-	4-3-1-4-6-3-3-1-2-4-4-3-1-	-1-	6.3-															6.3-	C1	
02-54	7464	-132.8228	-2-07-	0-A89091	08/24/78	18-	25-	11.0-C	-5-	7.3-	63-	13-2-7-3-6-2-2-1-2-1-5-5-1-	-1-	9.7-															9.7-	C1	
02-54	7464	-132.8228	-2-27-	0-A89091	08/24/78	18-	25-	11.0-C	-5-	7.3-	63-	13-2-7-3-6-2-2-1-2-1-5-5-1-	-1-	9.7-															9.7-	C1	
02-54	7181	-132.8633	-2-07-	0-A89092	08/24/78	18-	25-	12.9-C	-5-	7.7-	41-	22-3-1-1-1-3-3-1-2-1-5-5-1-	-1-	9.4-															9.4-	C7	
02-54	7181	-132.8633	-2-27-	0-A89092	08/24/78	18-	25-	12.9-C	-5-	7.7-	41-	22-3-1-1-1-3-3-1-2-1-5-5-1-	-1-	9.4-															9.4-	C1	
02-54	7136	-132.8119	-2-07-	0-A89093	08/26/78	8-	15-	10.3-C	-5-	7.5-	110-	4-2-8-2-6-3-3-1-2-1-5-5-1-	-1-	9.2-															9.2-	C2	
02-54	7136	-132.8119	-2-27-	0-A89093	08/26/78	8-	15-	10.3-C	-5-	7.5-	110-	4-2-8-2-6-3-3-1-2-1-5-5-1-	-1-	9.2-															9.2-	C1	
02-54	6972	-132.7547	-2-07-	0-A89094	08/26/78	9-	20-	9.6-C	-5-	7.5-	101-	2-2-7-2-6-3-3-1-2-1-5-5-1-	-1-	10.1-															10.1-	C3	
02-54	6972	-132.7547	-2-27-	0-A89094	08/26/78	9-	20-	9.6-C	-5-	7.5-	101-	2-2-7-2-6-3-3-1-2-1-5-5-1-	-1-	10.1-															10.1-	C3	
02-54	7047	-132.7231	-2-07-	0-A89095	08/26/78	10-	20-	10.2-C	-5-	7.4-	101-	6-2-7-2-6-3-3-1-2-1-5-5-1-	-1-	9.4-															9.4-	C1	
02-54	7047	-132.7231	-2-27-	0-A89095	08/26/78	10-	20-	10.2-C	-5-	7.4-	101-	6-2-7-2-6-3-3-1-2-1-5-5-1-	-1-	9.4-															9.4-	C4	
02-54	7350	-132.7283	-2-07-	0-A89096	08/26/78	10-	23-	9.8-C	-5-	7.7-	97-	24-2-8-2-6-3-3-1-2-1-5-5-1-	-1-	9.0-															9.0-	C2	
02-54	7350	-132.7283	-2-27-	0-A89096	08/26/78	10-	23-	9.8-C	-5-	7.7-	97-	24-2-8-2-6-3-3-1-2-1-5-5-1-	-1-	9.0-															9.0-	C14	

APPENDIX I-B

Listings of Field Data and Elemental Concentrations for Sediment Samples from the Dixon Entrance and Prince Rupert D-6 Quadrangles, Alaska (Pages 40 through 115)

Note that four pages, numbered ① through ④ in the upper right hand corner, are necessary to provide the complete data listing for each numerically ordered sequence of samples.

- ① - Lists field data and uranium concentrations determined by delayed-neutron counting.
- ② - Lists concentrations of 11 elements determined by x-ray fluorescence and arc-source emission spectrography.
- ③ and ④ - List concentrations of 31 elements determined by neutron activation analysis and computed U/Th ratios.

(See Appendix II for Code to Listings)

[illegible]

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

②

DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
02-54.9022-131.9929-2-13-			0-A86501				-5	-5	-5	31	-20	-15	13	-10	-15	-1	9	
02-54.9022-131.9929-2-33-			0-A86501				-5	-5	-5	23	-20	-15	5	-10	-15	-1	7	
02-54.9022-131.9928-2-43-			0-A86501				-5	-5	-5	26	-20	-15	7	-10	-15	-1	6	
02-54.9022-131.9928-2-53-			0-A86501				-5	-5	-5	33	20	-15	5	-10	-15	-1	4	
02-54.9022-131.9928-2-63-			0-A86501				-5	-5	-5	29	-20	-15	-5	-10	-15	-1	4	
02-54.9675-131.9856-2-12-			0-A86502				-5	-5	-5	25	-20	17	10	-10	-15	2	24	
02-54.9675-131.9856-2-32-			0-A86502				-5	-5	9	54	-20	24	-5	-10	-15	2	29	
02-54.9675-131.9856-2-42-			0-A86502				-5	-5	5	40	-20	19	5	-10	-15	2	29	
02-54.9675-131.9856-2-52-			0-A86502				-5	-5	-5	43	-20	21	-5	-10	-15	2	26	
02-54.9675-131.9856-2-62-			0-A86502				-5	-5	-5	41	-20	38	-5	-10	-15	2	30	
02-54.9675-131.9856-2-71-			0-A86502				-5	-5	-5	39	-20	20	-5	-10	-15	2	21	
02-54.9675-131.9856-2-72-			0-A86502				-5	-5	5	44	-20	18	14	-10	26	1	25	
02-54.9675-131.9856-2-73-			0-A86502				-5	-5	-5	51	-20	33	7	-10	16	2	26	
02-54.9675-131.9856-2-74-			0-A86502				-5	-5	-5	32	-20	-15	33	27	-15	2	28	
02-54.9675-131.9856-2-75-			0-A86502				-5	-5	-5	39	-20	-15	13	-10	-15	2	23	
02-54.9481-131.9789-2-12-			0-A86503				-5	-5	-5	63	-20	23	-5	12	-15	2	41	
02-54.9481-131.9789-2-32-			0-A86503				-5	-5	-5	32	-20	29	-5	-10	-15	2	38	
02-54.9481-131.9789-2-42-			0-A86503				-5	-5	-5	57	29	34	-5	-10	-15	2	42	
02-54.9481-131.9789-2-52-			0-A86503				-5	-5	-5	29	35	32	-5	-10	-15	2	48	
02-54.9481-131.9789-2-62-			0-A86503				-5	-5	-5	52	-20	36	-5	15	-15	2	47	
02-54.9481-131.9789-2-71-			0-A86503				-5	-5	-5	32	22	25	-5	-10	-15	2	54	
02-54.9481-131.9789-2-72-			0-A86503				-5	-5	-5	27	-20	25	-5	-10	-15	2	58	
02-54.9481-131.9789-2-73-			0-A86503				-5	-5	-5	43	-20	-15	-5	-10	-15	2	50	
02-54.9481-131.9789-2-74-			0-A86503				-5	-5	6	31	-20	34	36	-10	-15	1	52	
02-54.9481-131.9789-2-75-			0-A86503				-5	-5	-5	43	-20	39	-5	-10	-15	2	56	
02-54.9272-131.9875-2-12-			0-A86504				-5	-5	-5	21	-20	-15	5	-10	-15	1	10	
02-54.9272-131.9875-2-32-			0-A86504				-5	-5	-5	22	-20	-15	-5	-10	-15	1	10	
02-54.9272-131.9875-2-42-			0-A86504				-5	-5	-5	10	-20	-15	-5	-10	-15	1	11	
02-54.9272-131.9875-2-71-			0-A86504				-5	-5	-5	19	-20	-15	-5	-10	-15	1	8	
02-54.9272-131.9875-2-72-			0-A86504				-5	-5	-5	16	-20	-15	-5	-10	-15	1	8	
02-54.9272-131.9875-2-73-			0-A86504				-5	6	-5	16	-20	-15	-5	-10	-15	1	9	
02-54.9272-131.9675-2-74-			0-A86504				-5	-5	-5	29	-20	-15	10	-10	-15	-1	10	
02-54.9272-131.9875-2-75-			0-A86504				-5	-5	-5	28	25	-15	-5	-10	-15	-1	11	
02-54.8319-131.9972-2-32-			0-A86505				-5	-5	5	40	-20	-15	-5	-10	18	1	18	
02-54.8319-131.9972-2-42-			0-A86505				-5	-5	-5	41	-20	24	-5	-10	-15	-1	28	
02-54.8319-131.9972-2-71-			0-A86505				-5	-5	-5	28	-20	-15	-5	-10	-15	1	13	
02-54.8319-131.9972-2-72-			0-A86505				-5	-5	6	42	-20	-15	-5	-10	-15	1	11	
02-54.8319-131.9972-2-73-			0-A86505				-5	-5	-5	43	-20	-15	-5	-10	-15	1	16	
02-54.8319-131.9972-2-74-			0-A86505				-5	-5	6	42	-20	-15	-5	-10	-15	1	14	
02-54.7997-131.9972-2-32-			0-A86506				-5	-5	-5	47	24	-15	-5	-10	-15	1	22	
02-54.7997-131.9972-2-42-			0-A86506				-5	-5	-5	50	-20	16	-5	10	27	-1	44	
02-54.7997-131.9972-2-71-			0-A86506				-5	-5	-5	16	-20	-15	-5	-10	-15	1	15	
02-54.7997-131.9972-2-72-			0-A86506				-5	-5	-5	32	-20	-15	-5	-10	-15	-1	9	
02-54.7997-131.9972-2-73-			0-A86506				-5	-5	-5	-10	-20	27	-5	-10	-15	1	9	
02-54.7997-131.9972-2-74-			0-A86506				-5	-5	5	31	-20	15	-5	-10	-15	1	11	
02-54.7997-131.9972-2-75-			0-A86506				-5	-5	-5	22	-20	-15	-5	-10	-15	2	13	
02-54.8800-131.9733-2-12-			0-A86507				-5	-5	-5	17	-20	-15	-5	-10	-15	-1	6	
02-54.8800-131.9733-2-32-			0-A86507				-5	-5	-5	22	-20	-15	-5	-10	-15	1	5	
02-54.8800-131.9733-2-42-			0-A86507				-5	-5	-5	23	-20	-15	-5	-10	-15	1	6	
02-54.8800-131.9733-2-52-			0-A86507				-5	-5	6	15	-20	-15	5	-10	-15	1	7	
02-54.8800-131.9733-2-62-			0-A86507															

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
02-54.9022-131.9928-2-13-	0-AR6501	35200	-0.07	-187	11360	24	825	4.7	25	-2.8	2	0.7	8913	2.0	-4089	-4	-0.1						
02-54.9022-131.9928-2-33-	0-AR6501	35693	-0.07	-176	11370	25	880	-2.1	25	-2.8	2	0.6	9852	1.9	-4302	-5	-0.1						
02-54.9022-131.9928-2-43-	0-AR6501	35753	-0.08	-394	11700	27	813	3.7	-15	-3.1	2	0.6	10050	-1.8	-6018	10	-0.2						
02-54.9022-131.9928-2-53-	0-AR6501	32160	-0.09	-170	11010	27	860	5.2	-17	-3.4	3	0.7	10890	1.6	-4563	17	-0.2						
02-54.9022-131.9928-2-63-	0-AR6501	30200	-0.06	-175	9225	27	856	3.8	19	-2.4	3	0.5	8598	2.2	-3683	-4	-0.1						
02-54.9675-131.9856-2-12-	0-AR6502	70910	-0.12	-368	15480	41	-184	32.1	92	-2.3	3	1.2	58680	3.1	-6508	14	0.4						
02-54.9675-131.9856-2-32-	0-AR6502	62150	-0.13	-188	20100	46	-156	42.9	179	-2.5	2	1.6	93820	3.4	5886	21	0.4						
02-54.9675-131.9856-2-42-	0-AR6502	54020	-0.12	-204	16210	44	346	40.0	136	-2.3	4	1.4	68910	2.7	-6876	14	0.4						
02-54.9675-131.9856-2-52-	0-AR6502	70170	-0.11	-277	18380	35	-198	34.1	106	-2.1	-2	1.3	60340	2.6	-6603	20	0.3						
02-54.9675-131.9856-2-62-	0-AR6502	68510	-0.12	-257	17540	40	-186	34.3	92	-2.3	3	1.2	59510	3.3	-6764	21	0.3						
02-54.9675-131.9856-2-71-	0-AR6502	69940	-0.14	475	20710	41	349	37.4	141	-2.8	3	1.5	83920	2.8	-5268	18	0.4						
02-54.9675-131.9856-2-72-	0-AR6502	64570	-0.13	-211	14660	36	635	34.8	92	-2.5	3	1.2	67570	2.9	-7024	15	0.3						
02-54.9675-131.9856-2-73-	0-AR6502	70670	-0.15	472	19170	35	835	31.7	91	-2.6	3	1.1	61240	3.0	-6728	18	0.3						
02-54.9675-131.9856-2-74-	0-AR6502	74640	-0.16	-277	17810	36	609	33.5	99	-3.0	4	1.2	79230	3.3	-6043	15	0.5						
02-54.9675-131.9856-2-75-	0-AR6502	72510	-0.13	309	14240	35	568	36.1	79	-2.5	3	1.3	67950	3.0	6016	17	0.3						
02-54.9481-131.9789-2-12-	0-AR6503	73620	-0.11	517	27480	33	334	28.6	138	-2.0	4	1.2	51400	2.9	13530	17	0.3						
02-54.9481-131.9789-2-32-	0-AR6503	75380	-0.10	440	30010	36	296	22.7	104	-1.8	3	1.3	42720	2.7	16770	18	0.4						
02-54.9481-131.9789-2-42-	0-AR6503	71450	-0.14	326	30260	48	354	38.3	165	-2.5	-1	1.5	70620	3.7	11100	29	0.4						
02-54.9481-131.9789-2-52-	0-AR6503	69850	-0.11	-373	24130	35	246	33.6	123	-2.0	3	1.4	50120	3.2	12520	14	0.4						
02-54.9481-131.9789-2-62-	0-AR6503	71510	-0.12	361	25840	37	339	32.1	134	-2.2	4	1.2	49530	3.3	14230	19	0.4						
02-54.9481-131.9789-2-71-	0-AR6503	76250	-0.12	520	23210	40	4347	24.3	119	-2.2	3	1.3	52090	2.9	20350	15	0.4						
02-54.9481-131.9789-2-72-	0-AR6503	73060	-0.11	377	26840	39	5447	31.7	119	-2.0	4	1.5	50190	3.0	10820	22	0.5						
02-54.9481-131.9789-2-73-	0-AR6503	69790	-0.11	-256	28130	39	5460	32.7	118	-2.1	3	1.4	51850	3.2	16150	17	0.3						
02-54.9481-131.9789-2-74-	0-AR6503	67370	0.30	-214	27170	44	5466	31.7	136	-2.6	4	1.3	57400	3.8	11510	27	0.4						
02-54.9481-131.9789-2-75-	0-AR6503	71920	-0.13	670	21830	37	665	14.6	39	2.8	4	1.1	42450	7.5	9977	-9	0.3						
02-54.9272-131.9875-2-12-	0-AR6504	73730	-0.12	647	25150	44	556	24.0	42	2.7	3	1.4	43050	15.6	15040	22	0.4						
02-54.9272-131.9875-2-32-	0-AR6504	75900	-0.13	336	27810	30	245	38.8	67	-2.4	3	1.6	88170	5.1	13240	17	0.3						
02-54.9272-131.9875-2-42-	0-AR6504	72950	-0.11	523	25190	46	396	20.9	36	-2.1	4	1.2	45510	15.2	15790	20	0.4						
02-54.9272-131.9875-2-71-	0-AR6504	73150	-0.10	650	25740	31	273	8.9	-8	1.3	3	1.1	28720	9.9	18600	19	0.3						
02-54.9272-131.9875-2-72-	0-AR6504	73750	-0.13	553	25130	39	490	12.8	26	-2.5	3	1.2	34540	17.0	14460	18	0.4						
02-54.9272-131.9875-2-73-	0-AR6504	72040	-0.14	663	26740	46	412	16.8	33	3.5	4	1.2	46020	19.8	20980	29	0.4						
02-54.9272-131.9875-2-74-	0-AR6504	68200	-0.13	442	21210	41	649	14.5	33	2.6	4	1.1	39250	9.2	18980	23	0.4						
02-54.9272-131.9875-2-75-	0-AR6504	75180	-0.13	516	18890	33	724	14.5	32	2.0	3	1.1	40950	8.1	18510	-8	0.3						
02-54.8319-131.9972-2-32-	0-AR6505	80690	-0.10	362	26640	23	263	34.3	45	-2.0	3	1.4	68780	3.6	11210	13	0.3						
02-54.8319-131.9972-2-42-	0-AR6505	75570	-0.13	-161	26490	29	475	36.3	53	-2.4	3	1.4	69500	6.5	-5368	13	0.3						
02-54.8319-131.9972-2-71-	0-AR6505	81080	-0.14	370	28750	27	531	31.8	49	-2.7	3	1.4	83840	5.0	12230	12	0.3						
02-54.8319-131.9972-2-72-	0-AR6505	30830	-0.13	-272	29000	28	807	29.2	43	-2.7	4	1.3	70870	4.8	-5883	-7	0.3						
02-54.8319-131.9972-2-73-	0-AR6505	79540	-0.13	400	28110	28	848	35.5	38	-2.5	5	1.3	72340	5.4	10970	16	0.3						
02-54.8319-131.9972-2-74-	0-AR6505	78290	-0.15	389	26770	30	956	33.0	37	-2.8	4	1.2	67540	7.6	9918	12	0.3						
02-54.7997-131.9972-2-32-	0-AR6506	75910	-0.14	-187	38000	36	2652	35.1	88	-2.7	3	1.5	91100	2.6	-4812	14	0.3						
02-54.7997-131.9972-2-42-	0-AR6506	70880	-0.12	-183	37890	30	3427	41.4	85	-2.4	4	1.6	85980	3.5	-4918	15	0.2						
02-54.7997-131.9972-2-71-	0-AR6506	85590	-0.13	-349	36370	50	-232	56.9	123	-2.7	3	2.0	55790	2.9	-9936	23	0.3						
02-54.7997-131.9972-2-72-	0-AR6506	75060	-0.15		17850	49		109.2	113	-3.0	-3	1.5	72580	2.6		17	0.4						
02-54.7997-131.9972-2-73-	0-AR6506	74650	-0.18		28050	44		99.2	143	-3.5	-3	1.4	39430	2.9		29	0.4						
02-54.7997-131.9972-2-74-	0-AR6506	85430	-0.14		-5839	38		146.0	109	-2.7	-3	1.4	86500	2.9		11	0.4						
02-54.7997-131.9972-2-75-	0-AR6506	80820	-0.13		12450	33		111.8	105	-2.6	-3	1.3	76930	2.7		-9	0.3						
02-54.8800-131.9733-2-12-	0-AR6507	71740	-0.11	539	36470	33	1090	22.5	32	-2.9	-2	1.4	44030	9.3	11430	19	0.3						
02-54.8800-131.9733-2-32-	0-AR6507	70750	-0.09	609	31750	22	474	14.9	17	-1.8	2	1.2	32850	6.5	12730	15	0.3						
02-54.8800-131.9733-2-42-	0-AR6507	81190	-0.11	540	36550	29	1165	29.0	26	-2.3	3	1.3	44080	8.2	9389	17	0.3						
02-54.8800-131.9733-2-52-	0-AR6507	67560	-0.11	640	36850	21	1183	25.4	31	-3.0	3	1.2	52520	6.3	-8310	14	0.3						
02-54.8800-131.9733-2-62-	0-AR6507	69630	-0.10	-249	30910	27	1364	21.9	61	-2.9	-2	0.8	47950	2.4	-7721	21	0.4						

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

4

DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)															U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
02-54.9022-131.9928-2-13-	0-196501	4220	239	7549	-43	-2	7.7	2.8	-418	-3	-1	-1.7	4198	99	-1.7	92						
02-54.9022-131.9928-2-33-	0-196501	-2700	270	8160	-46	-2	7.2	2.5	-426	-3	-1	2.7	4455	96	-1.7	-70						2.619
02-54.9022-131.9928-2-43-	0-196501	-3547	301	8500	-42	-2	7.6	2.9		-3	-1	3.6	4171	96	-2.0	-62						1.889
02-54.9022-131.9928-2-53-	0-196501	-2539	243	7695	-47	-2	8.4	-3.8	-375	-3	-1	3.3	3952	85	-2.2	-82						2.121
02-54.9022-131.9928-2-53-	0-196501	3917	202	6290	-38	-1	7.1	3.4	-360	-2	-1	3.5	3963	88	-1.5	-60						2.291
02-54.9675-131.9856-2-12-	0-196502	19820	2511	23960	-36	-3	21.5	4.6		-1	-1	2.9	4820	157	3.2	91						0.655
02-54.9675-131.9856-2-32-	0-196502	21170	2163	21550	-41	-3	30.6	4.4		-2	-1	3.4	5785	205	3.2	220						0.500
02-54.9675-131.9856-2-42-	0-196502	15075	2638	22400	-40	-3	24.9	5.0		-1	-1	5.1	3382	145	4.2	175						0.376
02-54.9675-131.9856-2-52-	0-196502	22750	2455	23940	-36	-3	22.2	4.0		-1	1	3.5	3982	175	3.2	147						0.543
02-54.9675-131.9856-2-52-	0-196502	19900	2668	25300	-35	-3	20.6	4.2		-1	-1	4.0	4001	149	4.3	96						0.475
02-54.9675-131.9856-2-71-	0-196502	22225	1955	24550	-44	-3	31.3	4.6		-2	-1	3.3	4301	190	2.5	182						0.485
02-54.9675-131.9856-2-72-	0-196502	16710	2513	22200	-42	-3	24.2	3.4		-2	-1	3.5	4273	148	-2.0	155						0.514
02-54.9675-131.9856-2-73-	0-196502	21630	2219	23960	-41	-3	22.8	3.2		-2	-1	4.0	3717	197	-2.3	206						0.425
02-54.9675-131.9856-2-74-	0-196502	23315	2027	25100	-49	-4	29.4	4.0		-2	-1	3.3	4962	188	-2.6	151						0.515
02-54.9675-131.9856-2-75-	0-196502	24050	2008	24380	-43	-3	23.5	4.3		-2	-1	-1.4	3678	203	4.6	182						
02-54.9481-131.9789-2-12-	0-196503	17360	1650	24450	-33	-3	22.4	3.8	-437	-1	-1	3.4	4132	171	-1.7	188						1.059
02-54.9481-131.9789-2-32-	0-196503	16190	1326	24270	-27	-2	19.1	3.4	-412	-1	-1	2.4	3417	158	3.0	-71						1.292
02-54.9481-131.9789-2-42-	0-196503	21030	1738	22510	-42	-3	23.9	4.8	-478	-2	1	4.1	4316	189	3.8	209						1.024
02-54.9481-131.9789-2-52-	0-196503	17380	2214	25110	-35	-3	21.0	4.1		-1	1	3.4	3722	159	-1.8	148						1.118
02-54.9481-131.9789-2-62-	0-196503	19610	1975	24550	-34	-3	21.2	4.1	-494	-1	-1	3.8	3255	169	3.4	125						1.000
02-54.9481-131.9789-2-71-	0-196503	14955	1218	28490	-36	-3	23.3	4.3	-439	-1	-1	3.7	3906	145	3.0	146						0.811
02-54.9481-131.9789-2-72-	0-196503	16800	1505	26450	-31	-3	21.9	4.1	-456	-1	-1	3.4	3720	155	4.0	149						1.000
02-54.9481-131.9789-2-73-	0-196503	15210	1894	26030	-34	-3	22.2	4.4	-494	-1	-1	4.1	2937	158	-1.8	169						0.927
02-54.9481-131.9789-2-74-	0-196503	16820	2114	24040	-40	-4	23.6	5.0		-1	1	4.2	4170	168	-2.4	125						1.071
02-54.9481-131.9789-2-75-	0-196503	8235	1059	18900	-41	-3	16.6	4.1		-2	-1	6.2	5506	168	-2.2	114						1.419
02-54.9272-131.9875-2-12-	0-196504	10820	1768	21380	-59	-3	20.2	4.2		-1	-1	5.6	5212	152	4.8	-39						1.125
02-54.9272-131.9875-2-32-	0-196504	18520	1894	20580	-39	-3	30.5	4.4	-413	-2	-1	2.4	6024	207	3.0	162						0.521
02-54.9272-131.9875-2-42-	0-196504	12445	1791	21970	-34	-3	20.7	4.5	-482	-1	-1	6.2	4351	145	3.4	63						1.016
02-54.9272-131.9875-2-71-	0-196504	10560	704	23900	-57	-2	15.3	3.2	-372	-1	-1	3.5	5062	112	-1.5	67						0.914
02-54.9272-131.9875-2-72-	0-196504	12245	862	22400	-36	-3	18.2	3.7	-419	-2	-1	4.1	6067	134	4.1	106						1.195
02-54.9272-131.9875-2-73-	0-196504	11010	1060	23980	-40	-3	22.7	5.2	-434	-2	-1	5.2	5759	138	4.4	143						1.096
02-54.9272-131.9875-2-74-	0-196504	12975	968	18520	-40	-3	17.1	2.6	-441	-2	-1	6.2	5704	159	3.5	117						1.290
02-54.9272-131.9875-2-75-	0-196504	10550	1070	18700	-42	-3	16.8	4.2		-2	-1	6.5	5488	162	-2.1	112						1.369
02-54.8319-131.9972-2-32-	0-196505	22915	1379	21100	-32	-2	24.5	3.9	-399	-1	-1	-1.1	6040	215	4.1	110						
02-54.8319-131.9972-2-42-	0-196505	17870	1525	18930	-38	-3	24.9	3.7	-452	-1	-1	1.8	4962	211	2.4	-45						0.722
02-54.8319-131.9972-2-71-	0-196505	20880	1336	21690	-44	-3	30.0	4.8	-409	-2	-1	2.6	5782	215	4.0	77						0.500
02-54.8319-131.9972-2-72-	0-196505	17855	1797	18710	-44	-3	25.0	3.3		-2	-1	-1.4	5158	232	-2.1	117						
02-54.8319-131.9972-2-73-	0-196505	21190	1612	17990	-42	-3	24.4	3.5		-2	-1	2.1	6992	228	-2.1	-50						0.762
02-54.8319-131.9972-2-74-	0-196505	17000	1905	18930	-44	-4	22.5	4.9		-2	-1	3.7	6046	232	-2.5	117						0.500
02-54.7997-131.9972-2-32-	0-196506	21405	1449	22130	-44	-3	32.4	5.0	-466	-2	-1	-1.5	8290	233	2.3	182						
02-54.7997-131.9972-2-42-	0-196506	21555	1648	21190	-40	-3	30.4	4.7	-474	-1	-1	-1.3	7974	250	3.2	145						
02-54.7997-131.9972-2-71-	0-196506	17080	4807	29530	-42	-3	39.0	6.2		-2	-1	1.9	3806	291	-2.2	85						1.000
02-54.7997-131.9972-2-72-	0-196506	-7605	11470	27590	-49	-4	30.6	5.1		-2	-1	3.2	-2386	248	-2.5	-51						0.531
02-54.7997-131.9972-2-73-	0-196506	11400	9548	29570	-40	-4	35.6	5.6		-2	-1	3.2	-2684	266	3.1	-75						0.531
02-54.7997-131.9972-2-74-	0-196506	-7675	12870	26130	-52	-3	26.2	4.1		-2	-1	3.5	-2800	248	-2.3	95						0.486
02-54.7997-131.9972-2-75-	0-196506	11125	9910	26790	-49	-3	23.7	4.0		-2	-1	2.9	-3030	256	3.6	124						0.600
02-54.8800-131.9733-2-12-	0-196507	14110	1858	21990	-47	-3	21.5	2.9		-2	-1	2.7	5616	154	2.4	160						2.370
02-54.8800-131.9733-2-32-	0-196507	10970	1168	23930	-27	-2	17.1	2.7	-423	-1	-1	2.7	4915	105	3.4	66						1.148
02-54.8800-131.9733-2-42-	0-196507	15710	1951	25140	-39	-3	21.5	4.0		-1	-1	3.1	6481	180	-1.8	137						1.774
02-54.8800-131.9733-2-52-	0-196507	13210	2524	21590	-47	-3	21.4	4.3		-2	-1	4.4	5275	183	-2.3	54						1.750
02-54.8800-131.9733-2-52-	0-196507	14455	2431	19540	-47	-2	14.2	3.5		-1	-1	3.5	7930	204	-2.0	80						2.314

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																U CONCENTRATION										
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCHLUMETER (mU/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RIFF	WEATHER	ONNIESHP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm	
							DATE	HOUR																								
02-54.9354-132.1469-2-13-						7-1899771-09/23/79-	9-		11-13.6-	-5-	6.5-	20-				-3-7-5-5-	-3-1-	-1-4-5-2-	-1-												8.5-	9.10
02-54.9354-132.1469-2-33-						7-1899771-09/23/79-	9-		11-13.6-	-5-	6.5-	20-				-3-7-5-6-	-3-1-	-1-4-5-2-	-1-												8.5-	9.00
02-54.9354-132.1469-2-43-						7-1899771-09/23/79-	9-		11-13.6-	-5-	6.5-	20-				-3-7-5-5-	-3-1-	-1-4-5-2-	-1-												8.5-	9.80
02-54.9354-132.1469-2-53-						7-1899771-09/23/79-	9-		11-13.6-	-5-	6.5-	20-				-3-7-5-6-	-3-1-	-1-4-5-2-	-1-												8.5-	9.70
02-54.9354-132.1469-2-63-						7-1899771-09/23/79-	9-		11-13.6-	-5-	6.5-	20-				-3-7-5-6-	-3-1-	-1-4-5-2-	-1-												8.5-	9.70
02-54.9350-132.1744-2-13-						7-1899772-09/23/79-	9-		11-14.5-	-5-	5.5-	13-				-3-7-5-6-	-3-1-	-1-2-5-2-	-1-												8.4-	2.90
02-54.9350-132.1744-2-33-						7-1899772-09/23/79-	9-		11-14.5-	-5-	5.5-	13-				-3-7-5-6-	-3-1-	-1-2-5-2-	-1-												8.4-	2.90
02-54.9350-132.1744-2-43-						7-1899772-09/23/79-	9-		11-14.5-	-5-	5.5-	13-				-3-7-5-6-	-3-1-	-1-2-5-2-	-1-												8.4-	2.90
02-54.9350-132.1744-2-53-						7-1899772-09/23/79-	9-		11-14.5-	-5-	5.5-	13-				-3-7-5-6-	-3-1-	-1-2-5-2-	-1-												8.4-	2.79
02-54.9350-132.1744-2-63-						7-1899772-09/23/79-	9-		11-14.5-	-5-	5.5-	13-				-3-7-5-6-	-3-1-	-1-2-5-2-	-1-												8.4-	2.97
02-54.9225-132.1756-2-13-						7-1899773-09/23/79-	9-		11-11.1-C-	-5-	6.2-	12-				-3-7-4-6-	-3-1-	-1-5-2-	-1-												9.0-	14.10
02-54.9225-132.1756-2-33-						7-1899773-09/23/79-	9-		11-11.1-C-	-5-	6.2-	12-				-3-7-4-6-	-3-1-	-1-5-2-	-1-												9.0-	9.90
02-54.9225-132.1756-2-43-						7-1899773-09/23/79-	9-		11-11.1-C-	-5-	6.2-	12-				-3-7-4-5-	-3-1-	-1-5-2-	-1-												9.0-	12.20
02-54.9225-132.1756-2-53-						7-1899773-09/23/79-	9-		11-11.1-C-	-5-	6.2-	12-				-3-7-4-6-	-3-1-	-1-5-2-	-1-												9.0-	19.20
02-54.9225-132.1756-2-63-						7-1899773-09/23/79-	9-		11-11.1-C-	-5-	6.2-	12-				-3-7-4-6-	-3-1-	-1-5-2-	-1-												9.0-	22.90
02-54.9228-132.1629-2-13-						7-1899774-09/23/79-	9-		11-13.3-	-5-	5.4-	10-				-3-7-5-6-	-3-1-	-1-5-2-	-1-												9.5-	17.80
02-54.9228-132.1629-2-33-						7-1899774-09/23/79-	9-		11-13.3-	-5-	5.4-	10-				-3-7-5-6-	-3-1-	-1-5-2-	-1-												9.5-	17.00
02-54.9228-132.1629-2-43-						7-1899774-09/23/79-	9-		11-13.3-	-5-	5.4-	10-				-3-7-5-6-	-3-1-	-1-5-2-	-1-												9.5-	18.10
02-54.9228-132.1629-2-53-						7-1899774-09/23/79-	9-		11-13.3-	-5-	5.4-	10-				-3-7-5-6-	-3-1-	-1-5-2-	-1-												9.5-	18.60
02-54.9228-132.1628-2-63-						7-1899774-09/23/79-	9-		11-13.3-	-5-	5.4-	10-				-3-7-5-6-	-3-1-	-1-5-2-	-1-												9.5-	18.90
02-54.9492-132.0956-2-13-						7-1899775-09/23/79-	9-		11-15.0-	-5-	5.6-	31-				-4- -4-6-	-3-1-	-1-5-4-2-	-1-												8.6-	2.70
02-54.9492-132.0956-2-33-						7-1899775-09/23/79-	9-		11-15.0-	-5-	5.6-	31-				-4- -4-6-	-3-1-	-1-5-4-2-	-1-												8.6-	2.00
02-54.9492-132.0956-2-43-						7-1899775-09/23/79-	9-		11-15.0-	-5-	5.6-	31-				-4- -4-6-	-3-1-	-1-5-4-2-	-1-												8.6-	2.60
02-54.9492-132.0956-2-53-						7-1899775-09/23/79-	9-		11-15.0-	-5-	5.6-	31-				-4- -4-6-	-3-1-	-1-5-4-2-	-1-												8.6-	2.50
02-54.9492-132.0956-2-63-						7-1899775-09/23/79-	9-		11-15.0-	-5-	5.6-	31-				-4- -4-6-	-3-1-	-1-5-4-2-	-1-												8.6-	2.16
02-54.9408-132.0664-2-33-						7-1899776-09/23/79-	9-		11-15.1-	-5-	6.8-	32-				-2-7-4-6-	-3-1-	-1-4-4-2-	-1-												9.2-	3.60
02-54.9408-132.0664-2-43-						7-1899776-09/23/79-	9-		11-15.1-	-5-	6.8-	32-				-2-7-4-6-	-3-1-	-1-4-4-2-	-1-												9.2-	5.10
02-54.9556-132.0164-2-13-						7-1899777-09/23/79-	9-		12-13.2-	-5-	4.7-	33-				-2-7-5-6-	-3-1-	-1-4-4-2-	-1-												8.2-	0.81
02-54.9556-132.0164-2-33-						7-1899777-09/23/79-	9-		12-13.2-	-5-	4.7-	33-				-2-7-5-6-	-3-1-	-1-4-4-2-	-1-												8.2-	0.80
02-54.9556-132.0164-2-43-						7-1899777-09/23/79-	9-		12-13.2-	-5-	4.7-	33-				-2-7-5-6-	-3-1-	-1-4-4-2-	-1-												8.2-	0.80
02-54.9150-132.0561-2-13-						7-1899779-09/23/79-	9-		12-15.5-	-5-	5.6-	31-				-3-7-4-6-	-3-1-	-1-3-5-2-	-1-												9.0-	4.40
02-54.9150-132.0561-2-33-						7-1899779-09/23/79-	9-		12-15.5-	-5-	5.6-	31-				-3-7-4-6-	-3-1-	-1-3-5-2-	-1-												9.0-	3.90
02-54.9150-132.0561-2-43-						7-1899779-09/23/79-	9-		12-15.5-	-5-	5.6-	31-				-3-7-4-6-	-3-1-	-1-3-5-2-	-1-												9.0-	4.30
02-54.9150-132.0561-2-53-						7-1899779-09/23/79-	9-		12-15.5-	-5-	5.6-	31-				-3-7-4-6-	-3-1-	-1-3-5-2-	-1-												9.0-	4.80
02-54.8681-132.1086-2-13-						7-1899779-09/23/79-	9-		12-14.9-	-5-	5.7-	24-				-3-7-4-6-	-3-1-	-1-4-4-2-	-1-												9.1-	1.20
02-54.8681-132.1086-2-33-						7-1899779-09/23/79-	9-		12-14.9-	-5-	5.7-	24-				-3-7-4-6-	-3-1-	-1-4-4-2-	-1-												9.1-	0.80
02-54.8681-132.1086-2-43-						7-1899779-09/23/79-	9-		12-14.9-	-5-	5.7-	24-				-3-7-4-6-	-3-1-	-1-4-4-2-	-1-												9.1-	1.00
02-54.8611-132.1022-2-33-						7-1899779-09/23/79-	9-		12-14.9-	-5-	5.9-	25-				-3-7-4-5-	-3-1-	-1-4-5-2-	-1-												9.2-	1.10
02-54.8611-132.1022-2-43-						7-1899779-09/23/79-	9-		12-14.9-	-5-	5.9-	25-				-3-7-4-6-	-3-1-	-1-4-5-2-	-1-												9.2-	3.80
02-54.8361-132.1722-2-33-						7-1899779-09/23/79-	9-		12-15.7-	-5-	5.8-	26-				-4- -5-6-	-3-1-	-1-3-3-2-	-1-												7.8-	3.70
02-54.8361-132.1722-2-43-						7-1899779-09/23/79-	9-		12-15.7-	-5-	5.8-	26-				-4- -5-6-	-3-1-	-1-3-3-2-	-1-												7.8-	5.20
02-54.8247-132.1669-2-13-						7-1899779-09/23/79-10-	10-		13-15.9-	-5-	5.6-	30-				-4- -4-6-	-3-1-	-1-4-4-2-	-1-												8.1-	2.70
02-54.8247-132.1669-2-33-						7-1899779-09/23/79-10-	10-		13-15.9-	-5-	5.6-	30-				-4- -4-6-	-3-1-	-1-4-4-2-	-1-												8.1-	2.80
02-54.8247-132.1669-2-43-						7-1899779-09/23/79-10-	10-		13-15.9-	-5-	5.6-	30-				-4- -4-6-	-3-1-	-1-4-4-2-	-1-												8.1-	2.66
02-54.8247-132.1669-2-53-						7-1899779-09/23/79-10-	10-		13-15.9-	-5-	5.6-	30-				-4- -4-6-	-3-1-	-1-4-4-2-	-1-												8.1-	2.80
02-54.8067-132.1425-2-13-						7-1899779-09/23/79-10-	10-		13-15.9-	-5-	5.6-	30-				-4- -4-6-	-3-1-	-1-4-4-2-	-1-												8.1-	2.70
02-54.8067-132.1425-2-33-						7-1899779-09/23/79-10-	10-		13-15.9-	-5-	5.6-	30-				-4- -4-6-	-3-1-	-1-4-4-2-	-1-												8.1-	2.70
02-54.8067-132.1425-2-43-						7-1899779-09/23/79-10-	10-		13-15.9-	-5-	5.6-	30-				-4- -4-6-	-3-1-	-1-4-4-2-	-1-												8.1-	2.70
02-54.8067-132.1425-2-53-																																

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						DOE SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE									ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE		Concentrations reported in weight parts per million (ppm)									Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li
02-54.9364-132.1469-2-13-	0-889001	-5	5	-5	26	-20	-15	20	-10	-15			3	26			
02-54.9364-132.1469-2-33-	0-889001	-5	5	-5	15	-20	21	31	-10	-15			2	42			
02-54.9364-132.1469-2-43-	0-889001	-5	-5	-5	12	-20	-15	14	-10	-15			4	48			
02-54.9364-132.1469-2-53-	0-889001												2	36			
02-54.9364-132.1469-2-63-	0-889001	-5	-5	-5	21	-20	-15	17	-10	-15			3	23			
02-54.9350-132.1744-2-13-	0-889002	-5	-5	-5	22	60	-15	-5	-10	-15			-1	7			
02-54.9350-132.1744-2-33-	0-889002	-5	-5	-5	22	-20	-15	-5	-10	-15			-1	8			
02-54.9350-132.1744-2-43-	0-889002	-5	-5	-5	21	46	-15	5	-10	-15			1	10			
02-54.9350-132.1744-2-53-	0-889002	-5	-5	-5	41	54	-15	5	-10	-15			-1	7			
02-54.9350-132.1744-2-63-	0-889002	-5	-5	-5	46	36	-15	9	-10	-15			-1	7			
02-54.9225-132.1756-2-13-	0-889003	-5	-5	-5	11	-20	-15	16	11	-15			9	166			
02-54.9225-132.1756-2-33-	0-889003	-5	-5	-5	10	24	-15	27	16	-15			9	136			
02-54.9225-132.1756-2-43-	0-889003	-5	-5	-5	-10	34	-15	-5	15	-15			9	175			
02-54.9225-132.1756-2-53-	0-889003	-5	6	-5	-10	-20	-15	11	20	-15			11	186			
02-54.9225-132.1756-2-63-	0-889003	-5	11	-5	-10	44	-15	18	18	-15			12	189			
02-54.9228-132.1628-2-13-	0-889004	-5	-5	-5	16	43	-15	41	-10	-15			12	70			
02-54.9228-132.1628-2-33-	0-889004	-5	7	-5	-10	-20	-15	37	-10	-15			9	77			
02-54.9228-132.1628-2-43-	0-889004	-5	-5	-5	12	28	-15	34	-10	-15			12	78			
02-54.9228-132.1628-2-53-	0-889004	-5	5	-5	12	34	-15	45	-10	-15			13	59			
02-54.9228-132.1628-2-63-	0-889004	-5	7	-5	-10	93	-15	45	-10	-15			13	61			
02-54.9492-132.0956-2-13-	0-889005	-5	-5	-5	49	-20	23	-5	-10	-15			1	8			
02-54.9492-132.0956-2-33-	0-889005	-5	-5	-5	36	-20	-15	14	-10	-15			2	12			
02-54.9492-132.0956-2-43-	0-889005	-5	6	-5	34	-20	21	-5	-10	-15			2	13			
02-54.9492-132.0956-2-53-	0-889005	-5	-5	-5	63	-20	20	-5	-10	-15			2	8			
02-54.9492-132.0956-2-63-	0-889005	-5	-5	-5	73	-20	-15	-5	-10	-15			-1	13			
02-54.9408-132.0564-2-13-	0-889006	-5	-5	-5	45	-20	-15	3	-10	-15			2	17			
02-54.9408-132.0564-2-43-	0-889006												1	32			
02-54.9556-132.0164-2-13-	0-889007	-5	-5	-5	19	-20	-15	17	-10	-15			-1	2			
02-54.9556-132.0164-2-33-	0-889007	-5	-5	-5	34	-20	-15	44	-10	-15			-1	9			
02-54.9556-132.0164-2-43-	0-889007	-5	-5	-5	20	-20	-15	14	-10	-15			-1	2			
02-54.9150-132.0561-2-13-	0-889008	-5	7	-5	98	-20	22	-5	-10	-15			2	12			
02-54.9150-132.0561-2-33-	0-889008	-5	-5	-5	87	-20	-15	-5	-10	-15			2	15			
02-54.9150-132.0561-2-43-	0-889008	-5	-5	-5	107	-20	-15	-5	-10	-15			2	13			
02-54.9150-132.0561-2-53-	0-889008	-5	-5	-5	115	-20	29	-5	-10	-15			1	15			
02-54.8581-132.1086-2-13-	0-889009												1	11			
02-54.8681-132.1086-2-33-	0-889009	-5	-5	6	24	-20	-15	-5	-10	-15			1	4			
02-54.8681-132.1086-2-43-	0-889009	-5	-5	-5	16	-20	-15	-5	-10	-15			1	3			
02-54.8611-132.1022-2-33-	0-889010	-5	5	-5	18	-20	-15	-5	-10	-15			-1	5			
02-54.8611-132.1022-2-43-	0-889010																
02-54.8361-132.1722-2-33-	0-889011	-5	6	5	38	-20	43	10	-10	-15			2	30			
02-54.8361-132.1722-2-43-	0-889011	-5	-5	5	55	-20	54	6	-10	-15			2	27			
02-54.8247-132.1669-2-13-	0-889012	-5	-5	-5	25	-20	-15	-5	-10	-15			2	8			
02-54.8247-132.1669-2-33-	0-889012	-5	-5	-5	28	-20	19	5	-10	-15			-1	17			
02-54.8247-132.1669-2-43-	0-889012	-5	-5	-5	27	-20	18	-5	-10	-15			2	6			
02-54.8247-132.1669-2-53-	0-889012	-5	-5	-5	28	-20	19	-5	-10	-15			-1	10			
02-54.8247-132.1669-2-63-	0-889012	-5	-5	-5	32	-20	24	-5	-10	-15			-1	11			
02-54.8067-132.1425-2-13-	0-889013	-5	-5	-5	27	20	25	-5	-10	-15			2	10			
02-54.8067-132.1425-2-33-	0-889013	-5	-5	-5	25	-20	-15	6	-10	-15			2	16			
02-54.8067-132.1425-2-43-	0-889013	-5	-5	-5	28	-20	-15	-5	-10	-15			1	13			
02-54.8067-132.1425-2-53-	0-889013	-5	-5	-5	20	-20	-15	-5	-10	-15			2	13			
02-54.8067-132.1425-2-63-	0-889013	-5	-5	-5	25	-20	21	9	-10	-15			-1	23			

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
02-54.9364-132.1469-2-13-						7-AAAA001	43793	-0.12	-399	-1979	95	434	-1.7	21	-2.2	14	1.1	12280	12.6	16740	48	1.2	
02-54.9364-132.1469-2-33-						7-AAAA001	44320	-0.15	-199	-1573	105	338	-1.7	37	-2.0	15	1.2	13940	16.6	11780	58	1.3	
02-54.9364-132.1469-2-43-						7-AAAA001	48190	-0.16	-237	4989	109	378	-1.6	-13	-2.2	16	1.1	13810	24.7	13220	49	1.5	
02-54.9364-132.1469-2-53-						7-AAAA001	41730	-0.11	-209	-1176	105	452	-0.1	33	-2.4	14	1.1	17200	20.8	-5229	48	1.7	
02-54.9364-132.1469-2-63-						7-AAAA001	36730	-0.17		-7304	97	398	-1.9	-13	-2.3	14	0.8	13046	13.2	12810	-21	1.3	
02-54.9350-132.1744-2-13-						7-AAAA002	26740	-0.18	-209	-1822	41	530	-2.1	31	-2.5	5	0.7	6891	3.4	-5938	-26	0.4	
02-54.9350-132.1744-2-33-						7-AAAA002	24570	-0.19	-249	-1487	60	452	2.2	-16	-2.6	5	0.4	6213	3.7	-5780	-20	0.4	
02-54.9350-132.1744-2-43-						7-AAAA002	27090	-0.16	-230	-1374	41	466	-2.3	-22	-3.6	6	-0.9	7052	4.8	-5574	-14	0.4	
02-54.9350-132.1744-2-53-						7-AAAA002	24950	-0.17		-2866	45	449	-2.0	34	-2.3	5	0.5	7642	4.0	-8358	-24	0.4	
02-54.9350-132.1744-2-63-						7-AAAA002	25320	-0.17	-219	-1971	41	518	-2.1	35	-2.4	5	-0.4	7024	4.2	-5963	-24	0.7	
02-54.9225-132.1756-2-13-						7-AAAA003	53850	-0.07	-140	-1430	136	-134	-0.6	19	1.3	16	1.2	31630	50.0	23450	62	3.3	
02-54.9225-132.1756-2-33-						7-AAAA003	51910	-0.05	-107	-1177	93	-107	-1.0	30	1.0	13	0.9	26650	33.9	28190	44	2.3	
02-54.9225-132.1756-2-43-						7-AAAA003	51370	-0.06	-107	-1339	109	-138	-0.6	-5	0.7	12	0.9	31280	44.9	20020	56	3.1	
02-54.9225-132.1756-2-53-						7-AAAA003	54790	-0.08	-140	-1729	163	-168	-0.7	16	1.6	24	1.9	36430	62.7	21700	86	4.0	
02-54.9225-132.1756-2-63-						7-AAAA003	54320	-0.10	-171	-1637	210	-161	1.0	23	2.0	26	2.0	37650	70.3	21080	104	4.7	
02-54.9228-132.1628-2-13-						7-AAAA004	54550	-0.19	-212	-1377	266	-191	-2.3	-30	-4.1	82	4.7	24040	41.1	14990	149	4.1	
02-54.9228-132.1628-2-33-						7-AAAA004	49820	-0.14	-300	-1699	297	-176	-1.4	-12	-2.2	69	4.7	33820	39.8	17620	160	4.3	
02-54.9228-132.1628-2-43-						7-AAAA004	42160	-0.16	-190	-1479	275	-213	-2.0	-14	-2.3	73	5.3	32100	37.5	11260	147	4.2	
02-54.9228-132.1628-2-53-						7-AAAA004	45610	-0.23	-249	-1481	316	-211	-2.6	-20	3.3	85	5.3	33690	38.3	13520	153	4.6	
02-54.9228-132.1628-2-63-						7-AAAA004	52090	-0.19	-221	-1474	293	-197	-2.5	-28	2.2	88	5.4	32670	42.9	13770	182	4.3	
02-54.9492-132.0956-2-13-						7-AAAA005	63190	-0.15	321	22830	46	-146	10.2	68	-2.3	5	1.1	44640	8.8	7113	-11	0.5	
02-54.9492-132.0956-2-33-						7-AAAA005	65120	-0.14	-159	18960	34	-163	9.9	50	-2.1	4	1.2	36220	4.7	10030	22	0.4	
02-54.9492-132.0956-2-43-						7-AAAA005	65510	-0.14	-195	20320	37	-144	10.2	47	-2.2	5	1.2	35590	7.4	-4745	24	0.5	
02-54.9492-132.0956-2-53-						7-AAAA005	59920	-0.12	-179	17180	25	271	7.2	74	-3.0	5	1.1	41000	5.6	-4647	-9	0.4	
02-54.9492-132.0956-2-63-						7-AAAA005	47080	-0.17	-273	14930	34	220	9.4	57	-2.5	4	0.7	39250	4.0	-5784	-15	0.5	
02-54.9408-132.0664-2-13-						7-AAAA006	72330	-0.12	677	9580	45	-141	26.1	46	-1.8	5	1.5	40630	5.3	13790	25	0.5	
02-54.9408-132.0664-2-43-						7-AAAA006	70730	-0.16	692	10130	67	-141	28.8	77	1.6	6	1.7	45120	7.8	11620	30	0.7	
02-54.9556-132.0164-2-13-						7-AAAA007	30220	-0.10	-104	-933	10	1290	1.5	-14	-2.2		-0.5	4905	1.6	-2491	-14	-0.2	
02-54.9556-132.0164-2-33-						7-AAAA007	25150	-0.05	-370	-1843	13	1271	2.2	-9	-1.7	-2	0.4	4861	2.3	-5759	-3	-0.1	
02-54.9556-132.0164-2-43-						7-AAAA007	20890	-0.06	-109	-1060	17	1241	2.0	18	1.5	1	0.4	4231	2.3	-3077	-4	-0.1	
02-54.9150-132.0561-2-13-						7-AAAA008	33700	-0.05	211	25480	46	-121	17.0	90	2.8	5	1.5	49800	4.9	6630	18	0.4	
02-54.9150-132.0561-2-33-						7-AAAA008	82930	-0.05	329	24160	54	-122	14.5	71	1.9	4	1.4	42200	4.4	-4774	10	0.3	
02-54.9150-132.0561-2-43-						7-AAAA008	83270	-0.06	279	25520	52	-142	21.5	101	3.2	4	1.7	59030	6.9	8530	26	0.6	
02-54.9150-132.0561-2-53-						7-AAAA008	47830	-0.11	325	26330	50	-131	20.9	86	3.2	5	1.7	54000	5.5	9050	29	0.5	
02-54.8681-132.1086-2-13-						7-AAAA009	93730	-0.13	344	43030	30	-157	11.4	42	-2.3	5	1.3	41750	3.9	6438	-7	0.5	
02-54.8681-132.1086-2-33-						7-AAAA009	63640	-0.09	-199	41370	26	-124	10.3	40	-2.3	3	1.2	34900	3.0	-4824	14	0.4	
02-54.8681-132.1086-2-43-						7-AAAA009	59610	-0.09	-147	39000	28	241	14.8	39	-1.7	3	1.5	45340	3.6	6148	13	0.4	
02-54.8611-132.1022-2-13-						7-AAAA010	54070	-0.03	555	18550	33	-87	2.1	-3	-0.6	3	1.0	11300	1.2	11370	19	0.3	
02-54.8611-132.1022-2-43-						7-AAAA010	53390	-0.13	471	30780	139	-214	6.2	-11	-2.2	12	2.3	26910	12.6	-7907	48	1.2	
02-54.8361-132.1722-2-13-						7-AAAA011	72270	-0.10	987	11330	57	256	29.1	96	4.1	5	1.5	24950	4.9	20390	39	0.4	
02-54.8361-132.1722-2-43-						7-AAAA011	79950	-0.12	1059	12400	64	265	40.0	108	6.1	5	1.7	31390	5.5	16360	42	0.5	
02-54.8247-132.1669-2-13-						7-AAAA012	40670	-0.11	1169	11250	33	430	5.8	51	-2.1	3	1.0	19390	2.4	6390	-11	0.2	
02-54.8247-132.1669-2-33-						7-AAAA012	40080	-0.16	1055	10210	24	438	6.4	40	-2.8	-2	1.3	17270	-1.8	-5409	-14	0.2	
02-54.8247-132.1669-2-43-						7-AAAA012	39310	-0.11	1105	10110	27	462	9.9	80	-2.5	-1	1.0	20620	3.0	7870	-9	-0.2	
02-54.8247-132.1669-2-53-						7-AAAA012	41390	-0.12	1095	10900	30	467	7.2	47	-2.0	3	1.0	17160	2.6	8170	-11	0.3	
02-54.8247-132.1669-2-63-						7-AAAA012	40240	-0.12	1099	9800	27	460	6.5	42	2.5	3	0.9	18210	3.1	-3223	-11	0.3	
02-54.8067-132.1425-2-13-						7-AAAA013	69640	-0.12	2430	6054	46	225	9.0	87	5.2	3	1.4	13520	3.1	19120	29	0.3	
02-54.8067-132.1425-2-33-						7-AAAA013	59400	-0.11	2150	7000	47	337	11.3	82	6.2	4	1.3	16170	4.4	19170	25	0.4	
02-54.8067-132.1425-2-43-						7-AAAA013	72760	-0.11	2124	6560	46	298	9.4	76	5.5	4	1.3	14630	3.5	17520	28	0.4	
02-54.8067-132.1425-2-53-						7-AAAA013	70260	-0.11	2362	6464	41	279	9.2	86	5.7	4	0.7	14490	3.5	18870	-10	0.3	
02-54.8067-132.1425-2-63-						7-AAAA013	67950	-0.14	2346	5223	51	237	8.6	75	5.3	3	1.4	14120	3.9	18800	-9	0.3	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)															U/Th RATIO	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
02-54.9364-132.1469-2-13-	02-54.9364-132.1469-2-13-	02-54.9364-132.1469-2-13-	02-54.9364-132.1469-2-13-	02-54.9364-132.1469-2-13-	02-54.9364-132.1469-2-13-	02-54.9364-132.1469-2-13-	-3997	511	20090	-45	-3	3.3	9.5		-2	-1	15.0	3053	45	10.2	80	0.607
02-54.9354-132.1469-2-33-	02-54.9354-132.1469-2-33-	02-54.9354-132.1469-2-33-	02-54.9354-132.1469-2-33-	02-54.9354-132.1469-2-33-	02-54.9354-132.1469-2-33-	02-54.9354-132.1469-2-33-	-3505	542	19230	-40	-3	3.5	10.1	-432	-2	-1	17.1	2103	35	10.4	259	0.526
02-54.9364-132.1469-2-43-	02-54.9364-132.1469-2-43-	02-54.9364-132.1469-2-43-	02-54.9364-132.1469-2-43-	02-54.9364-132.1469-2-43-	02-54.9364-132.1469-2-43-	02-54.9364-132.1469-2-43-	-3613	645	23590	-37	-3	3.3	10.3		3	2	15.4	2995	44	12.8	130	0.636
02-54.9364-132.1469-2-53-	02-54.9364-132.1469-2-53-	02-54.9364-132.1469-2-53-	02-54.9364-132.1469-2-53-	02-54.9364-132.1469-2-53-	02-54.9364-132.1469-2-53-	02-54.9364-132.1469-2-53-	-3299	604	19250	-49	-3	3.5	9.4		-2	-1	20.0	3190	45	13.3	102	0.485
02-54.9364-132.1469-2-53-	02-54.9364-132.1469-2-53-	02-54.9364-132.1469-2-53-	02-54.9364-132.1469-2-53-	02-54.9364-132.1469-2-53-	02-54.9364-132.1469-2-53-	02-54.9364-132.1469-2-53-	-4591	578	21480	-46	-4	3.4	10.4		-2	-1	15.8	2491	44	8.3	-189	0.614
02-54.9350-132.1744-2-13-	02-54.9350-132.1744-2-13-	02-54.9350-132.1744-2-13-	02-54.9350-132.1744-2-13-	02-54.9350-132.1744-2-13-	02-54.9350-132.1744-2-13-	02-54.9350-132.1744-2-13-	-3049	506	9732	-49	-4	3.6	5.0		-3	-1	7.5	-1143	49	3.8	193	0.387
02-54.9350-132.1744-2-33-	02-54.9350-132.1744-2-33-	02-54.9350-132.1744-2-33-	02-54.9350-132.1744-2-33-	02-54.9350-132.1744-2-33-	02-54.9350-132.1744-2-33-	02-54.9350-132.1744-2-33-	-3055	544	9242	-43	-4	3.3	3.0		-3	-1	4.9	-1335	48	-3.5	-54	0.592
02-54.9350-132.1744-2-43-	02-54.9350-132.1744-2-43-	02-54.9350-132.1744-2-43-	02-54.9350-132.1744-2-43-	02-54.9350-132.1744-2-43-	02-54.9350-132.1744-2-43-	02-54.9350-132.1744-2-43-	-3065	501	9455	-69	-4	3.5	3.2		-3	-2	6.0	3082	52	-3.7	75	0.483
02-54.9350-132.1744-2-53-	02-54.9350-132.1744-2-53-	02-54.9350-132.1744-2-53-	02-54.9350-132.1744-2-53-	02-54.9350-132.1744-2-53-	02-54.9350-132.1744-2-53-	02-54.9350-132.1744-2-53-	-4972	620	9929	-46	-4	3.8	4.0		-2	-1	6.8	2026	46	-2.7		0.410
02-54.9350-132.1744-2-53-	02-54.9350-132.1744-2-53-	02-54.9350-132.1744-2-53-	02-54.9350-132.1744-2-53-	02-54.9350-132.1744-2-53-	02-54.9350-132.1744-2-53-	02-54.9350-132.1744-2-53-	-3155	517	9269	-51	-4	3.5	-1.8		-3	-1	5.4	-1180	46	-2.9	219	0.550
02-54.9225-132.1756-2-13-	02-54.9225-132.1756-2-13-	02-54.9225-132.1756-2-13-	02-54.9225-132.1756-2-13-	02-54.9225-132.1756-2-13-	02-54.9225-132.1756-2-13-	02-54.9225-132.1756-2-13-	-2471	629	37970	130	-1	0.7	10.6	-339	4	2	25.0	1104	-8	26.4	286	0.564
02-54.9225-132.1756-2-33-	02-54.9225-132.1756-2-33-	02-54.9225-132.1756-2-33-	02-54.9225-132.1756-2-33-	02-54.9225-132.1756-2-33-	02-54.9225-132.1756-2-33-	02-54.9225-132.1756-2-33-	-1977	492	30560	190	-1	0.7	11.0	-271	3	2	19.6	1160	-6	19.2	220	0.505
02-54.9225-132.1756-2-43-	02-54.9225-132.1756-2-43-	02-54.9225-132.1756-2-43-	02-54.9225-132.1756-2-43-	02-54.9225-132.1756-2-43-	02-54.9225-132.1756-2-43-	02-54.9225-132.1756-2-43-	-2393	549	35620	191	-1	0.8	8.5	-298	4	2	22.0	908	-8	25.1	254	0.555
02-54.9225-132.1756-2-53-	02-54.9225-132.1756-2-53-	02-54.9225-132.1756-2-53-	02-54.9225-132.1756-2-53-	02-54.9225-132.1756-2-53-	02-54.9225-132.1756-2-53-	02-54.9225-132.1756-2-53-	-2901	716	42120	127	-2	0.9	15.0	-352	5	3	31.5	-790	-9	34.4	382	0.610
02-54.9225-132.1756-2-53-	02-54.9225-132.1756-2-53-	02-54.9225-132.1756-2-53-	02-54.9225-132.1756-2-53-	02-54.9225-132.1756-2-53-	02-54.9225-132.1756-2-53-	02-54.9225-132.1756-2-53-	-3098	771	40940	123	-2	1.1	17.8	-414	6	3	37.3	-963	-9	37.9	357	0.611
02-54.9228-132.1628-2-13-	02-54.9228-132.1628-2-13-	02-54.9228-132.1628-2-13-	02-54.9228-132.1628-2-13-	02-54.9228-132.1628-2-13-	02-54.9228-132.1628-2-13-	02-54.9228-132.1628-2-13-	-3721	270	30390	-85	-4	1.2	58.2	-493	6	9	35.1	-1178	17	35.9	150	0.507
02-54.9228-132.1628-2-33-	02-54.9228-132.1628-2-33-	02-54.9228-132.1628-2-33-	02-54.9228-132.1628-2-33-	02-54.9228-132.1628-2-33-	02-54.9228-132.1628-2-33-	02-54.9228-132.1628-2-33-	-3709	329	29330	71	-3	1.4	49.5	-459	4	9	32.9	1367	16	45.5	204	0.517
02-54.9228-132.1628-2-43-	02-54.9228-132.1628-2-43-	02-54.9228-132.1628-2-43-	02-54.9228-132.1628-2-43-	02-54.9228-132.1628-2-43-	02-54.9228-132.1628-2-43-	02-54.9228-132.1628-2-43-	-3905	263	29990	-46	-4	1.5	52.3	-444	6	10	34.4	-1035	-11	38.4	284	0.526
02-54.9228-132.1628-2-53-	02-54.9228-132.1628-2-53-	02-54.9228-132.1628-2-53-	02-54.9228-132.1628-2-53-	02-54.9228-132.1628-2-53-	02-54.9228-132.1628-2-53-	02-54.9228-132.1628-2-53-	-3933	263	25200	-68	-4	1.3	53.9		-3	10	34.4	1769	-12	40.7	161	0.541
02-54.9228-132.1628-2-53-	02-54.9228-132.1628-2-53-	02-54.9228-132.1628-2-53-	02-54.9228-132.1628-2-53-	02-54.9228-132.1628-2-53-	02-54.9228-132.1628-2-53-	02-54.9228-132.1628-2-53-	7320	279	27430	-94	-4	1.6	49.2		5	11	40.2	1995	25	43.7	309	0.470
02-54.9492-132.0956-2-13-	02-54.9492-132.0956-2-13-	02-54.9492-132.0956-2-13-	02-54.9492-132.0956-2-13-	02-54.9492-132.0956-2-13-	02-54.9492-132.0956-2-13-	02-54.9492-132.0956-2-13-	17019	1345	22730	-37	-4	20.2	4.5	-453	-2	-1	5.0	4027	137	4.3	-82	0.540
02-54.9492-132.0956-2-33-	02-54.9492-132.0956-2-33-	02-54.9492-132.0956-2-33-	02-54.9492-132.0956-2-33-	02-54.9492-132.0956-2-33-	02-54.9492-132.0956-2-33-	02-54.9492-132.0956-2-33-	14070	1020	25460	-35	-3	15.3	3.6	-410	-1	-1	4.4	3825	116	3.3	142	0.455
02-54.9492-132.0956-2-43-	02-54.9492-132.0956-2-43-	02-54.9492-132.0956-2-43-	02-54.9492-132.0956-2-43-	02-54.9492-132.0956-2-43-	02-54.9492-132.0956-2-43-	02-54.9492-132.0956-2-43-	15970	1193	24510	-32	-4	17.1	3.3	-457	-1	-1	3.5	4534	136	4.3	169	0.743
02-54.9492-132.0956-2-53-	02-54.9492-132.0956-2-53-	02-54.9492-132.0956-2-53-	02-54.9492-132.0956-2-53-	02-54.9492-132.0956-2-53-	02-54.9492-132.0956-2-53-	02-54.9492-132.0956-2-53-	17450	1065	19970	-51	-3	15.7	3.7	-465	-2	-1	3.7	4780	142	-3.0	125	0.676
02-54.9492-132.0956-2-53-	02-54.9492-132.0956-2-53-	02-54.9492-132.0956-2-53-	02-54.9492-132.0956-2-53-	02-54.9492-132.0956-2-53-	02-54.9492-132.0956-2-53-	02-54.9492-132.0956-2-53-	13949	904	16520	-42	-4	13.0	3.7	-453	-2	-1	4.2	3117	116	-2.4	125	0.514
02-54.9408-132.0664-2-33-	02-54.9408-132.0664-2-33-	02-54.9408-132.0664-2-33-	02-54.9408-132.0664-2-33-	02-54.9408-132.0664-2-33-	02-54.9408-132.0664-2-33-	02-54.9408-132.0664-2-33-	14925	677	25950	-33	-3	13.7	4.8	-320	-1	-1	5.0	2562	115	6.0	186	0.720
02-54.9408-132.0664-2-43-	02-54.9408-132.0664-2-43-	02-54.9408-132.0664-2-43-	02-54.9408-132.0664-2-43-	02-54.9408-132.0664-2-43-	02-54.9408-132.0664-2-43-	02-54.9408-132.0664-2-43-	12725	814	22150	-40	-4	14.7	4.9	-430	-1	1	6.6	3410	124	4.9	190	0.773
02-54.9556-132.0164-2-13-	02-54.9556-132.0164-2-13-	02-54.9556-132.0164-2-13-	02-54.9556-132.0164-2-13-	02-54.9556-132.0164-2-13-	02-54.9556-132.0164-2-13-	02-54.9556-132.0164-2-13-	-1409	154	3569	-44	-2	2.1	-0.9	-244	-2	-1	-1.7	1734	33	-2.2	-41	
02-54.9556-132.0164-2-33-	02-54.9556-132.0164-2-33-	02-54.9556-132.0164-2-33-	02-54.9556-132.0164-2-33-	02-54.9556-132.0164-2-33-	02-54.9556-132.0164-2-33-	02-54.9556-132.0164-2-33-	-3171	565	4950	-28	-1	2.5	-1.3		-2	-1	1.4	-1375	41	-1.2	-50	0.571
02-54.9556-132.0164-2-43-	02-54.9556-132.0164-2-43-	02-54.9556-132.0164-2-43-	02-54.9556-132.0164-2-43-	02-54.9556-132.0164-2-43-	02-54.9556-132.0164-2-43-	02-54.9556-132.0164-2-43-	-1693	160	4329	-30	-1	2.6	-0.4	-252	-2	-1	2.2	1250	24	-1.2	68	0.364
02-54.9150-132.0561-2-13-	02-54.9150-132.0561-2-13-	02-54.9150-132.0561-2-13-	02-54.9150-132.0561-2-13-	02-54.9150-132.0561-2-13-	02-54.9150-132.0561-2-13-	02-54.9150-132.0561-2-13-	17290	1024	23400	-30	-1	25.0	5.2	-374	-1	-1	6.1	5480	154	3.0	-41	0.721
02-54.9150-132.0561-2-33-	02-54.9150-132.0561-2-33-	02-54.9150-132.0561-2-33-	02-54.9150-132.0561-2-33-	02-54.9150-132.0561-2-33-	02-54.9150-132.0561-2-33-	02-54.9150-132.0561-2-33-	15960	1061	24710	-27	-1	21.3	4.5	-362	-1	-1	4.6	5335	141	3.1	-37	0.848
02-54.9150-132.0561-2-43-	02-54.9150-132.0561-2-43-	02-54.9150-132.0561-2-43-	02-54.9150-132.0561-2-43-	02-54.9150-132.0561-2-43-	02-54.9150-132.0561-2-43-	02-54.9150-132.0561-2-43-	17120	993	24160	-35	-2	27.6	5.9	-354	-2	-2	5.5	5159	153	4.9	123	0.782
02-54.9150-132.0561-2-53-	02-54.9150-132.0561-2-53-	02-54.9150-132.0561-2-53-	02-54.9150-132.0561-2-53-	02-54.9150-132.0561-2-53-	02-54.9150-132.0561-2-53-	02-54.9150-132.0561-2-53-	19940	1052	22950	-34	-3	26.7	6.0	-404	-1	1	6.5	5323	161	3.9	94	0.738
02-54.8681-132.1086-2-13-	02-54.8681-132.1086-2-13-	02-54.8681-132.1086-2-13-	02-54.8681-132.1086-2-13-	02-54.8681-132.1086-2-13-	02-54.8681-132.1086-2-13-	02-54.8681-132.1086-2-13-	22130	1425	26270	-33												

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																			U CONCENTRATION						
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (eU, ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																							
02-54	8200-132.0981	-2-13-	0-199014	03/23/79	10-	13-13.1	-5-	6.0-	31-	-3-7-4-6-	-3-1-	-1-5-4-1-	-1-	8.0-	2.12																
02-54	8200-132.0981	-2-33-	0-199014	03/23/79	10-	13-13.1	-5-	6.0-	31-	-3-7-4-6-	-3-1-	-1-5-4-1-	-1-	8.0-	1.90																
02-54	8200-132.0981	-2-43-	0-199014	03/23/79	10-	13-13.1	-5-	6.0-	31-	-3-7-4-6-	-3-1-	-1-5-4-1-	-1-	8.0-	1.90																
02-54	8200-132.0981	-2-53-	0-199014	03/23/79	10-	13-13.1	-5-	6.0-	31-	-3-7-4-6-	-3-1-	-1-5-4-1-	-1-	8.0-	2.10																
02-54	8200-132.0981	-2-63-	0-199014	03/23/79	10-	13-13.1	-5-	6.0-	31-	-3-7-4-6-	-3-1-	-1-5-4-1-	-1-	8.0-	2.00																
02-54	8278-132.0494	-2-33-	0-199015	03/23/79	10-	13-11.2	-5-	6.5-	20-	-2-7-4-5-	-3-1-	-1-4-5-1-	-1-	9.5-	1.70																
02-54	8278-132.0494	-2-43-	0-199015	03/23/79	10-	13-11.2	-5-	6.5-	20-	-2-7-4-5-	-3-1-	-1-4-5-1-	-1-	9.5-	1.85																
02-54	8081-132.0864	-2-33-	0-199015	03/23/79	10-	14-11.1	-5-	6.6-	31-	-2-8-4-6-	-3-1-	-1-4-4-1-	-1-	9.5-	2.20																
02-54	8081-132.0864	-2-43-	0-199015	03/23/79	10-	14-11.1	-5-	6.6-	31-	-2-8-4-6-	-3-1-	-1-4-4-1-	-1-	9.5-	3.40																
02-54	7956-132.1100	-2-33-	0-199017	03/23/79	10-	15-13.1	-5-	6.7-	32-	-4-5-6-	-3-1-	-1-2-4-1-	-1-	9.2-	0.80																
02-54	7956-132.1100	-2-43-	0-199017	03/23/79	10-	15-13.1	-5-	6.7-	32-	-4-5-6-	-3-1-	-1-2-4-1-	-1-	9.2-	0.85																
02-54	7708-132.0667	-2-33-	0-199018	03/23/79	10-	15-15.3	-5-	6.0-	31-	-4-3-6-	-3-1-	-1-5-4-1-	-1-	8.6-	3.70																
02-54	7708-132.0667	-2-43-	0-199018	03/23/79	10-	15-15.3	-5-	6.0-	31-	-4-3-6-	-3-1-	-1-5-4-1-	-1-	8.6-	5.70																
02-54	7742-132.0392	-2-13-	0-199019	03/23/79	10-	15-15.5	-5-	5.9-	31-	-4-5-5-	-3-1-	-1-5-4-1-	-1-	8.9-	7.80																
02-54	7742-132.0392	-2-33-	0-199019	03/23/79	10-	15-15.5	-5-	5.9-	31-	-4-5-5-	-3-1-	-1-5-4-1-	-1-	8.9-	7.60																
02-54	7742-132.0392	-2-43-	0-199019	03/23/79	10-	15-15.5	-5-	5.9-	31-	-4-5-5-	-3-1-	-1-5-4-1-	-1-	8.9-	7.70																
02-54	7742-132.0392	-2-53-	0-199019	03/23/79	10-	15-15.5	-5-	5.9-	31-	-4-5-5-	-3-1-	-1-5-4-1-	-1-	8.9-	7.80																
02-54	7742-132.0392	-2-63-	0-199019	03/23/79	10-	15-15.5	-5-	5.9-	31-	-4-5-5-	-3-1-	-1-5-4-1-	-1-	8.9-	8.10																
02-54	7544-132.0589	-2-13-	0-199020	03/23/79	10-	15-15.7	-5-	6.0-	31-	-3-7-5-6-	-3-1-	-1-5-4-1-	-1-	9.0-	15.60																
02-54	7544-132.0589	-2-33-	0-199020	03/23/79	10-	15-15.7	-5-	6.0-	31-	-3-7-5-6-	-3-1-	-1-5-4-1-	-1-	9.0-	15.70																
02-54	7544-132.0589	-2-43-	0-199020	03/23/79	10-	15-15.7	-5-	6.0-	31-	-3-7-5-6-	-3-1-	-1-5-4-1-	-1-	9.0-	15.30																
02-54	7544-132.0589	-2-53-	0-199020	03/23/79	10-	15-15.7	-5-	6.0-	31-	-3-7-5-6-	-3-1-	-1-5-4-1-	-1-	9.0-	16.00																
02-54	7544-132.0589	-2-63-	0-199020	03/23/79	10-	15-15.7	-5-	6.0-	31-	-3-7-5-6-	-3-1-	-1-5-4-1-	-1-	9.0-	16.20																
02-54	7333-132.0603	-2-33-	0-199021	03/23/79	10-	15-14.9	-5-	6.1-	31-	-3-7-4-6-	-3-1-	-1-4-4-1-	-1-	8.7-	3.80																
02-54	7042-132.1294	-2-13-	0-199022	03/23/79	10-	14-13.9	-5-	5.4-	44-	-2-7-5-5-	-3-1-	-1-4-4-2-	-1-	7.8-	2.63																
02-54	7042-132.1294	-2-33-	0-199022	03/23/79	10-	14-13.9	-5-	5.4-	44-	-2-7-5-5-	-3-1-	-1-4-4-2-	-1-	7.8-	2.89																
02-54	7042-132.1294	-2-43-	0-199022	03/23/79	10-	14-13.9	-5-	5.4-	44-	-2-7-5-5-	-3-1-	-1-4-4-2-	-1-	7.8-	2.90																
02-54	7042-132.1294	-2-53-	0-199022	03/23/79	10-	14-13.9	-5-	5.4-	44-	-2-7-5-5-	-3-1-	-1-4-4-2-	-1-	7.8-	2.60																
02-54	7211-132.1600	-2-13-	0-199023	03/23/79	10-	14-14.2	-5-	6.2-	45-	-2-7-4-6-	-3-1-	-1-4-4-2-	-1-	8.7-	15.00																
02-54	7211-132.1600	-2-33-	0-199023	03/23/79	10-	14-14.2	-5-	6.2-	45-	-2-7-4-6-	-3-1-	-1-4-4-2-	-1-	8.7-	7.20																
02-54	7211-132.1600	-2-43-	0-199023	03/23/79	10-	14-14.2	-5-	6.2-	45-	-2-7-4-6-	-3-1-	-1-4-4-2-	-1-	8.7-	12.10																
02-54	7211-132.1600	-2-53-	0-199023	03/23/79	10-	14-14.2	-5-	6.2-	45-	-2-7-4-6-	-3-1-	-1-4-4-2-	-1-	8.7-	16.80																
02-54	7361-132.2000	-2-33-	0-199024	03/23/79	10-	14-15.5	-5-	5.6-	51-	-2-7-4-6-	-3-1-	-1-4-4-2-	-1-	9.0-	1.90																
02-54	7361-132.2000	-2-43-	0-199024	03/23/79	10-	14-15.5	-5-	5.6-	61-	-2-7-4-6-	-3-1-	-1-4-4-2-	-1-	9.0-	3.50																
02-54	7428-132.2154	-2-13-	0-199025	03/23/79	11-	14-15.7	-5-	5.9-	41-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.3-	3.10																
02-54	7428-132.2154	-2-33-	0-199025	03/23/79	11-	14-15.7	-5-	5.9-	41-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.3-	3.10																
02-54	7428-132.2154	-2-43-	0-199025	03/23/79	11-	14-15.7	-5-	5.9-	41-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.3-	3.10																
02-54	7528-132.2181	-2-33-	0-199026	03/23/79	11-	15-17.4	-5-	6.6-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.6-	1.60																
02-54	7528-132.2181	-2-43-	0-199026	03/23/79	11-	15-17.4	-5-	6.6-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.6-	1.60																
02-54	7694-132.2031	-2-13-	0-199027	03/23/79	11-	16-17.2	-5-	6.6-	33-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	9.0-	2.80																
02-54	7694-132.2031	-2-33-	0-199027	03/23/79	11-	16-17.2	-5-	6.6-	33-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	9.0-	2.30																
02-54	7694-132.2031	-2-43-	0-199027	03/23/79	11-	16-17.2	-5-	6.6-	33-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	9.0-	2.70																
02-54	7694-132.2031	-2-53-	0-199027	03/23/79	11-	16-17.2	-5-	6.6-	33-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	9.0-	2.90																
02-54	7672-132.1789	-2-13-	0-199028	03/23/79	11-	16-15.3	-5-	6.0-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	7.5-	1.32																
02-54	7672-132.1789	-2-33-	0-199028	03/23/79	11-	16-15.3	-5-	6.0-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	7.5-	1.40																
02-54	7672-132.1789	-2-43-	0-199028	03/23/79	11-	16-15.3	-5-	6.0-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	7.5-	1.40																
02-54	7672-132.1789	-2-53-	0-199028	03/23/79	11-	16-15.3	-5-	6.0-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	7.5-	1.30																
02-54	7603-132.1553	-2-13-	0-199029	03/23/79	11-	16-15.6	-5-	6.5-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.1-	2.00																
02-54	7603-132.1553	-2-33-	0-199029	03/23/79	11-	16-15.6	-5-	6.5-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.1-	2.00																
02-54	7603-132.1553	-2-43-	0-199029	03/23/79	11-	16-15.6	-5-	6.5-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.1-	2.00																
02-54	7603-132.1553	-2-53-	0-199029	03/23/79	11-	16-15.6	-5-	6.5-	34-	-2-7-5-6-	-3-1-	-1-4-4-2-	-1-	8.1-	2.00																

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER									ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm			
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li			
02-54.8200-132.0981-2-13-			0-499914				-5	-5	-5	27	-20	17	-5	-10	-15	1	8			
02-54.8200-132.0981-2-33-			0-499914				-5	-5	-5	26	-20	-15	-5	-10	-15	1	8			
02-54.8200-132.0981-2-43-			0-499914				-5	-5	-5	32	-20	-15	-5	-10	-15	1	6			
02-54.8200-132.0981-2-53-			0-499914				-5	-5	-5	36	-20	-15	-5	-10	-15	1	7			
02-54.8200-132.0981-2-63-			0-499914													-1	15			
02-54.8278-132.0494-2-33-			0-499915				-5	-5	-5	25	-20	51	-5	-10	-15	1	15			
02-54.8278-132.0494-2-43-			0-499915				-5	-5	-5	41	-20	23	-5	-10	-15	1	14			
02-54.8081-132.0864-2-33-			0-499915				-5	-5	-5	40	-20	17	5	-10	-15	2	17			
02-54.8081-132.0864-2-43-			0-499915																	
02-54.7956-132.1100-2-33-			0-499917				-5	-5	-5	67	-20	15	-5	-10	-15	-1	3			
02-54.7956-132.1100-2-43-			0-499917				-5	-5	-5	60	-20	-15	-5	-10	-15	-1	2			
02-54.7708-132.0669-2-33-			0-499918				-5	-5	-5	19	25	-15	6	-10	-15	2	20			
02-54.7708-132.0669-2-43-			0-499918				-5	5	5	39	-20	-15	14	-10	-15	2	28			
02-54.7742-132.0392-2-13-			0-499919				-5	-5	-5	104	-20	-15	48	-10	-15	2	19			
02-54.7742-132.0392-2-33-			0-499919				-5	-5	-5	104	-20	-15	51	-10	-15	2	18			
02-54.7742-132.0392-2-43-			0-499919				-5	7	-5	104	-20	-15	50	-10	-15	2	20			
02-54.7742-132.0392-2-53-			0-499919				-5	-5	-5	93	-20	-15	53	-10	-15	2	20			
02-54.7742-132.0392-2-63-			0-499919				-5	-5	-5	111	31	-15	49	-10	-15	2	18			
02-54.7544-132.0589-2-13-			0-499920				-5	-5	5	71	-20	-15	79	-10	-15	2	10			
02-54.7544-132.0589-2-33-			0-499920				-5	-5	-5	67	-20	-15	117	-10	-15	-1	13			
02-54.7544-132.0589-2-43-			0-499920				-5	-5	-5	71	-20	-15	103	-10	-15	-1	5			
02-54.7544-132.0589-2-53-			0-499920				-5	-5	5	72	-20	-15	89	-10	-15	2	7			
02-54.7544-132.0589-2-63-			0-499920				-5	-5	-5	63	-20	-15	67	-10	-15	1	7			
02-54.7333-132.0603-2-33-			0-499921				-5	5	-5	34	-20	-15	6	-10	-15	2	26			
02-54.7042-132.1294-2-13-			0-499922				-5	-5	-5	42	-20	-15	6	-10	-15	-1	9			
02-54.7042-132.1294-2-33-			0-499922				-5	-5	-5	35	-20	-15	-5	-10	-15	1	6			
02-54.7042-132.1294-2-43-			0-499922				-5	-5	-5	29	-20	-15	-5	-10	-15	1	9			
02-54.7042-132.1294-2-53-			0-499922				-5	-5	-5	38	-20	-15	10	-10	-15	-1	11			
02-54.7211-132.1600-2-13-			0-499923				-5	-5	-5	24	-20	19	-5	-10	-15	-1	7			
02-54.7211-132.1600-2-33-			0-499923				-5	-5	-5	25	-20	-15	-5	-10	-15	-1	9			
02-54.7211-132.1600-2-43-			0-499923				-5	-5	-5	23	-20	-15	-5	-10	-15	-1	5			
02-54.7211-132.1600-2-53-			0-499923																	
02-54.7361-132.2000-2-33-			0-499924				-5	-5	-5	17	-20	-15	-5	-10	-15	2	16			
02-54.7361-132.2000-2-43-			0-499924				-5	-5	-5	28	-20	19	5	-10	-15	-1	11			
02-54.7428-132.2164-2-13-			0-499925				-5	-5	-5	17	-20	-15	-5	-10	-15	-1	8			
02-54.7428-132.2164-2-33-			0-499925				-5	-5	-5	26	23	-15	-5	-10	-15	-1	7			
02-54.7428-132.2164-2-43-			0-499925				-5	-5	-5	20	37	-15	-5	-10	-15	-1	13			
02-54.7528-132.2181-2-33-			0-499926				-5	-5	-5	29	-20	-15	-5	-10	-15	-1	3			
02-54.7528-132.2181-2-43-			0-499926				-5	-5	-5	29	-20	-15	-5	-10	-15	-1	3			
02-54.7694-132.2031-2-13-			0-499927				-5	-5	-5	27	-20	39	-5	-10	-15	1	26			
02-54.7694-132.2031-2-33-			0-499927				-5	-5	-5	17	23	-15	-5	-10	-15	1	19			
02-54.7694-132.2031-2-43-			0-499927				-5	-5	-5	16	-20	-15	-5	-10	-15	2	36			
02-54.7694-132.2031-2-53-			0-499927				-5	-5	5	11	-20	19	-5	-10	-15	2	18			
02-54.7672-132.1789-2-13-			0-499928				-5	-5	-5	25	-20	-15	-5	-10	-15	-1	3			
02-54.7672-132.1789-2-33-			0-499928				-5	-5	-5	14	-20	-15	-5	-10	-15	-1	2			
02-54.7672-132.1789-2-43-			0-499928				-5	-5	-5	17	-20	-15	-5	-10	-15	-1	3			
02-54.7672-132.1789-2-53-			0-499928				-5	-5	-5	22	-20	-15	8	-10	-15	-1	4			
02-54.7603-132.1553-2-13-			0-499929				-5	-5	-5	32	-20	-15	6	-10	-15	-1	5			
02-54.7603-132.1553-2-33-			0-499929				-5	-5	-5	25	-20	-15	-5	-10	-15	-1	4			
02-54.7603-132.1553-2-43-			0-499929				-5	-5	-5	27	-20	-15	-5	-10	-15	-1	6			
02-54.7603-132.1553-2-53-			0-499929				-5	-5	-5	25	-20	-15	-5	-10	-15	1	4			

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
02-54.8200-132.0981-2-13-			0-499914			57950	-0.13	337	14490	44	356	7.3	59	-3.2	4	1.4	26990	3.9	7820	-11	0.3	
02-54.8200-132.0981-2-33-			0-499914			51217	-0.12	445	14910	36	355	8.3	30	-2.2	4	1.4	31740	3.6	-4460	-9	0.4	
02-54.8200-132.0981-2-43-			0-499914			43330	-0.11	467	14960	45	336	7.2	28	-2.2	5	1.3	29700	2.5	-4029	-9	0.3	
02-54.8200-132.0981-2-53-			0-499914			56837	-0.14	405	13950	39	307	6.8	30	-2.6	4	1.3	28320	3.2	-5956	-11	0.3	
02-54.8200-132.0981-2-63-			0-499914			51010	-0.20	-151	12440	38	438	3.6	40	-3.7	4	1.2	35600	2.5	-4522	-17	-0.2	
02-54.8278-132.0494-2-33-			0-499915			76420	-0.11	353	40070	32	221	26.0	101	-2.1	4	1.4	63020	4.1	8111	13	0.4	
02-54.8278-132.0494-2-43-			0-499915			76040	-0.12	257	36480	28	214	23.9	79	-2.3	4	1.4	65500	5.9	-4134	10	0.3	
02-54.8081-132.0864-2-33-			0-499915			67910	-0.10	438	19270	34	-99	21.6	69	2.0	2	0.8	52710	1.8	11460	16	0.2	
02-54.8081-132.0864-2-43-			0-499915			55890	-0.14	-223	9167	31	-200	57.7	80	3.6	-2	1.2	98280	3.5	13010	-9	0.3	
02-54.7956-132.1100-2-33-			0-499917			21610	-0.09	-85	11140	10	744	7.0	17	-1.6	1	0.4	5741	-0.8	-1911	-9	-0.1	
02-54.7956-132.1100-2-43-			0-499917			21970	-0.10	-92	9000	10	676	6.4	24	-2.3	1	0.3	5312	-1.6	-1725	-8	-0.2	
02-54.7708-132.0669-2-33-			0-499918			85250	-0.07	1195	6070	53	-107	5.8	24	1.0	2	0.9	30330	4.6	31940	39	0.3	
02-54.7708-132.0669-2-43-			0-499918			91240	-0.10	835	6409	100	-136	9.6	57	1.7	3	1.5	47410	6.8	28050	46	0.3	
02-54.7742-132.0392-2-13-			0-499919			77430	-0.12	1133	7730	126	316	30.0	34	2.1	4	2.3	31670	5.5	22430	71	0.3	
02-54.7742-132.0392-2-33-			0-499919			81570	-0.10	952	4907	144	-159	28.2	46	2.9	5	2.0	31830	6.3	25660	85	0.4	
02-54.7742-132.0392-2-43-			0-499919			71970	-0.10	1253	6740	139	-166	28.1	24	2.2	4	1.8	30050	6.8	27310	82	0.4	
02-54.7742-132.0392-2-53-			0-499919			30450	-0.15	983	7686	165	-191	33.9	23	-3.3	6	2.3	26430	7.2	19780	79	0.5	
02-54.7742-132.0392-2-63-			0-499919			81530	-0.13	1040	6498	174	-177	32.1	52	2.7	5	2.3	31180	7.2	22430	81	0.4	
02-54.7544-132.0589-2-13-			0-499920			33210	-0.11	745	-1756	265	445	36.1	25	-2.6	4	1.8	53610	-1.7	-9053	91	0.3	
02-54.7544-132.0589-2-33-			0-499920			34210	-0.11	6119	257	330	37.5	-16	-2.6	4	1.7	54530	-1.7		94	0.3		
02-54.7544-132.0589-2-43-			0-499920			39170	-0.14	645	-2249	264	462	39.9	-21	-3.2	5	1.7	45390	1.7	-10300	94	0.3	
02-54.7544-132.0589-2-53-			0-499920			41230	-0.13	695	6374	283	470	31.7	-19	-3.1	4	1.8	52510	-2.1	-8866	94	-0.2	
02-54.7544-132.0589-2-63-			0-499920			40910	-0.12	787	5794	139	469	15.9	33	-2.8	5	1.6	27600	1.7	-7256	52	-0.2	
02-54.7333-132.0603-2-33-			0-499921			37220	-0.08	1123	15090	94	192	11.1	37	-1.9	2	1.3	24460	4.6	30070	44	0.4	
02-54.7042-132.1294-2-13-			0-499922			52550	-0.26	406	9956	45	507	17.6	56	-5.5	3	0.7	18430	2.5	-5151	-28	0.3	
02-54.7042-132.1294-2-33-			0-499922			52510	-0.06	399	7956	68	582	27.3	47	-2.7	3	1.2	25280	4.4	-4801	11	0.3	
02-54.7042-132.1294-2-43-			0-499922			55370	-0.07	449	9731	71	627	29.4	65	-3.3	3	1.3	33270	3.2	6921	24	-0.2	
02-54.7042-132.1294-2-53-			0-499922			48290	-0.06	367	9500	52	526	24.8	56	-2.6	4	0.9	26510	2.2	8680	17	0.3	
02-54.7211-132.1600-2-13-			0-499923			49770	-0.05	232	15190	42	396	65.3	83	-2.1	4	0.9	47940	2.2	-4507	15	0.4	
02-54.7211-132.1600-2-33-			0-499923			59770	-0.04	262	10940	37	235	41.0	82	-2.0	3	0.8	34780	1.6	7258	7	0.3	
02-54.7211-132.1600-2-43-			0-499923			53910	-0.14	253	15020	36	344	50.2	75	-2.0	4	0.8	40760	2.5	7039	-10	0.3	
02-54.7211-132.1600-2-53-			0-499923			42400	-0.20	-274	14170	45	317	52.3	63	-4.8	4	0.7	43940	-3.4	-5570	-21	0.5	
02-54.7361-132.2000-2-33-			0-499924			59360	-0.09	398	7080	27	-119	19.9	32	-1.5	2	0.9	36140	2.0	9160	-7	0.2	
02-54.7361-132.2000-2-43-			0-499924			75540	-0.15	320	7283	29	-177	38.9	91	-2.3	3	1.0	52920	2.0	10570	-12	0.3	
02-54.7428-132.2164-2-13-			0-499925			49270	-0.15	-144	5600	34	1234	13.9	53	-2.2	3	0.7	14340	2.2	10450	-14	0.2	
02-54.7428-132.2164-2-33-			0-499925			50200	-0.12	-310	6035	35	1055	13.8	54	1.7	2	0.8	19260	3.2	13660	-9	-0.2	
02-54.7428-132.2164-2-43-			0-499925			47490	-0.14	324	6106	30	1045	15.7	65	2.8	2	0.9	17860	2.4	11780	-15	0.4	
02-54.7528-132.2181-2-33-			0-499926			40900	-0.15	-173	7556	25	826	84.2	41	-2.3	2	0.6	24120	-1.2	-4297	-14	-0.1	
02-54.7528-132.2181-2-43-			0-499926			42370	-0.15	-157	9195	28	805	71.2	36	-2.3	2	0.6	24230	-1.2	-4026	-12	-0.2	
02-54.7694-132.2031-2-13-			0-499927			61670	-0.09	409	17270	61	285	25.8	77	-2.4	3	1.5	52280	3.1	11930	36	0.2	
02-54.7694-132.2031-2-33-			0-499927			76150	-0.11	456	17010	59	-135	14.6	59	-1.8	3	1.4	43380	2.7	11580	44	0.3	
02-54.7694-132.2031-2-43-			0-499927			75390	-0.12	531	20870	60	295	16.0	58	-1.9	4	1.4	43870	3.6	11850	33	0.3	
02-54.7694-132.2031-2-53-			0-499927			52360	-0.14	526	17410	66	276	23.4	61	-2.2	3	1.4	53600	2.9	11370	36	0.3	
02-54.7672-132.1789-2-13-			0-499928			20830	-0.13	272	-984	20	704	4.1	27	-1.8	2	0.5	7787	-1.0	-2942	-16	-0.1	
02-54.7672-132.1789-2-33-			0-499928			19430	-0.11	-114	5388	18	850	3.5	22	-1.6	2	0.4	7806	-0.9	-2710	-15	-0.1	
02-54.7672-132.1789-2-43-			0-499928			21290	-0.13	172	-1193	18	618	3.4	22	-1.8	2	0.4	5926	-1.1	-3481	-13	-0.1	
02-54.7672-132.1789-2-53-			0-499928			20490	-0.20	251	-1086	14	695	4.5	-13	-2.5	0	0.5	9060	-1.0	-2842	-15	-0.2	
02-54.7603-132.1553-2-13-			0-499929			35700	-0.12	319	6280	36	803	24.4	46	-1.8	2	0.8	14290	2.4	6136	-11	-0.1	
02-54.7603-132.1553-2-33-			0-499929			35350	-0.10	191	7762	32	968	19.5	29	-1.6	2	0.6	12940	1.8	8342	-11	-0.1	
02-54.7603-132.1553-2-43-			0-499929			35210	-0.13	336	8430	35	700	19.3	39	-1.8	2	0.8	12550	1.3	8237	-10	-0.1	
02-54.7603-132.1553-2-53-			0-499929			36770	-0.11	411	7402	33	730	23.3	36	-2.6	-1	1.0	12700	0.8	7760	16	-0.2	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)															U/Th RATIO	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb		Zn
02-54.8200-132.0981-2-13-	0-4889914	12409	595	17440	-51	-3	12.9	4.2	-376	-3	-1	3.8	4355	119	-3.3	100	0.558					
02-54.8200-132.0981-2-33-	0-4889914	12730	599	20190	-37	-3	13.8	4.0	-424	-2	-1	4.3	4453	119	4.3	92	0.442					
02-54.8200-132.0981-2-43-	0-4889914	13395	636	21530	-33	-3	13.5	4.8	-388	-2	1	2.4	5023	112	3.1	77	0.792					
02-54.8200-132.0981-2-53-	0-4889914	12410	692	17760	-36	-3	13.3	4.7		-2	-1	3.0	4266	125	-2.7	-48	0.700					
02-54.8200-132.0981-2-63-	0-4889914	12609	527	11900	-58	-3	15.5	-1.8	-374	-2	-1	-2.3	4009	109	-3.7	135						
02-54.8278-132.0494-2-33-	0-4889915	24040	1094	21350	-33	-3	27.1	5.0	-391	-1	-1	2.8	5874	152	3.2	111	0.607					
02-54.8278-132.0494-2-43-	0-4889915	25055	1217	20960	-37	-3	27.4	3.7	-404	-1	-1	2.2	6340	192	3.8	-44	0.941					
02-54.8081-132.0864-2-33-	0-4889916	14679	1244	13910	-27	-2	15.0	2.2	-331	-1	-1	3.6	3940	189	-1.5	83	0.611					
02-54.8081-132.0864-2-43-	0-4889916	14000	3295	11550	-65	-4	14.1	1.9		-3	-2	3.5	-1298	182	-3.0	188	0.971					
02-54.7956-132.1100-2-33-	0-4889917	1133	76	2111	-26	-2	5.8	-0.6	-186	-1	-1	-1.0	866	31	-1.5	54						
02-54.7956-132.1100-2-43-	0-4889917	2127	73	1544	-42	-2	5.4	1.3	-168	-2	-1	1.2	835	36	-2.2	-69	0.708					
02-54.7708-132.0669-2-33-	0-4889918	6006	392	31890	109	-2	5.4	4.7	635	-1	-1	8.2	3623	89	2.1	42	0.451					
02-54.7708-132.0669-2-43-	0-4889918	9025	721	27680	107	-3	7.1	5.2	498	-2	-1	13.2	5603	143	3.0	103	0.432					
02-54.7742-132.0392-2-13-	0-4889919	7100	965	23740	100	-3	5.5	10.2	727	-2	-2	14.1	4037	157	3.9	66	0.553					
02-54.7742-132.0392-2-33-	0-4889919	-2974	1034	23290	68	-3	5.3	7.7		-2	-1	14.7	3947	143	3.2	73	0.517					
02-54.7742-132.0392-2-43-	0-4889919	-3335	1048	28540	-51	-3	5.2	9.1	-422	-2	-1	12.8	4734	141	3.3	43	0.602					
02-54.7742-132.0392-2-53-	0-4889919	-3404	976	23530	-63	-4	5.4	9.0	-483	-2	-2	14.4	3732	145	-3.3	109	0.542					
02-54.7742-132.0392-2-63-	0-4889919	5455	901	22290	-64	-3	7.1	8.9		-3	-2	17.1	4176	158	5.5	65	0.474					
02-54.7544-132.0589-2-13-	0-4889920	-4054	3746	5335	-60	-3	4.0	8.9		-3	-2	14.0	-2112	63	-2.5	148	1.114					
02-54.7544-132.0589-2-33-	0-4889920	-5147	4295	10340	-62	-3	3.8	11.0		-2	-1	12.1	-2544	82	2.7	138	1.298					
02-54.7544-132.0589-2-43-	0-4889920	-6395	4150	5401	-69	-3	3.7	8.7		-3	-2	13.3	-1947	78	-3.2	166	1.150					
02-54.7544-132.0589-2-53-	0-4889920	-3028	2904	5446	-65	-3	3.9	11.5		-3	-1	13.4	-2071	72	-2.9	205	1.194					
02-54.7544-132.0589-2-63-	0-4889920	-3207	2251	5442	-61	-3	3.5	4.2		-2	-1	7.8	-1696	76	-2.9	114	2.077					
02-54.7333-132.0503-2-33-	0-4889921	5420	555	38550	95	-2	5.6	5.5	1119	-2	-1	8.9	2370	72	2.8	100	0.427					
02-54.7342-132.1294-2-13-	0-4889922	5725	711	12250	-53	-4	9.9	3.0	-429	-2	-1	6.0	4692	121	-3.9	126	0.438					
02-54.7042-132.1294-2-33-	0-4889922	5545	725	12570	-40	-1	11.3	4.0	-468	-2	-1	6.1	3605	125	-1.5	83	0.474					
02-54.7042-132.1294-2-43-	0-4889922	5955	753	12340	-51	-2	14.7	4.1	-453	-3	-1	5.8	4543	123	3.2	103	0.500					
02-54.7042-132.1294-2-53-	0-4889922	6071	775	11490	-38	-1	11.5	3.5	-438	-2	-1	6.2	4115	124	-1.2	132	0.419					
02-54.7211-132.1600-2-13-	0-4889923	5450	859	12770	-38	-1	8.7	4.2	-382	-2	-1	3.7	2623	82	2.4	124	4.054					
02-54.7211-132.1600-2-33-	0-4889923	9320	527	18940	-32	-1	9.2	3.2	-345	-1	-1	3.2	3068	79	2.0	62	2.250					
02-54.7211-132.1600-2-43-	0-4889923	6920	795	14150	-38	-3	9.6	2.4	-377	-2	-1	3.0	3045	82	-2.0	105	4.033					
02-54.7211-132.1600-2-53-	0-4889923	4549	845	11740	-98	-4	7.3	4.4	-444	-2	-2	3.1	1952	76	-3.0	-136	5.419					
02-54.7361-132.2000-2-33-	0-4889924	10520	563	26430	-24	-2	13.8	2.4	-263	-1	-1	2.8	2083	97	-1.4	87	0.679					
02-54.7361-132.2000-2-43-	0-4889924	15050	1624	25700	-43	-4	15.4	3.2		-2	-1	3.3	3228	134	-2.2	122	1.061					
02-54.7428-132.2164-2-13-	0-4889925	6715	381	9332	-38	-4	3.2	2.6	-346	-1	-1	4.0	3672	92	-2.4	-111	0.775					
02-54.7428-132.2164-2-33-	0-4889925	5332	543	12360	-51	-3	7.5	2.0	-465	-3	-1	4.4	3622	91	2.1	-84	0.705					
02-54.7428-132.2164-2-43-	0-4889925	5090	437	10250	-39	-4	9.3	2.7	-359	-2	-1	4.4	3557	98	-2.3	166	0.705					
02-54.7528-132.2181-2-33-	0-4889926	2947	522	3738	-51	-3	5.5	-1.1	-426	-2	-1	2.0	2340	108	-2.3	91	0.800					
02-54.7528-132.2181-2-43-	0-4889926	3000	727	4067	-49	-4	5.2	-1.2	-403	-2	-1	4.1	2208	117	-2.5	69	0.390					
02-54.7694-132.2031-2-13-	0-4889927	10805	1893	18520	-43	-3	15.0	4.7		-1	-1	7.4	3925	121	4.4	113	0.378					
02-54.7694-132.2031-2-33-	0-4889927	13080	839	28460	-29	-3	14.8	3.9	-386	-1	-1	6.5	4006	108	4.1	91	0.354					
02-54.7694-132.2031-2-43-	0-4889927	13270	1258	26260	52	-3	15.4	4.5	-433	-1	-1	5.3	5302	126	-1.8	93	0.509					
02-54.7594-132.2031-2-53-	0-4889927	10472	2679	16570	-39	-4	13.4	4.9		-1	-1	4.8	3610	131	-2.7	143	0.604					
02-54.7672-132.1789-2-13-	0-4889928	-1741	177	3147	-35	-3	3.8	-1.0	-298	-2	-1	-1.2	1925	60	-2.0	-62						
02-54.7672-132.1789-2-33-	0-4889928	-1544	193	3402	-31	-3	3.3	1.7	-271	-1	-1	2.2	1991	58	-1.9	-46	0.636					
02-54.7672-132.1789-2-43-	0-4889928	-1965	213	3922	-33	-3	3.2	2.3	-323	-2	-1	1.6	1975	63	-2.1	74	0.875					
02-54.7672-132.1789-2-53-	0-4889928	-1441	153	3260	-44	-3	4.3	-1.3	-248	-2	-1	-1.7	1878	59	-2.7	117						
02-54.7603-132.1553-2-13-	0-4889929	-1727	499	2820	-33	-3	5.2	3.0	-356	-1	-1	3.9	1897	85	-1.9	95	0.513					
02-54.7603-132.1553-2-33-	0-4889929	-1540	497	2970	-29	-3	5.7	2.8	-312	-1	-1	3.5	1867	89	-1.7	-40	0.571					
02-54.7603-132.1553-2-43-	0-4889929	-2268	569	3197	-34	-3	5.3	2.4	-370	-1	-1	2.8	2039	92	-2.1	80	0.714					
02-54.7603-132.1553-2-53-	0-4889929	-1790	494	2721	-45	-3	5.8	3.9	-342	-3	-1	3.3	2239	89	-2.6	117	0.606					

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																U CONCENTRATION									
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (eU/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																							
02-54.7603	-132.1553	-2-43-	0-889037	09/23/79	11-	14-15.6	-5	6.5	34-	-2-7-5-5-	-3-1-	-1-4-4-2-	-1-	8.1	2.10																
02-54.8922	-132.1717	-2-13-	0-889037	09/23/79	12-	14-13.5	-5	4.6	19-	-2-7-6-6-	-3-2-	-1-4-4-2-	-1-	9.1	1.30																
02-54.8922	-132.1717	-2-33-	0-889037	09/23/79	12-	14-13.5	-5	4.6	19-	-2-7-6-6-	-3-2-	-1-4-4-2-	-1-	9.1	1.10																
02-54.8922	-132.1717	-2-43-	0-889037	09/23/79	12-	14-13.5	-5	4.6	19-	-2-7-6-6-	-3-2-	-1-4-4-2-	-1-	9.1	1.40																
02-54.8922	-132.1717	-2-53-	0-889037	09/23/79	12-	14-13.5	-5	4.6	19-	-2-7-6-6-	-3-2-	-1-4-4-2-	-1-	9.1	1.40																
02-54.8922	-132.1717	-2-63-	0-889037	09/23/79	12-	14-13.5	-5	4.6	19-	-2-7-6-6-	-3-2-	-1-4-4-2-	-1-	9.1	1.40																
J2-54.8938	-132.1583	-2-13-	0-889031	09/23/79	12-	14-15.5	-5	5.7	25-	-2-7-5-6-	-3-1-	-1-5-4-2-	-1-	8.9	5.80																
02-54.8808	-132.1583	-2-33-	0-889031	09/23/79	12-	14-15.5	-5	5.7	25-	-2-7-6-6-	-3-1-	-1-5-4-2-	-1-	8.9	5.40																
02-54.8808	-132.1583	-2-43-	0-889031	09/23/79	12-	14-15.5	-5	5.7	25-	-2-7-6-6-	-3-1-	-1-5-4-2-	-1-	8.9	5.80																
02-54.8808	-132.1583	-2-53-	0-889031	09/23/79	12-	14-15.5	-5	5.7	25-	-2-7-6-6-	-3-1-	-1-5-4-2-	-1-	8.9	6.70																
02-54.8808	-132.1583	-2-63-	0-889031	09/23/79	12-	14-15.5	-5	5.7	25-	-2-7-6-6-	-3-1-	-1-5-4-2-	-1-	8.9	7.30																
02-54.8686	-132.1439	-2-13-	0-889032	09/23/79	12-	14-15.2	-5	6.0	40-	-4-5-6-	-2-3-	-1-4-3-2-	-1-	5.1	0.70																
02-54.8686	-132.1439	-2-33-	0-889032	09/23/79	12-	14-15.2	-5	6.0	40-	-4-5-6-	-2-3-	-1-4-3-2-	-1-	5.1	0.71																
02-54.8686	-132.1439	-2-43-	0-889032	09/23/79	12-	14-15.2	-5	6.0	40-	-4-5-6-	-2-3-	-1-4-3-2-	-1-	5.1	0.66																
02-54.8686	-132.1439	-2-53-	0-889032	09/23/79	12-	14-15.2	-5	6.0	40-	-4-5-6-	-2-3-	-1-4-3-2-	-1-	5.1	0.65																
02-54.8686	-132.1439	-2-63-	0-889032	09/23/79	12-	14-15.2	-5	6.0	40-	-4-5-6-	-2-3-	-1-4-3-2-	-1-	5.1	0.67																
02-54.8653	-132.1908	-2-13-	0-889033	09/23/79	12-	14-13.3	-5	6.2	30-	-4-5-6-	-3-1-	-1-4-3-2-	-1-	9.2	2.80																
02-54.8653	-132.1908	-2-33-	0-889033	09/23/79	12-	14-13.3	-5	6.2	30-	-4-5-6-	-3-1-	-1-4-3-2-	-1-	9.2	2.70																
02-54.8653	-132.1908	-2-43-	0-889033	09/23/79	12-	14-13.3	-5	6.2	30-	-4-5-6-	-3-1-	-1-4-3-2-	-1-	9.2	2.70																
02-54.8653	-132.1908	-2-53-	0-889033	09/23/79	12-	14-13.3	-5	6.2	30-	-4-5-6-	-3-1-	-1-4-3-2-	-1-	9.2	3.10																
02-54.8653	-132.1908	-2-63-	0-889033	09/23/79	12-	14-13.3	-5	6.2	30-	-4-5-6-	-3-1-	-1-4-3-2-	-1-	9.2	3.50																
02-54.8589	-132.2467	-2-13-	0-889034	09/23/79	12-	17-15.6	-5	6.6	39-	-4-6-6-	-3-1-	-1-4-4-2-	-1-	8.2	2.60																
02-54.8589	-132.2467	-2-33-	0-889034	09/23/79	12-	17-15.6	-5	6.6	39-	-4-6-6-	-3-1-	-1-4-4-2-	-1-	8.2	2.62																
02-54.8589	-132.2467	-2-43-	0-889034	09/23/79	12-	17-15.6	-5	6.6	39-	-4-6-6-	-3-1-	-1-4-4-2-	-1-	8.2	2.60																
02-54.8589	-132.2467	-2-53-	0-889034	09/23/79	12-	17-15.6	-5	6.6	39-	-4-6-6-	-3-1-	-1-4-4-2-	-1-	8.2	2.60																
02-54.8589	-132.2467	-2-63-	0-889034	09/23/79	12-	17-15.6	-5	6.6	39-	-4-6-6-	-3-1-	-1-4-4-2-	-1-	8.2	2.70																
02-54.8364	-132.2344	-2-13-	0-889035	09/23/79	12-	17-15.1	-5	6.4	32-	-4-5-6-	-3-1-	-1-4-2-2-	-1-	8.6	1.80																
02-54.8364	-132.2344	-2-33-	0-889035	09/23/79	12-	17-15.1	-5	6.4	32-	-4-5-6-	-3-1-	-1-4-2-2-	-1-	8.6	1.80																
02-54.8364	-132.2344	-2-43-	0-889035	09/23/79	12-	17-15.1	-5	6.4	32-	-4-5-6-	-3-1-	-1-4-2-2-	-1-	8.6	1.90																
02-54.8364	-132.2344	-2-53-	0-889035	09/23/79	12-	17-15.1	-5	6.4	32-	-4-5-6-	-3-1-	-1-4-2-2-	-1-	8.6	1.80																
02-54.8364	-132.2344	-2-63-	0-889035	09/23/79	12-	17-15.1	-5	6.4	32-	-4-5-6-	-3-1-	-1-4-2-2-	-1-	8.6	1.92																
02-54.8347	-132.2167	-2-13-	0-889036	09/23/79	12-	17-15.6	-5	6.1	30-	-4-6-6-	-3-1-	-1-4-3-2-	-1-	9.7	1.60																
02-54.8347	-132.2167	-2-33-	0-889036	09/23/79	12-	17-15.6	-5	6.1	30-	-4-6-6-	-3-1-	-1-4-3-2-	-1-	9.7	1.60																
02-54.8347	-132.2167	-2-43-	0-889036	09/23/79	12-	17-15.6	-5	6.1	30-	-4-6-6-	-3-1-	-1-4-3-2-	-1-	9.7	1.70																
02-54.8347	-132.2167	-2-53-	0-889036	09/23/79	12-	17-15.6	-5	6.1	30-	-4-6-6-	-3-1-	-1-4-3-2-	-1-	9.7	1.70																
02-54.8347	-132.2167	-2-63-	0-889036	09/23/79	12-	17-15.6	-5	6.1	30-	-4-6-6-	-3-1-	-1-4-3-2-	-1-	9.7	1.65																
02-54.8072	-132.2192	-2-13-	0-889037	09/23/79	12-	17-17.7	-5	6.3	29-	-4-6-6-	-3-1-	-1-3-4-2-	-1-	8.9	1.40																
02-54.8072	-132.2192	-2-33-	0-889037	09/23/79	12-	17-17.7	-5	6.3	29-	-4-6-6-	-3-1-	-1-3-4-2-	-1-	8.9	1.30																
02-54.8072	-132.2192	-2-43-	0-889037	09/23/79	12-	17-17.7	-5	6.3	29-	-4-6-6-	-3-1-	-1-3-4-2-	-1-	8.9	1.36																
02-54.8072	-132.2192	-2-53-	0-889037	09/23/79	12-	17-17.7	-5	6.3	29-	-4-6-6-	-3-1-	-1-3-4-2-	-1-	8.9	1.39																
02-54.8072	-132.2192	-2-63-	0-889037	09/23/79	12-	17-17.7	-5	6.3	29-	-4-6-6-	-3-1-	-1-3-4-2-	-1-	8.9	1.40																
02-54.7942	-132.2139	-2-13-	0-889038	09/23/79	12-	17-17.2	-5	6.3	26-	-4-6-6-	-3-1-	-1-3-3-2-	-1-	9.2	5.77																
02-54.7942	-132.2139	-2-33-	0-889038	09/23/79	12-	17-17.2	-5	6.3	26-	-4-6-6-	-3-1-	-1-3-3-2-	-1-	9.2	5.74																
02-54.7942	-132.2139	-2-43-	0-889038	09/23/79	12-	17-17.2	-5	6.3	26-	-4-6-6-	-3-1-	-1-3-3-2-	-1-	9.2	5.59																
02-54.7942	-132.2139	-2-53-	0-889038	09/23/79	12-	17-17.2	-5	6.3	26-	-4-6-6-	-3-1-	-1-3-3-2-	-1-	9.2	5.99																
02-54.7942	-132.2139	-2-63-	0-889038	09/23/79	12-	17-17.2	-5	6.3	26-	-4-6-6-	-3-1-	-1-3-3-2-	-1-	9.2	5.72																
02-54.7881	-132.1642	-2-13-	0-889039	09/23/79	13-	18-15.9	-5	5.7	28-	-4-5-6-	-3-1-	-1-5-4-2-	-1-	8.4	1.02																
02-54.7881	-132.1642	-2-33-	0-889039	09/23/79	13-	18-15.9	-5	5.7	28-	-4-5-6-	-3-1-	-1-5-4-2-	-1-	8.4	1.00																
02-54.7881	-132.1642	-2-43-	0-889039	09/23/79	13-	18-15.9	-5	5.7	28-	-4-5-6-	-3-1-	-1-5-4-2-	-1-	8.4	0.99																
02-54.7231	-132.2903	-2-33-	0-889040	09/23/79	13-	18-17.0	-5	6.4	63-	-4-6-6-	-3-1-	-1-4-4-2-	-1-	8.0	1.50																
02-54.7231	-132.2903	-2-43-	0-889040	09/23/79	13-	18-17.0	-5	6.4	63-	-4-6-6-	-3-1-	-1-4-4-2-	-1-	8.0	1.46																

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
02-54.7603-132.1553-2-53-			0-488937				-5	-5	-5	23	-20	-15	12	-10	-15	-1	7	
02-54.8922-132.1717-2-13-			0-488937				-5	-5	-5	21	-20	-15	-5	-10	-15	-1	4	
02-54.8922-132.1717-2-33-			0-488937				-5	-5	-5	21	-20	-15	-5	-10	-15	-1	2	
02-54.8922-132.1717-2-43-			0-488937				-5	-5	-5	21	-20	-15	-5	-10	-15	1	4	
02-54.8922-132.1717-2-53-			0-488937				-5	-5	-5	21	-20	-15	-5	-10	-15	-1	3	
02-54.8922-132.1717-2-63-			0-488937				-5	-5	-5	21	-20	-15	-5	-10	-15	1	2	
02-54.8808-132.1583-2-13-			0-488931				-5	-5	-5	56	-20	16	13	-10	-15	2	15	
02-54.8808-132.1583-2-33-			0-488931				-5	-5	-5	52	34	15	11	-10	-15	2	21	
02-54.8808-132.1583-2-43-			0-488931				-5	-5	-5	49	-20	18	14	-10	-15	1	13	
02-54.8808-132.1583-2-53-			0-488931				-5	-5	-5	59	-20	19	16	-10	-15	2	13	
02-54.8808-132.1583-2-63-			0-488931				-5	-5	-5	79	-20	27	26	-10	-15	-1	20	
02-54.8686-132.1439-2-13-			0-488937				-5	-5	-5	24	-20	-15	-5	-10	-15	-1	2	
02-54.8686-132.1439-2-33-			0-488937				-5	-5	-5	15	25	-15	-5	-10	-15	-1	2	
02-54.8686-132.1439-2-43-			0-488937				-5	-5	-5	24	-20	-15	-5	-10	-15	-1	2	
02-54.8686-132.1439-2-53-			0-488937				-5	-5	-5	22	-20	-15	-5	-10	-15	-1	2	
02-54.8686-132.1439-2-63-			0-488937				-5	-5	-5	24	-20	-15	5	-10	-15	-1	2	
02-54.8653-132.1908-2-13-			0-488937				-5	-5	-5	20	-20	20	7	-10	-15	1	23	
02-54.8653-132.1908-2-33-			0-488937				-5	-5	-5	19	-20	18	-5	-10	-15	2	22	
02-54.8653-132.1908-2-43-			0-488937				-5	-5	-5	26	-20	-15	-5	-10	-15	1	15	
02-54.8653-132.1908-2-53-			0-488937				-5	-5	-5	22	-20	-15	-5	-10	-15	2	12	
02-54.8653-132.1908-2-63-			0-488937				-5	-5	-5	33	-20	-15	14	-10	-15	1	10	
02-54.8589-132.2467-2-13-			0-488934				-5	-5	5	12	-20	16	8	-10	-15	-1	9	
02-54.8589-132.2467-2-33-			0-488934				-5	-5	-5	89	-20	-15	6	-10	-15	-1	6	
02-54.8589-132.2467-2-43-			0-488934				-5	-5	-5	17	-20	30	-5	-10	-15	1	9	
02-54.8589-132.2467-2-53-			0-488934				-5	-5	8	15	-20	-15	7	-10	-15	1	7	
02-54.8589-132.2467-2-63-			0-488934				-5	-5	-5	21	-20	15	-5	-10	-15	1	11	
02-54.8364-132.2344-2-13-			0-488935				-5	-5	-5	31	-20	-15	-5	-10	-15	-1	3	
02-54.8364-132.2344-2-33-			0-488935				-5	-5	-5	18	47	-15	-5	-10	-15	-1	3	
02-54.8364-132.2344-2-43-			0-488935				-5	-5	-5	31	-20	-15	15	-10	-15	-1	5	
02-54.8364-132.2344-2-53-			0-488935				-5	-5	-5	26	-20	-15	-5	-10	-15	-1	4	
02-54.8364-132.2344-2-63-			0-488935				-5	-5	-5	25	-20	-15	-5	-10	-15	-1	4	
02-54.8347-132.2167-2-13-			0-488936				-5	-5	-5	16	-20	-15	-5	-10	-15	-1	6	
02-54.8347-132.2167-2-33-			0-488936				-5	-5	-5	16	-20	-15	-5	-10	-15	-1	3	
02-54.8347-132.2167-2-43-			0-488936				-5	-5	-5	23	-20	-15	-5	-10	-15	-1	5	
02-54.8347-132.2167-2-53-			0-488936				-5	-5	-5	18	-20	-15	5	-10	-15	-1	8	
02-54.8347-132.2167-2-63-			0-488936				-5	-5	-5	38	-20	-15	-5	-10	-15	-1	5	
02-54.8072-132.2192-2-13-			0-488937				-5	-5	-5	15	-20	-15	-5	-10	-15	-1	2	
02-54.8072-132.2192-2-33-			0-488937				-5	-5	-5	17	27	-15	-5	-10	-15	-1	3	
02-54.8072-132.2192-2-43-			0-488937				-5	-5	-5	22	-20	-15	-5	-10	-15	-1	3	
02-54.8072-132.2192-2-53-			0-488937				-5	-5	-5	21	-20	-15	-5	-10	-15	-1	3	
02-54.8072-132.2192-2-63-			0-488937				-5	-5	-5	23	-20	-15	5	-10	-15	-1	3	
02-54.7942-132.2139-2-13-			0-488939				-5	-5	-5	51	-20	-15	-5	-10	-15	1	6	
02-54.7942-132.2139-2-33-			0-488939				-5	-5	-5	42	-20	-15	-5	-10	-15	1	6	
02-54.7942-132.2139-2-43-			0-488939				-5	-5	-5	49	-20	-15	-5	-10	-15	1	7	
02-54.7942-132.2139-2-53-			0-488939				-5	-5	-5	55	-20	-15	-5	-10	-15	1	6	
02-54.7942-132.2139-2-63-			0-488939				-5	-5	-5	48	20	-15	-5	-10	-15	1	5	
02-54.7881-132.1642-2-13-			0-488939				-5	-5	-5	31	-20	-15	-5	-10	-15	3	55	
02-54.7881-132.1642-2-33-			0-488939				-5	-5	-5	40	30	-15	-5	-10	-15	2	47	
02-54.7881-132.1642-2-43-			0-488939				-5	-5	-5	31	-20	24	-5	-10	-15	2	52	
02-54.7231-132.2903-2-33-			0-488940				-5	-5	-5	25	-20	-15	6	-10	-15	1	15	
02-54.7231-132.2903-2-43-			0-488940				-5	-5	-5	26	-20	26	-5	-10	-15	-1	11	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
02-54.7603-132.1553-2-53-	02-54.8922-132.1717-2-13-	02-54.8922-132.1717-2-33-	02-54.8922-132.1717-2-43-	02-54.8922-132.1717-2-53-	02-54.8922-132.1717-2-53-	02-54.8908-132.1583-2-13-	02-54.8808-132.1583-2-33-	02-54.8808-132.1583-2-43-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-	02-54.8808-132.1583-2-53-
35553	-0.10	332	7612	39	771	22.6	36	1.7	2	0.8	13370	1.5	5401	-11	-0.1								
12260	-0.11	1632	4014	16	692	-1.4	43	-1.7	2	0.9	1526	2.2	4396	-14	-0.1								
12150	-0.13	1217	-1916	14	632	-1.5	32	-1.7	2	0.7	-965	-1.2	4826	-15	-0.1								
13970	-0.10	2097	-987	13	602	-1.5	66	-2.1		0.8	2505	3.3	5391	-10	-0.2								
14300	-0.11	2078	-731	16	655	-1.2	41	-1.6	1	0.7	1940	1.9	5196	-16	-0.1								
14400	-0.11	1930	-752	21	586	-1.2	35	-1.6	2	1.1	1687	1.7	4465	-15	-0.1								
50710	-0.13	403	5518	114	213	15.3	50	-1.9	5	1.4	18840	6.6	11640	51	0.5								
50550	-0.20	532	4395	114	313	21.4	55	-2.9	6	1.8	25400	5.8	10200	58	0.6								
55360	-0.11	479	4960	110	221	16.8	39	-1.8	5	1.5	20500	6.0	9963	45	0.7								
63910	-0.14	387	-1132	123	-141	16.6	39	-2.0	6	1.5	19580	5.4	10600	53	0.6								
59600	-0.17	376	4353	149	219	18.1	47	-2.4	7	1.6	20990	6.0	-6658	57	0.6								
10100	-0.12	671	14160	15	640	5.7	-9	-1.8	1	0.4	16150	-1.1	-3624	-17	-0.1								
2960	-0.12	458	14700	-4	685	4.2	-9	-1.7	1	0.5	17280	-0.9	-3422	-15	-0.1								
10670	-0.14	703	13780	10	677	4.6	-10	-1.9	-1	0.4	15620	-1.3	-3185	-15	-0.1								
11070	-0.15	597	13250	12	498	3.6	-21	-3.1	-2	0.3	11530	-2.3	-4642	-18	-0.3								
10500	-0.13	683	13410	-5	621	6.6	-10	-1.9	-1	0.5	16380	-1.1	-3748	-16	-0.1								
73760	-0.12	632	13030	49	271	12.7	89	5.2	3	1.3	26140	5.0	18070	29	0.3								
74750	-0.15	635	11730	60	246	10.7	87	3.4	3	1.2	25310	4.4	14130	-11	0.2								
73870	-0.21	687	13440	35	222	10.8	95	4.7	3	1.3	22890	5.0	16410	25	0.4								
73890	-0.14	638	13460	60	263	15.3	109	4.8	4	1.5	32760	6.3	13920	35	0.4								
64800	-0.15	552	10850	50	335	15.0	86	4.1	4	1.3	29250	4.0	11120	30	0.3								
52740	-0.15	483	8511	62	305	49.4	31	2.5	4	1.1	57770	2.7	-5687	-11	0.3								
55440	-0.11	528	6975	53	339	44.8	42	-2.7	3	1.0	59080	3.4	-6879	24	0.3								
55170	-0.15	548	4969	50	317	59.0	44	-2.3	4	1.1	60380	2.5	-6274	-11	0.2								
54490	-0.15	381	7382	51	314	51.5	37	-2.3	3	1.2	54470	2.5	-6277	-14	0.3								
54130	-0.18	549	6155	59	313	45.2	41	-2.6	4	0.9	54550	1.7	-5896	-14	0.3								
30510	-0.12	-343	5284	37	517	19.0	34	1.2	3	0.7	24180	-1.9	-7574	-14	-0.2								
32360	-0.06	-217	-1675	34	777	22.1	46	-2.2	-2	0.7	25160	-1.1	-6516	13	0.2								
32800	-0.05	-241	6586	38	647	19.7	36	-2.1	2	0.6	22320	-1.1	-6357	12	-0.1								
31360	-0.06	-242	9075	39	573	20.3	37	-2.3	2	0.5	23730	-1.3	-6337	-3	-0.1								
30650	-0.07	-388	6381	36	522	20.9	43	-2.8	3	0.6	27960	-1.4	-7972	19	-0.1								
37470	-0.05	-155	-2448	37	548	15.4	53	-2.5	2	0.8	20600	2.4	-4716	16	-0.1								
34650	-0.05	-154	7310	32	612	13.8	38	2.4	2	0.7	19200	1.8	-3652	14	-0.1								
34680	-0.07	-150	7060	32	601	11.7	45	-2.4	2	0.6	18440	-1.4	-3791	9	0.2								
35270	-0.08		6040	38	494	13.9	48	-2.8	2	0.8	22550	-1.6	-6267	16	-0.1								
32770	-0.06	-144	-1406	26	437	14.5	49	-2.2	2	0.7	18160	2.4	-4265	13	-0.1								
35250	-0.05	-145	9483	29	710	12.7	28	-2.0	2	0.6	11140	1.4	-3811	12	0.2								
36150	-0.05	233	7888	34	743	13.9	32	-2.1	2	0.6	9863	0.8	-4458	-3	-0.1								
36680	-0.07	343	8386	33	784	19.0	39	-2.4	3	0.7	14530	2.1	-4339	15	-0.1								
36440	-0.05	-244	8939	25	604	12.7	31	-2.0	2	0.5	11240	2.0	-4970	-4	-0.1								
32100	-0.05	189	9217	26	606	12.6	28	-2.1	2	0.6	11210	-1.1	-5169	12	-0.1								
34060	-0.08	435	13780	57	341	68.9	30	-2.9	4	1.0	42520	-1.7	-5217	13	0.4								
34870	-0.09	-314	19830	68	323	81.0	48	-3.4	5	1.3	54740	-1.8	-5869	28	0.4								
35800	-0.07	344	15040	56	284	69.5	30	-2.9	4	1.0	49080	-1.4	-5282	22	0.3								
34440	-0.07	-250	11710	46	285	68.1	-12	-2.8	4	1.1	41990	-1.5	-4935	22	0.4								
34500	-0.08	-255	12030	64	282	65.7	30	-3.0	4	1.0	43560	-1.6	-4914	10	0.3								
106600	-0.06	854	4525	71	-93	10.8	57	5.5	6	2.3	56390	8.3	26680	30	0.5								
99000	-0.05	578	4517	62	-77	10.0	45	4.1	5	2.0	42360	6.9	26100	23	0.4								
99520	-0.05	747	4687	59	-75	10.0	39	5.0	6	1.9	42420	7.2	27300	23	0.3								
63180	-0.07	383	16200	42	342	28.5	97	-2.8	4	1.2	37060	2.6	-6029	7	0.3								
64760	-0.08	273	14380	41	372	29.1	118	-3.2	4	1.5	44590	2.6	-6744	17	0.3								

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[illegible]

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LAST SAMPLE LOCATION NUMBER AND FIELD DATA																		U CONCENTRATION							
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (cpm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																							
02-54.7408	-132.2933	-2-13			0-489941-08/23/79-13	18-18.1	-5	7.1	33	-4	-6-6	-3-1	-1-5-4-2	-1	9.5	1.40															
02-54.7408	-132.2933	-2-33			0-489941-08/23/79-13	18-18.1	-5	7.1	33	-4	-6-6	-3-1	-1-5-4-2	-1	9.5	1.40															
02-54.7408	-132.2933	-2-43			0-489941-08/23/79-13	18-18.1	-5	7.1	39	-4	-6-6	-3-1	-1-5-4-2	-1	9.5	1.40															
02-54.7408	-132.2933	-2-53			0-489941-08/23/79-13	18-18.1	-5	7.1	33	-4	-6-6	-3-1	-1-5-4-2	-1	9.5	1.45															
02-54.7408	-132.2933	-2-63			0-489941-08/23/79-13	18-18.1	-5	7.1	33	-4	-6-6	-3-1	-1-5-4-2	-1	9.5	1.44															
02-54.6814	-132.7069	-2-13			0-489942-08/23/79-13	16-15.7	-5	4.7	40	-4	-6-6	-3-1	-1-4-4-2	-1	6.8	1.15															
02-54.6814	-132.7069	-2-33			0-489942-08/23/79-13	16-15.7	-5	4.7	40	-4	-6-6	-3-1	-1-4-4-2	-1	6.8	1.10															
02-54.6814	-132.7069	-2-43			0-489942-08/23/79-13	16-15.7	-5	4.7	40	-4	-6-6	-3-1	-1-4-4-2	-1	6.8	1.12															
02-54.6814	-132.7069	-2-53			0-489942-08/23/79-13	16-15.7	-5	4.7	40	-4	-6-6	-3-1	-1-4-4-2	-1	6.8	1.17															
02-54.6814	-132.7069	-2-63			0-489942-08/23/79-13	16-15.7	-5	4.7	40	-4	-6-6	-3-1	-1-4-4-2	-1	6.8	1.28															
02-54.7339	-132.7631	-2-13			0-489943-08/23/79-13	14-14.3	-5	6.1	25	-4	-6-6	-3-2	-1-4-4-2	-1	8.3	3.25															
02-54.7339	-132.7631	-2-33			0-489943-08/23/79-13	14-14.3	-5	6.1	25	-4	-6-6	-3-2	-1-4-4-2	-1	8.3	3.18															
02-54.7339	-132.7631	-2-43			0-489943-08/23/79-13	14-14.3	-5	6.1	25	-4	-6-6	-3-2	-1-4-4-2	-1	8.3	3.22															
02-54.7339	-132.7631	-2-53			0-489943-08/23/79-13	14-14.3	-5	6.1	25	-4	-6-6	-3-2	-1-4-4-2	-1	8.3	3.18															
02-54.7339	-132.7631	-2-63			0-489943-08/23/79-13	14-14.3	-5	6.1	25	-4	-6-6	-3-2	-1-4-4-2	-1	8.3	3.29															
02-54.7733	-132.7594	-2-13			0-489944-08/23/79-14	16-17.2	-5	6.7	32	-2-7-5-6	-3-1	-1-3-4-2	-1	8.7	1.88																
02-54.7733	-132.7594	-2-33			0-489944-08/23/79-14	16-17.2	-5	6.7	32	-2-7-5-6	-3-1	-1-3-4-2	-1	8.7	1.96																
02-54.7733	-132.7594	-2-43			0-489944-08/23/79-14	16-17.2	-5	6.7	32	-2-7-5-6	-3-1	-1-3-4-2	-1	8.7	1.88																
02-54.7733	-132.7594	-2-53			0-489944-08/23/79-14	16-17.2	-5	6.7	32	-2-7-5-6	-3-1	-1-3-4-2	-1	8.7	2.00																
02-54.7733	-132.7594	-2-63			0-489944-08/23/79-14	16-17.2	-5	6.7	32	-2-7-5-6	-3-1	-1-3-4-2	-1	8.7	2.05																
02-54.8158	-132.6556	-2-13			0-489945-08/23/79-14	16-13.4	-5	5.2	26	-4	-5-6	-3-2	-1-3-3-2	-1	9.4	1.16															
02-54.8158	-132.6556	-2-33			0-489945-08/23/79-14	16-13.4	-5	5.2	26	-4	-5-6	-3-2	-1-3-3-2	-1	9.4	1.20															
02-54.8158	-132.6556	-2-43			0-489945-08/23/79-14	16-13.4	-5	5.2	26	-4	-5-6	-3-2	-1-3-3-2	-1	9.4	1.19															
02-54.8344	-132.7236	-2-13			0-489946-08/23/79-15	16-17.4	-5	6.3	169	-4	-5-6	-3-2	-1-4-3-2	-1	8.5	2.98															
02-54.8344	-132.7236	-2-33			0-489946-08/23/79-15	16-17.4	-5	6.3	163	-4	-5-6	-3-2	-1-4-3-2	-1	8.5	3.03															
02-54.8344	-132.7236	-2-43			0-489946-08/23/79-15	16-17.4	-5	6.3	169	-4	-5-6	-3-2	-1-4-3-2	-1	8.5	2.80															
02-54.8344	-132.7236	-2-53			0-489946-08/23/79-15	16-17.4	-5	6.3	163	-4	-5-6	-3-2	-1-4-3-2	-1	8.5	3.14															
02-54.8344	-132.7236	-2-63			0-489946-08/23/79-15	16-17.4	-5	6.3	163	-4	-5-6	-3-2	-1-4-3-2	-1	8.5	3.16															
02-54.8597	-132.6853	-2-13			0-489947-08/23/79-15	18-14.7	-5	7.5	186	-4	-5-6	-3-1	-1-4-3-2	-1	9.1	4.61															
02-54.8597	-132.6853	-2-33			0-489947-08/23/79-15	18-14.7	-5	7.5	186	-4	-5-6	-3-1	-1-4-3-2	-1	9.1	4.48															
02-54.8597	-132.6853	-2-43			0-489947-08/23/79-15	18-14.7	-5	7.5	186	-4	-5-6	-3-1	-1-4-3-2	-1	9.1	4.58															
02-54.8597	-132.6853	-2-53			0-489947-08/23/79-15	18-14.7	-5	7.5	186	-4	-5-6	-3-1	-1-4-3-2	-1	9.1	4.73															
02-54.8928	-132.6986	-2-13			0-489948-08/23/79-15	18-17.4	-5	7.7	198	-4	-5-6	-3-2	-1-5-3-2	-1	8.4	3.76															
02-54.8928	-132.6986	-2-33			0-489948-08/23/79-15	18-17.4	-5	7.7	199	-4	-5-6	-3-2	-1-5-3-2	-1	8.4	3.60															
02-54.8928	-132.6986	-2-43			0-489948-08/23/79-15	18-17.4	-5	7.7	198	-4	-5-6	-3-2	-1-5-3-2	-1	8.4	3.70															
02-54.8928	-132.6986	-2-53			0-489948-08/23/79-15	18-17.4	-5	7.7	198	-4	-5-6	-3-2	-1-5-3-2	-1	8.4	3.82															
02-54.8972	-132.7072	-2-13			0-489949-08/23/79-15	17-16.9	-5	7.5	96	-4	-5-6	-2-2	-1-4-3-2	-1	6.8	5.25															
02-54.8972	-132.7072	-2-33			0-489949-08/23/79-15	17-16.9	-5	7.5	96	-4	-5-6	-2-2	-1-4-3-2	-1	6.8	5.52															
02-54.8972	-132.7072	-2-43			0-489949-08/23/79-15	17-16.9	-5	7.5	96	-4	-5-6	-2-2	-1-4-3-2	-1	6.8	5.34															
02-54.9097	-132.7533	-2-13			0-489950-08/23/79-15	18-15.9	-5	5.5	22	-4	-5-6	-3-2	-1-4-4-2	-1	8.2	0.56															
02-54.9097	-132.7533	-2-33			0-489950-08/23/79-15	18-15.9	-5	5.5	22	-4	-5-6	-3-2	-1-4-4-2	-1	8.2	0.54															
02-54.9097	-132.7533	-2-43			0-489950-08/23/79-15	18-15.9	-5	5.5	22	-4	-5-6	-3-2	-1-4-4-2	-1	8.2	0.60															
02-54.9097	-132.7533	-2-53			0-489950-08/23/79-15	18-15.9	-5	5.5	22	-4	-5-6	-3-2	-1-4-4-2	-1	8.2	0.60															
02-54.8892	-132.7492	-2-13			0-489951-08/23/79-19	18-12.6	-5	6.7	230	-4	-5-6	-3-1	-1-4-4-1	-1	1.3	0.65															
02-54.8892	-132.7492	-2-33			0-489951-08/23/79-19	18-12.6	-5	6.7	230	-4	-5-6	-3-1	-1-4-4-1	-1	1.3	0.64															
02-54.8892	-132.7492	-2-43			0-489951-08/23/79-19	18-12.6	-5	6.7	230	-4	-5-6	-3-1	-1-4-4-1	-1	1.3	0.56															
02-54.8892	-132.7492	-2-53			0-489951-08/23/79-19	18-12.6	-5	6.7	230	-4	-5-6	-3-1	-1-4-4-1	-1	1.3	0.70															
02-54.8892	-132.7492	-2-63			0-489951-08/23/79-19	18-12.6	-5	6.7	230	-4	-5-6	-3-1	-1-4-4-1	-1	1.3	0.70															
02-54.7581	-132.8078	-2-13			0-489952-08/23/79-19	18-15.2	-5	7.6	27	-2-7-5-6	-3-1	-1-4-4-1	-1	9.5	2.43																
02-54.7581	-132.8078	-2-33			0-489952-08/23/79-19	18-15.2	-5	7.6	27	-2-7-5-6	-3-1	-1-4-4-1	-1	9.5	2.48																
02-54.7581	-132.8078	-2-43			0-489952-08/23/79-19	18-15.2	-5	7.6	27	-2-7-5-6	-3-1	-1-4-4-1	-1	9.5	2.50																

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER						LAS. SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE									ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE		Concentrations reported in weight parts per million (ppm)									Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li
02-54,7408-132.2933-2-13-						0-899341	-5	-5	4	32	-20	-15	-5	-10	-15	-1	4
02-54,7408-132.2933-2-33-						0-899341	-5	-5	-5	34	-20	-15	-5	-10	-15	-1	6
02-54,7408-132.2933-2-43-						0-899341	-5	-5	-5	27	-20	-15	-5	-10	-15	-1	6
02-54,7408-132.2933-2-53-						0-899341	-5	-5	-5	25	-20	-15	-5	-10	-15	-1	5
02-54,7408-132.2933-2-63-						0-899041	-5	-5	-5	32	-20	-15	-5	-10	-15	1	4
02-54,6814-132.7069-2-13-						0-899042	-5	-5	-5	22	-20	-15	-5	-10	-15	-1	4
02-54,6814-132.7069-2-33-						0-899042	-5	-5	-5	24	-20	-15	-5	-10	-15	1	3
02-54,6814-132.7069-2-43-						0-899042	-5	-5	-5	14	-20	-15	-5	-10	-15	-1	30
02-54,6814-132.7069-2-53-						0-899042	-5	-5	-5	30	-20	-15	-5	-10	-15	-1	3
02-54,6814-132.7069-2-63-						0-899042	-5	-5	-5	32	-20	-15	-5	-10	-15	-1	3
02-54,7339-132.7631-2-13-						0-899043	-5	-5	-5	37	-20	-15	-5	-10	-15	-1	5
02-54,7339-132.7631-2-33-						0-899043	-5	-5	-5	36	-20	-15	-5	-10	-15	1	5
02-54,7339-132.7631-2-43-						0-899043	-5	-5	-5	26	-20	-15	-5	-10	-15	1	6
02-54,7339-132.7631-2-53-						0-899043	-5	-5	-5	28	-20	-15	-5	-10	-15	-1	8
02-54,7339-132.7631-2-63-						0-899043	-5	-5	-5	32	-20	-15	-5	-10	-15	-1	12
02-54,7733-132.7594-2-13-						0-899044	-5	-5	-5	34	-20	-15	-5	-10	-15	1	3
02-54,7733-132.7594-2-33-						0-899044	-5	-5	-5	22	-20	-15	8	-10	-15	-1	4
02-54,7733-132.7594-2-43-						0-899044	-5	-5	-5	-10	-20	-15	-5	-10	-15	-1	5
02-54,7733-132.7594-2-53-						0-899044	-5	-5	-5	40	-20	-15	9	-10	-15	-1	4
02-54,7733-132.7594-2-63-						0-899044	-5	-5	-5	59	-20	22	7	-10	-15	-1	3
02-54,8158-132.6656-2-13-						0-899345	-5	-5	-5	24	-20	-15	-5	-10	-15	-1	3
02-54,8158-132.6656-2-33-						0-899345	-5	-5	-5	25	-20	-15	-5	-10	-15	-1	2
02-54,8158-132.6656-2-43-						0-899345	-5	-5	-5	24	-20	-15	-5	-10	-15	-1	2
02-54,8344-132.7236-2-13-						0-899345	-5	-5	5	41	-20	157	-5	-10	-15	-1	8
02-54,8344-132.7236-2-33-						0-899345	-5	-5	-5	46	-20	157	-5	-10	-15	1	9
02-54,8344-132.7236-2-43-						0-899345	-5	-5	6	36	-20	137	-5	-10	-15	-1	12
02-54,8344-132.7236-2-53-						0-899345	-5	-5	-5	49	-20	139	-5	-10	-15	-1	8
02-54,8344-132.7236-2-63-						0-899345	-5	-5	-5	52	-20	131	-5	-10	-15	-1	7
02-54,8597-132.6853-2-13-						0-899047	-5	-5	-5	51	-20	57	-5	-10	-15	-1	4
02-54,8597-132.6853-2-33-						0-899047	-5	-5	5	48	-20	64	6	-10	18	-1	4
02-54,8597-132.6853-2-43-						0-899047	-5	-5	5	50	-20	40	-5	-10	-15	-1	5
02-54,8597-132.6853-2-53-						0-899047	-5	-5	-5	45	-20	64	13	-10	-15	-1	11
02-54,8828-132.6986-2-13-						0-899248	-5	-5	-5	33	-20	-15	6	-10	-15	-1	2
02-54,8828-132.6986-2-33-						0-899248	-5	5	-5	29	-20	22	-5	-10	-15	-1	2
02-54,8828-132.6986-2-43-						0-899248	-5	-5	-5	34	-20	-15	6	-10	-15	-1	2
02-54,8828-132.6986-2-53-						0-899248	-5	-5	-5	38	-20	17	6	-10	-15	-1	2
02-54,8972-132.7072-2-13-						0-899349	-5	-5	-5	44	-20	45	-5	-10	-15	-1	8
02-54,8972-132.7072-2-33-						0-899040	-5	-5	-5	46	-20	39	-5	-10	-15	1	7
02-54,8972-132.7072-2-43-						0-899340	-5	-5	-5	51	-20	43	6	-10	-15	-1	9
02-54,9097-132.7533-2-13-						0-899350	-5	-5	-5	25	-20	-15	-5	-10	-15	-1	2
02-54,9097-132.7533-2-33-						0-899350	-5	-5	-5	25	-20	-15	-5	-10	-15	-1	3
02-54,9097-132.7533-2-43-						0-899350	-5	-5	-5	57	-20	-15	-5	-10	-15	-1	3
02-54,9097-132.7533-2-53-						0-899350	-5	-5	-5	29	-20	-15	-5	-10	-15	-1	-1
02-54,8892-132.7492-2-13-						0-899351	-5	-5	11	12	-20	-15	-5	19	-15	-1	-1
02-54,8892-132.7492-2-33-						0-899351	-5	-5	15	24	-20	59	-5	-10	-15	-1	-1
02-54,8892-132.7492-2-43-						0-899351	9	-5	9	32	-20	-15	-5	-10	31	-1	-1
02-54,8892-132.7492-2-53-						0-899351	-5	-5	11	23	-20	-15	-5	26	24	-1	-1
02-54,7581-132.8078-2-13-						0-899352	-5	-5	-5	23	-20	37	11	-10	-15	1	10
02-54,7581-132.8078-2-33-						0-899352	-5	5	-5	21	-20	27	14	-10	-15	2	14
02-54,7581-132.8078-2-43-						0-899352	-5	-5	-5	26	-20	43	17	-10	-15	1	12

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
02-54.7408-132.2933-2-13-			0-199941			51550	-0.05	-217	16500	34	334	26.3	65	-2.4	3	0.8	41580	-1.1	-5531	13	0.2		
02-54.7408-132.2933-2-33-			0-199941			57530	-0.07	-224	14550	48	310	26.5	62	-2.7	2	0.9	41300	2.2	-5711	7	0.3		
02-54.7408-132.2933-2-43-			0-199941			63080	-0.08	-221	13910	46	342	31.7	76	-3.1	2	0.9	53560	2.0	-5494	19	0.2		
02-54.7408-132.2933-2-53-			0-199941			55970	-0.06	-273	15720	47	388	24.9	68	-2.6	3	1.0	41560	-1.1	-6091	14	-0.1		
02-54.7408-132.2933-2-63-			0-199941			51200	-0.06	-229	14370	36	390	24.7	57	-2.5	3	0.8	36830	2.1	-5673	14	-0.1		
02-54.6814-132.7069-2-13-			0-199942			59949	-0.06	-291	20800	28	390	4.7	36	-2.1	4	1.2	17460	4.7	7452	10	0.4		
02-54.6814-132.7069-2-33-			0-199942			56770	-0.08	-230	19950	28	484	5.1	48	-3.1	4	1.1	23900	5.3	9010	12	0.6		
02-54.6814-132.7069-2-43-			0-199942			55420	-0.05	-219	21220	27	300	4.9	31	-2.0	5	1.1	19160	4.3	6112	12	0.5		
02-54.6814-132.7069-2-53-			0-199942			50550	-0.05	-133	21370	28	329	4.4	41	-2.1	5	1.2	19220	4.3	6634	10	0.4		
02-54.6814-132.7069-2-63-			0-199942			59270	-0.05	-219	20770	31	441	4.5	53	-2.5	5	1.2	17860	4.7	7021	14	0.3		
02-54.7339-132.7631-2-13-			0-199943			45250	-0.07	-222	13440	72	393	9.7	31	-2.9	5	1.3	48280	3.9	-5249	27	0.4		
02-54.7339-132.7631-2-33-			0-199943			42310	-0.05	-239	19350	71	517	9.3	34	-2.1	5	1.3	41980	4.8	7460	24	0.5		
02-54.7339-132.7631-2-43-			0-199943			46270	-0.05	-221	13220	49	421	7.4	24	-2.2	5	1.1	36230	2.3	-5498	21	0.4		
02-54.7339-132.7631-2-53-			0-199943			44450	-0.07	-279	17460	53	420	7.8	26	2.3	5	1.1	36520	2.6	-5896	12	0.4		
02-54.7339-132.7631-2-63-			0-199943			44490	-0.09	-237	17440	82	416	9.7	38	-3.1	5	1.4	52380	4.4	-5528	31	0.6		
02-54.7733-132.7594-2-13-			0-199944			49350	-0.05	-361	15410	63	402	20.9	46	-2.6	4	1.4	34640	3.2	-8393	18	0.3		
02-54.7733-132.7594-2-33-			0-199944			49760	-0.06	-274	15080	53	428	21.1	46	-2.4	4	1.4	32300	3.6	-7126	18	0.3		
02-54.7733-132.7594-2-43-			0-199944			49950	-0.06	-263	17820	67	379	18.1	56	-2.5	5	1.3	31160	3.5	-6822	19	0.3		
02-54.7733-132.7594-2-53-			0-199944			49370	-0.08	-229	14410	75	442	25.4	79	-3.3	5	1.5	46170	3.8	-7415	27	0.3		
02-54.7733-132.7594-2-63-			0-199944			44830	-0.07	-140	20200	61	460	22.7	71	-3.0	4	1.4	38440	3.1	-9071	20	0.4		
02-54.8158-132.6656-2-13-			0-199945			19470	-0.05	-235	14220	14	630	-1.2	20	-1.9	2	0.6	6955	0.8	-4283	5	0.2		
02-54.8158-132.6656-2-33-			0-199945			22970	-0.05	-239	15380	16	652	-1.4	25	-2.1	2	0.6	8802	-1.2	-4274	-3	-0.1		
02-54.8158-132.6656-2-43-			0-199945			22720	-0.06	-222	15320	22	645	2.8	25	-2.4	2	0.6	9535	-1.3	-4330	-4	-0.1		
02-54.8344-132.7236-2-13-			0-199946			41750	-0.06	-256	31890	28	390	32.9	435	-2.8	3	0.8	43480	-1.3	-5487	11	0.2		
02-54.8344-132.7236-2-33-			0-199946			39970	-0.06	-215	29040	27	580	32.1	358	-2.7	3	0.8	40890	1.3	-5159	11	0.2		
02-54.8344-132.7236-2-43-			0-199946			43210	-0.07	-232	31180	27	442	32.3	419	-2.8	3	1.0	41810	-1.4	6474	7	0.2		
02-54.8344-132.7236-2-53-			0-199946			38970	-0.09	-234	27640	29	373	36.8	454	-3.5	3	1.0	50300	-1.6	-5308	15	0.2		
02-54.8344-132.7236-2-63-			0-199946			35670	-0.07	-223	27130	29	390	29.5	373	-3.1	4	0.7	40060	-1.4	-6024	12	0.4		
02-54.8597-132.6853-2-13-			0-199947			35820	-0.06	460	21940	38	602	17.3	104	-2.6	3	1.1	30990	1.7	-5219	18	0.3		
02-54.8597-132.6853-2-33-			0-199947			34140	-0.06	329	20240	42	778	15.9	117	-2.5	4	1.3	28340	-1.4	-4998	8	0.2		
02-54.8597-132.6853-2-43-			0-199947			36950	-0.09	394	20270	43	722	21.4	139	-3.2	3	1.2	40180	2.4	-5169	23	0.3		
02-54.8597-132.6853-2-53-			0-199947			36420	-0.06	354	22290	42	636	16.9	132	-2.7	3	1.3	35600	-1.3	-5602	18	0.2		
02-54.8828-132.6986-2-13-			0-199948			17690	-0.05	-229	15610	19	834	7.9	31	-2.1	2	0.7	9861	-1.2	-3970	14	-0.1		
02-54.8828-132.6986-2-33-			0-199948			19100	-0.07	-257	19350	22	1126	9.3	40	-2.5	3	0.8	9606	-1.4	-4417	-3	0.2		
02-54.8828-132.6986-2-43-			0-199948			17830	-0.08	-318	15250	29	960	10.2	48	-2.9	3	0.8	14540	-1.7	-4787	16	-0.1		
02-54.8828-132.6986-2-53-			0-199948			19140	-0.05	-256	17150	20	855	8.1	41	-2.3	2	0.8	9609	-1.2	-4407	14	-0.1		
02-54.8972-132.7072-2-13-			0-199949			42430	-0.06	435	16150	35	236	16.7	94	-2.7	5	1.4	22850	-1.3	6473	19	0.3		
02-54.8972-132.7072-2-33-			0-199949			43320	-0.06	440	17510	51	272	15.4	109	-2.6	4	1.3	21220	2.8	5011	13	0.4		
02-54.8972-132.7072-2-43-			0-199949			45290	-0.08	501	16760	57	214	18.8	116	-3.2	5	1.4	26300	-1.6	-4542	26	0.4		
02-54.9097-132.7533-2-13-			0-199950			11310	-0.04	-239	6941	-4	935	-1.3	-8	-1.6	1	-0.3	2148	-0.9	-2764	-3	-0.1		
02-54.9097-132.7533-2-33-			0-199950			11100	-0.06	-272	6376	-7	1168	-1.8	-12	-2.2	-2	-0.9	3920	-1.4	-3298	-4	-0.1		
02-54.9097-132.7533-2-43-			0-199950			12440	-0.05	-245	4592	-5	1003	-1.8	18	-2.2	1	-0.3	2426	-1.4	-3204	-4	-0.1		
02-54.9097-132.7533-2-53-			0-199950			13710	-0.04	-254	4366	-4	903	-1.3	14	-1.6	-2	-0.2	3851	-0.9	-3187	-3	-0.1		
02-54.8392-132.7492-2-13-			0-199951			5327	-0.06	-361	26100	-5	-178	3.3	-11	-2.6	-2	-0.3	324700	-1.2	-10600	-2	-0.1		
02-54.8892-132.7492-2-33-			0-199951			4368	-0.07	-345	22850	-5	272	3.4	26	-2.8	-2	-0.3	342800	-1.4	-9495	-1	-0.1		
02-54.8892-132.7492-2-43-			0-199951			5060	-0.08	-359	21460	-7	-159	4.0	-15	-3.3	-2	-0.4	431200	-1.6	-9728	-2	-0.1		
02-54.8892-132.7492-2-53-			0-199951			-3283	-0.07		24970	-6	-209	4.0	28	-2.8	-3	-0.3	341500	-1.3		-2	-0.1		
02-54.8892-132.7492-2-63-			0-199951			-3255	-0.07		26420	-6	280	3.3	25	-2.8	-3	-0.3	307000	-1.3		4	-0.1		
02-54.7581-132.8078-2-13-			0-199952			66080	-0.05	466	6263	60	-141	13.2	90	1.8	6	1.4	34630	5.3	18500	10	0.7		
02-54.7581-132.8078-2-33-			0-199952			65170	-0.06	497	4888	52	-140	17.6	128	-2.6	6	1.5	45230	6.0	20310	21	0.7		
02-54.7581-132.8078-2-43-			0-199952			64620	-0.05	332	6073	55	-154	13.8	103	-2.0	6	1.4	36270	5.7	15390	21	0.7		

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																	U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn		
02-54.7408-132.2933-2-13-	0-199941	12200	747	20460	-36	-1	14.7	2.9	-437	-2	-1	2.5	3392	146	-1.3	182	0.560						
02-54.7408-132.2933-2-33-	0-199941	13050	938	22660	-37	-2	15.3	2.9	-461	-2	-1	2.2	3932	161	-1.5	141	0.636						
02-54.7408-132.2933-2-43-	0-199941	9340	774	19240	-47	-2	13.7	3.8	-432	-2	-1	2.9	4056	148	-1.6	185	0.483						
02-54.7408-132.2933-2-53-	0-199941	9000	740	17240	-40	-2	15.2	3.1		-2	-1	4.5	3367	148	-1.4	90	0.322						
02-54.7408-132.2933-2-63-	0-199941	6360	733	14610	-38	-1	12.3	2.9	-448	-2	-1	2.7	3515	134	-1.4	168	0.533						
02-54.6814-132.7069-2-13-	0-199942	9720	508	23420	-29	-1	13.0	3.7	-378	-2	-1	-1.1	5960	76	3.1	58							
02-54.6814-132.7069-2-33-	0-199942	9400	460	19450	-42	-2	17.4	3.8	-412	-2	-1	2.8	5549	76	4.0	-116	0.393						
02-54.6814-132.7069-2-43-	0-199942	7470	523	24550	-24	-1	14.5	3.7	-413	-1	-1	2.2	5532	74	3.1	84	0.509						
02-54.6814-132.7069-2-53-	0-199942	7275	545	24610	-29	-1	14.2	3.6	-398	-2	-1	3.6	5116	84	3.9	71	0.325						
02-54.6814-132.7069-2-63-	0-199942	8200	559	21290	-32	-1	13.8	3.9	-425	-2	1	2.3	6735	81	4.5	114	0.557						
02-54.7339-132.7631-2-13-	0-199943	4990	789	11550	-45	-2	13.2	7.5	-438	-2	-1	6.4	3525	88	3.9	177	0.508						
02-54.7339-132.7631-2-33-	0-199943	5335	752	11400	-34	-1	11.2	5.4	-459	-2	1	5.2	2975	85	3.2	125	0.612						
02-54.7339-132.7631-2-43-	0-199943	5218	760	12110	-36	-1	2.8	5.6	-437	-2	-1	4.9	3449	87	2.3	150	0.657						
02-54.7339-132.7631-2-53-	0-199943	5590	905	11910	-40	-2	10.1	5.8	-484	-2	-1	4.8	3747	90	2.8	183	0.663						
02-54.7339-132.7631-2-63-	0-199943	4393	825	11750	-48	-2	14.0	7.6	-456	-2	-1	6.1	3251	85	5.0	147	0.539						
02-54.7733-132.7594-2-13-	0-199944	2182	1534	15540	-40	-1	11.9	4.7		-2	-1	4.3	4275	81	2.9	137	0.437						
02-54.7733-132.7594-2-33-	0-199944	5930	1367	15230	-40	-1	11.6	4.8		-2	-1	3.8	3418	81	2.9	147	0.516						
02-54.7733-132.7594-2-43-	0-199944	9042	1381	18590	-33	-1	12.1	5.3		-2	-1	3.6	4376	76	2.8	130	0.522						
02-54.7733-132.7594-2-53-	0-199944	7170	1463	14760	-49	-2	15.3	6.3		-3	-1	5.5	3684	85	3.4	159	0.364						
02-54.7733-132.7594-2-63-	0-199944	6740	1582	12610	-47	-2	12.2	5.8		-2	3	3.5	4282	88	4.1	122	0.586						
02-54.8158-132.6656-2-13-	0-199945	-2134	377	5549	-27	-1	5.9	1.4	-357	-2	-1	-1.1	1694	44	-1.1	-63							
02-54.8158-132.6656-2-33-	0-199945	2317	387	7718	-20	-1	5.3	2.1	-369	-2	-1	-1.3	2323	58	-1.3	-45							
02-54.8158-132.6656-2-43-	0-199945	-2333	403	7603	-35	-1	7.4	2.1	-377	-2	-1	2.5	2465	53	-1.5	-55	0.476						
02-54.8344-132.7236-2-13-	0-199946	25910	777	7612	-42	-1	19.4	3.2	-490	-2	-1	-1.5	3257	121	-1.5	178							
02-54.8344-132.7236-2-33-	0-199946	22925	741	7041	-43	-2	15.8	2.8	-429	-2	-1	-1.5	2659	117	-1.4	213							
02-54.8344-132.7236-2-43-	0-199946	29900	761	8575	-41	-2	17.9	3.4	-406	-2	-1	3.4	3286	119	-1.5	166	0.824						
02-54.8344-132.7236-2-53-	0-199946	23560	753	7317	-54	-2	20.7	3.4	-447	-3	-1	2.2	3258	129	-2.0	255	1.427						
02-54.8344-132.7236-2-63-	0-199946	22600	744	6570	-45	-2	17.0	3.0		-2	-1	-1.6	2940	113	-1.6	240							
02-54.8597-132.6853-2-13-	0-199947	9670	625	5905	-41	-2	10.9	3.6	-438	-2	-1	3.0	2283	130	2.2	461	1.537						
02-54.8597-132.6853-2-33-	0-199947	8255	644	5902	-39	-2	9.9	3.8	-439	-2	-1	3.3	3085	121	-1.5	416	1.358						
02-54.8597-132.6853-2-43-	0-199947	9720	670	6635	-51	-2	14.1	5.2	-446	-2	-1	3.8	3222	139	2.1	457	1.205						
02-54.8597-132.6853-2-53-	0-199947	9662	609	6144	-42	-2	12.2	3.8		-2	-1	5.8	2665	132	-1.5	430	0.816						
02-54.8928-132.6986-2-13-	0-199948	-1935	295	1595	-35	-1	5.2	2.1	-375	-2	-1	-1.3	1404	46	-1.3	-89							
02-54.8928-132.6986-2-33-	0-199948	-2108	313	1748	-38	-1	5.3	2.7	-398	-2	-1	2.1	1146	53	-1.6	93	1.714						
02-54.8928-132.6986-2-43-	0-199948	-2422	314	1574	-46	-2	7.1	3.3	-490	-3	-1	3.2	-1432	44	-1.8	106	1.156						
02-54.8928-132.6986-2-53-	0-199948	2383	293	1295	-37	-1	5.3	2.4	-433	-2	-1	-1.4	-1168	45	-1.4	85							
02-54.8972-132.7072-2-13-	0-199949	10010	279	8460	-41	-2	13.7	5.3	-352	-3	-1	3.4	2772	96	-1.6	141	1.544						
02-54.8972-132.7072-2-33-	0-199949	10210	291	9274	-33	-1	13.6	4.7	-310	-2	-1	3.6	3122	95	-1.5	237	1.533						
02-54.8972-132.7072-2-43-	0-199949	9760	287	9330	-45	-2	15.6	5.2	-403	-2	-1	4.1	2807	91	3.6	-77	1.302						
02-54.9097-132.7533-2-13-	0-199950	-1840	45	3223	-27	-1	2.7	-0.3	-230	-2	-1	-1.0	1128	19	-1.0	-80							
02-54.9097-132.7533-2-33-	0-199950	1430	49	3182	-35	-1	2.6	-0.6	-345	-3	-1	-1.5	-1070	19	-1.5	-89							
02-54.9097-132.7533-2-43-	0-199950	-2143	45	3944	-34	-1	3.7	-0.4	-320	-2	-1	-1.5	-957	22	-1.5	-51							
02-54.9097-132.7533-2-53-	0-199950	-2125	61	3977	-26	-1	3.3	0.6	-339	-2	-1	-1.1	1134	20	-1.0	-39							
02-54.8892-132.7492-2-13-	0-199951	-4335	6754	510	-43	-1	2.1	-0.3		-2	-1	-1.4	-2223	-21	-1.4	-62							
02-54.8892-132.7492-2-33-	0-199951	-3874	3700	547	-44	-2	2.0	-0.3		-2	-1	-1.5	-2108	25	-1.5	-67							
02-54.8892-132.7492-2-43-	0-199951	-3030	3798	502	-79	-2	2.3	-0.4		-2	-1	-1.8	-2130	-19	-1.8	61							
02-54.8892-132.7492-2-53-	0-199951	-5070	4310	490	-49	-2	2.0	0.7		-2	-1	-1.5	-2882	-25	-1.5	-54							
02-54.8892-132.7492-2-63-	0-199951	-5040	4719	573	-48	-2	2.0	-0.3		-2	-1	-1.5	-2643	-25	-1.5	-72							
02-54.7581-132.8078-2-13-	0-199952	17940	1331	23100	-30	-1	14.6	5.7	-472	-1	1	4.6	3669	75	6.3	184	0.528						
02-54.7581-132.8078-2-33-	0-199952	15070	1540	19740	-38	-2	17.4	5.6		-2	1	5.0	3355	71	5.9	223	0.496						
02-54.7581-132.8078-2-43-	0-199952	11440	1324	22500	-28	-1	15.7	5.3		-1	1	4.8	3343	63	5.6	227	0.521						

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION					
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (eU/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RIFFLE	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																							
02-54.7591-132.8073-2-53-	02-54.7591-132.8073-2-53-	02-54.7591-132.8073-2-53-	0-499252-03/23/79-19-	0-499252-03/23/79-19-	0-499252-03/23/79-19-	0-499252-03/23/79-19-	19-15.2-	-5-	7.5-	27-	-2-7-5-5-	-3-1-	-1-4-4-1-	-1-	9.5-	2.54															
02-54.7531-132.8073-2-53-	02-54.7531-132.8073-2-53-	02-54.7531-132.8073-2-53-	0-499252-03/23/79-19-	0-499252-03/23/79-19-	0-499252-03/23/79-19-	0-499252-03/23/79-19-	19-15.2-	-5-	7.5-	27-	-2-7-5-5-	-3-1-	-1-4-4-1-	-1-	9.5-	3.07															
02-54.7719-132.8425-2-13-	02-54.7719-132.8425-2-13-	02-54.7719-132.8425-2-13-	0-499253-03/23/79-19-	0-499253-03/23/79-19-	0-499253-03/23/79-19-	0-499253-03/23/79-19-	19-15.0-	-5-	7.5-	23-	-2-7-5-6-	-3-1-	-1-2-5-1-	-1-	10.0-	2.74															
02-54.7719-132.8425-2-33-	02-54.7719-132.8425-2-33-	02-54.7719-132.8425-2-33-	0-499253-03/23/79-19-	0-499253-03/23/79-19-	0-499253-03/23/79-19-	0-499253-03/23/79-19-	19-15.0-	-5-	7.5-	23-	-2-7-5-6-	-3-1-	-1-2-5-1-	-1-	10.0-	2.90															
02-54.7719-132.8425-2-43-	02-54.7719-132.8425-2-43-	02-54.7719-132.8425-2-43-	0-499253-03/23/79-19-	0-499253-03/23/79-19-	0-499253-03/23/79-19-	0-499253-03/23/79-19-	19-15.0-	-5-	7.5-	23-	-2-7-5-6-	-3-1-	-1-2-5-1-	-1-	10.0-	2.75															
02-54.7719-132.8425-2-53-	02-54.7719-132.8425-2-53-	02-54.7719-132.8425-2-53-	0-499253-03/23/79-19-	0-499253-03/23/79-19-	0-499253-03/23/79-19-	0-499253-03/23/79-19-	19-15.0-	-5-	7.5-	23-	-2-7-5-6-	-3-1-	-1-2-5-1-	-1-	10.0-	2.80															
02-54.7839-132.8425-2-13-	02-54.7839-132.8425-2-13-	02-54.7839-132.8425-2-13-	0-499254-03/23/79-19-	0-499254-03/23/79-19-	0-499254-03/23/79-19-	0-499254-03/23/79-19-	19-13.2-	-5-	6.7-	47-	-2-7-5-5-	-3-1-	-1-4-5-1-	-1-	8.6-	4.31															
02-54.7839-132.8425-2-33-	02-54.7839-132.8425-2-33-	02-54.7839-132.8425-2-33-	0-499254-03/23/79-19-	0-499254-03/23/79-19-	0-499254-03/23/79-19-	0-499254-03/23/79-19-	19-13.2-	-5-	6.7-	47-	-2-7-5-5-	-3-1-	-1-4-5-1-	-1-	8.6-	4.27															
02-54.7839-132.8425-2-43-	02-54.7839-132.8425-2-43-	02-54.7839-132.8425-2-43-	0-499254-03/23/79-19-	0-499254-03/23/79-19-	0-499254-03/23/79-19-	0-499254-03/23/79-19-	19-13.2-	-5-	6.7-	47-	-2-7-5-5-	-3-1-	-1-4-5-1-	-1-	8.6-	4.34															
02-54.7839-132.8425-2-53-	02-54.7839-132.8425-2-53-	02-54.7839-132.8425-2-53-	0-499254-03/23/79-19-	0-499254-03/23/79-19-	0-499254-03/23/79-19-	0-499254-03/23/79-19-	19-13.2-	-5-	6.7-	47-	-2-7-5-5-	-3-1-	-1-4-5-1-	-1-	8.6-	4.45															
02-54.8136-132.8453-2-13-	02-54.8136-132.8453-2-13-	02-54.8136-132.8453-2-13-	0-499255-03/23/79-19-	0-499255-03/23/79-19-	0-499255-03/23/79-19-	0-499255-03/23/79-19-	19-17.0-	-5-	7.4-	41-	-2-7-5-5-	-3-1-	-1-4-5-1-	-1-	9.2-	8.03															
02-54.8136-132.8453-2-33-	02-54.8136-132.8453-2-33-	02-54.8136-132.8453-2-33-	0-499255-03/23/79-19-	0-499255-03/23/79-19-	0-499255-03/23/79-19-	0-499255-03/23/79-19-	19-17.0-	-5-	7.4-	41-	-2-7-5-5-	-3-1-	-1-4-5-1-	-1-	9.2-	7.77															
02-54.8136-132.8453-2-43-	02-54.8136-132.8453-2-43-	02-54.8136-132.8453-2-43-	0-499255-03/23/79-19-	0-499255-03/23/79-19-	0-499255-03/23/79-19-	0-499255-03/23/79-19-	19-17.0-	-5-	7.4-	41-	-2-7-5-5-	-3-1-	-1-4-5-1-	-1-	9.2-	7.79															
02-54.8136-132.8453-2-53-	02-54.8136-132.8453-2-53-	02-54.8136-132.8453-2-53-	0-499255-03/23/79-19-	0-499255-03/23/79-19-	0-499255-03/23/79-19-	0-499255-03/23/79-19-	19-17.0-	-5-	7.4-	41-	-2-7-5-5-	-3-1-	-1-4-5-1-	-1-	9.2-	8.00															
02-54.8183-132.8819-2-13-	02-54.8183-132.8819-2-13-	02-54.8183-132.8819-2-13-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	17-15.9-	-5-	7.8-	90-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.5-	3.60															
02-54.8183-132.8819-2-33-	02-54.8183-132.8819-2-33-	02-54.8183-132.8819-2-33-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	17-15.9-	-5-	7.8-	90-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.5-	3.52															
02-54.8183-132.8819-2-43-	02-54.8183-132.8819-2-43-	02-54.8183-132.8819-2-43-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	17-15.9-	-5-	7.8-	90-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.5-	3.52															
02-54.8183-132.8819-2-53-	02-54.8183-132.8819-2-53-	02-54.8183-132.8819-2-53-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	17-15.9-	-5-	7.8-	90-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.5-	3.67															
02-54.8183-132.8819-2-63-	02-54.8183-132.8819-2-63-	02-54.8183-132.8819-2-63-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	0-499256-03/23/79-19-	17-15.9-	-5-	7.8-	90-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	9.5-	4.00															
02-54.9111-132.9178-2-13-	02-54.9111-132.9178-2-13-	02-54.9111-132.9178-2-13-	0-499257-03/23/79-19-	0-499257-03/23/79-19-	0-499257-03/23/79-19-	0-499257-03/23/79-19-	17-17.6-	-5-	4.9-	21-	-2-7-5-6-	-3-1-	-1-3-4-1-	-1-	8.6-	1.70															
02-54.8111-132.9178-2-33-	02-54.8111-132.9178-2-33-	02-54.8111-132.9178-2-33-	0-499257-03/23/79-19-	0-499257-03/23/79-19-	0-499257-03/23/79-19-	0-499257-03/23/79-19-	17-17.6-	-5-	4.9-	21-	-2-7-5-6-	-3-1-	-1-3-4-1-	-1-	8.6-	1.70															
02-54.8111-132.9178-2-43-	02-54.8111-132.9178-2-43-	02-54.8111-132.9178-2-43-	0-499257-03/23/79-19-	0-499257-03/23/79-19-	0-499257-03/23/79-19-	0-499257-03/23/79-19-	17-17.6-	-5-	4.9-	21-	-2-7-5-6-	-3-1-	-1-3-4-1-	-1-	8.6-	1.69															
02-54.8111-132.9178-2-53-	02-54.8111-132.9178-2-53-	02-54.8111-132.9178-2-53-	0-499257-03/23/79-19-	0-499257-03/23/79-19-	0-499257-03/23/79-19-	0-499257-03/23/79-19-	17-17.6-	-5-	4.9-	21-	-2-7-5-6-	-3-1-	-1-3-4-1-	-1-	8.6-	1.70															
02-54.3439-132.8700-2-13-	02-54.3439-132.8700-2-13-	02-54.3439-132.8700-2-13-	0-499258-03/23/79-19-	0-499258-03/23/79-19-	0-499258-03/23/79-19-	0-499258-03/23/79-19-	17-19.7-	-5-	6.5-	32-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	8.8-	2.94															
02-54.8489-132.8900-2-33-	02-54.8489-132.8900-2-33-	02-54.8489-132.8900-2-33-	0-499258-03/23/79-19-	0-499258-03/23/79-19-	0-499258-03/23/79-19-	0-499258-03/23/79-19-	17-19.7-	-5-	6.5-	32-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	8.8-	2.92															
02-54.8489-132.8900-2-43-	02-54.8489-132.8900-2-43-	02-54.8489-132.8900-2-43-	0-499258-03/23/79-19-	0-499258-03/23/79-19-	0-499258-03/23/79-19-	0-499258-03/23/79-19-	17-19.7-	-5-	6.5-	32-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	8.8-	2.89															
02-54.8489-132.8900-2-53-	02-54.8489-132.8900-2-53-	02-54.8489-132.8900-2-53-	0-499258-03/23/79-19-	0-499258-03/23/79-19-	0-499258-03/23/79-19-	0-499258-03/23/79-19-	17-19.7-	-5-	6.5-	32-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	8.8-	2.90															
02-54.8611-132.9311-2-13-	02-54.8611-132.9311-2-13-	02-54.8611-132.9311-2-13-	0-499259-03/23/79-19-	0-499259-03/23/79-19-	0-499259-03/23/79-19-	0-499259-03/23/79-19-	17-12.9-	-5-	7.0-	111-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	10.4-	2.40															
02-54.9611-132.9311-2-33-	02-54.9611-132.9311-2-33-	02-54.9611-132.9311-2-33-	0-499259-03/23/79-19-	0-499259-03/23/79-19-	0-499259-03/23/79-19-	0-499259-03/23/79-19-	17-12.9-	-5-	7.0-	111-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	10.4-	2.00															
02-54.8611-132.9311-2-43-	02-54.8611-132.9311-2-43-	02-54.8611-132.9311-2-43-	0-499259-03/23/79-19-	0-499259-03/23/79-19-	0-499259-03/23/79-19-	0-499259-03/23/79-19-	17-12.9-	-5-	7.0-	111-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-	10.4-	2.30															
02-54.8653-132.9528-2-13-	02-54.8653-132.9528-2-13-	02-54.8653-132.9528-2-13-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	16-17.9-	-5-	7.4-	22-	-2-7-5-6-	-3-1-	-1-3-5-1-	-1-	8.9-	2.10															
02-54.8653-132.9528-2-33-	02-54.8653-132.9528-2-33-	02-54.8653-132.9528-2-33-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	16-17.9-	-5-	7.4-	22-	-2-7-5-6-	-3-1-	-1-3-5-1-	-1-	8.9-	1.65															
02-54.8653-132.9528-2-43-	02-54.8653-132.9528-2-43-	02-54.8653-132.9528-2-43-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	16-17.9-	-5-	7.4-	22-	-2-7-5-6-	-3-1-	-1-3-5-1-	-1-	8.9-	1.85															
02-54.8653-132.9528-2-53-	02-54.8653-132.9528-2-53-	02-54.8653-132.9528-2-53-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	16-17.9-	-5-	7.4-	22-	-2-7-5-6-	-3-1-	-1-3-5-1-	-1-	8.9-	1.90															
02-54.8653-132.9528-2-63-	02-54.8653-132.9528-2-63-	02-54.8653-132.9528-2-63-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	0-499260-03/23/79-19-	16-17.9-	-5-	7.4-	22-	-2-7-5-6-	-3-1-	-1-3-5-1-	-1-	8.9-	2.00															
02-54.8744-132.9742-2-13-	02-54.8744-132.9742-2-13-	02-54.8744-132.9742-2-13-	0-499261-03/23/79-19-	0-499261-03/23/79-19-	0-499261-03/23/79-19-	0-499261-03/23/79-19-	16-15.9-	-5-	7.6-	30-	-2-7-4-7-	-3-1-	-1-4-5-1-	-1-	9.4-	1.80															
02-54.8744-132.9742-2-33-	02-54.8744-132.9742-2-33-	02-54.8744-132.9742-2-33-	0-499261-03/23/79-19-	0-499261-03/23/79-19-	0-499261-03/23/79-19-	0-499261-03/23/79-19-	16-15.9-	-5-	7.6-	30-	-2-7-4-7-	-3-1-	-1-4-5-1-	-1-	9.4-	1.50															
02-54.8744-132.9742-2-43-	02-54.8744-132.9742-2-43-	02-54.8744-132.9742-2-43-	0-499261-03/23/79-19-	0-499261-03/23/79-19-	0-499261-03/23/79-19-	0-49-																									

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER						DOE SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE									ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE		Concentrations reported in weight parts per million (ppm)									Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li
02-54.7581-132.8078-2-53-			0-199952			0-199952	-5	-5	-5	30	-20	37	13	-10	-15	1	12
02-54.7591-132.8078-2-63-			0-199952			0-199952	-5	-5	-5	83	-20	23	16	-10	-15	1	13
02-54.7719-132.8425-2-13-			0-199953			0-199953	-5	-5	-5	27	-20	26	26	-10	-15	1	14
02-54.7719-132.8425-2-33-			0-199953			0-199953	-5	-5	-5	27	-20	34	17	-10	-15	1	15
02-54.7719-132.8425-2-43-			0-199953			0-199953	-5	-5	-5	22	-20	31	18	-10	-15	1	11
02-54.7719-132.8425-2-53-			0-199953			0-199953	-5	-5	-5	33	-20	32	14	-10	-15	1	16
02-54.7719-132.8425-2-63-			0-199953			0-199953	-5	-5	-5	26	-20	37	22	-10	-15	1	13
02-54.7839-132.8425-2-13-			0-199954			0-199954	-5	-5	-5	59	-20	-15	22	-10	-15	-1	12
02-54.7839-132.8425-2-33-			0-199954			0-199954	-5	-5	-5	39	-20	30	23	-10	-15	-1	12
02-54.7839-132.8425-2-43-			0-199954			0-199954	-5	-5	-5	33	-20	34	20	-10	-15	-1	13
02-54.7839-132.8425-2-53-			0-199954			0-199954	-5	-5	-5	33	-20	31	35	-10	-15	1	12
02-54.7839-132.8425-2-63-			0-199954			0-199954	-5	-5	-5	33	-20	31	35	-10	-15	-1	20
02-54.8136-132.8453-2-13-			0-199955			0-199955	-5	-5	-5	28	-20	29	-5	-10	-15	-1	4
02-54.8136-132.8453-2-33-			0-199955			0-199955	-5	-5	-5	32	-20	24	-5	-10	-15	-1	5
02-54.8136-132.8453-2-43-			0-199955			0-199955	-5	-5	6	48	-20	25	-5	-10	-15	-1	6
02-54.8136-132.8453-2-53-			0-199955			0-199955	-5	-5	-5	55	-20	27	10	-10	-15	-1	11
02-54.8183-132.8819-2-13-			0-199956			0-199956	-5	-5	-5	33	-20	26	7	-10	-15	1	10
02-54.8183-132.8819-2-33-			0-199956			0-199956	-5	7	-5	31	-20	18	7	-10	-15	1	13
02-54.8183-132.8819-2-43-			0-199956			0-199956	-5	-5	-5	37	-20	15	-5	-10	-15	1	12
02-54.8183-132.8819-2-53-			0-199956			0-199956	-5	-5	-5	34	-20	29	-5	-10	-15	1	12
02-54.8183-132.8819-2-63-			0-199956			0-199956	-5	-5	-5	34	-20	51	-5	-10	-15	-1	14
02-54.8111-132.9178-2-13-			0-199957			0-199957	-5	-5	-5	24	-20	13	5	-10	-15	-1	3
02-54.8111-132.9178-2-33-			0-199957			0-199957	-5	-5	-5	22	-20	-15	-5	-10	-15	-1	6
02-54.8111-132.9178-2-43-			0-199957			0-199957	-5	-5	-5	22	-20	-15	-5	-10	-15	-1	6
02-54.8111-132.9178-2-53-			0-199957			0-199957	-5	-5	-5	24	-20	-15	-5	-10	-15	-1	6
02-54.8111-132.9178-2-63-			0-199957			0-199957	-5	-5	-5	24	-20	-15	-5	-10	-15	-1	6
02-54.8489-132.8900-2-13-			0-199958			0-199958	-5	-5	-5	18	-20	-15	-5	-10	-15	1	2
02-54.8489-132.8900-2-33-			0-199958			0-199958	-5	-5	-5	27	-20	-15	-5	-10	-15	-1	3
02-54.8489-132.8900-2-43-			0-199958			0-199958	-5	-5	-5	20	-20	-15	-5	-10	-15	-1	3
02-54.8489-132.8900-2-53-			0-199958			0-199958	-5	-5	-5	16	-20	-15	-5	-10	-15	-1	6
02-54.8611-132.9311-2-13-			0-199959			0-199959	-5	-5	6	80	-20	-15	-5	-10	-15	-1	7
02-54.8611-132.9311-2-33-			0-199959			0-199959	-5	-5	-5	74	-20	-15	-5	-10	-15	-1	9
02-54.8611-132.9311-2-43-			0-199959			0-199959	-5	-5	8	77	-20	16	-5	-10	-15	-1	9
02-54.8653-132.9528-2-13-			0-199960			0-199960	-5	-5	-5	30	-20	15	-5	-10	-15	1	7
02-54.8653-132.9528-2-33-			0-199960			0-199960	-5	-5	-5	45	-20	-15	-5	-10	-15	1	12
02-54.8653-132.9528-2-43-			0-199960			0-199960	-5	-5	-5	37	-20	-15	-5	-10	-15	-1	12
02-54.8653-132.9528-2-53-			0-199960			0-199960	-5	-5	-5	39	-20	-15	5	-10	-15	-1	17
02-54.8653-132.9528-2-63-			0-199960			0-199960	-5	-5	-5	36	-20	19	6	-10	-15	-1	20
02-54.8744-132.9742-2-13-			0-199961			0-199961	-5	-5	-5	54	-20	47	-5	-10	-15	-1	10
02-54.8744-132.9742-2-33-			0-199961			0-199961	-5	-5	-5	39	-20	30	-5	-10	-15	-1	9
02-54.8744-132.9742-2-43-			0-199961			0-199961	-5	-5	-5	32	-20	18	-5	-10	-15	-1	10
02-54.8744-132.9742-2-53-			0-199961			0-199961	-5	-5	-5	64	-20	40	-5	-10	-15	-1	21
02-54.8744-132.9742-2-63-			0-199961			0-199961	-5	-5	-5	68	-20	31	-5	-10	-15	-1	16
02-54.8875-132.9469-2-13-			0-199962			0-199962	-5	-5	-5	30	-20	-15	-5	-10	-15	-1	35
02-54.8875-132.9469-2-33-			0-199962			0-199962	-5	-5	-5	27	-20	-15	-5	-10	-15	-1	7
02-54.8875-132.9469-2-43-			0-199962			0-199962	-5	-5	-5	27	-20	-15	-5	-10	-15	-1	8
02-54.9108-132.9508-2-13-			0-199963			0-199963	-5	-5	-5	158	-20	-15	-5	-10	-15	-1	7
02-54.9108-132.9508-2-33-			0-199963			0-199963	-5	-5	-5	16	-20	-15	-5	-10	-15	-1	8
02-54.9108-132.9508-2-43-			0-199963			0-199963	-5	-5	-5	47	-20	-15	-5	-10	-15	-1	8
02-54.9108-132.9508-2-53-			0-199963			0-199963	-5	-5	-5	25	-20	-15	-5	-10	-15	-1	9
02-54.9961-132.3263-2-13-			0-199964			0-199964	-5	-5	-5	21	-20	-15	10	-10	-15	-1	5

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
02-54.7581-132.8073-2-53-			0-199052			55450	-0.05	392	6747	54	-158	14.6	92	-2.0	6	1.4	35090	5.2	15370	19	0.7		
02-54.7581-132.8078-2-63-			0-199052			61090	0.10	434	4752	97	-177	21.1	96	-2.4	7	1.6	43860	5.0	19580	23	0.8		
02-54.7719-132.8425-2-13-			0-199053			72440	-0.09	506	5173	73	-159	15.4	160	1.8	8	2.0	55320	7.3	18480	29	0.7		
02-54.7719-132.8425-2-33-			0-199053			67550	-0.07	443	4729	59	-187	15.2	144	-2.9	7	1.8	44220	5.2	11640	22	0.6		
02-54.7719-132.8425-2-43-			0-199053			69400	-0.06	478	5249	49	-156	12.1	121	-2.4	7	1.6	40730	5.1	13510	20	0.6		
02-54.7719-132.8425-2-53-			0-199053			70970	-0.07	494	5665	74	-158	12.7	126	-2.7	7	1.6	37950	5.7	15730	13	0.7		
02-54.7719-132.8425-2-63-			0-199053			70990	-0.09	544	5230	62	270	14.7	157	2.3	9	1.8	51000	6.3	16520	27	0.8		
02-54.7839-132.8425-2-13-			0-199054			60190	-0.07	430	10060	72	408	20.3	118	-2.9	7	1.7	63610	4.0	-6454	23	0.6		
02-54.7839-132.8425-2-33-			0-199054			57430	-0.05	310	10793	65	421	23.6	104	-2.8	7	1.6	56790	3.8	11080	24	0.4		
02-54.7839-132.8425-2-43-			0-199054			60330	-0.07	386	11720	75	400	19.8	123	-2.9	7	1.5	55670	3.5	11140	12	0.6		
02-54.7839-132.8425-2-53-			0-199054			60760	-0.09	-249	10400	85	353	24.1	143	-3.6	7	1.8	78190	4.8	11560	33	0.6		
02-54.7839-132.8425-2-63-			0-199054			58330	-0.07	423	8816	83	387	23.1	128	2.4	7	1.8	62650	3.9	10130	25	0.6		
02-54.8136-132.8453-2-13-			0-199055			42510	-0.07	-320	11790	58	368	35.7	97	-3.0	5	1.5	71420	3.2	-10540	25	0.4		
02-54.8136-132.8453-2-33-			0-199055			42720	-0.07	-397	10090	54	420	37.8	96	-3.2	5	1.3	72400	2.3	-10400	8	0.5		
02-54.8136-132.8453-2-43-			0-199055			49060	-0.09		9831	75	323	45.7	129	-4.0	5	1.5	98800	2.4	-10730	30	0.5		
02-54.8136-132.8453-2-53-			0-199055			45360	-0.07		10250	61	346	37.0	109	-3.1	7	1.7	78100	2.3	-11490	24	0.4		
02-54.8183-132.8819-2-13-			0-199056			66540	-0.06	-239	17450	45	-162	19.8	105	-2.6	6	1.6	50400	3.4	6358	24	0.4		
02-54.8183-132.8819-2-33-			0-199056			69040	-0.07	313	14570	75	218	17.9	118	-3.0	6	1.4	46680	3.5	8478	14	0.5		
02-54.8183-132.8819-2-43-			0-199056			67030	-0.07	-249	16410	69	-160	22.1	130	3.1	6	1.6	67370	5.0	-6354	26	0.6		
02-54.8183-132.8819-2-53-			0-199056			69450	-0.06	-239	16770	58	-186	17.8	111	-2.8	6	1.7	52740	3.9	-7169	23	0.6		
02-54.8183-132.8819-2-63-			0-199056			64750	-0.06	-253	14760	51	283	20.9	122	-2.9	6	1.5	49800	4.4	9623	24	0.5		
02-54.8111-132.9178-2-13-			0-199057			44150	-0.06	-247	13260	25	642	6.1	48	2.6	3	0.7	13890	2.8	9917	12	0.2		
02-54.8111-132.9178-2-33-			0-199057			42760	-0.07	-249	10910	27	675	4.8	58	3.8	3	0.9	17500	3.9	8250	13	0.3		
02-54.8111-132.9178-2-43-			0-199057			44150	-0.06	-325	10920	-6	616	2.5	56	-2.7	3	0.8	15720	3.3	-5606	7	0.3		
02-54.8111-132.9178-2-53-			0-199057			41720	-0.06	-250	11260	28	614	-1.8	39	-2.6	3	0.6	13660	4.0	9163	13	-0.1		
02-54.8111-132.9178-2-63-			0-199057			45430	-0.07	300	11670	32	658	-1.8	53	2.0	3	0.8	13890	4.4	7474	6	0.2		
02-54.8489-132.8900-2-13-			0-199058			34440	-0.06	-259	7505	39	369	20.0	81	-2.8	2	0.8	75890	2.0	-6416	14	0.2		
02-54.8489-132.8900-2-33-			0-199058			34630	-0.05	-341	8536	38	407	20.5	79	-2.5	3	0.7	69310	-1.2	-7352	15	0.2		
02-54.8489-132.8900-2-43-			0-199058			36150	-0.05	-290	8151	31	387	17.5	67	-2.5	3	0.6	62470	1.6	-7065	11	0.2		
02-54.8489-132.8900-2-53-			0-199058			36780	-0.06	-277	7936	47	392	17.7	78	-2.5	2	0.8	62850	0.8	-6457	6	0.3		
02-54.8611-132.9311-2-13-			0-199059			66540	-0.08	-262	9980	40	-149	30.2	74	-3.5	5	1.3	78680	2.8	-5780	18	0.4		
02-54.8611-132.9311-2-33-			0-199059			63380	-0.05	335	9008	25	-138	21.0	55	-2.8	4	1.1	58870	2.4	8576	13	0.3		
02-54.8611-132.9311-2-43-			0-199059			65470	-0.06	317	9927	24	-134	23.5	53	-2.8	5	1.3	59840	2.5	-5016	11	0.3		
02-54.8653-132.9528-2-13-			0-199060			65020	-0.08	640	5590	48	289	10.3	40	-3.4	6	1.3	31740	4.0	10570	6	0.3		
02-54.8653-132.9528-2-33-			0-199060			-6652	-0.08		-9793	70		210.4	76	-3.4	-3	1.2	95850	3.3		24	0.3		
02-54.8653-132.9528-2-43-			0-199060			67260	-0.06			74		217.8	101	-2.8		1.3	87980	2.9		18	0.3		
02-54.8653-132.9528-2-53-			0-199060			63870	-0.06		6107	41	-227	38.3	45	-3.0	4	1.1	38520	3.2	-11910	14	0.3		
02-54.8653-132.9528-2-63-			0-199060			71350	-0.08	687	-3501	41	275	44.2	69	-3.5	5	1.5	40050	2.4		4	0.4		
02-54.8744-132.9742-2-13-			0-199061			67970	-0.07	-162	13920	43	-123	29.5	97	-3.0	5	1.6	94930	2.4	-4479	16	0.4		
02-54.8744-132.9742-2-33-			0-199061			66090	-0.05	-144	11750	31	-112	25.0	98	-2.2	4	1.1	66910	1.8	-4001	11	0.3		
02-54.8744-132.9742-2-43-			0-199061			64990	-0.05	-187	11680	31	-136	24.4	88	-2.3	4	1.3	61550	1.6	-4878	12	0.3		
02-54.8744-132.9742-2-53-			0-199061			74030	-0.06	220	14110	41	-134	28.3	87	-2.8	4	1.6	86840	2.5	-4992	10	0.4		
02-54.8744-132.9742-2-63-			0-199061			75380	-0.07	288	11150	36	-129	42.2	140	-3.1	4	1.3	120000	2.8	7165	14	0.3		
02-54.8875-132.9469-2-13-			0-199062			60450	-0.05	945	7659	53	-128	14.3	70	-2.2	5	1.1	58580	3.7	11310	21	0.4		
02-54.8875-132.9469-2-33-			0-199062			52350	-0.05	855	13300	19	149	23.3	86	-2.3	4	0.8	44290	1.2	9525	11	0.2		
02-54.8875-132.9469-2-43-			0-199062			54570	-0.05	583	17740	25	147	26.5	106	-2.6	3	1.0	45750	2.6	8673	8	0.3		
02-54.9108-132.9508-2-13-			0-199063			46380	-0.05	330	8560	47	260	8.9	42	-2.4	5	1.4	25950	4.1	14740	21	0.5		
02-54.9108-132.9508-2-33-			0-199063			44900	-0.04	331	7495	46	247	8.5	41	-1.9	5	1.3	22760	3.4	14130	18	0.4		
02-54.9108-132.9508-2-43-			0-199063			48320	-0.04	250	6188	44	218	7.5	36	-2.0	6	1.3	20590	3.3	14180	16	0.3		
02-54.9108-132.9508-2-53-			0-199063			48850	-0.05	279	7458	54	228	8.0	37	-2.2	5	1.2	20530	3.5	15340	10	0.5		
02-54.9961-132.3269-2-13-			0-199064			37990	-0.07	853	5079	25	363	17.5	50	-2.7	2	0.9	24530	2.1	6526	14	-0.1		

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
02-54.7581-132.8078-2-53-			0-488953			17855	1525	25470	-30	-1	14.1	5.5		-1	1	4.6	3580	58	5.4	208	0.574	
02-54.7581-132.8078-2-53-			0-488953			9640	2430	21090	-34	-1	14.3	7.1		-1	1	5.7	2781	79	6.3	247	0.539	
02-54.7719-132.8425-2-13-			0-488953			14510	956	27070	-50	-2	21.3	3.0	-491	-3	2	6.2	4840	98	6.0	291	0.442	
02-54.7719-132.8425-2-33-			0-488953			16040	1001	27490	-47	-2	15.7	6.5		-2	-1	7.8	4763	115	4.8	226	0.372	
02-54.7719-132.8425-2-43-			0-488953			13500	827	26350	-37	-1	15.9	6.1	-462	-2	1	5.4	4046	99	5.4	169	0.509	
02-54.7719-132.8425-2-53-			0-488953			13710	831	27370	-35	-2	15.3	6.3	-479	-2	-1	6.3	4517	97	4.3	316	0.444	
02-54.7719-132.8425-2-53-			0-488953			13850	836	26950	-49	-2	19.6	7.6	-492	-2	1	7.4	4925	98	6.9	242	0.378	
02-54.7839-132.8425-2-13-			0-488954			17840	884	14440	-44	-2	17.9	6.8		-2	-1	7.0	4849	118	5.0	172	0.616	
02-54.7839-132.8425-2-33-			0-488954			11430	1133	13420	-44	-2	15.8	6.6		-2	-1	6.9	4449	129	4.2	283	0.619	
02-54.7839-132.8425-2-43-			0-488954			13510	902	17760	-44	-2	15.3	6.5	-461	-2	-1	7.9	4665	121	3.6	200	0.549	
02-54.7839-132.8425-2-53-			0-488954			13300	932	13610	-58	-2	21.4	7.4	-473	-3	-1	8.6	4669	126	6.7	234	0.517	
02-54.7839-132.8425-2-53-			0-488954			13400	951	13120	-48	-2	17.5	7.3		-2	-1	7.1	4724	115	5.9	179	0.634	
02-54.8136-132.8453-2-13-			0-488955			5476	3159	7191	-51	-2	15.6	5.6		-3	-1	5.7	2684	116	3.5	243	1.409	
02-54.8136-132.8453-2-33-			0-488955			7727	3333	7240	-50	-2	15.2	6.8		-2	-1	3.9	2972	115	2.1	219	1.992	
02-54.8136-132.8453-2-43-			0-488955			9830	3254	7805	-56	-2	19.6	6.9		-3	-1	6.2	-2382	121	3.6	229	1.256	
02-54.8136-132.8453-2-53-			0-488955			-4694	3172	7074	-52	-2	15.9	5.2		-2	-1	4.7	3318	123	3.3	194	1.702	
02-54.8183-132.8819-2-13-			0-488956			12530	1134	26440	-41	-1	19.5	5.8		-2	-1	5.6	3365	109	3.9	209	0.643	
02-54.8183-132.8819-2-33-			0-488956			15030	1117	25200	-39	-2	19.0	6.2		-2	-1	6.9	3782	112	4.4	148	0.510	
02-54.8183-132.8819-2-43-			0-488956			13130	1157	26940	-50	-2	25.4	7.3		-3	2	7.3	3523	115	5.5	229	0.482	
02-54.8183-132.8819-2-53-			0-488956			14230	1122	27530	-41	-1	21.4	6.8		-2	1	6.0	3817	111	5.4	212	0.612	
02-54.8133-132.8819-2-53-			0-488956			10770	1125	23500	-44	-2	19.4	5.8		-2	-1	6.0	3118	114	4.1	211	0.667	
02-54.8111-132.9178-2-13-			0-488957			9500	244	12090	-41	3	9.6	2.5	-403	-2	-1	2.8	3235	72	-1.6	218	0.607	
02-54.8111-132.9178-2-33-			0-488957			5723	262	11360	-46	-2	11.6	3.0	-402	-3	-1	4.9	3362	70	3.1	79	0.347	
02-54.8111-132.9178-2-43-			0-488957			5998	245	12080	-40	-1	9.5	2.3		-2	-1	-1.5	3835	73	-1.6	-55		
02-54.8111-132.9178-2-53-			0-488957			7270	255	11800	-43	-1	9.7	2.6	-428	-2	-1	3.4	3243	70	-1.5	-51	0.500	
02-54.8111-132.9178-2-53-			0-488957			7155	276	12630	-39	-2	9.6	2.3	-417	-2	-1	3.2	4042	77	2.4	44	0.531	
02-54.8489-132.9900-2-13-			0-488958			5107	1179	6291	-55	-1	6.7	2.7		-2	-1	2.4	-1468	55	2.1	101	1.225	
02-54.8489-132.9900-2-33-			0-488958			5320	1195	6427	-48	-1	5.7	2.4		-2	-1	3.7	-1831	57	-1.3	-50	0.789	
02-54.8489-132.9900-2-43-			0-488958			5022	1172	7270	-48	-1	5.7	2.3		-2	-1	-1.4	-1597	63	1.8	66		
02-54.8489-132.9900-2-53-			0-488958			5243	1172	6294	-45	-1	5.1	2.3		-2	-1	3.7	-1537	58	-1.4	125	0.784	
02-54.8611-132.9311-2-13-			0-488959			10400	775	21590	-51	-2	31.3	5.1	-475	-2	-1	3.8	6980	195	2.9	145	0.632	
02-54.8611-132.9311-2-33-			0-488959			9343	599	24920	-41	-1	24.5	3.8	-387	-2	-1	2.6	8203	193	-1.3	-97	0.769	
02-54.8611-132.9311-2-43-			0-488959			10910	665	23580	-40	-1	24.2	4.0	-405	-2	-1	3.0	7642	200	-1.4	137	0.767	
02-54.8653-132.9529-2-13-			0-488960			5945	184	14030	-42	-2	22.2	4.5	-329	-2	-1	3.4	3501	170	2.9	122	0.618	
02-54.8653-132.9529-2-33-			0-488960			-10170	809	-406	-65	-2	19.8	4.5		-3	-1	4.0	-3506	-43	2.8	181	0.413	
02-54.8653-132.9529-2-43-			0-488960			25710	17260	-53	-1	19.8	4.3		-2	-1	5.9	-3079		2.4	136	0.314		
02-54.8653-132.9529-2-53-			0-488960			-5235	3784	14720	-45	-2	21.2	3.8		-2	-1	3.8	-2741	159	2.9	180	0.500	
02-54.8653-132.9529-2-53-			0-488960			-5455	4325	18440	-49	-2	20.7	4.3		-3	-1	2.7	-2661	172	2.7	138	0.741	
02-54.8744-132.9742-2-13-			0-488961			12340	985	30510	-42	-2	43.1	5.4	-344	-2	2	4.9	14080	251	3.3	-55	0.367	
02-54.8744-132.9742-2-33-			0-488961			12730	728	29540	-32	-1	29.6	3.7	-306	-1	-1	1.7	13100	226	2.6	103	0.882	
02-54.8744-132.9742-2-43-			0-488961			11720	825	32210	-33	-1	29.2	4.1	-389	-1	1	2.7	12890	224	2.3	150	0.630	
02-54.8744-132.9742-2-53-			0-488961			12360	974	30710	-38	-2	35.5	5.6	-371	-1	1	2.0	10110	255	3.1	-49	0.900	
02-54.8744-132.9742-2-53-			0-488961			14620	891	30700	-47	-2	40.2	5.2	-366	-2	-1	2.9	6825	271	4.3	-16	0.503	
02-54.8875-132.9469-2-13-			0-488962			11580	1262	29140	-34	-1	14.9	5.4	-435	-2	-1	4.2	5583	152	3.1	185	1.310	
02-54.8875-132.9469-2-33-			0-488962			9365	597	14010	-35	-1	18.5	2.6	-358	-2	-1	1.6	5775	129	-1.1	125	1.375	
02-54.8875-132.9469-2-43-			0-488962			9462	633	14400	-34	-1	22.4	3.4	-316	-1	-1	2.2	5507	129	2.8	84	1.077	
02-54.9108-132.9508-2-13-			0-488963			4410	457	9720	-34	-1	13.8	6.2	-294	-2	-1	4.1	3993	34	3.3	294	0.576	
02-54.9108-132.9508-2-33-			0-488963			4453	444	7860	-27	-1	11.9	5.3	-264	-1	-1	4.6	3520	34	3.6	83	0.522	
02-54.9108-132.9508-2-43-			0-488963			5027	478	10220	-28	-1	10.6	5.0	-358	-2	-1	3.9	3771	29	2.8	163	0.615	
02-54.9108-132.9508-2-53-			0-488963			5371	479	10540	-30	-1	11.1	5.1	-307	-1	1	4.2	3905	33	3.3	147	0.548	
02-54.9961-132.3269-2-13-			0-488964			3142	454	6554	-42	-1	11.0	2.9	-346	-2	-1	3.6	2922	163	-1.6	190	0.889	

DOE SAMPLE NUMBER						LAST SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION																																																																																																																																																																																																																																																																																																																																																																																																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (eL/gm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS		DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm																																																																																																																																																																																																																																																																																																																																																																																											
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02-54.9961-132.3269-2-33-	02-54.9951-132.3269-2-43-	02-54.9951-132.3269-2-53-	02-54.9961-132.3269-2-63-	02-54.9611-132.3061-2-13-	02-54.9611-132.3061-2-23-	02-54.9611-132.3061-2-33-	02-54.9611-132.3061-2-43-	02-54.9611-132.3061-2-53-	02-54.9611-132.3061-2-63-	02-54.9756-132.3636-2-13-	02-54.9756-132.3636-2-23-	02-54.9756-132.3636-2-33-	02-54.9756-132.3636-2-43-	02-54.9756-132.3636-2-53-	02-54.9756-132.3636-2-63-	02-54.9747-132.5244-2-13-	02-54.9747-132.5244-2-23-	02-54.9747-132.5244-2-33-	02-54.9747-132.5244-2-43-	02-54.9747-132.5244-2-53-	02-54.9747-132.5244-2-63-	02-54.9944-132.9875-2-13-	02-54.9944-132.9875-2-23-	02-54.9944-132.9875-2-33-	02-54.9944-132.9875-2-43-	02-54.9944-132.9875-2-53-	02-54.9672-132.9608-2-13-	02-54.9672-132.9608-2-23-	02-54.9672-132.9608-2-33-	02-54.9672-132.9608-2-43-	02-54.9672-132.9608-2-53-	02-54.9672-132.9608-2-63-	02-54.9536-132.9917-2-13-	02-54.9536-132.9917-2-23-	02-54.9536-132.9917-2-33-	02-54.9536-132.9917-2-43-	02-54.9536-132.9917-2-53-	02-54.9536-132.9917-2-63-	02-54.9589-133.0181-2-13-	02-54.9589-133.0181-2-23-	02-54.9589-133.0181-2-33-	02-54.9589-133.0181-2-43-	02-54.9589-133.0181-2-53-	02-54.9589-133.0181-2-63-	02-54.9647-133.0281-2-13-	02-54.9647-133.0281-2-23-	02-54.9647-133.0281-2-33-	02-54.9647-133.0281-2-43-	02-54.9647-133.0281-2-53-	02-54.9647-133.0281-2-63-	02-54.9683-133.0375-2-13-	02-54.9683-133.0375-2-23-	02-54.9683-133.0375-2-33-	02-54.9683-133.0375-2-43-	02-54.9683-133.0375-2-53-	02-54.9683-133.0375-2-63-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-63-	02-54.9897-133.0764-2-73-	02-54.9897-133.0764-2-83-	02-54.9897-133.0764-2-93-	02-54.9897-133.0764-2-03-	02-54.9897-133.0764-2-13-	02-54.9897-133.0764-2-23-	02-54.9897-133.0764-2-33-	02-54.9897-133.0764-2-43-	02-54.9

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
02-54.9961-132.3269-2-33-			0-A99964				-5	-5	-5	28	-20	-15	10	-10	-15	-1	5	
02-54.9961-132.3269-2-43-			0-A99964				-5	-5	-5	30	-20	-15	7	-10	-15	-1	3	
02-54.9961-132.3269-2-53-			0-A99964				-5	-5	-5	22	-20	-15	12	-10	-15	-1	5	
02-54.9961-132.3269-2-63-			0-A99964													-1	9	
02-54.9611-132.3061-2-13-			0-A99965				-5	-5	7	30	-20	33	-5	-10	-15	-1	22	
02-54.9611-132.3061-2-33-			0-A99965				-5	-5	-5	26	-20	33	-5	-10	-15	-1	20	
02-54.9611-132.3061-2-43-			0-A99965				-5	-5	-5	17	-20	31	-5	-10	-15	1	22	
02-54.9611-132.3061-2-53-			0-A99965				-5	-5	-5	32	-20	18	-5	-10	18	1	21	
02-54.9611-132.3061-2-63-			0-A99965				-5	-5	-5	18	-20	-15	-5	-10	-15	1	24	
02-54.9756-132.3636-2-13-			0-A99965				-5	-5	-5	39	-20	16	6	-10	-15	-1	6	
02-54.9756-132.3636-2-33-			0-A99965				-5	-5	-5	33	-20	29	-5	-10	-15	-1	7	
02-54.9756-132.3636-2-43-			0-A99965				-5	-5	-5	38	-20	-15	-5	-10	-15	-1	5	
02-54.9756-132.3636-2-53-			0-A99965				-5	-5	-5	33	-20	-15	5	-10	-15	-1	7	
02-54.9756-132.3636-2-63-			0-A99965				-5	-5	-5	36	-20	20	-5	-10	-15	-1	10	
02-54.9747-132.5244-2-13-			0-A99967				-5	-5	-5	41	25	-15	12	-10	-15	-1	5	
02-54.9747-132.5244-2-33-			0-A99967				-5	-5	-5	26	-20	-15	5	-10	-15	-1	5	
02-54.9747-132.5244-2-43-			0-A99967				-5	-5	-5	27	-20	-15	-5	-10	-15	-1	4	
02-54.9747-132.5244-2-53-			0-A99967				-5	-5	-5	32	-20	-15	-5	-10	-15	-1	3	
02-54.9747-132.5244-2-63-			0-A99967				-5	-5	-5	35	-20	-15	19	-10	-15	-1	9	
02-54.9944-132.9875-2-13-			0-A99969				-5	-5	-5	48	-20	17	-5	-10	-15	-1	13	
02-54.9944-132.9875-2-33-			0-A99969				-5	-5	-5	32	-20	30	-5	-10	-15	-1	13	
02-54.9944-132.9875-2-43-			0-A99969				-5	-5	-5	22	-20	42	-5	-10	-15	-1	13	
02-54.9944-132.9875-2-53-			0-A99969				-5	-5	-5	48	-20	40	-5	-10	-15	-1	13	
02-54.9672-132.9608-2-13-			0-A99969				-5	-5	-5	59	-20	17	-5	-10	-15	-1	15	
02-54.9672-132.9608-2-33-			0-A99969				-5	-5	-5	46	-20	23	-5	-10	-15	-1	10	
02-54.9672-132.9608-2-43-			0-A99969				-5	-5	-5	47	-20	-15	6	-10	-15	-1	14	
02-54.9672-132.9608-2-53-			0-A99969				-5	-5	-5	50	-20	18	-5	-10	-15	-1	17	
02-54.9672-132.9608-2-63-			0-A99969				-5	-5	-5	45	-20	23	-5	-10	-15	-1	15	
02-54.9536-132.9917-2-13-			0-A99970				-5	-5	-5	18	-20	-15	-5	-10	-15	-1	6	
02-54.9536-132.9917-2-33-			0-A99970				-5	-5	-5	18	-20	-15	-5	-10	-15	-1	5	
02-54.9536-132.9917-2-43-			0-A99970				-5	-5	-5	25	-20	-15	-5	-10	-15	-1	6	
02-54.9536-132.9917-2-53-			0-A99970				-5	-5	-5	19	-20	-15	-5	-10	-15	-1	14	
02-54.9536-132.9917-2-63-			0-A99970													-1	12	
02-54.9689-133.0181-2-13-			0-A99971				-5	-5	-5	18	-20	-15	-5	-10	-15	-1	6	
02-54.9689-133.0181-2-33-			0-A99971				-5	-5	-5	22	-20	-15	-5	-10	-15	-1	4	
02-54.9689-133.0181-2-43-			0-A99971				-5	-5	-5	21	-20	-15	-5	-10	-15	-1	7	
02-54.9689-133.0181-2-53-			0-A99971				-5	-5	-5	21	-20	-15	-5	-10	-15	-1	6	
02-54.9689-133.0181-2-63-			0-A99971													-1	14	
02-54.9647-133.0281-2-13-			0-A99972				-5	-5	-5	18	-20	-15	-5	-10	-15	-1	3	
02-54.9647-133.0281-2-33-			0-A99972													-1	8	
02-54.9647-133.0281-2-43-			0-A99972				-5	-5	-5	15	-20	-15	-5	-10	-15	-1	4	
02-54.9647-133.0281-2-53-			0-A99972				-5	-5	-5	17	-20	-15	-5	-10	-15	-1	3	
02-54.9647-133.0281-2-63-			0-A99972													-1	7	
02-54.9683-133.0375-2-13-			0-A99973				-5	-5	-5	52	-20	40	-5	-10	-15	2	24	
02-54.9683-133.0375-2-33-			0-A99973				-5	-5	-5	41	-20	46	-5	-10	-15	2	27	
02-54.9683-133.0375-2-43-			0-A99973				-5	-5	4	28	-20	40	-5	-10	-15	2	25	
02-54.9683-133.0375-2-53-			0-A99973				-5	-5	-5	48	-20	29	-5	-10	17	2	30	
02-54.9683-133.0375-2-63-			0-A99973				-5	-5	-5	48	-20	19	-5	-10	-15	2	23	
02-54.9897-133.0764-2-13-			0-A99974				-5	-5	6	34	-20	57	-5	-10	-15	2	31	
02-54.9897-133.0764-2-33-			0-A99974				-5	-5	-5	29	-20	40	-5	-10	-15	2	29	
02-54.9897-133.0764-2-43-			0-A99974				-5	-5	-5	27	-20	37	-5	-10	-15	2	35	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
02-54.9961-132.3269-2-33-			0-889944			36033	-0.05	854	8874	36	355	18.6	39	-2.3	3	0.6	22210	2.5	-4459	11	0.3	
02-54.9961-132.3269-2-43-			0-889944			37440	-0.05	700	-1692	31	312	12.8	43	-2.3	2	1.0	20350	1.6	-5230	10	0.2	
02-54.9961-132.3269-2-53-			0-889944			37633	-0.06	868	6376	32	352	14.6	43	2.4	2	1.1	19470	1.1	9841	9	0.2	
02-54.9961-132.3269-2-63-			0-889944			37999	-0.07	830	-1235	26	395	16.7	49	-3.0	2	1.1	23670	-1.6	-4481	-3	0.3	
02-54.9611-132.3061-2-13-			0-889945			77970	-0.05	-184	42060	36	362	23.1	123	-2.4	4	1.3	57000	3.3	5672	13	0.4	
02-54.9611-132.3061-2-33-			0-889945			90920	-0.05	732	46750	38	304	23.8	76	-2.4	4	1.5	63780	2.8	-6187	15	0.3	
02-54.9611-132.3061-2-43-			0-889945			79919	-0.06	-190	44550	42	420	22.0	100	-2.5	4	1.5	62900	3.9	-5463	8	0.4	
02-54.9611-132.3061-2-53-			0-889945			79219	-0.07	-197	37129	38	325	24.3	164	-3.0	3	1.4	30700	4.0	-5215	13	0.4	
02-54.9611-132.3061-2-63-			0-889945			31200	-0.05	-194	35440	28	365	23.6	132	-2.5	4	1.2	59050	3.3	-5094	14	0.4	
02-54.9756-132.3636-2-13-			0-889946			53890	-0.06	251	13760	36	339	40.9	69	-2.7	3	1.0	28590	1.5	9237	-3	0.2	
02-54.9756-132.3636-2-33-			0-889946			49340	-0.06	353	28130	34	331	42.9	69	-2.9	3	1.0	35290	-1.4	5866	14	0.3	
02-54.9756-132.3636-2-43-			0-889946			48999	-0.06	227	20910	43	315	36.6	55	-2.5	3	1.1	28260	2.2	-3955	10	0.2	
02-54.9756-132.3636-2-53-			0-889946			48659	-0.07	281	19440	37	257	48.2	74	-3.0	4	1.1	38030	-1.5	5960	13	0.3	
02-54.9756-132.3636-2-63-			0-889946			49440	-0.06	318	19680	33	332	43.1	64	-2.6	4	1.0	31830	-1.1	-4950	10	0.2	
02-54.9747-132.5244-2-13-			0-889947			54060	-0.06	247	-1598	21	169	21.2	20	-2.4	3	0.9	43020	2.6	-5492	8	0.3	
02-54.9747-132.5244-2-33-			0-889947			55490	-0.06	173	-1562	26	291	19.7	24	-2.6	4	0.9	43540	3.6	7096	-2	0.4	
02-54.9747-132.5244-2-43-			0-889947			56570	-0.07	-710	-1522	25	-142	24.8	-13	-2.9	4	1.0	52960	2.4	-5326	-3	0.4	
02-54.9747-132.5244-2-53-			0-889947			55479	-0.06	-255	4745	21	348	21.6	24	-2.5	4	0.9	46730	2.9	-6253	-3	0.3	
02-54.9747-132.5244-2-63-			0-889947			57529	-0.06	282	-1394	23	225	23.4	21	-2.4	4	1.1	48470	1.6	-5249	7	0.3	
02-54.9944-132.9875-2-13-			0-889948			51259	-0.07	729	13700	42	118	14.0	96	-2.8	6	1.6	45400	3.0	11510	18	0.4	
02-54.9944-132.9875-2-33-			0-889948			51280	-0.08	829	14750	46	133	16.2	112	-3.2	6	1.8	58030	2.2	10610	22	0.5	
02-54.9944-132.9875-2-43-			0-889948			53520	-0.06	813	13170	39	145	14.3	92	-2.5	5	1.8	47870	2.3	12070	20	0.4	
02-54.9944-132.9875-2-53-			0-889948			43260	-0.07	659	13170	45	152	16.0	79	-2.8	6	1.7	45970	2.6	12420	19	0.4	
02-54.9672-132.9608-2-13-			0-889949			59109	-0.08	264	10340	26	230	22.2	71	-3.3	4	1.1	52670	2.4	7340	-3	0.3	
02-54.9672-132.9608-2-33-			0-889949			57430	-0.09	-242	10700	36	398	27.9	90	-3.8	4	1.2	67580	-1.7	9962	17	0.4	
02-54.9672-132.9608-2-43-			0-889949			59910	-0.08	-286	10800	32	310	23.0	89	-3.2	5	1.2	59200	-1.4	9426	13	0.5	
02-54.9672-132.9608-2-53-			0-889949			61200	-0.07	296	10490	28	284	22.7	77	-3.2	4	1.1	53290	1.6	10060	12	0.4	
02-54.9672-132.9608-2-63-			0-889949			59150	-0.08	709	10960	24	166	20.9	78	-3.3	4	1.3	50270	3.1	7742	5	0.3	
02-54.9536-132.9917-2-13-			0-889970			39270	-0.07	334	11040	27	464	7.1	42	-2.7	4	0.9	18260	1.6	7817	13	0.4	
02-54.9536-132.9917-2-33-			0-889970			39100	-0.06	228	9708	23	517	4.7	37	-2.3	3	0.8	15290	1.9	8116	11	0.2	
02-54.9536-132.9917-2-43-			0-889970			37650	-0.05	307	9713	19	422	4.0	33	-2.2	3	0.9	14770	-1.1	9281	11	0.2	
02-54.9536-132.9917-2-53-			0-889970			36400	-0.06	345	10717	21	382	3.2	36	-2.3	3	0.8	14530	2.0	4982	16	0.2	
02-54.9536-132.9917-2-63-			0-889970			34990	-0.07	315	10900	35	455	7.7	38	-2.7	4	0.9	20250	3.5	7686	14	0.2	
02-54.9689-133.0181-2-13-			0-889971			31240	-0.06	-211	6761	21	375	4.5	23	-2.2	2	0.5	11000	2.7	-3949	8	0.3	
02-54.9689-133.0181-2-33-			0-889971			30969	-0.06	312	6100	15	390	3.5	25	-2.3	2	0.6	11260	1.6	5212	9	0.2	
02-54.9689-133.0181-2-43-			0-889971			33390	-0.06	275	6953	22	425	4.8	-12	-2.4	3	0.6	10210	2.4	6405	-3	0.3	
02-54.9689-133.0181-2-53-			0-889971			31200	-0.07	-271	6862	19	429	5.0	28	-2.5	2	0.7	12190	2.1	5649	13	-0.1	
02-54.9689-133.0181-2-63-			0-889971			31090	-0.05	-188	6562	17	402	3.3	23	-2.0	2	0.5	10870	2.3	4785	-2	0.2	
02-54.9647-133.0281-2-13-			0-889972			44419	-0.06	-245	-1637	15	546	2.5	-11	-2.6	2	-0.3	13330	2.1	-4972	8	0.2	
02-54.9647-133.0281-2-33-			0-889972			43030	-0.09	-325	-2346	10	700	-2.2	-17	-3.5	2	-0.5	11250	-1.9	-5747	-5	-0.2	
02-54.9647-133.0281-2-43-			0-889972			45960	-0.09	-312	7058	-9	644	-1.9	37	-3.6	3	-0.4	18370	1.6	-5745	-4	-0.2	
02-54.9647-133.0281-2-53-			0-889972			45920	-0.06	-226	6207	15	515	1.9	20	-2.5	3	0.5	14020	1.8	7738	8	0.2	
02-54.9647-133.0281-2-63-			0-889972			47570	-0.06	-220	6597	16	451	1.7	30	-2.4	2	0.5	11690	2.0	-4838	-3	-0.1	
02-54.9683-133.0375-2-13-			0-889973			54410	-0.06	1050	12370	49	-75	17.5	144	-2.3	4	1.2	90740	4.0	16450	21	0.4	
02-54.9683-133.0375-2-33-			0-889973			50899	-0.04	1735	9825	31	-76	12.6	98	-1.6	4	1.2	54100	3.1	12500	13	0.3	
02-54.9683-133.0375-2-43-			0-889973			52459	-0.04	1710	13680	31	-78	14.8	118	-1.8	4	1.0	62640	3.0	12700	15	0.3	
02-54.9683-133.0375-2-53-			0-889973			54919	-0.06	1913	11570	47	-82	15.2	109	2.6	5	1.3	84020	4.6	14540	10	0.4	
02-54.9683-133.0375-2-63-			0-889973			54739	-0.07	1952	9337	49	-82	19.0	105	-2.8	5	1.2	119200	3.1	17480	28	0.5	
02-54.9997-133.0764-2-13-			0-889974			52930	-0.07	482	14960	20	172	28.2	123	-3.0	4	1.3	56120	1.5	15450	10	0.3	
02-54.9997-133.0764-2-33-			0-889974			56149	-0.08	345	13400	24	195	27.3	103	-3.3	3	1.0	49520	-1.4	9122	12	0.2	
02-54.9997-133.0764-2-43-			0-889974			54790	-0.08	444	16200	20	141	26.6	128	-3.3	4	1.3	56910	-1.5	12700	18	0.2	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)														U/Th RATIO		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
02-54.9961-132.3269-2-33-			0-889964				4115	495	6931	-37	-1	9.8	2.4	-356	-2	-1	-1.3	2587	160	2.3	175	
02-54.9961-132.3269-2-43-			0-889964				-2595	512	7240	-37	-1	3.3	2.1	-441	-2	-1	-1.4	3507	159	-1.3	163	
02-54.9961-132.3269-2-53-			0-889964				3816	453	6702	-38	-1	9.6	2.3	-370	-2	-1	2.3	2957	161	-1.4	227	1.439
02-54.9961-132.3269-2-63-			0-889964				5085	434	6370	-49	-2	11.1	2.9	-369	-2	-1	3.1	3643	162	-1.6	208	1.097
02-54.9611-132.3061-2-13-			0-889965				24530	1192	25260	-34	-1	25.1	4.6	420	-1	1	3.3	5677	184	3.3	148	0.455
02-54.9611-132.3061-2-33-			0-889965				20900	1317	23770	-36	-1	22.5	4.9		-2	-1	2.8	6638	181	2.8	118	0.536
02-54.9611-132.3061-2-43-			0-889965				23330	1239	24550	-34	-1	24.3	5.1	-418	-1	-1	2.9	5720	195	3.2	114	0.514
02-54.9611-132.3061-2-53-			0-889965				22315	1133	27110	-41	-2	35.4	5.0	-401	-2	-1	2.9	4643	189	3.8	-33	0.464
02-54.9611-132.3061-2-63-			0-889965				26610	1216	24950	-35	-1	30.8	4.2	-395	-2	-1	2.6	5530	218	2.6	144	0.546
02-54.9756-132.3636-2-13-			0-889966				6532	539	7565	-37	-1	14.6	3.8	-372	-2	-1	-1.5	4065	139	1.7	124	
02-54.9756-132.3636-2-33-			0-889966				6450	510	7422	-45	-2	19.3	3.8	-308	-2	-1	1.7	3478	142	3.3	174	1.594
02-54.9756-132.3636-2-43-			0-889966				6785	514	9123	-37	-2	14.8	3.2	-322	-2	-1	2.6	3716	143	-1.4	99	1.077
02-54.9756-132.3636-2-53-			0-889966				6275	547	7607	-46	-2	19.6	4.2	-324	-2	-1	2.3	4024	134	2.4	132	1.170
02-54.9756-132.3636-2-63-			0-889966				5965	572	7360	-41	-2	15.6	3.4	-423	-2	-1	-1.4	4127	141	2.4	101	
02-54.9747-132.5244-2-13-			0-889967				4564	535	23100	-39	-1	10.5	2.9	-427	-2	-1	-1.3	2921	75	2.4	184	
02-54.9747-132.5244-2-33-			0-889967				5110	556	22720	-40	-2	10.9	3.2	-429	-2	-1	-1.4	3145	83	-1.4	191	
02-54.9747-132.5244-2-43-			0-889967				5303	661	23430	-45	-2	14.1	3.5	-416	-2	-1	-1.6	3072	76	3.5	130	
02-54.9747-132.5244-2-53-			0-889967				-3439	477	22160	-40	-1	11.6	2.7		-2	-1	-1.3	2730	86	-1.3	193	
02-54.9747-132.5244-2-63-			0-889967				4609	546	21510	-40	-1	11.6	3.0	-416	-2	-1	-1.3	2409	82	2.0	142	
02-54.9944-132.9875-2-13-			0-889968				15490	573	2056	-39	-2	13.2	4.9	-338	-2	-1	2.1	5310	144	2.9	142	2.590
02-54.9944-132.9875-2-33-			0-889968				15860	537	2252	-45	-2	22.7	5.9	-330	-2	-1	3.4	5166	135	3.6	160	1.547
02-54.9944-132.9875-2-43-			0-889968				17620	553	9737	-37	-2	19.2	5.2	-375	-2	-1	-1.4	5680	137	3.4	167	
02-54.9944-132.9875-2-53-			0-889968				16540	567	7060	-42	-2	19.2	5.2	-364	-2	-1	3.8	5127	133	3.3	185	1.492
02-54.9672-132.9608-2-13-			0-889969				14720	277	14750	-45	-2	20.7	3.9	-472	-2	-1	2.1	5545	167	1.9	-63	1.881
02-54.9672-132.9608-2-33-			0-889969				13870	1035	14290	-58	-2	26.4	4.3	-439	-3	-1	-2.1	3915	157	3.3	95	
02-54.9672-132.9608-2-43-			0-889969				15615	1037	14040	-45	-2	22.8	3.8		-2	-1	-1.7	4732	161	-1.7	151	
02-54.9672-132.9608-2-53-			0-889969				14890	1000	16730	-47	-2	21.5	3.7	-498	-2	-1	4.0	4575	160	-1.6	179	0.957
02-54.9672-132.9608-2-63-			0-889969				14485	974	15030	-45	-2	20.9	3.2	-486	-2	-1	3.2	4625	164	2.2	142	1.213
02-54.9536-132.9917-2-13-			0-889970				5672	211	12430	-39	-2	12.0	3.1	-354	-2	-1	2.9	3292	64	3.2	42	0.996
02-54.9536-132.9917-2-33-			0-889970				4555	190	13190	-34	-1	10.2	2.9	-325	-2	-1	2.3	3408	67	-1.3	110	1.178
02-54.9536-132.9917-2-43-			0-889970				6315	202	13490	-33	-1	10.4	2.6	-309	-2	-1	2.3	3139	74	-1.2	-98	1.170
02-54.9536-132.9917-2-53-			0-889970				6140	207	11470	-30	-1	9.6	2.7	-311	-2	-1	-1.4	2990	59	2.2	137	
02-54.9536-132.9917-2-63-			0-889970				6508	214	10990	-40	-2	12.2	3.3	-369	-2	-1	2.4	2782	64	-1.5	63	1.200
02-54.9689-133.0181-2-13-			0-889971				4098	183	11040	-33	-1	9.7	2.2	-337	-2	-1	1.6	2572	60	-1.2	-52	0.956
02-54.9689-133.0181-2-33-			0-889971				4251	182	12240	-33	-1	9.6	1.6	-339	-2	-1	2.2	2488	63	-1.3	-93	0.682
02-54.9689-133.0181-2-43-			0-889971				4948	176	11520	-32	-1	7.7	2.1	-343	-2	-1	2.9	2624	67	-1.9	-46	0.517
02-54.9689-133.0181-2-53-			0-889971				4173	192	12790	-37	-2	9.6	1.8	-409	-2	-1	2.6	2491	63	3.1	162	0.562
02-54.9689-133.0181-2-63-			0-889971				5095	193	10070	-29	-1	8.0	1.9	-308	-2	-1	2.8	2487	60	3.0	63	0.500
02-54.9647-133.0281-2-13-			0-889972				6235	177	23790	-38	-2	11.1	1.6	-411	-2	-1	-1.4	3812	96	-1.3	94	
02-54.9647-133.0281-2-33-			0-889972				-3875	177	18450	-44	-2	10.0	1.7	-492	-3	-1	-2.1	3857	91	-2.0	145	
02-54.9647-133.0281-2-43-			0-889972				6665	194	23990	-47	-2	15.2	2.0		-3	-1	-2.0	4155	106	-2.0	83	
02-54.9647-133.0281-2-53-			0-889972				-3371	183	26230	-37	-2	12.0	1.7	-393	-2	-1	-1.4	3532	86	2.9	-52	
02-54.9647-133.0281-2-63-			0-889972				3210	191	27930	-33	-1	11.0	1.8	-395	-2	-1	-1.3	3494	92	-1.3		
02-54.9683-133.0375-2-13-			0-889973				15700	286	12700	-39	4	19.5	4.9	-242	-2	-1	5.8	6203	237	3.1	250	1.105
02-54.9683-133.0375-2-33-			0-889973				15115	289	10900	49	2	13.9	3.9	-239	-1	-1	3.7	4650	225	2.2	202	1.351
02-54.9683-133.0375-2-43-			0-889973				16000	279	12150	-30	2	15.5	3.4	-234	-1	-1	3.7	5373	228	1.7	248	1.578
02-54.9683-133.0375-2-53-			0-889973				14955	271	11150	-37	-1	14.5	4.9	-268	-2	-1	5.1	5832	250	-1.4	212	1.598
02-54.9683-133.0375-2-63-			0-889973				15410	252	10370	-51	4	17.7	5.0	-278	-2	-1	6.7	5191	256	3.3	283	1.367
02-54.9897-133.0764-2-13-			0-889974				24060	593	10780	-42	-2	33.6	3.3	-382	-2	-1	-1.5	7031	241	-1.5	125	
02-54.9897-133.0764-2-33-			0-889974				20035	603	9920	-48	-2	26.3	2.9	-388	-2	-1	-1.7	5163	195	-1.6	130	
02-54.9897-133.0764-2-43-			0-889974				24040	594	10750	-41	-2	33.9	3.4	-340	-2	-1	-1.7	7117	239	3.1	79	

[illegible]

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
02-54.9897-133.0764-2-53-	0-889074	-5	-5	-5	29	-20	55	-5	-10	-15						2	32	
02-54.9897-133.0764-2-53-	0-889074	-5	-5	-5	31	-20	35	-5	-10	-15						2	25	
02-54.9744-133.0911-2-13-	0-889075	-5	-5	-5	35	-20	-15	-5	-10	-15						1	26	
02-54.9744-133.0911-2-33-	0-889075	-5	-5	-5	25	-20	-15	5	-10	-15						2	26	
02-54.9744-133.0911-2-43-	0-889075	-5	-5	-5	39	-20	18	-5	-10	-15						1	26	
02-54.9744-133.0911-2-53-	0-889075	-5	-5	-5	30	-20	19	-5	-10	-15						-1	39	
02-54.9744-133.0911-2-53-	0-889075	-5	-5	-5	30	-20	25	-5	-10	-15						-1	7	
02-54.9636-133.1081-2-13-	0-889076	-5	-5	-5	35	-20	-15	-5	-10	-15						1	16	
02-54.9636-133.1081-2-33-	0-889076	-5	-5	-5	32	-20	-15	-5	-10	-15						1	25	
02-54.9636-133.1081-2-43-	0-889076	-5	-5	-5	27	-20	15	-5	-10	-15						1	29	
02-54.9636-133.1081-2-53-	0-889076	-5	-5	-5	33	-20	-15	-5	-10	-15						1	23	
02-54.9636-133.1081-2-63-	0-889076	-5	-5	-5	34	-20	-15	-5	-10	-15						1	23	
02-54.9317-133.0886-2-13-	0-889077	-5	-5	-5	14	-20	-15	-5	-10	-15						-1	3	
02-54.9317-133.0886-2-33-	0-889077	-5	-5	-5	16	-20	-15	-5	-10	-15						-1	4	
02-54.9317-133.0886-2-43-	0-889077	-5	-5	-5	19	-20	-15	-5	-10	-15						-1	4	
02-54.9317-133.0886-2-53-	0-889077	-5	-5	-5	12	-20	-15	-5	-10	-15						-1	3	
02-54.9317-133.0886-2-63-	0-889077	-5	-5	-5	17	-20	-15	-5	-10	-15						-1	3	
02-54.8917-133.0267-2-13-	0-889078	-5	-5	-5	50	-20	-15	-5	-10	-15						-1	5	
02-54.8917-133.0267-2-33-	0-889079	-5	-5	-5	52	-20	-15	-5	-10	-15						-1	5	
02-54.8917-133.0267-2-43-	0-889079	-5	-5	-5	51	-20	-15	-5	-10	-15						-1	6	
02-54.8917-133.0267-2-53-	0-889079	-5	-5	-5	58	-20	-15	-5	-10	-15						-1	12	
02-54.9022-132.9861-2-13-	0-889079	-5	-5	-5	37	-20	-15	-5	-10	-15						-1	10	
02-54.9022-132.9861-2-33-	0-889079	-5	-5	-5	7	-20	-15	-5	-10	-15						-1	11	
02-54.9022-132.9861-2-43-	0-889079	-5	-5	-5	32	-20	-15	-5	-10	-15						-1	12	
02-54.9022-132.9861-2-53-	0-889079	-5	-5	-5	39	-20	-15	-5	-10	-15						-1	9	
02-54.9022-132.9861-2-63-	0-889079	-5	-5	-5	33	-20	-15	-5	-10	-15						-1	12	
02-54.9256-132.9967-2-13-	0-889080	-5	-5	-5	65	-20	30	17	-10	-15						2	24	
02-54.9256-132.9967-2-33-	0-889080	-5	-5	-5	47	-20	26	11	-10	-15						1	22	
02-54.9256-132.9967-2-43-	0-889080	-5	-5	-5	48	-20	34	-5	-10	-15						1	23	
02-54.9256-132.9967-2-53-	0-889080	-5	-5	-5	54	-20	27	7	-10	-15						1	22	
02-54.9256-132.9967-2-63-	0-889080	-5	-5	-5	62	-20	31	6	-10	-15						2	25	
02-54.9267-132.4728-2-13-	0-889081	-5	-5	-5	42	-20	20	-5	-10	-15						2	10	
02-54.9267-132.4728-2-33-	0-889081	-5	-5	-5	31	-20	-15	-5	-10	-15						3	14	
02-54.9267-132.4728-2-43-	0-889081	-5	-5	-5	39	-20	19	5	-10	-15						3	14	
02-54.9267-132.4728-2-53-	0-889081	-5	-5	-5												1	32	
02-54.9483-132.3578-2-13-	0-889082	-5	-5	-5	26	-20	-15	6	-10	-15						-1	3	
02-54.9483-132.3578-2-33-	0-889082	-5	-5	-5	28	-20	-15	-5	-10	-15						-1	3	
02-54.9483-132.3578-2-43-	0-889082	-5	-5	-5	34	-20	-15	-5	-10	-15						1	4	
02-54.9483-132.3578-2-53-	0-889082	-5	-5	-5	25	-20	-15	-5	-10	-15						1	3	
02-54.9483-132.3578-2-63-	0-889082	-5	-5	-5	30	-20	-15	-5	-10	-15						-1	3	
02-54.9183-132.3419-2-13-	0-889083	-5	-5	-5	24	-20	-15	-5	-10	-15						-1	2	
02-54.9183-132.3419-2-33-	0-889083	-5	-5	-5	19	-20	-15	9	-10	-15						1	8	
02-54.9183-132.3419-2-43-	0-889083	-5	-5	-5	22	-20	-15	-5	-10	-15						1	7	
02-54.8997-132.3244-2-13-	0-889084	-5	-5	-5	24	-20	-15	-5	-10	-15						-1	4	
02-54.8997-132.3244-2-33-	0-889084	-5	-5	-5	24	-20	-15	5	-10	-15						1	3	
02-54.8997-132.3244-2-43-	0-889084	-5	-5	-5	21	-20	-15	-5	-10	-15						-1	4	
02-54.8997-132.3244-2-53-	0-889084	-5	-5	-5												-1	10	
02-54.8764-132.2811-2-13-	0-889085	-5	-5	-5	21	-20	-15	10	-10	36						-1	2	
02-54.8764-132.2811-2-33-	0-889085	-5	-5	-5	37	-20	-15	6	-10	-15						-1	2	
02-54.8764-132.2811-2-43-	0-889085	-5	-5	-5	21	-20	-15	5	-10	-15						-1	2	
02-54.8764-132.2811-2-53-	0-889085	-5	-5	-5	21	-20	-15	7	-10	32						-1	2	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-53-	62230	-0.10	390	17330	34	-101	31.8	158	-4.0	4	1.3	70800	-1.7	15050	14	0.5	
02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-53-	02-54.9897-133.0764-2-53-	59710	-0.08	376	14700	28	149	26.2	124	-3.2	3	1.2	52300	2.5	12320	13	0.3	
02-54.9744-133.0911-2-13-	02-54.9744-133.0911-2-13-	02-54.9744-133.0911-2-13-	02-54.9744-133.0911-2-13-	02-54.9744-133.0911-2-13-	02-54.9744-133.0911-2-13-	02-54.9744-133.0911-2-13-	56590	-0.04	889	5101	36	-116	10.2	48	2.0	4	0.9	39040	2.4	11450	15	0.2	
02-54.9744-133.0911-2-33-	02-54.9744-133.0911-2-33-	02-54.9744-133.0911-2-33-	02-54.9744-133.0911-2-33-	02-54.9744-133.0911-2-33-	02-54.9744-133.0911-2-33-	02-54.9744-133.0911-2-33-	56900	-0.05	999	5343	44	-120	10.0	47	-2.0	3	1.3	37800	4.4	11930	7	0.3	
02-54.9744-133.0911-2-43-	02-54.9744-133.0911-2-43-	02-54.9744-133.0911-2-43-	02-54.9744-133.0911-2-43-	02-54.9744-133.0911-2-43-	02-54.9744-133.0911-2-43-	02-54.9744-133.0911-2-43-	57900	-0.05	972	4945	47	-111	10.6	59	-2.1	4	1.1	50380	3.9	11140	18	0.3	
02-54.9744-133.0911-2-53-	02-54.9744-133.0911-2-53-	02-54.9744-133.0911-2-53-	02-54.9744-133.0911-2-53-	02-54.9744-133.0911-2-53-	02-54.9744-133.0911-2-53-	02-54.9744-133.0911-2-53-	57120	-0.05	955	5557	50	-141	11.6	48	-1.9	4	1.0	50320	3.1	10050	20	0.3	
02-54.9744-133.0911-2-63-	02-54.9744-133.0911-2-63-	02-54.9744-133.0911-2-63-	02-54.9744-133.0911-2-63-	02-54.9744-133.0911-2-63-	02-54.9744-133.0911-2-63-	02-54.9744-133.0911-2-63-	46540	-0.06	611	16700	27	-103	31.2	86	-2.6	4	1.0	47890	-1.1	7501	12	0.3	
02-54.9636-133.1081-2-13-	02-54.9636-133.1081-2-13-	02-54.9636-133.1081-2-13-	02-54.9636-133.1081-2-13-	02-54.9636-133.1081-2-13-	02-54.9636-133.1081-2-13-	02-54.9636-133.1081-2-13-	51060	-0.05	834	9333	32	130	11.2	37	-2.1	4	1.1	32690	2.6	11880	5	0.4	
02-54.9636-133.1081-2-33-	02-54.9636-133.1081-2-33-	02-54.9636-133.1081-2-33-	02-54.9636-133.1081-2-33-	02-54.9636-133.1081-2-33-	02-54.9636-133.1081-2-33-	02-54.9636-133.1081-2-33-	50370	-0.06	915	9365	38	230	12.2	48	-2.4	4	1.1	42260	2.3	13080	17	0.4	
02-54.9636-133.1081-2-43-	02-54.9636-133.1081-2-43-	02-54.9636-133.1081-2-43-	02-54.9636-133.1081-2-43-	02-54.9636-133.1081-2-43-	02-54.9636-133.1081-2-43-	02-54.9636-133.1081-2-43-	59510	-0.05	937	9095	36	-129	12.5	40	-2.0	4	0.9	35380	2.6	13780	15	0.3	
02-54.9636-133.1081-2-53-	02-54.9636-133.1081-2-53-	02-54.9636-133.1081-2-53-	02-54.9636-133.1081-2-53-	02-54.9636-133.1081-2-53-	02-54.9636-133.1081-2-53-	02-54.9636-133.1081-2-53-	61090	-0.05	732	10140	31	-122	11.5	35	-2.0	3	1.2	31360	2.2	8959	13	0.2	
02-54.9636-133.1081-2-63-	02-54.9636-133.1081-2-63-	02-54.9636-133.1081-2-63-	02-54.9636-133.1081-2-63-	02-54.9636-133.1081-2-63-	02-54.9636-133.1081-2-63-	02-54.9636-133.1081-2-63-	59620	-0.05	744	10070	46	-121	10.5	32	-2.2	4	1.2	28340	1.6	9040	8	0.2	
02-54.9317-133.0886-2-13-	02-54.9317-133.0886-2-13-	02-54.9317-133.0886-2-13-	02-54.9317-133.0886-2-13-	02-54.9317-133.0886-2-13-	02-54.9317-133.0886-2-13-	02-54.9317-133.0886-2-13-	54530	-0.08	-739	9361	26	-166	4.2	-14	-3.2	3	1.1	30100	3.5	7649	8	0.3	
02-54.9317-133.0886-2-33-	02-54.9317-133.0886-2-33-	02-54.9317-133.0886-2-33-	02-54.9317-133.0886-2-33-	02-54.9317-133.0886-2-33-	02-54.9317-133.0886-2-33-	02-54.9317-133.0886-2-33-	69430	-0.05	-257	6796	21	-189	-1.4	-10	1.8	3	0.8	22290	2.4	6101	11	0.2	
02-54.9317-133.0886-2-43-	02-54.9317-133.0886-2-43-	02-54.9317-133.0886-2-43-	02-54.9317-133.0886-2-43-	02-54.9317-133.0886-2-43-	02-54.9317-133.0886-2-43-	02-54.9317-133.0886-2-43-	63130	-0.05	-215	11190	30	-172	3.6	-10	-2.4	3	1.1	22560	2.5	7566	10	0.3	
02-54.9317-133.0886-2-53-	02-54.9317-133.0886-2-53-	02-54.9317-133.0886-2-53-	02-54.9317-133.0886-2-53-	02-54.9317-133.0886-2-53-	02-54.9317-133.0886-2-53-	02-54.9317-133.0886-2-53-	62390	-0.07	-213	13190	35	284	2.6	-13	-2.9	4	1.2	26980	3.2	-5090	7	0.3	
02-54.9317-133.0886-2-63-	02-54.9317-133.0886-2-63-	02-54.9317-133.0886-2-63-	02-54.9317-133.0886-2-63-	02-54.9317-133.0886-2-63-	02-54.9317-133.0886-2-63-	02-54.9317-133.0886-2-63-	60290	-0.08	-222	11540	33	-159	3.6	-15	-3.3	4	1.1	35250	3.3	-5104	15	0.4	
02-54.8817-133.0267-2-13-	02-54.8817-133.0267-2-13-	02-54.8817-133.0267-2-13-	02-54.8817-133.0267-2-13-	02-54.8817-133.0267-2-13-	02-54.8817-133.0267-2-13-	02-54.8817-133.0267-2-13-	57990	-0.07	-243	10960	31	533	26.2	28	-3.0	4	1.0	28390	2.1	6462	13	0.3	
02-54.8817-133.0267-2-33-	02-54.8817-133.0267-2-33-	02-54.8817-133.0267-2-33-	02-54.8817-133.0267-2-33-	02-54.8817-133.0267-2-33-	02-54.8817-133.0267-2-33-	02-54.8817-133.0267-2-33-	56920	-0.06	279	10940	25	653	27.5	-12	-2.8	4	1.1	27920	1.6	6877	10	0.3	
02-54.8817-133.0267-2-43-	02-54.8817-133.0267-2-43-	02-54.8817-133.0267-2-43-	02-54.8817-133.0267-2-43-	02-54.8817-133.0267-2-43-	02-54.8817-133.0267-2-43-	02-54.8817-133.0267-2-43-	50620	-0.07	235	11060	33	517	24.0	22	-2.9	4	1.1	24740	-1.4	8365	13	0.2	
02-54.8817-133.0267-2-53-	02-54.8817-133.0267-2-53-	02-54.8817-133.0267-2-53-	02-54.8817-133.0267-2-53-	02-54.8817-133.0267-2-53-	02-54.8817-133.0267-2-53-	02-54.8817-133.0267-2-53-	58220	-0.08	-188	11740	32	567	30.8	34	-3.5	4	1.1	37560	-1.7	7680	12	0.3	
02-54.9022-132.9861-2-13-	02-54.9022-132.9861-2-13-	02-54.9022-132.9861-2-13-	02-54.9022-132.9861-2-13-	02-54.9022-132.9861-2-13-	02-54.9022-132.9861-2-13-	02-54.9022-132.9861-2-13-	62890	-0.08	-354	12740	26	274	19.0	46	-3.3	5	1.0	50380	-1.6	14190	14	0.3	
02-54.9022-132.9861-2-33-	02-54.9022-132.9861-2-33-	02-54.9022-132.9861-2-33-	02-54.9022-132.9861-2-33-	02-54.9022-132.9861-2-33-	02-54.9022-132.9861-2-33-	02-54.9022-132.9861-2-33-	69840	-0.08	-273	10690	32	388	21.4	34	-3.4	4	1.1	52360	2.7	10940	-3	-0.2	
02-54.9022-132.9861-2-43-	02-54.9022-132.9861-2-43-	02-54.9022-132.9861-2-43-	02-54.9022-132.9861-2-43-	02-54.9022-132.9861-2-43-	02-54.9022-132.9861-2-43-	02-54.9022-132.9861-2-43-	62250	-0.09	-235	11300	32	340	22.1	76	-4.1	4	1.1	66430	3.4	13190	19	0.4	
02-54.9022-132.9861-2-53-	02-54.9022-132.9861-2-53-	02-54.9022-132.9861-2-53-	02-54.9022-132.9861-2-53-	02-54.9022-132.9861-2-53-	02-54.9022-132.9861-2-53-	02-54.9022-132.9861-2-53-	62160	-0.08	-228	11780	35	280	22.1	46	-3.3	5	1.0	55780	2.7	13010	11	0.4	
02-54.9022-132.9861-2-63-	02-54.9022-132.9861-2-63-	02-54.9022-132.9861-2-63-	02-54.9022-132.9861-2-63-	02-54.9022-132.9861-2-63-	02-54.9022-132.9861-2-63-	02-54.9022-132.9861-2-63-	61930	-0.07	-345	12780	34	336	19.8	47	-3.3	5	1.0	54120	2.0	15220	12	0.4	
02-54.9256-132.9967-2-13-	02-54.9256-132.9967-2-13-	02-54.9256-132.9967-2-13-	02-54.9256-132.9967-2-13-	02-54.9256-132.9967-2-13-	02-54.9256-132.9967-2-13-	02-54.9256-132.9967-2-13-	79210	-0.07	550	16190	57	-107	18.7	70	-2.8	8	2.2	54550	3.4	12410	13	0.7	
02-54.9256-132.9967-2-33-	02-54.9256-132.9967-2-33-	02-54.9256-132.9967-2-33-	02-54.9256-132.9967-2-33-	02-54.9256-132.9967-2-33-	02-54.9256-132.9967-2-33-	02-54.9256-132.9967-2-33-	76310	-0.07	459	19590	64	-99	24.4	84	2.7	8	2.1	69380	4.7	12850	31	0.7	
02-54.9256-132.9967-2-43-	02-54.9256-132.9967-2-43-	02-54.9256-132.9967-2-43-	02-54.9256-132.9967-2-43-	02-54.9256-132.9967-2-43-	02-54.9256-132.9967-2-43-	02-54.9256-132.9967-2-43-	79270	-0.06	421	16190	60	-118	20.3	81	-2.6	7	2.1	60870	4.5	13900	23	0.6	
02-54.9256-132.9967-2-53-	02-54.9256-132.9967-2-53-	02-54.9256-132.9967-2-53-	02-54.9256-132.9967-2-53-	02-54.9256-132.9967-2-53-	02-54.9256-132.9967-2-53-	02-54.9256-132.9967-2-53-	79250	-0.06	547	16920	60	-116	20.7	64	-2.8	8	2.0	58010	4.7	12280	23	0.6	
02-54.9256-132.9967-2-63-	02-54.9256-132.9967-2-63-	02-54.9256-132.9967-2-63-	02-54.9256-132.9967-2-63-	02-54.9256-132.9967-2-63-	02-54.9256-132.9967-2-63-	02-54.9256-132.9967-2-63-	84460																

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)													U/Th RATIO			
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE LAB LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
02-54.9897-133.0764-2-53-			0-889774	23830		549	10350	-55	-2	42.0	4.3	-358	-3	-1	-2.1	7107	216	-2.2	212			
02-54.9897-133.0764-2-53-			0-889774	13420		543	9872	-44	-2	32.4	3.9	-413	-2	-1	-1.7	6624	214	2.5	141			
02-54.9744-133.0911-2-13-			0-889775	9977		881	20410	-26	-1	11.9	3.9	-355	-1	-1	3.2	3872	138	2.1	146			1.344
02-54.9744-133.0911-2-33-			0-889775	10920		987	12270	-29	-1	11.8	4.4	-415	-1	-1	3.0	4549	157	2.7	52			1.523
02-54.9744-133.0911-2-43-			0-889775	10100		773	21220	-33	-1	15.0	4.3	-344	-2	-1	5.4	4370	140	3.5	150			0.741
02-54.9744-133.0911-2-53-			0-889775	3557		1301	20280	-29	-1	13.5	4.8	-494	-1	-1	4.3	4872	146	3.4	172			1.140
02-54.9744-133.0911-2-63-			0-889775	7877		691	10920	-39	-1	19.1	3.6	-378	-2	-1	1.8	4720	127	-1.4	151			1.567
02-54.9636-133.1081-2-13-			0-889775	11722		448	21260	-28	-1	15.0	3.8	-320	-1	-1	2.9	5199	154	2.6	77			1.321
02-54.9636-133.1081-2-33-			0-889774	11117		460	20280	-36	-1	18.2	4.3	-316	-2	-1	3.3	5000	158	1.9	83			1.176
02-54.9636-133.1081-2-43-			0-889774	11630		462	22780	-29	-1	15.5	3.6	-367	-1	-1	2.8	4929	159	3.0	98			1.357
02-54.9636-133.1081-2-53-			0-889774	3463		443	25210	-29	-1	15.7	3.5	-332	-1	-1	2.4	4800	155	2.1	56			1.621
02-54.9636-133.1081-2-63-			0-889774	3555		415	26710	-28	-1	15.8	3.6	-327	-1	-1	2.0	5527	144	2.6	60			1.875
02-54.9317-133.0886-2-13-			0-889777	-3533		270	30240	-44	-2	16.7	3.6	-428	-2	-1	-1.8	5576	94	-1.7	153			
02-54.9317-133.0886-2-33-			0-889777	-3953		245	41030	-30	-1	14.1	2.9	-466	-2	-1	-1.2	6979	94	-1.3	-63			
02-54.9317-133.0886-2-43-			0-889777	-3685		263	33360	-35	-1	15.1	3.2	-410	-2	-1	-1.3	6179	97	-1.2	49			
02-54.9317-133.0886-2-53-			0-889777	4939		352	35690	-34	-2	18.4	3.6	-412	-2	-1	2.7	5901	104	2.6	129			0.393
02-54.9317-133.0886-2-63-			0-889777	7101		342	32670	-44	-2	20.5	4.0	-417	-2	-1	2.5	5667	100	3.3	46			0.376
02-54.8817-133.0267-2-13-			0-889779	3512		290	14820	-42	-2	20.4	3.4	-412	-2	-1	3.5	3851	179	-1.5	134			0.491
02-54.8817-133.0267-2-33-			0-889779	4460		288	15050	-38	-2	20.1	3.0	-331	-2	-1	1.7	3757	178	-1.3	136			0.941
02-54.8817-133.0267-2-43-			0-889779	4018		287	15280	-38	-2	19.1	2.8	-342	-2	-1	-1.7	4095	181	2.1	88			
02-54.8817-133.0267-2-53-			0-889779	4662		310	14410	-50	-2	24.2	3.9	-335	-2	-1	2.6	3387	170	3.1	118			0.658
02-54.9022-132.9861-2-13-			0-889770	3810		1113	11260	-52	-2	18.0	3.2		-2	-1	3.6	4393	125	2.4	181			0.742
02-54.9022-132.9861-2-33-			0-889770	9267		1081	10900	-46	-2	17.6	3.3		-2	-1	2.3	4468	137	-1.8	208			1.174
02-54.9022-132.9861-2-43-			0-889770	11160		1103	11400	-59	-2	22.8	3.9		-3	-1	5.5	4559	139	4.4	258			0.498
02-54.9022-132.9861-2-53-			0-889770	9530		1074	11420	-51	-2	19.6	3.4		-2	-1	-1.8	4958	125	-1.7	204			
02-54.9022-132.9861-2-63-			0-889770	3535		1092	12140	-51	-2	19.5	3.7		-2	-1	3.6	4268	127	-1.8	146			0.722
02-54.9256-132.9967-2-13-			0-889990	22020		694	15220	-40	-2	26.0	7.9	-360	-2	1	5.5	3522	174	4.4	182			0.656
02-54.9256-132.9967-2-33-			0-889991	24065		648	14270	-44	-2	31.9	9.2	-339	-2	1	5.7	8025	181	5.3	163			0.642
02-54.9256-132.9967-2-43-			0-889990	22870		695	14940	-37	-1	27.4	7.1	-406	-2	1	5.4	8562	181	4.9	150			0.667
02-54.9256-132.9967-2-53-			0-889991	20410		694	15500	-39	-2	27.3	7.5	-372	-2	1	5.2	7998	186	4.1	122			0.715
02-54.9256-132.9967-2-63-			0-889990	22660		674	15510	-39	-2	26.6	7.9	-372	-2	2	5.4	8388	179	5.5	144			0.702
02-54.9267-132.4728-2-13-			0-889991	10300		822	25720	-41	-1	15.5	21.2	1220	-2	-2	19.7	4113	168	6.3	120			0.713
02-54.9267-132.4728-2-33-			0-889991	3455		1082	28190	-33	-1	13.4	21.4	1415	-2	1	14.8	4831	203	5.3	111			0.825
02-54.9267-132.4728-2-43-			0-889991	10770		1080	26170	-37	-1	14.0	23.0	1132	-2	-1	16.4	4948	202	4.6	113			0.867
02-54.9267-132.4728-2-53-			0-889991	12220		1145	31160	-43	-2	12.8	21.5	1480	-2	1	16.2	4557	190	5.0	-86			0.681
02-54.9483-132.3578-2-13-			0-889992	-2732		167	4290	-49	-2	9.8	2.2	-458	-3	-1	-2.3	5368	229	-2.2	134			
02-54.9483-132.3578-2-33-			0-889992	-2762		158	3521	-36	-2	7.6	1.9		-2	-1	3.3	4150	202	-1.5	117			1.173
02-54.9483-132.3578-2-43-			0-889992	-2546		154	3884	-41	3	7.4	2.1	-417	-3	-1	2.5	3710	212	-1.5	111			1.640
02-54.9483-132.3578-2-53-			0-889992	3764		120	3343	-40	-2	7.0	-2.0	-388	-3	-1	-2.0	4145	213	-1.9	156			
02-54.9483-132.3578-2-63-			0-889992	-2615		152	3342	-38	-2	9.0	-0.5	-411	-3	-1	3.7	4602	211	-3.1	107			0.981
02-54.9183-132.3419-2-13-			0-889993	3023		394	6281	-36	-1	5.4	2.1	-473	-2	-1	-1.2	1501	60	-1.2	65			
02-54.9183-132.3419-2-33-			0-889993	9105		484	19220	-39	-1	11.6	3.5	-498	-2	-1	2.9	3243	91	-1.3	-90			0.828
02-54.9183-132.3419-2-43-			0-889993	9665		684	18600	-33	-1	11.0	3.4	-445	-2	-1	1.6	3557	94	-1.4	-55			1.437
02-54.8997-132.3244-2-13-			0-889994	6120		741	9973	-53	-2	17.4	4.6	-463	-3	-1	6.1	3151	101	-2.0	80			0.520
02-54.8997-132.3244-2-33-			0-889994	5730		752	9927	-46	-1	8.6	4.3		-2	-1	4.9	2838	108	-1.3	89			0.641
02-54.8997-132.3244-2-43-			0-889994	6100		752	10130	-46	-1	7.9	3.8	-488	-2	-1	3.8	2625	108	2.0	97			0.818
02-54.8997-132.3244-2-53-			0-889994	6102		712	10270	-41	-1	7.6	4.4	493	-2	-1	3.7	2738	121	-1.4	154			0.849
02-54.8764-132.2811-2-13-			0-889995	-9210		12340	2764	-59	-2	3.7	4.0		-2	-1	3.4		-43	3.0	261			0.791
02-54.8764-132.2811-2-33-			0-889995	-11465		13060	2806	-53	-1	9.8	3.6		-2	-1	3.5		-53	2.3	265			0.746
02-54.8764-132.2811-2-43-			0-889995	-10340		13900	3053	-52	-2	7.7	3.4		-2	-1	2.7		-49	2.5	272			0.967
02-54.8764-132.2811-2-53-			0-889995	-9315		11310	3141	-52	-2	7.9	3.4		-2	-1	-1.8		-45	-1.7	228			

DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION					
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLATOR (eU/gpm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																							
J2-54.8764-132.2311-2-53-						0-A99939-03/24/79-14			22-19.0	-5	6.7		30-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.7-	2.71	
J2-54.8500-132.2686-2-13-						0-A99946-03/24/79-14			22-19.0	-5	6.5		30-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											7.9-	1.60	
J2-54.8500-132.2686-2-33-						0-A99946-09/24/79-14			22-19.0	-5	6.5		30-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											7.9-	1.49	
J2-54.8500-132.2686-2-43-						0-A99946-09/24/79-14			22-19.0	-5	6.5		30-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											7.9-	1.56	
J2-54.8500-132.2686-2-53-						0-A99946-03/24/79-14			22-19.0	-5	6.5		30-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											7.9-	1.59	
J2-54.8236-132.2986-2-13-						0-A99947-03/24/79-14			22-19.7	-5	6.7		31-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.9-	2.90	
J2-54.8236-132.2986-2-33-						0-A99947-03/24/79-14			22-19.7	-5	6.7		31-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.9-	3.20	
J2-54.8236-132.2986-2-43-						0-A99947-09/24/79-14			22-19.7	-5	6.7		31-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.9-	3.23	
J2-54.8100-132.3008-2-13-						0-A99948-09/24/79-14			22-19.2	-5	6.7		36-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.9-	1.61	
J2-54.8100-132.3008-2-33-						0-A99948-09/24/79-14			22-19.2	-5	6.7		36-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.9-	1.60	
J2-54.8100-132.3008-2-43-						0-A99948-09/24/79-14			22-19.2	-5	6.7		36-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.9-	1.56	
J2-54.8014-132.3242-2-13-						0-A99949-03/24/79-14			21-17.4	-5	6.9		65-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.2-	1.50	
J2-54.8014-132.3242-2-43-						0-A99949-09/24/79-14			21-17.4	-5	6.9		65-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.2-	1.60	
J2-54.7783-132.3211-2-13-						0-A99950-09/24/79-15			21-19.1	-5	5.4		47-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												8.5-	0.94	
J2-54.7783-132.3211-2-33-						0-A99950-09/24/79-15			21-19.1	-5	5.4		47-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												8.5-	0.96	
J2-54.7783-132.3211-2-43-						0-A99950-03/24/79-15			21-19.1	-5	5.4		47-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												9.5-	1.00	
J2-54.7783-132.3211-2-53-						0-A99950-09/24/79-15			21-19.1	-5	5.4		47-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												8.5-	1.00	
J2-54.7783-132.3211-2-63-						0-A99950-09/24/79-15			21-19.1	-5	5.4		47-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												8.5-	0.95	
J2-54.7750-132.2931-2-13-						0-A99951-03/24/79-15			21-19.4	-5	5.7		51-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												9.4-	1.71	
J2-54.7750-132.2931-2-33-						0-A99951-09/24/79-15			21-19.4	-5	5.7		51-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												9.4-	1.57	
J2-54.7750-132.2931-2-43-						0-A99951-09/24/79-15			21-19.4	-5	5.7		51-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												9.4-	1.66	
J2-54.7750-132.2931-2-53-						0-A99951-09/24/79-15			21-19.4	-5	5.7		51-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												9.4-	1.67	
J2-54.7750-132.2931-2-63-						0-A99951-09/24/79-15			21-19.4	-5	5.7		51-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												9.4-	1.70	
J2-54.7556-132.2739-2-13-						0-A99952-03/24/79-15			20-17.4	-5	5.3		63-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												9.2-	2.91	
J2-54.7556-132.2739-2-33-						0-A99952-03/24/79-15			20-17.4	-5	5.3		63-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												9.2-	3.07	
J2-54.7556-132.2739-2-43-						0-A99952-09/24/79-15			20-17.4	-5	5.3		63-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												9.2-	2.99	
J2-54.7556-132.2739-2-53-						0-A99952-09/24/79-15			20-17.4	-5	5.3		63-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												9.2-	2.97	
J2-54.7556-132.2739-2-63-						0-A99952-09/24/79-15			20-17.4	-5	5.3		63-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												9.2-	2.10	
J2-54.7967-132.2486-2-13-						0-A99953-09/24/79-15			20-17.6	-5	5.8		29-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												8.7-	1.38	
J2-54.7967-132.2486-2-43-						0-A99953-09/24/79-15			20-17.6	-5	5.8		29-	-2-7-5-6-	-3-1-	-1-4-4-1-	-1-												8.7-	1.36	
J2-54.8364-132.2289-2-13-						0-A99954-09/24/79-15			22-19.9	-5	6.3		29-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.4-	7.32	
J2-54.8364-132.2289-2-33-						0-A99954-03/24/79-15			22-19.9	-5	6.3		29-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.4-	7.37	
J2-54.8364-132.2289-2-43-						0-A99954-09/24/79-15			22-19.9	-5	6.3		29-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.4-	7.09	
J2-54.8864-132.2289-2-53-						0-A99954-03/24/79-15			22-19.9	-5	6.3		29-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.4-	7.41	
J2-54.8864-132.2289-2-63-						0-A99954-09/24/79-15			22-19.9	-5	6.3		29-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.4-	7.31	
J2-54.8906-132.2511-2-13-						0-A99955-09/24/79-15			22-19.7	-5	6.4		22-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.5-	2.48	
J2-54.8906-132.2511-2-33-						0-A99955-09/24/79-15			22-19.9	-5	6.4		22-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.5-	2.51	
J2-54.8906-132.2511-2-43-						0-A99955-03/24/79-15			22-19.9	-5	6.4		22-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.5-	2.57	
J2-54.8906-132.2511-2-53-						0-A99955-03/24/79-15			22-19.9	-5	6.4		22-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.5-	2.50	
J2-54.8906-132.2511-2-63-						0-A99955-09/24/79-15			22-19.9	-5	6.4		22-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											8.5-	2.58	
J2-54.9094-132.2631-2-13-						0-A99956-03/24/79-15			22-17.6	-5	6.7		26-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											9.1-	5.98	
J2-54.9094-132.2631-2-33-						0-A99956-09/24/79-15			22-17.6	-5	6.7		26-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											9.1-	5.31	
J2-54.9094-132.2631-2-43-						0-A99956-09/24/79-15			22-17.6	-5	6.7		26-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											9.1-	5.85	
J2-54.9233-132.2903-7-13-						0-A99957-03/24/79-15			22-15.8	-5	6.6		22-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											9.0-	3.29	
J2-54.9233-132.2903-2-33-						0-A99957-09/24/79-15			22-15.8	-5	6.6		22-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											9.0-	3.55	
J2-54.9233-132.2903-2-43-						0-A99957-09/24/79-15			22-15.8	-5	6.6		22-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											9.0-	3.45	
J2-54.9233-132.2903-2-53-						0-A99957-09/24/79-15			22-15.8	-5	6.6		22-	-4-	-5-6-	-3-1-	-1-4-4-1-	-1-											9.0-	4.09	
J2-54.9522-132.2644-2-13-						0-A99958-03/24/79-15			22-19.8	-5	6.9		23-	-2-7-5-6-	-3-1-	-1-3-4-1-	-1-												8.9-	1.55	
J2-54.9522-132.2644-2-33-						0-A99958-09/24/79-15			22-19.8	-5	6.9		23-	-2-7-5-6-	-3-1-	-1-3-4-1-	-1-												8.9-	1.53	
J2-54.9522-132.2644-2-43-						0-A99958-03/24/79-15			22-19.8	-5	6.9		23-	-2-7-5-6-	-3-1-	-1-3-4-1-	-1-												8.9-	1.50	
J2-54.9522-132.2644-2-53-						0-A99958-09/24/79-15			22-19.8	-5	6.9		23-	-2-7-5-6-	-3-1-	-1-3-4-1-	-1-												8.9-	1.55	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							LAS SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY Concentrations in weight ppm	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	Concentrations reported in weight parts per million (ppm)										Be	Li		
						Ag		Bi	Cd	Cu	Nb	Ni	Pb	Sn	W				
02-54.8764-132.2811-2-53-						0-889095	-5	-5	-5	26	-20	-15	6	-10	24	-1	2		
02-54.8500-132.2686-2-13-						0-889096	-5	-5	-5	17	-20	-15	-5	-10	-15	-1	2		
02-54.8500-132.2686-2-33-						0-889096	-5	-5	-5	28	-20	-15	-5	-10	-15	-1	2		
02-54.8500-132.2686-2-43-						0-889096	-5	-5	-5	18	-20	-15	-5	-10	-15	-1	2		
02-54.8500-132.2686-2-53-						0-889096	-5	-5	-5	19	-20	-15	-5	-10	-15	-1	3		
02-54.8236-132.2986-2-13-						0-889097	-5	-5	-5	21	-20	-15	-5	-10	-15	-1	3		
02-54.8236-132.2986-2-33-						0-889097	-5	-5	-5	25	-20	-15	-5	-10	-15	-1	2		
02-54.8236-132.2986-2-43-						0-889097	-5	-5	-5	26	-20	-15	-5	-10	-15	-1	2		
02-54.8100-132.3008-2-13-						0-889098	-5	-5	-5	19	-20	-15	-5	-10	-15	-1	3		
02-54.8100-132.3008-2-33-						0-889098	-5	-5	-5	32	-20	-15	-5	-10	-15	-1	4		
02-54.8100-132.3008-2-43-						0-889098	-5	-5	6	28	32	-15	-5	-10	-15	-1	3		
02-54.8014-132.3242-2-33-						0-889099	-5	-5	-5	39	-20	-15	-5	-10	-15	-1	6		
02-54.8014-132.3242-2-43-						0-889099	-5	-5	-5	39	-20	23	-5	-10	-15	-1	12		
02-54.7783-132.3211-2-13-						0-889099	-5	-5	-5	28	48	-15	-5	-10	-15	-1	3		
02-54.7783-132.3211-2-33-						0-889099	-5	-5	-5	22	60	-15	-5	-10	-15	-1	3		
02-54.7783-132.3211-2-43-						0-889099	-5	-5	-5	29	50	-15	-5	-10	-15	-1	4		
02-54.7783-132.3211-2-53-						0-889099	-5	-5	-5	23	56	-15	-5	-10	-15	-1	3		
02-54.7783-132.3211-2-53-						0-889099	-5	-5	-5	25	34	-15	-5	-10	-15	-1	3		
02-54.7750-132.2931-2-13-						0-889099	-5	-5	-5	20	-20	-15	-5	-10	-15	-1	8		
02-54.7750-132.2931-2-33-						0-889099	-5	-5	-5	22	-20	-15	-5	-10	-15	-1	9		
02-54.7750-132.2931-2-43-						0-889099	-5	-5	-5	24	-20	-15	-5	-10	-15	-1	8		
02-54.7750-132.2931-2-53-						0-889099	-5	6	-5	21	-20	-15	-5	-10	-15	-1	6		
02-54.7750-132.2931-2-53-						0-889099	-5	-5	-5	22	-20	-15	5	-10	-15	-1	6		
02-54.7556-132.2739-2-13-						0-889099	-5	-5	-5	26	-20	-15	-5	-10	-15	-1	5		
02-54.7556-132.2739-2-33-						0-889099	-5	-5	-5	27	-20	-15	-5	-10	-15	-1	7		
02-54.7556-132.2739-2-43-						0-889099	-5	-5	-5	32	-20	-15	-5	-10	-15	-1	6		
02-54.7556-132.2739-2-53-						0-889099	-5	-5	-5	39	-20	27	-5	-10	-15	-1	6		
02-54.7556-132.2739-2-53-						0-889099	-5	-5	-5	39	-20	27	-5	-10	-15	-1	6		
02-54.7867-132.2486-2-33-						0-889099	-5	-5	-5	22	-20	-15	-5	-10	-15	-1	5		
02-54.7867-132.2486-2-43-						0-889099	-5	-5	-5	38	-20	-15	-5	-10	-15	-1	8		
02-54.8864-132.2289-2-13-						0-889099	-5	-5	-5	38	-20	-15	-5	-10	-15	1	11		
02-54.8864-132.2289-2-33-						0-889099	-5	-5	-5	30	-20	-15	-5	-10	-15	1	11		
02-54.8864-132.2289-2-43-						0-889099	-5	-5	-5	37	-20	-15	12	-10	-15	1	10		
02-54.8864-132.2289-2-53-						0-889099	-5	-5	-5	38	-20	-15	14	-10	-15	1	13		
02-54.8864-132.2289-2-63-						0-889099	-5	-5	-5	30	25	-15	11	-10	-15	1	11		
02-54.8906-132.2511-2-13-						0-889099	-5	-5	-5	29	-20	-15	-5	-10	-15	1	4		
02-54.8906-132.2511-2-33-						0-889099	-5	-5	-5	32	-20	-15	8	-10	-15	1	4		
02-54.8906-132.2511-2-43-						0-889099	-5	-5	-5	27	-20	-15	-5	-10	-15	1	4		
02-54.8906-132.2511-2-53-						0-889099	-5	-5	-5	34	-20	-15	12	-10	17	1	6		
02-54.8906-132.2511-2-53-						0-889099	-5	-5	-5	35	-20	-15	5	-10	-15	-1	6		
02-54.9094-132.2631-2-13-						0-889099	-5	-5	-5	43	-20	-15	12	-10	-15	1	13		
02-54.9094-132.2631-2-33-						0-889099	-5	5	-5	33	-20	-15	13	-10	-15	1	11		
02-54.9233-132.2903-2-13-						0-889099	-5	-5	-5	46	-20	15	9	-10	-15	1	11		
02-54.9233-132.2903-2-33-						0-889099	-5	-5	-5	50	-20	-15	-5	-10	-15	1	4		
02-54.9233-132.2903-2-43-						0-889099	-5	-5	-5	27	-20	15	-5	-10	-15	-1	11		
02-54.9233-132.2903-2-53-						0-889099	-5	-5	-5	41	-20	-15	-5	-10	-15	1	12		
02-54.9522-132.2644-2-13-						0-889099	-5	-5	-5	23	-20	-15	-5	-10	-15	-1	8		
02-54.9522-132.2644-2-33-						0-889099	-5	-5	-5	35	-20	-15	-5	-10	-15	-1	7		
02-54.9522-132.2644-2-43-						0-889099	-5	-5	-5	35	-20	-15	-5	-10	-15	-1	8		
02-54.9522-132.2644-2-53-						0-889099	-5	-5	-5	38	-20	-15	-5	-10	-15	-1	10		

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
02-54.8764-132.2911-2-63-	0-1889995	47590	-0.08				12480	57				45.7	52	-3.3		1.1	77310	-1.7		22	-0.1		
02-54.8500-132.2686-2-13-	0-1889995	42910	-0.05	-292			10240	33	494	41.7	49	-2.3	3	0.6	36660	-1.1	-5794	-3	0.1				
02-54.8500-132.2686-2-33-	0-1889995	40550	-0.05	-243			11220	29	535	44.4	42	-2.3	3	0.8	33110	-1.1	-5630	9	0.2				
02-54.8500-132.2686-2-43-	0-1889995	42290	-0.05	206			10250	39	490	41.6	44	-2.4	2	0.8	31760	-1.3	-5349	-3	0.2				
02-54.8500-132.2686-2-53-	0-1889995	42010	-0.07	-233			9847	41	525	47.5	60	-2.8	3	0.7	44690	-1.5	-5193	14	0.2				
02-54.8236-132.2986-2-13-	0-1889997	38860	-0.05	-256			12700	28	604	34.6	37	-2.5	2	0.8	45200	-1.2	-4906	9	-0.1				
02-54.8236-132.2986-2-33-	0-1889997	39150	-0.05	271			13110	29	636	36.4	31	-2.2	3	0.7	43080	-1.1	-4443	8	0.2				
02-54.8236-132.2986-2-43-	0-1889997	40200	-0.06	259			13480	48	565	33.9	32	-2.6	3	0.8	42730	-1.3	-4570	-3	-0.1				
02-54.8100-132.3008-2-13-	0-1889998	42500	-0.07	-253			7810	42	554	38.2	61	-3.0	4	0.9	57690	-1.4	-6224	16	-0.1				
02-54.8100-132.3008-2-33-	0-1889998	43250	-0.05	-224			9297	36	517	34.0	53	-2.4	3	0.8	44050	1.6	-6846	11	0.2				
02-54.8100-132.3008-2-43-	0-1889998	43600	-0.05	-254			9859	31	520	32.8	48	-2.5	2	0.8	43990	-1.1	-6510	11	0.2				
02-54.8014-132.3242-2-33-	0-1889999	49280	-0.06	-310			9745	46	578	51.1	86	-2.6	3	1.3	60040	2.2	-8644	7	0.3				
02-54.8014-132.3242-2-43-	0-1889999	49170	-0.07	-320			10240	49	582	61.2	121	-3.2	3	1.3	77980	3.1	-8909	18	0.4				
02-54.7783-132.3211-2-13-	0-1889999	23570	-0.07				10860	18	851	-2.0	38	-2.9	-3	-0.4	8245	-1.6	-5494	-4	-0.1				
02-54.7783-132.3211-2-33-	0-1889999	22380	-0.05	-314			10200	-7	880	4.1	42	-2.7	-3	0.5	7533	-1.5	-4856	-4	-0.1				
02-54.7783-132.3211-2-43-	0-1889999	22600	-0.07	-323			10790	-9	894	3.7	49	-3.1	2	-0.4	7921	-1.8	-4991	-4	-0.1				
02-54.7783-132.3211-2-53-	0-1889999	23140	-0.08	-329			10260	20	766	-2.7	62	-3.5	-3	0.5	10720	-1.9	-4617	7	-0.2				
02-54.7783-132.3211-2-63-	0-1889999	23440	-0.06	-330			8724	-7	760	-2.2	49	-2.8	-3	-0.4	8649	-1.5	-5174	-4	-0.1				
02-54.7750-132.2931-2-13-	0-1889999	49430	-0.07	-261			11390	43	378	2.5	51	-3.3	2	1.0	14370	5.2	-5150	20	0.4				
02-54.7750-132.2931-2-33-	0-1889999	42550	-0.06	226			9248	36	483	3.1	40	-2.4	3	1.3	12130	3.0	7544	-3	0.3				
02-54.7750-132.2931-2-43-	0-1889999	47330	-0.05	455			10370	33	464	-1.8	43	-2.5	2	0.7	12920	3.1	-5153	11	0.2				
02-54.7750-132.2931-2-53-	0-1889999	44610	-0.07	353			10950	29	409	-1.9	59	-2.8	2	0.8	11070	3.7	-5666	6	0.2				
02-54.7750-132.2931-2-63-	0-1889999	46800	-0.07	408			11750	33	450	3.5	46	-3.0	3	0.6	14590	5.3	6821	19	0.2				
02-54.7556-132.2739-2-13-	0-1889999	51110	-0.05	367			12420	58	643	5.7	36	-2.2	2	1.3	12930	3.6	10820	25	0.2				
02-54.7556-132.2739-2-33-	0-1889999	44570	-0.05	385			12330	49	557	5.8	25	-2.3	2	1.0	9743	3.8	12770	25	0.2				
02-54.7556-132.2739-2-43-	0-1889999	51570	-0.06	348			13110	57	601	6.7	29	-2.4	3	1.0	10140	3.1	10590	13	0.3				
02-54.7556-132.2739-2-53-	0-1889999	47300	-0.06	373			11290	67	555	7.6	90	-2.6	2	1.3	13990	4.9	8861	30	0.2				
02-54.7556-132.2739-2-63-	0-1889999	35220	-0.04	-210			11570	48	402	3.1	23	-1.8	2	0.8	7952	2.1	8780	20	0.2				
02-54.7867-132.2486-2-33-	0-1889999	44510	-0.05	213			9215	12	463	11.4	49	-2.6	3	0.6	21280	-1.2	-5912	7	-0.1				
02-54.7867-132.2486-2-43-	0-1889999	40120	-0.05	-227			6904	27	460	11.8	47	-2.5	2	0.6	16430	1.6	-4785	9	0.2				
02-54.8364-132.2289-2-13-	0-1889994	55030	-0.07	539			6418	178	275	34.9	61	-3.3	4	2.0	55090	3.1	9771	77	0.3				
02-54.8864-132.2289-2-33-	0-1889994	56070	-0.06	640			6984	166	237	34.1	65	-2.8	5	1.7	46060	4.2	9117	68	0.4				
02-54.8364-132.2289-2-43-	0-1889994	51130	-0.06	682			8921	137	252	29.1	54	2.8	4	1.6	43830	2.9	9274	65	0.2				
02-54.8864-132.2289-2-53-	0-1889994	52750	-0.06	422			6613	158	-145	30.3	47	-2.9	4	1.6	39250	2.6	-7169	61	0.3				
02-54.8864-132.2289-2-63-	0-1889994	49520	-0.08	531			6668	170	259	34.4	60	-3.3	3	1.8	58990	3.8	-7562	76	0.4				
02-54.8906-132.2511-2-13-	0-1889995	37720	-0.05	-243			10780	92	655	45.5	33	-2.5	-2	1.0	37310	-1.1	-4960	29	0.2				
02-54.8906-132.2511-2-33-	0-1889995	38110	-0.05	288			13740	67	597	42.1	34	-2.5	3	0.9	35080	-1.2	-5790	26	-0.1				
02-54.8906-132.2511-2-43-	0-1889995	38830	-0.06	241			3946	99	572	41.0	33	-2.7	4	0.9	34630	-1.4	-5474	18	0.2				
02-54.8906-132.2511-2-53-	0-1889995	38300	-0.07	358			11300	93	635	49.3	35	-2.9	3	1.2	45940	-1.4	-4856	33	0.2				
02-54.8906-132.2511-2-63-	0-1889995	36820	-0.10				13860	44	791	35.5	49	-4.6		-0.6	27560	-2.5	-9768	16	-0.2				
02-54.9094-132.2631-2-13-	0-1889996	47140	-0.06				6898	81	-181	22.2	62	-2.8	5	1.2	52010	1.8	-9318	34	0.3				
02-54.9094-132.2631-2-33-	0-1889996	45100	-0.06	391			8149	102	-162	20.9	66	-2.5	4	1.2	48170	2.6	-6979	37	0.3				
02-54.9094-132.2631-2-43-	0-1889996	59710	-0.07	-292			9136	109	200	25.4	95	-3.3	4	1.4	67600	2.7	-7507	57	0.5				
02-54.9233-132.2903-2-13-	0-1889997	73870	-0.05	432			47510	61	390	19.1	49	-2.5	4	1.5	55790	3.2	8074	29	0.3				
02-54.9233-132.2903-2-33-	0-1889997	73730	-0.06	-227			37940	48	415	18.4	55	-2.6	4	1.2	50230	2.4	-7092	23	0.3				
02-54.9233-132.2903-2-43-	0-1889997	79000	-0.06	314			40940	54	361	19.0	49	-2.7	4	1.5	53880	2.2	5961	11	0.3				
02-54.9233-132.2903-2-53-	0-1889997	44350	-0.08	-245			31200	66	437	20.7	58	-3.3	4	1.5	68150	2.9	-6103	35	0.4				
02-54.9522-132.2644-2-13-	0-1889998	56910	-0.06	-256			17630	39	258	19.9	72	-2.8	4	1.2	43070	2.3	-5978	14	0.2				
02-54.9522-132.2644-2-33-	0-1889998	58350	-0.05	222			19700	35	286	21.0	66	-2.7	4	1.1	44440	2.3	-6628	14	0.3				
02-54.9522-132.2644-2-43-	0-1889998	57390	-0.07	-246			19250	40	211	21.4	63	-2.9	3	1.2	41820	1.9	-5996	10	0.4				
02-54.9522-132.2644-2-53-	0-1889998	41340	-0.08	-258			17210	50	280	22.2	81	-3.4	4	1.4	55840	3.2	-6102	17	0.3				

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
02-54.8764-132.2811-2-63-			0-888888				8555	10610	2131	-51	-2	10.0	3.6		-3	-1	4.5		50	-1.9	261	0.602
02-54.8500-132.2686-2-13-			0-888888				2549	756	3783	-41	-1	7.4	2.3		-2	-1	-1.3	1368	106	-1.2	112	
02-54.8500-132.2686-2-33-			0-888888				-2423	811	3998	-43	-1	7.5	2.7	-458	-2	-1	2.5	1638	108	-1.3	170	0.596
02-54.8500-132.2686-2-43-			0-888888				-2279	793	4102	-41	-1	7.0	2.6	-441	-2	-1	1.6	2017	112	-1.3	82	0.975
02-54.8500-132.2686-2-53-			0-888888				2595	729	2773	-50	-2	9.5	3.5	-431	-2	-1	2.6	-1199	104	-1.6	130	0.612
02-54.8236-132.2986-2-13-			0-888888				4134	494	2817	-43	-1	9.3	2.4	-434	-2	-1	-1.3	1805	94	-1.3	96	
02-54.8236-132.2986-2-33-			0-888888				-1955	488	2792	-43	-1	7.5	2.5	-360	-2	-1	2.0	1120	96	-1.2	114	1.600
02-54.8236-132.2986-2-43-			0-888888				-1993	475	2888	-43	-1	7.1	2.5	-370	-2	-1	-1.5	1520	105	-1.5	119	
02-54.8100-132.3008-2-13-			0-888888				4592	1330	5776	-51	-2	14.0	3.6		-2	-1	3.6	3654	122	2.2	85	0.447
02-54.8100-132.3008-2-33-			0-888888				4202	1362	5939	-40	-1	11.3	2.9		-2	-1	3.1	3035	121	-1.1	102	0.516
02-54.8100-132.3008-2-43-			0-888888				4424	1338	6017	-42	-1	10.9	3.0		-2	-1	2.4	2796	116	-1.2	102	0.650
02-54.8014-132.3242-2-33-			0-888888				7005	3061	8597	-38	-1	18.5	4.0		-2	-1	2.0	4117	168	2.6	238	0.750
02-54.8014-132.3242-2-43-			0-888888				9715	3155	9034	-50	-2	23.3	4.7		-2	-1	3.2	4081	180	3.4	162	0.500
02-54.7783-132.3211-2-13-			0-888888				-1336	191	4551	-43	-2	7.3	-0.4		-3	-1	-1.8	3727	76	-1.6	99	
02-54.7783-132.3211-2-33-			0-888888				-2721	194	4597	-47	-2	6.8	1.5	-451	-3	-1	2.6	3876	86	-1.6	-52	0.369
02-54.7783-132.3211-2-43-			0-888888				5355	198	5082	-43	-2	5.9	1.3	-431	-3	-1	2.7	3608	87	-1.7	-59	0.370
02-54.7783-132.3211-2-53-			0-888888				-2736	190	4912	-55	-2	9.1	-0.5	-438	-3	-1	2.3	3420	79	-2.0	-68	0.435
02-54.7783-132.3211-2-63-			0-888888				-3017	195	4395	-45	-1	7.2	1.5		-3	-1	-1.7	3695	76	-1.5	-106	
02-54.7750-132.2931-2-13-			0-888888				-3307	235	18110	-45	-2	12.0	2.7	-432	-3	-1	4.5	4414	85	-1.8	167	0.380
02-54.7750-132.2931-2-33-			0-888888				4320	212	15670	-40	-1	7.7	2.3	-442	-2	-1	3.1	4563	79	-1.4	-62	0.506
02-54.7750-132.2931-2-43-			0-888888				6879	227	17790	-39	-1	10.0	2.5	-432	-2	-1	4.4	4726	79	-1.2	-61	0.377
02-54.7750-132.2931-2-53-			0-888888				-3660	235	17340	-38	-2	9.9	2.4		-2	-1	3.0	4691	86	-1.5	105	0.557
02-54.7750-132.2931-2-63-			0-888888				5975	225	16460	-44	-2	12.4	3.1	-409	-2	-1	4.2	4679	77	2.2	-59	0.405
02-54.7556-132.2739-2-13-			0-888888				-2824	295	19330	-30	-1	9.5	3.9	-382	-2	-1	7.1	3695	79	-1.2	-40	0.410
02-54.7556-132.2739-2-33-			0-888888				3792	301	15830	-36	-1	7.6	3.9	-499	-2	-1	6.7	3713	75	-1.2	61	0.458
02-54.7556-132.2739-2-43-			0-888888				4627	287	18740	-32	-1	9.0	4.0	-424	-2	-1	6.1	3280	79	-1.3	35	0.490
02-54.7556-132.2739-2-53-			0-888888				4357	317	17140	-37	-1	10.1	4.9	-377	-2	-1	8.2	3531	72	2.5		0.362
02-54.7556-132.2739-2-63-			0-888888				-2401	239	12380	-26	-1	5.8	3.1	-341	-2	-1	6.2	2458	55	-1.0	-47	0.339
02-54.7867-132.2486-2-33-			0-888888				7409	489	10550	-39	-1	10.0	2.0		-2	-1	2.6	3538	107	-1.3	-31	0.531
02-54.7867-132.2486-2-43-			0-888888				5375	479	8592	-35	-1	9.1	1.9	-414	-2	-1	2.9	3068	103	-1.2	111	0.469
02-54.8864-132.2289-2-13-			0-888888				5300	1215	13490	-53	-2	13.6	7.8		-2	-1	9.5	2758	90	2.8	137	0.771
02-54.8864-132.2289-2-33-			0-888888				7210	1241	13240	-46	-1	11.9	5.8		-3	-1	9.5	-1581	98	-1.4	108	0.776
02-54.8864-132.2289-2-43-			0-888888				7252	1124	16910	-43	-1	11.1	7.1		-2	-1	7.9	3198	97	-1.5	120	0.897
02-54.8864-132.2289-2-53-			0-888888				5602	1334	11579	-44	-1	9.8	6.8		-2	-1	8.4	2750	93	3.1	-61	0.882
02-54.8864-132.2289-2-63-			0-888888				5002	1535	10630	-55	-2	13.0	8.5		-3	-1	9.0	2314	91	-1.7	155	0.812
02-54.8906-132.2511-2-13-			0-888888				4102	590	3753	-44	-1	5.2	3.6	-420	-2	-1	5.2	1443	52	-1.3	90	0.477
02-54.8906-132.2511-2-33-			0-888888				-2790	569	4077	-47	-1	5.8	3.3		-2	-1	4.4	-1519	58	-1.3	152	0.570
02-54.8906-132.2511-2-43-			0-888888				-2492	578	4202	-46	-1	5.9	3.9	-457	-2	-1	5.0	-1301	68	-1.5	152	0.514
02-54.8906-132.2511-2-53-			0-888888				-2170	590	3593	-54	-2	7.7	4.7	-408	-2	-1	5.5	1364	70	3.1	145	0.455
02-54.8906-132.2511-2-63-			0-888888				-5020	592	3922	-46	-2	4.5	2.4		-2	-1	-2.9	-2760	69	-2.6	163	
02-54.9094-132.2631-2-13-			0-888888				3275	1932	13279	-48	-1	12.2	4.3		-2	-1	5.0	3138	106	-1.4	47	1.196
02-54.9094-132.2631-2-33-			0-888888				12200	1467	23660	-39	-1	14.1	4.7		-2	-1	4.6	3018	122	2.7	92	1.154
02-54.9094-132.2631-2-43-			0-888888				10890	1654	18620	-54	-2	18.5	6.2		-3	-1	8.0	4374	123	3.4	145	0.731
02-54.9233-132.2903-2-13-			0-888888				19620	1215	18180	-38	-1	19.2	5.5	-472	-2	-1	2.8	6076	181	2.7	160	1.175
02-54.9233-132.2903-2-33-			0-888888				17210	1154	17310	-41	-1	15.2	5.0		-2	-1	2.6	5477	187	2.3	85	1.365
02-54.9233-132.2903-2-43-			0-888888				19020	1157	19580	-37	-1	16.8	5.0	-488	-2	-1	3.0	5750	176	2.8	134	1.150
02-54.9233-132.2903-2-53-			0-888888				13020	1070	13780	-52	-2	20.3	5.8		-2	-1	-1.9	5594	179	3.2	-99	
02-54.9522-132.2644-2-13-			0-888888				14030	922	11590	-46	-1	15.6	4.2	-493	-2	-1	-1.5	4715	142	2.3	186	
02-54.9522-132.2644-2-33-			0-888888				13270	966	12030	-42	-1	15.2	3.8		-2	-1	-1.4	4087	143	2.2	167	
02-54.9522-132.2644-2-43-			0-888888				14320	954	12780	-41	-2	14.8	3.9	-490	-2	-1	2.5	4358	145	2.5	118	0.600
02-54.9522-132.2644-2-53-			0-888888				13450	945	12210	-53	-2	14.9	4.9		-3	-1	2.8	4116	151	4.2	139	0.554

DOE SAMPLE NUMBER						LAST SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION																																																																																																																																																																																																																																																																																																																																																																																																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (eU ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES																																																																																																																																																																																																																																																																																																																																																																																												
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02-54.9522-132.2644-2-63-	02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-63-	02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-43-	02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-63-	02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-63-	02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-43-	02-54.9875-132.1858-2-13-	02-54.9875-132.1858-2-33-	02-54.9875-132.1858-2-43-	02-54.9875-132.1858-2-53-	02-54.9875-132.1858-2-63-	02-54.9814-132.3136-2-32-	02-54.9814-132.3136-2-42-	02-54.9814-132.3136-2-71-	02-54.9814-132.3136-2-72-	02-54.9814-132.3136-2-73-	02-54.9814-132.3136-2-74-	02-54.9814-132.3136-2-75-	02-54.9986-132.2875-2-32-	02-54.9986-132.2875-2-42-	02-54.9986-132.2875-2-71-	02-54.9986-132.2875-2-72-	02-54.9986-132.2875-2-73-	02-54.9986-132.2875-2-74-	02-54.9986-132.2875-2-75-	02-54.9986-132.2875-2-76-	02-54.9986-132.2875-2-77-	02-54.9986-132.2875-2-78-	02-54.9986-132.2875-2-79-	02-54.9986-132.2875-2-80-	02-54.9986-132.2875-2-81-	02-54.9986-132.2875-2-82-	02-54.9986-132.2875-2-83-	02-54.9986-132.2875-2-84-	02-54.9986-132.2875-2-85-	02-54.9986-132.2875-2-86-	02-54.9986-132.2875-2-87-	02-54.9986-132.2875-2-88-	02-54.9986-132.2875-2-89-	02-54.9986-132.2875-2-90-	02-54.9986-132.2875-2-91-	02-54.9986-132.2875-2-92-	02-54.9986-132.2875-2-93-	02-54.9986-132.2875-2-94-	02-54.9986-132.2875-2-95-	02-54.9986-132.2875-2-96-	02-54.9986-132.2875-2-97-	02-54.9986-132.2875-2-98-	02-54.9986-132.2875-2-99-	02-54.9986-132.2875-3-00-	02-54.9986-132.2875-3-01-	02-54.9986-132.2875-3-02-	02-54.9986-132.2875-3-03-	02-54.9986-132.2875-3-04-	02-54.9986-132.2875-3-05-	02-54.9986-132.2875-3-06-	02-54.9986-132.2875-3-07-	02-54.9986-132.2875-3-08-	02-54.9986-132.2875-3-09-	02-54.9986-132.2875-3-10-	02-54.9986-132.2875-3-11-	02-54.9986-132.2875-3-12-	02-54.9986-132.2875-3-13-	02-54.9986-132.2875-3-14-	02-54.9986-132.2875-3-15-	02-54.9986-132.2875-3-16-	02-54.9986-132.2875-3-17-	02-54.9986-132.2875-3-18-	02-54.9986-132.2875-3-19-	02-54.9986-132.2875-3-20-	02-54.9986-132.2875-3-21-	02-54.9986-132.2875-3-22-	02-54.9986-132.2875-3-23-	02-54.9986-132.2875-3-24-	02-54.9986-132.2875-3-25-	02-54.9986-132.2875-3-26-	02-54.9986-132.2875-3-27-	02-54.9986-132.2875-3-28-	02-54.9986-132.2875-3-29-	02-54.9986-132.2875-3-30-	02-54.9986-132.2875-3-31-	02-54.9986-132.2875-3-32-	02-54.9986-132.2875-3-33-	02-54.9986-132.2875-3-34-	02-54.9986-132.2875-3-35-	02-54.9986-132.2875-3-36-	02-54.9986-132.2875-3-37-	02-54.9986-132.2875-3-38-	02-54.9986-132.2875-3-39-	02-54.9986-132.2875-3-40-	02-54.9986-132.2875-3-41-	02-54.9986-132.2875-3-42-	02-54.9986-132.2875-3-43-	02-54.9986-132.2875-3-44-	02-54.9986-132.2875-3-45-	02-54.9986-132.2875-3-46-	02-54.9986-132.2875-3-47-	02-54.9986-132.2875-3-48-	02-54.9986-132.2875-3-49-	02-54.9986-132.2875-3-50-	02-54.9986-132.2875-3-51-	02-54.9986-132.2875-3-52-	02-54.9986-132.2875-3-53-	02-54.9986-132.2875-3-54-	02-54.9986-132.2875-3-55-	02-54.9986-132.2875-3-56-	02-54.9986-132.2875-3-57-	02-54.9986-132.2875-3-58-	02-54.9986-132.2875-3-59-	02-54.9986-132.2875-3-60-	02-54.9986-132.2875-3-61-	02-54.9986-132.2875-3-62-	02-54.9986-132.2875-3-63-	02-54.9986-132.2875-3-64-	02-54.9986-132.2875-3-65-	02-54.9986-132.2875-3-66-	02-54.9986-132.2875-3-67-	02-54.9986-132.2875-3-68-	02-54.9986-132.2875-3-69-	02-54.9986-132.2875-3-70-	02-54.9986-132.2875-3-71-	02-54.9986-132.2875-3-72-	02-54.9986-132.2875-3-73-	02-54.9986-132.2875-3-74-	02-54.9986-132.2875-3-75-	02-54.9986-132.2875-3-76-	02-54.9986-132.2875-3-77-	02-54.9986-132.2875-3-78-	02-54.9986-132.2875-3-79-	02-54.9986-132.2875-3-80-	02-54.9986-132.2875-3-81-	02-54.9986-132.2875-3-82-	02-54.9986-132.2875-3-83-	02-54.9986-132.2875-3-84-	02-54.9986-132.2875-3-85-	02-54.9986-132.2875-3-86-	02-54.9986-132.2875-3-87-	02-54.9986-132.2875-3-88-	02-54.9986-132.2875-3-89-	02-54.9986-132.2875-3-90-	02-54.9986-132.2875-3-91-	02-54.9986-132.2875-3-92-	02-54.9986-132.2875-3-93-	02-54.9986-132.2875-3-94-	02-54.9986-132.2875-3-95-	02-54.9986-132.2875-3-96-	02-54.9986-132.2875-3-97-	02-54.9986-132.2875-3-98-	02-54.9986-132.2875-3-99-	02-54.9986-132.2875-4-00-	02-54.9986-132.2875-4-01-	02-54.9986-132.2875-4-02-	02-54.9986-132.2875-4-03-	02-54.9986-132.2875-4-04-	02-54.9986-132.2875-4-05-	02-54.9986-132.2875-4-06-	02-54.9986-132.2875-4-07-	02-54.9986-132.2875-4-08-	02-54.9986-132.2875-4-09-	02-54.9986-132.2875-4-10-	02-54.9986-132.2875-4-11-	02-54.9986-132.2875-4-12-	02-54.9986-132.2875-4-13-	02-54.9986-132.2875-4-14-	02-54.9986-132.2875-4-15-	02-54.9986-132.2875-4-16-	02-54.9986-132.2875-4-17-	02-54.9986-132.2875-4-18-	02-54.9986-132.2875-4-19-	02-54.9986-132.2875-4-20-	02-54.9986-132.2875-4-21-	02-54.9986-132.2875-4-22-	02-54.9986-132.2875-4-23-	02-54.9986-132.2875-4-24-	02-54.9986-132.2875-4-25-	02-54.9986-132.2875-4-26-	02-54.9986-132.2875-4-27-	02-54.9986-132.2875-4-28-	02-54.9986-132.2875-4-29-	02-54.9986-132.2875-4-30-	02-54.9986-132.2875-4-31-	02-54.9986-132.2875-4-32-	02-54.9986-132.2875-4-33-	02-54.9986-132.2875-4-34-	02-54.9986-132.2875-4-35-	02-54.9986-132.2875-4-36-	02-54.9986-132.2875-4-37-	02-54.9986-132.2875-4-38-	02-54.9986-132.2875-4-39-	02-54.9986-132.2875-4-40-	02-54.9986-132.2875-4-41-	02-54.9986-132.2875-4-42-	02-54.9986-132.2875-4-43-	02-54.9986-132.2875-4-44-	02-54.9986-132.2875-4-45-	02-54.9986-132.2875-4-46-	02-54.9986-132.2875-4-47-	02-54.9986-132.2875-4-48-	02-54.9986-132.2875-4-49-	02-54.9986-132.2875-4-50-	02-54.9986-132.2875-4-51-	02-54.9986-132.2875-4-52-	02-54.9986-132.2875-4-53-	02-54.9986-132.2875-4-54-	02-54.9986-132.2875-4-55-	02-54.9986-132.2875-4-56-	02-54.9986-132.2875-4-57-	02-54.9986-132.2875-4-58-	02-54.9986-132.2875-4-59-	02-54.9986-132.2875-4-60-	02-54.9986-132.2875-4-61-	02-54.9986-132.2875-4-62-	02-54.9986-132.2875-4-63-	02-54.9986-132.2875-4-64-	02-54.9986-132.2875-4-65-	02-54.9986-132.2875-4-66-	02-54.9986-132.2875-4-67-	02-54.9986-132.2875-4-68-	02-54.9986-132.2875-4-69-	02-54.9986-132.2875-4-70-	02-54.9986-132.2875-4-71-	02-54.9986-132.2875-4-72-	02-54.9986-132.2875-4-73-	02-54.9986-132.2875-4-74-	02-54.9986-132.2875-4-75-	02-54.9986-132.2875-4-76-	02-54.9986-132.2875-4-77-	02-54.9986-132.2875-4-78-	02-54.9986-132.2875-4-79-	02-54.9986-132.2875-4-80-	02-54.9986-132.2875-4-81-	02-54.9986-132.2875-4-82-	02-54.9986-132.2875-4-83-	02-54.9986-132.2875-4-84-	02-54.9986-132.2875-4-85-	02-54.9986-132.2875-4-86-	02-54.9986-132.2875-4-87-	02-54.9986-132.2875-4-88-	02-54.9986-132.2875-4-89-	02-54.9986-132.2875-4-90-	02-54.9986-132.2875-4-91-	02-54.9986-132.2875-4-92-	02-54.9986-132.2875-4-93-	02-54.9986-132.2875-4-94-	02-54.9986-132.2875-4-95-	02-54.9986-132.2875-4-96-	02-54.9986-132.2875-4-97-	02-54.9986-132.2875-4-98-	02-54.9986-132.2875-4-99-	02-54.9986-132.2875-5-00-	02-54.9986-132.2875-5-01-	02-54.9986-132.2875-5-02-	02-54.9986-132.2875-5-03-	02-54.9986-132.2875-5-04-	02-54.9986-132.2875-5-05-	02-54.9986-132.2875-5-06-	02-54.9986-132.2875-5-07-	02-54.9986-132.2875-5-08-	02-54.9986-132.2875-5-09-	02-54.9986-132.2875-5-10-	02-54.9986-132.2875-5-11-	02-54.9986-132.2875-5-12-	02-54.9986-132.2875-5-13-	02-54.9986-132.2875-5-14-	02-54.9986-132.2875-5-15-	02-54.9986-132.2875-5-16-	02-54.9986-132.2875-5-17-	02-54.9986-132.2875-5-18-	02-54.9986-132.2875-5-19-	02-54.9986-132.2875-5-20-	02-54.9986-132.2875-5-21-	02-54.9986-132.2875-5-22-	02-54.9986-132.2875-5-23-	02-54.9986-132.2875-5-24-	02-54.9986-132.2875-5-25-	02-54.9986-132.2875-5-26-	02-54.9986-132.2875-5-27-	02-54.9986-132.2875-5-28-	02-54.9986-132.2875-5-29-	02-54.9986-132.2875-5-30-	02-54.9986-132.2875-5-31-	02-54.9986-132.2875-5-32-	02-54.9986-132.2875-5-33-	02-54.9986-132.2875-5-34-	02-54.9986-132.2875-5-35-	02-54.9986-132.2875-5-36-	02-54.9986-132.2875-5-37-	02-54.9986-132.2875-5-38-	02-54.9986-132.2875-5-39-	02-54.9986-132.2875-5-40-	02-54.9986-132.2875-5-41-	02-54.9986-132.2875-5-42-	02-54.9986-132.2875-5-43-	02-54.9986-132.2875-5-44-	02-54.9986-132.2875-5-45-	02-54.9986-132.2875-5-46-	02-54.9986-132.2875-5-47-	02-54.9986-132.2875-5-48-	02-54.9986-132.2875-5-49-	02-54.9986-132.2875-5-50-	02-54.9986-132.2875-5-51-	02-54.9986-132.2875-5-52-	02-54.9986-132.2875-5-53-	02-54.9986-132.2875-5-54-	02-54.9986-132.2875-5-55-	02-54.9986-132.2875-5-56-	02-54.9986-132.2875-5-57-	02-54.9986-132.2875-5-58-	02-54.9986-132.2875-5-59-	02-54.9986-132.2875-5-60-	02-54.9986-132.2875-5-61-	02-54.9986-132.2875-5-62-	02-54.9986-132.2875-5-63-	02-54.9986-132.2875-5-64-	02-54.9986-132.2875-5-65-	02-54.9986-132.2875-5-66-	02-54.9986-132.2875-5-67-	02-54.9986-132.2875-5-68-	02-54.9986-132.2875-5-69-	02-54.9986-132.2875-5-70-	02-54.9986-132.2875-5-71-	02-54.9986-132.2875-5-72-	02-54.9986-132.2875-5-73-	02-54.9986-132.2875-5-74-	02-54.9986-132.2875-5-75-	02-54.9986-132.2875-5-76-	02-54.9986-132.2875-5-77-	02-54.9986-132.2875-5-78-	02-54.9986-132.2875-5-79-	02-54.9986-132.2875-5-80-	02-54.9986-132.2875-5-81-	02-54.9986-132.2875-5-82-	02-54.9986-132.2875-5-83-	02-54.9986-132.2875-5-84-	02-54.9986-132.2875-5-85-	02-54.9986-132.2875-5-86-	02-54.9986-132.2875-5-87-	02-54.9986-132.2875-5-88-	02-54.9986-132.2875-5-89-	02-54.9986-132.2875-5-90-	02-54.9986-132.2875-5-91-	02-54.9986-132.2875-5-92-	02-54.9986-132.2875-5-93-	02-54.9986-132.2875-5-94-	02-54.9986-132.2875-5-95-	02-54.9986-132.2875-5-96-	02-54.9986-132.2875-5-97-	02-54.9986-132.2875-5-98-	02-54.9986-132.2875-5-99-	02-54.9986-132.2875-6-00-	02-54.9986-132.2875-6-01-	02-54.9986-132.2875-6-02-	02-54.9986-132.2875-6-03-	02-54.9986-132.2875-6-04-	02-54.9986-132.2875-6-05-	02-54.9986-132.2875-6-06-	02-54.9986-132.2875-6-07-	02-54.9986-132.2875-6-08-	02-54.9986-132.2875-6-09-	02-54.9986-132.2875-6-10-	02-54.9986-132.2875-6-11-	02-54.9986-132.2875-6-12-	02-54.9986-132.2875-6-13-	02-54.9986-132.2875-6-14-	02-54.9986-132.2875-6-15-	02-54.9986-132.2875-6-16-	02-54.9986-132.2875-6-17-	02-54.9986-132.2875-6-18-	02-54.9986-132.2875-6-19-	02-54.9986-132.2875-6-20-	02-54.9986-132.2875-6-21-	02-54.9986-132.2875-6-22-	02-54.9986-132.2875-6-23-	02-54.9986-132.2875-6-24-	02-54.9986-132.2875-6-25-	02-54.9986-132.2875-6-26-	02-54.9986-132.2875-6-27-	02-54.9986-132.2875-6-28-	02-54.9986-132.2875-6-29-	02-54.9986-132.2875-6-30-	02-54.9986-132.2875-6-31-	02-54.9986-132.2875-6-32-	02-54.9986-132.2875-6-33-	02-54.9986-132.2875-6-34-	02-54.9986-132.2875-6-35-	02-54.9986-132.2875-6-36-	02-54.9986-132.2875-6-37-	02-54.9986-132.2875-6-38-	02-54.9986-132.2875-6-39-	02-54.9986-132.2875-6-40-	02-54.9986-132.2875-6-41-	02-54.9986-132.2875-6-42-	02-54.9986-132.2875-6-43-	02-54.9986-132.2875-6-44-	02-54.9986-132.2875-6-45-	02-54.9986-132.2875-6-46-

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)									Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li
02-54.9522-132.2644-2-63-			0-489999				-5	-5	-5	17	-20	-15	-5	-10	-15	1	8
02-54.9289-132.2381-2-13-			0-489999				-5	-5	-5	13	-20	-15	19	-10	-15	1	5
02-54.9289-132.2381-2-33-			0-489999				-5	-5	-5	18	-20	-15	24	-10	-15	1	8
02-54.9289-132.2381-2-43-			0-489999				-5	-5	-5	17	-20	18	25	-10	-15	1	10
02-54.9289-132.2381-2-53-			0-489999				-5	-5	-5	23	-20	-15	22	-10	-15	2	11
02-54.9289-132.2381-2-63-			0-489999				-5	-5	-5	18	22	-15	18	-10	-15	1	7
02-54.9111-132.2189-2-13-			0-489999				-5	-5	-5							-1	8
02-54.9111-132.2189-2-33-			0-489999				-5	-5	-5	25	-20	-15	13	-10	-15	1	5
02-54.9111-132.2189-2-43-			0-489999				-5	-5	-5	28	-20	-15	6	-10	-15	1	4
02-54.9531-132.2261-2-13-			0-489999				-5	-5	-5	95	-20	20	-5	-10	-15	-1	6
02-54.9531-132.2261-2-33-			0-489999				-5	-5	-5	29	-20	-15	-5	-10	-15	-1	5
02-54.9531-132.2261-2-43-			0-489999				-5	-5	-5	21	-20	-15	-5	-10	-15	-1	6
02-54.9531-132.2261-2-53-			0-489999				-5	-5	-5	23	-20	-15	-5	-10	-15	-1	7
02-54.9531-132.2261-2-63-			0-489999				-5	-5	-5	19	-20	-15	-5	-10	-15	-1	6
02-54.9703-132.2275-2-13-			0-489999				-5	-5	-5	29	-20	-15	16	-10	-15	-1	4
02-54.9703-132.2275-2-33-			0-489999				-5	-5	-5	20	-20	-15	7	-10	-15	-1	5
02-54.9703-132.2275-2-43-			0-489999				-5	-5	-5	19	-20	-15	13	-10	-15	1	8
02-54.9703-132.2275-2-53-			0-489999				-5	-5	-5	25	-20	-15	10	-10	-15	-1	4
02-54.9703-132.2275-2-63-			0-489999				-5	-5	-5	28	-20	-15	16	-10	-15	-1	6
02-54.9778-132.1925-2-13-			0-489999				-5	-5	-5	23	-20	-15	-5	-10	-15	-1	4
02-54.9778-132.1925-2-33-			0-489999				-5	-5	-5	14	-20	19	-5	-10	-15	-1	5
02-54.9778-132.1925-2-43-			0-489999				-5	-5	-5	24	-20	-15	-5	-10	-15	-1	8
02-54.9875-132.1858-2-13-			0-489999				-5	-5	-5	12	-20	24	-5	-10	-15	-1	8
02-54.9875-132.1858-2-33-			0-489999				-5	-5	-5	20	-20	25	-5	-10	-15	1	12
02-54.9875-132.1858-2-43-			0-489999				-5	-5	-5	13	-20	-15	6	-10	-15	1	12
02-54.9875-132.1858-2-53-			0-489999				-5	-5	-5	19	-20	-15	-5	-10	-15	-1	12
02-54.9875-132.1858-2-63-			0-489999				-5	-5	-5	14	-20	19	-5	-10	-15	1	16
02-54.9814-132.3136-2-42-			0-489999				-5	-5	10	82	-20	22	-5	-10	-15	3	15
02-54.9814-132.3136-2-42-			0-489999				-5	-5	-5	107	-20	37	9	-10	-15	4	35
02-54.9814-132.3136-2-71-			0-489999				-5	-5	-5	76	-20	27	-5	-10	-15	3	29
02-54.9814-132.3136-2-72-			0-489999				-5	-5	-5	94	-20	33	-5	-10	-15	3	28
02-54.9814-132.3136-2-73-			0-489999				-5	-5	-5	90	-20	58	10	-10	-15	3	34
02-54.9814-132.3136-2-74-			0-489999				-5	-5	10	107	-20	68	8	-10	-15	3	30
02-54.9814-132.3136-2-75-			0-489999				-5	-5	-5	111	-20	40	14	-10	-15	2	25
02-54.9986-132.2875-2-32-			0-489999				-5	-5	-5	27	-20	30	7	23	-15	3	36
02-54.9986-132.2875-2-42-			0-489999				-5	-5	-5	50	-20	35	8	10	-15	2	25
02-54.9986-132.2875-2-71-			0-489999				-5	-5	-5	35	-20	25	-5	-10	-15	2	28
02-54.9986-132.2875-2-72-			0-489999				-5	-5	-5	50	-20	25	11	-10	-15	3	24
02-54.9986-132.2875-2-73-			0-489999				-5	-5	-5	51	-20	-15	-5	-10	-15	3	27
02-54.9464-132.1742-2-12-			0-489999				-5	7	-5	27	-20	-15	-5	35	-15	6	48
02-54.9464-132.1742-2-32-			0-489999				-5	-5	-5	19	-20	-15	-5	-10	-15	5	40
02-54.9464-132.1742-2-42-			0-489999				-5	10	-5	29	23	-15	-5	50	-15	5	49
02-54.9464-132.1742-2-52-			0-489999				-5	10	-5	97	-20	108	17	147	-15	5	46
02-54.9464-132.1742-2-62-			0-489999				-5	7	-5	220	-20	139	31	327	-15	5	37
02-54.9464-132.1742-2-71-			0-489999				-5	-5	-5	17	-20	-15	-5	-10	-15	5	48
02-54.9464-132.1742-2-72-			0-489999				-5	-5	-5	53	-20	29	9	28	-15	5	59
02-54.9464-132.1742-2-73-			0-489999				-5	-5	-5	38	-20	13	8	34	-15	5	80
02-54.9464-132.1742-2-74-			0-489999				-5	-5	-5	57	-20	25	6	26	-15	4	63
02-54.9464-132.1742-2-75-			0-489999				-5	7	-5	38	-20	-15	25	17	-15	3	60
02-54.9297-132.1972-2-12-			0-489999				-5	-5	-5	78	-20	28	-5	-10	-15	1	4
02-54.9297-132.1972-2-32-			0-489999				-5	-5	-5	62	-20	-15	-5	-10	-15	2	8

DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
02-54.9522-132.2644-2-53-	02-54.9522-132.2644-2-53-	02-54.9522-132.2644-2-53-	02-54.9522-132.2644-2-53-	02-54.9522-132.2644-2-53-	02-54.9522-132.2644-2-53-	02-54.9522-132.2644-2-53-	54070	-0.07	-257	15490	36	300	20.2	56	-2.9	5	0.9	43290	3.1	-5962	8	0.3	
02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-13-	47430	0.11	-327	-1902	70	410	11.2	64	-2.6	4	0.9	42850	2.9	-6458	36	0.3	
02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-33-	44550	-0.05	-257	7357	70	447	12.0	57	-2.5	4	0.9	40500	2.9	-5945	36	0.2	
02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-43-	45430	-0.07	-260	4992	80	440	11.7	61	-2.8	3	0.8	40260	2.4	8376	13	-0.2	
02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-53-	44550	-0.08	-275	4824	73	384	14.5	49	-3.3	3	0.9	48110	-1.8	-6354	41	-0.2	
02-54.9289-132.2381-2-63-	02-54.9289-132.2381-2-63-	02-54.9289-132.2381-2-63-	02-54.9289-132.2381-2-63-	02-54.9289-132.2381-2-63-	02-54.9289-132.2381-2-63-	02-54.9289-132.2381-2-63-	48340	-0.07	-360	-2082	66	377	12.2	67	-2.8	3	0.9	41340	3.3	-7027	35	0.3	
02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-13-	41330	-0.05	-267	672	146	342	13.9	28	-2.2	2	1.2	20080	-1.1	-5654	59	-0.1	
02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-33-	37430	-0.05	260	6308	175	378	14.8	20	-2.3	2	1.3	19910	1.7	-5396	63	-0.1	
02-54.9111-132.2189-2-43-	02-54.9111-132.2189-2-43-	02-54.9111-132.2189-2-43-	02-54.9111-132.2189-2-43-	02-54.9111-132.2189-2-43-	02-54.9111-132.2189-2-43-	02-54.9111-132.2189-2-43-	37630	-0.07	335	6408	192	381	16.4	38	-2.7	3	1.5	24820	-1.6	-5554	79	0.2	
02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-13-	47170	-0.06	191	8327	35	300	12.0	52	-2.6	5	1.0	31430	1.9	-5629	12	0.2	
02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-33-	47110	-0.05	232	10420	26	365	11.8	63	-2.5	3	1.0	29660	-1.2	-4761	12	0.2	
02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-43-	47630	-0.06	-270	8407	42	295	10.7	50	-2.7	4	1.2	27510	1.8	-4939	15	0.3	
02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-53-	47900	-0.08	303	9658	40	255	13.2	69	-3.3	4	1.4	38320	3.2	-5327	16	0.3	
02-54.9531-132.2261-2-63-	02-54.9531-132.2261-2-63-	02-54.9531-132.2261-2-63-	02-54.9531-132.2261-2-63-	02-54.9531-132.2261-2-63-	02-54.9531-132.2261-2-63-	02-54.9531-132.2261-2-63-	49150	-0.07	233	10530	32	311	11.6	63	-2.9	4	1.0	29420	-1.2	-6193	12	0.4	
02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-13-	44770	-0.05	-277	8238	33	289	22.9	53	-2.6	5	0.9	29560	2.4	-6616	14	0.4	
02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-33-	44320	-0.06	-252	7075	47	382	20.6	58	-2.6	3	1.0	30430	3.2	-6085	6	0.2	
02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-43-	45740	-0.07	-255	7392	38	345	25.4	70	-3.2	3	0.9	40680	4.8	-6017	19	-0.2	
02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-53-	45920	-0.06	-332	8108	33	302	22.6	48	-2.7	4	0.9	32410	2.1	-7067	14	0.3	
02-54.9703-132.2275-2-63-	02-54.9703-132.2275-2-63-	02-54.9703-132.2275-2-63-	02-54.9703-132.2275-2-63-	02-54.9703-132.2275-2-63-	02-54.9703-132.2275-2-63-	02-54.9703-132.2275-2-63-	45350	-0.05	-296	7843	31	291	23.7	58	-2.8	4	1.0	28220	1.8	-6861	12	0.2	
02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-13-	41930	-0.06	-298	7079	40	329	19.3	36	-2.6	3	0.8	26380	2.6	-5199	7	0.2	
02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-33-	40830	-0.07	-241	8724	35	322	23.0	46	-2.9	3	0.8	37800	2.1	-5266	16	0.2	
02-54.9778-132.1925-2-43-	02-54.9778-132.1925-2-43-	02-54.9778-132.1925-2-43-	02-54.9778-132.1925-2-43-	02-54.9778-132.1925-2-43-	02-54.9778-132.1925-2-43-	02-54.9778-132.1925-2-43-	43500	-0.05	-304	7218	35	312	22.7	45	-2.5	3	0.9	28860	2.2	-6063	10	0.2	
02-54.9875-132.1858-2-13-	02-54.9875-132.1858-2-13-	02-54.9875-132.1858-2-13-	02-54.9875-132.1858-2-13-	02-54.9875-132.1858-2-13-	02-54.9875-132.1858-2-13-	02-54.9875-132.1858-2-13-	62200	-0.06	234	8336	40	-143	10.0	95	-2.7	4	1.2	29820	3.7	9684	17	0.3	
02-54.9875-132.1853-2-33-	02-54.9875-132.1853-2-33-	02-54.9875-132.1853-2-33-	02-54.9875-132.1853-2-33-	02-54.9875-132.1853-2-33-	02-54.9875-132.1853-2-33-	02-54.9875-132.1853-2-33-	71070	-0.06	-295	9735	36	-142	9.9	79	-2.7	4	1.1	29160	2.4	10780	7	0.5	
02-54.9875-132.1858-2-43-	02-54.9875-132.1858-2-43-	02-54.9875-132.1858-2-43-	02-54.9875-132.1858-2-43-	02-54.9875-132.1858-2-43-	02-54.9875-132.1858-2-43-	02-54.9875-132.1858-2-43-	70690	-0.07	333	9400	41	-161	10.6	106	-3.0	4	1.2	34570	3.2	9033	17	0.5	
02-54.9875-132.1858-2-53-	02-54.9875-132.1858-2-53-	02-54.9875-132.1858-2-53-	02-54.9875-132.1858-2-53-	02-54.9875-132.1858-2-53-	02-54.9875-132.1858-2-53-	02-54.9875-132.1858-2-53-	70900	-0.05	234	9151	41	-163	10.4	96	-2.8	4	1.2	30620	3.3	9009	15	0.3	
02-54.9875-132.1858-2-63-	02-54.9875-132.1858-2-63-	02-54.9875-132.1858-2-63-	02-54.9875-132.1858-2-63-	02-54.9875-132.1858-2-63-	02-54.9875-132.1858-2-63-	02-54.9875-132.1858-2-63-	74380	-0.06	302	10070	35	-144	9.5	91	-2.5	4	1.1	29260	2.8	8588	17	0.4	
02-54.9314-132.3136-2-32-	02-54.9314-132.3136-2-32-	02-54.9314-132.3136-2-32-	02-54.9314-132.3136-2-32-	02-54.9314-132.3136-2-32-	02-54.9314-132.3136-2-32-	02-54.9314-132.3136-2-32-	55720	-0.04	182	4397	36	158	16.2	46	8.4	6	1.4	43040	2.6	14480	21	0.5	
02-54.9314-132.3136-2-42-	02-54.9314-132.3136-2-42-	02-54.9314-132.3136-2-42-	02-54.9314-132.3136-2-42-	02-54.9314-132.3136-2-42-	02-54.9314-132.3136-2-42-	02-54.9314-132.3136-2-42-	55130	-0.05	158	4756	56	-138	46.6	89	14.1	3	1.2	78960	5.5	14070	26	0.5	
02-54.9314-132.3136-2-71-	02-54.9314-132.3136-2-71-	02-54.9314-132.3136-2-71-	02-54.9314-132.3136-2-71-	02-54.9314-132.3136-2-71-	02-54.9314-132.3136-2-71-	02-54.9314-132.3136-2-71-	56280	-0.04	181	4834	47	806	26.1	68	10.6	4	1.9	42710	3.0	15720	21	0.4	
02-54.9314-132.3136-2-72-	02-54.9314-132.3136-2-72-	02-54.9314-132.3136-2-72-	02-54.9314-132.3136-2-72-	02-54.9314-132.3136-2-72-	02-54.9314-132.3136-2-72-	02-54.9314-132.3136-2-72-	54760	-0.05	1540	7587	46	1286	32.2	69	8.9	4	1.0	52200	2.9	-6466	23	0.4	
02-54.9314-132.3136-2-73-	02-54.9314-132.3136-2-73-	02-54.9314-132.3136-2-73-	02-54.9314-132.3136-2-73-	02-54.9314-132.3136-2-73-	02-54.9314-132.3136-2-73-	02-54.9314-132.3136-2-73-	54520	-0.06	1814	5122	60	1476	36.9	122	10.0	5	1.6	60070	2.9	-6753	31	0.4	
02-54.9314-132.3136-2-74-	02-54.9314-132.3136-2-74-	02-54.9314-132.3136-2-74-	02-54.9314-132.3136-2-74-	02-54.9314-132.3136-2-74-	02-54.9314-132.3136-2-74-	02-54.9314-132.3136-2-74-	52440	-0.13	1590	5406	55	1739	59.9	111	13.1	-2	1.5	61000	4.7	11340	27	0.5	
02-54.9414-132.3135-2-75-	02-54.9414-132.3135-2-75-	02-54.9414-132.3135-2-75-	02-54.9414-132.3135-2-75-	02-54.9414-132.3135-2-75-	02-54.9414-132.3135-2-75-	02-54.9414-132.3135-2-75-	59920	-0.05	1770	5663	56	1698	53.4	107	9.5	5	1.6	70780	3.5	-10330	23	0.3	
02-54.9986-132.2875-2-32-	02-54.9986-132.2875-2-32-	02-54.9986-132.2875-2-32-	02-54.9986-132.2875-2-32-	02-54.9986-132.2875-2-32-	02-54.9986-132.2875-2-32-	02-54.9986-132.2875-2-32-	53960	-0.03	7873	4480	28	287	23.8	52	3.3	3	1.7	35470	3.4	10980	14	0.2	
02-54.9986-132.2875-2-42-	02-54.9986-132.2875-2-42-	02-54.9986-132.2875-2-42-	02-54.9986-132.2875-2-42-	02-54.9986-132.2875-2-42-	02-54.9986-132.2875-2-42-	02-54.9986-132.2875-2-42-	47850	-0.05	9307	5118	37	557	37.5	81	3.8	3							

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

(4)

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn		
02-54.9522-132.2644-2-63-	02-54.9522-132.2644-2-63-	02-54.9522-132.2644-2-63-	02-54.9522-132.2644-2-63-	02-54.9522-132.2644-2-63-	02-54.9522-132.2644-2-63-	02-54.9522-132.2644-2-63-	13940	984	9507	-44	-2	14.0	4.3	-487	-2	-1	2.3	4165	145	-1.6	231	0.652	
02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-13-	02-54.9289-132.2381-2-13-	5392	734	11130	-46	-1	9.2	3.5		-2	-1	5.1	2510	80	-1.3	120	0.486	
02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-33-	02-54.9289-132.2381-2-33-	5155	709	10930	-42	-1	9.7	3.9	-481	-2	-1	5.6	3148	79	2.4	120	0.443	
02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-43-	02-54.9289-132.2381-2-43-	5392	717	12170	-45	-2	9.4	3.4		-2	-1	5.0	2623	80	2.1	214	0.502	
02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-53-	02-54.9289-132.2381-2-53-	3999	731	11500	-57	-2	10.7	4.3		-3	-1	5.0	3161	78	-1.9	129	0.508	
02-54.9289-132.2381-2-63-	02-54.9289-132.2381-2-63-	02-54.9289-132.2381-2-63-	02-54.9289-132.2381-2-63-	02-54.9289-132.2381-2-63-	02-54.9289-132.2381-2-63-	02-54.9289-132.2381-2-63-	5330	729	11140	-47	-2	9.6	3.7		-2	-1	6.3	2494	88	-1.5	106	0.390	
02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-13-	02-54.9111-132.2189-2-13-	-2632	627	6001	-39	-1	4.9	5.1	-482	-2	-1	8.0	-1334	55	-1.3	118	1.440	
02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-33-	02-54.9111-132.2189-2-33-	-2397	774	6122	-36	-1	4.8	7.6	-457	-2	-1	7.5	2026	51	2.3	-57	1.535	
02-54.9111-132.2189-2-43-	02-54.9111-132.2189-2-43-	02-54.9111-132.2189-2-43-	02-54.9111-132.2189-2-43-	02-54.9111-132.2189-2-43-	02-54.9111-132.2189-2-43-	02-54.9111-132.2189-2-43-	-2519	683	5275	-47	-2	5.7	8.0	-473	-3	-1	9.5	1918	53	-1.6	86	1.213	
02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-13-	02-54.9531-132.2261-2-13-	8985	539	10930	-42	-1	12.8	3.9	-489	-2	-1	-1.5	3742	107	-1.3	112		
02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-33-	02-54.9531-132.2261-2-33-	8990	499	10590	-38	-1	12.1	3.4	-391	-2	-1	2.7	3222	104	-1.2	359	0.444	
02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-43-	02-54.9531-132.2261-2-43-	8919	513	11070	-34	-1	11.8	3.6	-406	-2	-1	-1.6	3445	111	1.8	243		
02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-53-	02-54.9531-132.2261-2-53-	10120	527	11030	-56	-2	16.1	4.6	-446	-3	-1	3.3	3984	108	2.7	116	0.385	
02-54.9531-132.2261-2-63-	02-54.9531-132.2261-2-63-	02-54.9531-132.2261-2-63-	02-54.9531-132.2261-2-63-	02-54.9531-132.2261-2-63-	02-54.9531-132.2261-2-63-	02-54.9531-132.2261-2-63-	3799	537	10950	-42	-2	12.5	3.6		-2	-1	-1.6	3602	107	-1.4	-92		
02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-13-	02-54.9703-132.2275-2-13-	6347	1047	9742	-42	-1	11.7	3.4		-2	-1	2.8	3971	112	-1.3	101	0.618	
02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-33-	02-54.9703-132.2275-2-33-	6392	1111	9512	-37	-1	11.1	3.2		-2	-1	3.1	3928	107	2.6	137	0.548	
02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-43-	02-54.9703-132.2275-2-43-	6540	1039	10070	-47	-2	15.5	4.2		-2	-1	3.7	3673	110	2.5	98	0.459	
02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-53-	02-54.9703-132.2275-2-53-	7615	1056	9914	-44	-1	12.3	3.4		-2	-1	-1.5	3906	114	-1.3	132		
02-54.9703-132.2275-2-63-	02-54.9703-132.2275-2-63-	02-54.9703-132.2275-2-63-	02-54.9703-132.2275-2-63-	02-54.9703-132.2275-2-63-	02-54.9703-132.2275-2-63-	02-54.9703-132.2275-2-63-	7145	990	9929	-40	-2	11.6	3.4		-2	-1	3.3	3757	109	-1.5	125	0.527	
02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-13-	02-54.9778-132.1925-2-13-	4020	665	7919	-37	-1	8.6	2.8	-438	-2	-1	3.0	2835	87	-1.4	68	0.710	
02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-33-	02-54.9778-132.1925-2-33-	-2553	653	8955	-46	-2	11.1	3.9	-432	-2	-1	-1.7	3287	75	-1.5	-130		
02-54.9778-132.1925-2-43-	02-54.9778-132.1925-2-43-	02-54.9778-132.1925-2-43-	02-54.9778-132.1925-2-43-	02-54.9778-132.1925-2-43-	02-54.9778-132.1925-2-43-	02-54.9778-132.1925-2-43-	4793	752	9224	-40	-1	10.0	3.3		-2	-1	2.8	3405	87	-1.2	69	0.789	
02-54.9875-132.1859-2-13-	02-54.9875-132.1859-2-13-	02-54.9875-132.1859-2-13-	02-54.9875-132.1859-2-13-	02-54.9875-132.1859-2-13-	02-54.9875-132.1859-2-13-	02-54.9875-132.1859-2-13-	13590	377	29720	-36	-1	21.3	4.0	-392	-2	-1	4.1	5966	155	2.8	81	0.366	
02-54.9875-132.1859-2-33-	02-54.9875-132.1859-2-33-	02-54.9875-132.1859-2-33-	02-54.9875-132.1859-2-33-	02-54.9875-132.1859-2-33-	02-54.9875-132.1859-2-33-	02-54.9875-132.1859-2-33-	13225	381	30140	-35	-2	20.1	3.7	-384	-2	-1	2.9	7032	151	2.6	158	0.517	
02-54.9875-132.1859-2-43-	02-54.9875-132.1859-2-43-	02-54.9875-132.1859-2-43-	02-54.9875-132.1859-2-43-	02-54.9875-132.1859-2-43-	02-54.9875-132.1859-2-43-	02-54.9875-132.1859-2-43-	17450	381	31590	-41	-2	25.1	4.5	-442	-2	-1	5.1	7294	150	2.7	77	0.294	
02-54.9875-132.1859-2-53-	02-54.9875-132.1859-2-53-	02-54.9875-132.1859-2-53-	02-54.9875-132.1859-2-53-	02-54.9875-132.1859-2-53-	02-54.9875-132.1859-2-53-	02-54.9875-132.1859-2-53-	16130	369	30350	-38	-2	20.9	4.3	-429	-2	-1	3.4	7446	155	2.8	61	0.471	
02-54.9875-132.1859-2-63-	02-54.9875-132.1859-2-63-	02-54.9875-132.1859-2-63-	02-54.9875-132.1859-2-63-	02-54.9875-132.1859-2-63-	02-54.9875-132.1859-2-63-	02-54.9875-132.1859-2-63-	14090	364	32020	-35	-1	20.7	4.0	-389	-2	-1	3.6	7805	151	2.4	-80	0.428	
02-54.9814-132.3136-2-32-	02-54.9814-132.3136-2-32-	02-54.9814-132.3136-2-32-	02-54.9814-132.3136-2-32-	02-54.9814-132.3136-2-32-	02-54.9814-132.3136-2-32-	02-54.9814-132.3136-2-32-	7899	1056	10400	50	12	11.1	4.6	-316	-1	-1	5.2	2942	408	3.4	458	1.288	
02-54.9814-132.3136-2-42-	02-54.9814-132.3136-2-42-	02-54.9814-132.3136-2-42-	02-54.9814-132.3136-2-42-	02-54.9814-132.3136-2-42-	02-54.9814-132.3136-2-42-	02-54.9814-132.3136-2-42-	3522	2605	9799	64	21	15.1	5.6		-2	-1	7.1	2682	421	4.3	738	1.211	
02-54.9814-132.3136-2-71-	02-54.9814-132.3136-2-71-	02-54.9814-132.3136-2-71-	02-54.9814-132.3136-2-71-	02-54.9814-132.3136-2-71-	02-54.9814-132.3136-2-71-	02-54.9814-132.3136-2-71-	7295	1340	11370	-26	11	11.9	5.1	-456	-1	-1	5.9	2361	434	3.8	351	1.424	
02-54.9814-132.3136-2-72-	02-54.9814-132.3136-2-72-	02-54.9814-132.3136-2-72-	02-54.9814-132.3136-2-72-	02-54.9814-132.3136-2-72-	02-54.9814-132.3136-2-72-	02-54.9814-132.3136-2-72-	7832	2429	11400	-33	12	12.4	5.9		-1	-1	6.2	2082	408	3.3	417	1.565	
02-54.9814-132.3136-2-73-	02-54.9814-132.3136-2-73-	02-54.9814-132.3136-2-73-	02-54.9814																				

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																						U CONCENTRATION			
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (eU/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNER/SHIP#	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)
							DATE	HOUR																							UNITS IN ppm
02-54	9297-132.1972	-2-42-	0-090009	03/22/79	16-	20-12.5	-C-	-S-	7.3-	57-	2-4-	2-6-3	2-1-2	1-4-5	3-3-	-1-	9.5-	8.10													
02-54	9297-132.1972	-2-52-	0-090009	03/22/79	16-	20-12.5	-C-	-S-	7.3-	57-	2-4-	2-6-3	2-1-2	1-4-5	3-3-	-1-	9.5-	7.70													
02-54	9297-132.1972	-2-62-	0-090009	03/22/79	16-	20-12.5	-C-	-S-	7.3-	57-	2-4-	2-6-3	2-1-2	1-4-5	3-3-	-1-	9.5-	8.40													
02-54	9297-132.1972	-2-71-	0-090009	03/22/79	16-	20-12.5	-C-	-S-	7.3-	57-	2-4-	2-6-3	2-1-2	1-4-5	3-3-	-1-	9.5-	3.30													
02-54	9297-132.1972	-2-72-	0-090009	03/22/79	16-	20-12.5	-C-	-S-	7.3-	57-	2-4-	2-6-3	2-1-2	1-4-5	3-3-	-1-	9.5-	4.10													
02-54	9297-132.1972	-2-73-	0-090009	03/22/79	16-	20-12.5	-C-	-S-	7.3-	57-	2-4-	2-6-3	2-1-2	1-4-5	3-3-	-1-	9.5-	3.85													
02-54	9297-132.1972	-2-74-	0-090009	03/22/79	16-	20-12.5	-C-	-S-	7.3-	57-	2-4-	2-6-3	2-1-2	1-4-5	3-3-	-1-	9.5-	3.92													
02-54	9297-132.1972	-2-75-	0-090009	03/22/79	16-	20-12.5	-C-	-S-	7.3-	57-	2-4-	2-6-3	2-1-2	1-4-5	3-3-	-1-	9.5-	3.90													
02-54	9411-132.2156	-2-12-	0-090009	03/22/79	15-	20-15.3	-C-	-S-	7.1-	31-	4-2-1	1-6-4	3-1-2	1-5-5	5-2-	-1-	9.5-	2.50													
02-54	9411-132.2156	-2-32-	0-090009	03/22/79	15-	20-15.3	-C-	-S-	7.1-	31-	4-2-1	1-6-4	3-1-2	1-5-5	5-2-	-1-	9.5-	2.40													
02-54	9411-132.2156	-2-42-	0-090009	03/22/79	15-	20-15.3	-C-	-S-	7.1-	31-	4-2-1	1-6-4	3-1-2	1-5-5	5-2-	-1-	9.5-	2.50													
02-54	9411-132.2156	-2-52-	0-090009	03/22/79	15-	20-15.3	-C-	-S-	7.1-	31-	4-2-1	1-6-4	3-1-2	1-5-5	5-2-	-1-	9.5-	2.50													
02-54	9378-132.2225	-2-32-	0-090010	03/22/79	15-	20-15.1	-C-	-S-	7.1-	33-	11-2-1	2-6-3	3-1-2	1-4-5	5-2-	-1-	9.5-	2.70													
02-54	9378-132.2225	-2-42-	0-090010	03/22/79	15-	20-15.1	-C-	-S-	7.1-	33-	11-2-1	2-6-3	3-1-2	1-4-5	5-2-	-1-	9.5-	3.50													
02-54	9736-132.1100	-2-32-	0-090011	03/22/79	16-	20-15.7	-C-	-S-	6.9-	42-	2-2-1	2-1-3	3-1-2	1-5-5	5-2-	-1-	9.3-	4.30													
02-54	9736-132.1100	-2-71-	0-090011	03/22/79	16-	20-15.7	-C-	-S-	6.9-	42-	2-2-1	2-1-3	3-1-2	1-5-5	5-2-	-1-	9.3-	2.32													
02-54	9736-132.1100	-2-72-	0-090011	03/22/79	16-	20-15.7	-C-	-S-	6.9-	42-	2-2-1	2-1-3	3-1-2	1-5-5	5-2-	-1-	9.3-	2.70													
02-54	9736-132.1100	-2-73-	0-090011	03/22/79	16-	20-15.7	-C-	-S-	6.9-	42-	2-2-1	2-1-3	3-1-2	1-5-5	5-2-	-1-	9.3-	3.10													
02-54	9736-132.1100	-2-74-	0-090011	03/22/79	16-	20-15.7	-C-	-S-	6.9-	42-	2-2-1	2-1-3	3-1-2	1-5-5	5-2-	-1-	9.3-	3.20													
02-54	9711-132.0600	-2-12-	0-090012	03/22/79	19-	19-11.7	-C-	-S-	7.1-	113-	13-3-8	3-8-3	3-1-2	1-5-4	4-2-	-1-	8.7-	6.30													
02-54	9711-132.0600	-2-32-	0-090012	03/22/79	19-	19-11.7	-C-	-S-	7.1-	113-	13-3-8	3-8-3	3-1-2	1-5-4	4-2-	-1-	8.7-	4.70													
02-54	9711-132.0600	-2-42-	0-090012	03/22/79	19-	19-11.7	-C-	-S-	7.1-	113-	13-3-8	3-8-3	3-1-2	1-5-4	4-2-	-1-	8.7-	7.00													
02-54	9711-132.0600	-2-71-	0-090012	03/22/79	19-	19-11.7	-C-	-S-	7.1-	113-	13-3-8	3-8-3	3-1-2	1-5-4	4-2-	-1-	8.7-	4.09													
02-54	9711-132.0600	-2-72-	0-090012	03/22/79	19-	19-11.7	-C-	-S-	7.1-	113-	13-3-8	3-8-3	3-1-2	1-5-4	4-2-	-1-	8.7-	4.10													
02-54	9711-132.0600	-2-73-	0-090012	03/22/79	19-	19-11.7	-C-	-S-	7.1-	113-	13-3-8	3-8-3	3-1-2	1-5-4	4-2-	-1-	8.7-	3.90													
02-54	9711-132.0600	-2-74-	0-090012	03/22/79	19-	19-11.7	-C-	-S-	7.1-	113-	13-3-8	3-8-3	3-1-2	1-5-4	4-2-	-1-	8.7-	3.80													
02-54	9711-132.0600	-2-75-	0-090012	03/22/79	19-	19-11.7	-C-	-S-	7.1-	113-	13-3-8	3-8-3	3-1-2	1-5-4	4-2-	-1-	8.7-	3.90													
02-54	9072-132.0244	-2-32-	0-090013	03/23/79	9-	15-11.4	-C-	-S-	7.0-	220-	9-3-1	2-3-3	3-1-2	1-5-5	5-2-	-1-	10.0-	5.60													
02-54	9072-132.0244	-2-42-	0-090013	03/23/79	9-	15-11.4	-C-	-S-	7.0-	220-	9-3-1	2-3-3	3-1-2	1-5-5	5-2-	-1-	10.0-	10.00													
02-54	9072-132.0244	-2-71-	0-090013	03/23/79	9-	15-11.4	-C-	-S-	7.0-	220-	9-3-1	2-3-3	3-1-2	1-5-5	5-2-	-1-	10.0-	2.70													
02-54	9072-132.0244	-2-72-	0-090013	03/23/79	9-	15-11.4	-C-	-S-	7.0-	220-	9-3-1	2-3-3	3-1-2	1-5-5	5-2-	-1-	10.0-	4.20													
02-54	9072-132.0244	-2-73-	0-090013	03/23/79	9-	15-11.4	-C-	-S-	7.0-	220-	9-3-1	2-3-3	3-1-2	1-5-5	5-2-	-1-	10.0-	5.40													
02-54	8233-132.0569	-2-12-	0-090014	03/23/79	12-	22-12.3	-C-	-S-	6.7-	126-	2-3-1	2-6-3	3-1-2	1-5-5	5-2-	-1-	9.6-	2.40													
02-54	8233-132.0569	-2-32-	0-090014	03/23/79	12-	22-12.3	-C-	-S-	6.7-	126-	2-3-1	2-6-3	3-1-2	1-5-5	5-2-	-1-	9.6-	1.55													
02-54	8233-132.0569	-2-42-	0-090014	03/23/79	12-	22-12.3	-C-	-S-	6.7-	126-	2-3-1	2-6-3	3-1-2	1-5-5	5-2-	-1-	9.6-	2.40													
02-54	8233-132.0569	-2-71-	0-090014	03/23/79	12-	22-12.3	-C-	-S-	6.7-	126-	2-3-1	2-6-3	3-1-2	1-5-5	5-2-	-1-	9.6-	1.70													
02-54	8233-132.0569	-2-72-	0-090014	03/23/79	12-	22-12.3	-C-	-S-	6.7-	126-	2-3-1	2-6-3	3-1-2	1-5-5	5-2-	-1-	9.6-	2.60													
02-54	8233-132.0569	-2-73-	0-090014	03/23/79	12-	22-12.3	-C-	-S-	6.7-	126-	2-3-1	2-6-3	3-1-2	1-5-5	5-2-	-1-	9.6-	2.70													
02-54	8233-132.0569	-2-74-	0-090014	03/23/79	12-	22-12.3	-C-	-S-	6.7-	126-	2-3-1	2-6-3	3-1-2	1-5-5	5-2-	-1-	9.6-	3.20													
02-54	8233-132.0569	-2-75-	0-090014	03/23/79	12-	22-12.3	-C-	-S-	6.7-	126-	2-3-1	2-6-3	3-1-2	1-5-5	5-2-	-1-	9.6-	3.20													
02-54	9036-132.1119	-2-12-	0-090015	03/22/79	17-	12-10.7	-C-	-S-	7.9-	41-	5-2-6	3-6-3	3-1-3	1-5-4	4-3-	-1-	9.1-	11.30													
02-54	9036-132.1119	-2-32-	0-090015	03/22/79	17-	12-10.7	-C-	-S-	7.9-	41-	5-2-6	3-6-3	3-1-3	1-5-4	4-3-	-1-	9.1-	7.10													
02-54	9036-132.1119	-2-42-	0-090015	03/22/79	17-	12-10.7	-C-	-S-	7.9-	41-	5-2-6	3-6-3	3-1-3	1-5-4	4-3-	-1-	9.1-	11.20													
02-54	9089-132.0881	-2-12-	0-090016	03/22/79	22-	12-11.4	-C-	-S-	5.4-	25-	10-2-7	3-7-3	2-1-3	1-4-4	4-3-	-1-	7.7-	2.00													
02-54	9089-132.0881	-2-32-	0-090016	03/22/79	22-	12-11.4	-C-	-S-	5.4-	25-	10-2-7	3-7-3	2-1-3	1-4-4	4-3-	-1-	7.7-	1.49													
02-54	9089-132.0881	-2-42-	0-090016	03/22/79	22-	12-11.4	-C-	-S-	5.4-	25-	10-2-7	3-7-3	2-1-3	1-4-4	4-3-	-1-	7.7-	1.90													
02-54	9089-132.0881	-2-52-	0-090016	03/22/79	22-	12-11.4	-C-	-S-	5.4-	25-	10-2-7	3-7-3	2-1-3	1-4-4	4-3-	-1-	7.7-	1.99													
02-54	9089-132.0881	-2-62-	0-090016	03/22/79	22-	12-11.4	-C-	-S-	5.4-	25-	10-2-7	3-7-3	2-1-3	1-4-4	4-3-	-1-	7.7-	2.00													
02-54	8792-132.0692	-2-12-	0-090017	03/22/79	18-	12-11.5	-C-	-S-	7.2-	47-	7-2-7	3-7-3	3-2-3	1-4-4	4-3-	-1-	9.4-	12.80													
02-54	8792-132.0692	-2-32-	0-090017	03/22/79	18-	12-11.5	-C-	-S-	7.2-	47-	7-2-7	3-7-3	3-2-3	1-4-4	4-3-	-1-	9.4-	10.20													
02-54	8792-132.0692	-2-42-	0-090017	03/22/79	18-	12-11.5	-C-	-S-	7.2-	47-	7-2-7	3-7-3	3-2-3	1-4-4	4-3-	-1-	9.4-	11.20													

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
02-54.9297-132.1972-2-42-			0-A99009				-5	-5	-5	75	-20	-15	-5	-10	-15	1	7	
02-54.9297-132.1972-2-52-			0-A99009				-5	-5	-5	76	-20	-15	-5	-10	-15	1	7	
02-54.9297-132.1972-2-62-			0-A99009															
02-54.9297-132.1972-2-71-			0-A99009				-5	-5	-5	16	-20	-15	5	-10	-15	2	8	
02-54.9297-132.1972-2-72-			0-A99009				-5	-5	-5	13	-20	-15	-5	-10	-15	1	8	
02-54.9297-132.1972-2-73-			0-A99009				-5	-5	-5	25	-20	-15	-5	-10	-15	1	10	
02-54.9297-132.1972-2-74-			0-A99009				-5	-5	5	19	-20	-15	-5	-10	-15	2	8	
02-54.9297-132.1972-2-75-			0-A99009				-5	-5	-5	19	-20	-15	-5	-10	-15	2	8	
02-54.9411-132.2156-2-12-			0-A99009				-5	-5	5	40	-20	-15	-5	-10	-15	1	8	
02-54.9411-132.2156-2-32-			0-A99009				-5	-5	-5	29	-20	-15	-5	-10	-15	1	8	
02-54.9411-132.2156-2-42-			0-A99009				-5	-5	5	44	-20	-15	-5	-10	29	1	12	
02-54.9411-132.2156-2-52-			0-A99009				-5	-5	-5	46	-20	21	10	-10	-15	-1	25	
02-54.9378-132.2225-2-32-			0-A99010				-5	-5	-5	38	-20	16	-5	-10	-15	2	29	
02-54.9378-132.2225-2-42-			0-A99010															
02-54.9736-132.1100-2-32-			0-A99011															
02-54.9736-132.1100-2-71-			0-A99011				-5	-5	-5	24	-20	-15	-5	-10	-15	1	15	
02-54.9736-132.1100-2-72-			0-A99011				-5	-5	5	45	-20	-15	7	-10	-15	1	10	
02-54.9736-132.1100-2-73-			0-A99011				-5	-5	-5	56	-20	-15	10	-10	-15	-1	9	
02-54.9736-132.1100-2-74-			0-A99011															
02-54.9711-132.0600-2-12-			0-A99012				-5	-5	7	29	-20	28	-5	-10	-15	-1	21	
02-54.9711-132.0600-2-32-			0-A99012				-5	-5	-5	38	-20	-15	-5	12	-15	1	28	
02-54.9711-132.0600-2-42-			0-A99012				-5	-5	6	21	-20	19	-5	-10	-15	1	18	
02-54.9711-132.0600-2-71-			0-A99012				-5	-5	-5	28	-20	-15	6	-10	-15	1	14	
02-54.9711-132.0600-2-72-			0-A99012				-5	-5	-5	26	-20	-15	11	-10	-15	-1	15	
02-54.9711-132.0600-2-73-			0-A99012				-5	-5	-5	26	-20	-15	7	-10	-15	1	16	
02-54.9711-132.0600-2-74-			0-A99012				-5	-5	-5	24	-20	-15	11	-10	-15	1	11	
02-54.9711-132.0600-2-75-			0-A99012				-5	-5	-5	40	-20	-15	-5	-10	-15	-1	8	
02-54.9072-132.0244-2-32-			0-A99013				-5	-5	-5	28	-20	-15	-5	13	-15	2	29	
02-54.9072-132.0244-2-42-			0-A99013				-5	-5	-5	45	-20	32	14	-10	22	-1	49	
02-54.9072-132.0244-2-71-			0-A99013				-5	-5	-5	39	-20	-15	-5	-10	-15	1	24	
02-54.9072-132.0244-2-72-			0-A99013				-5	-5	-5	50	-20	16	-5	-10	-15	2	38	
02-54.9072-132.0244-2-73-			0-A99013															
02-54.8233-132.0569-2-12-			0-A99014															
02-54.8233-132.0569-2-32-			0-A99014				-5	-5	-5	35	-20	-15	9	-10	-15	1	14	
02-54.8233-132.0569-2-42-			0-A99014				-5	-5	5	53	-20	40	-5	-10	-15	1	24	
02-54.8233-132.0569-2-71-			0-A99014				-5	-5	-5	30	-20	-15	-5	-10	-15	1	7	
02-54.8233-132.0569-2-72-			0-A99014				-5	-5	-5	34	-20	19	-5	-10	-15	-1	13	
02-54.8233-132.0569-2-73-			0-A99014				-5	-5	-5	45	-20	-15	-5	-10	-15	1	10	
02-54.8233-132.0569-2-74-			0-A99014				-5	-5	-5	37	30	-15	-5	-10	-15	1	15	
02-54.8233-132.0569-2-75-			0-A99014				-5	-5	-5	35	-20	-15	-5	-10	-15	-1	21	
02-54.9036-132.1119-2-12-			0-A99015				-5	-5	12	28	-20	21	-5	-10	-15	2	14	
02-54.9036-132.1119-2-32-			0-A99015				-5	-5	-5	20	-20	43	-5	-10	-15	2	13	
02-54.9036-132.1119-2-42-			0-A99015				-5	-5	9	31	-20	24	-5	-10	-15	2	15	
02-54.9089-132.0881-2-12-			0-A99016				-5	-5	-5	85	-20	-15	-5	-10	-15	1	10	
02-54.9089-132.0881-2-32-			0-A99016				-5	-5	-5	35	-20	32	-5	-10	-15	1	9	
02-54.9089-132.0881-2-42-			0-A99016				-5	-5	-5	52	-20	16	-5	-10	-15	2	11	
02-54.9089-132.0881-2-52-			0-A99016				-5	-5	-5	93	-20	-15	-5	-10	-15	1	9	
02-54.9089-132.0881-2-62-			0-A99016				-5	-5	-5	113	-20	21	-5	-10	-15	1	10	
02-54.8792-132.0692-2-12-			0-A99017															
02-54.8792-132.0692-2-32-			0-A99017															
02-54.8792-132.0692-2-42-			0-A99017				-5	-5	-5	32	-20	29	8	49	-15	-1	21	
																1	7	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
02-54.9297-132.1972-2-42-			0-A99009			29093	-0.12	-300	22590	54	319	24.4	62	-3.0	7	1.0	44680	3.9	-7616	27	0.6	
02-54.9297-132.1972-2-52-			0-A99009			30777	-0.14	-274	25940	50	290	30.6	60	-3.4	5	1.1	42450	3.9	-7383	30	0.5	
02-54.9297-132.1972-2-62-			0-A99009			29970	-0.10		22550	44	379	23.9	57	-2.6	6	0.7	49700	1.6	-10890	33	0.6	
02-54.9297-132.1972-2-71-			0-A99009			45340	-0.10		13350	50		42.8	57	-2.6		0.8	56080	7.4		17	0.6	
02-54.9297-132.1972-2-72-			0-A99009			42950	-0.11		-4907	46		45.8	58	-2.8	-3	0.7	60530	9.9		21	0.6	
02-54.9297-132.1972-2-73-			0-A99009			39632	-0.11		-4844	43		57.7	57	-2.8	-3	0.9	62490	7.4		16	0.4	
02-54.9297-132.1972-2-74-			0-A99009			40790	-0.14		-4057	43		50.1	63	-3.4	-3	0.5	60150	6.5		22	0.5	
02-54.9297-132.1972-2-75-			0-A99009			32550	-0.13		-5943	52		65.4	47	-2.3		0.8	63690	6.2		20	0.4	
02-54.9411-132.2156-2-12-			0-A99009			62647	-0.16	-326	-3476	60	-281	51.2	171	-2.9	-3	1.4	89920	2.8	-11050	20	0.4	
02-54.9411-132.2156-2-32-			0-A99009			78990	-0.11	524	-2593	45	440	44.0	119	-2.1	-2	1.4	66930	3.1	-8165	27	0.3	
02-54.9411-132.2156-2-42-			0-A99009			67440	-0.12	-229	-3390	47		49.3	114	-2.3	-2	1.2	70080	2.3	-10550	24	0.3	
02-54.9411-132.2156-2-52-			0-A99009			49570	-0.14	-352	-4158	51		51.3	125	-2.5	-3	1.3	72210	3.6	-11880	27	0.3	
02-54.9378-132.2225-2-32-			0-A99010			75210	-0.11	-222	7029	70	-209	35.9	106	1.7	-1	1.4	63490	3.4	-6762	40	0.3	
02-54.9378-132.2225-2-42-			0-A99010			50420	-0.14		-6399	69		88.8	111	-2.7		1.3	61590	3.1		39	0.4	
02-54.9736-132.1100-2-32-			0-A99011			67750	-0.13		9705	44	527	41.9	84	-2.3	3	0.9	51890	4.9	-11100	24	0.3	
02-54.9736-132.1100-2-71-			0-A99011			67330	-0.10	-159	9512	29	230	22.2	62	-1.8	3	0.9	38300	3.4	8376	13	0.3	
02-54.9736-132.1100-2-72-			0-A99011			53640	-0.13	-258	5416	43	-197	48.3	97	-2.4	3	1.2	68230	4.6	-7168	27	0.5	
02-54.9736-132.1100-2-73-			0-A99011			50150	-0.12	-299	6011	35	547	53.9	68	-2.1	-2	1.1	51150	3.3	-8129	18	0.4	
02-54.9736-132.1100-2-74-			0-A99011			54190	-0.15		7029	33	397	55.1	73	-2.9	4	0.9	56670	2.4		-10	-0.2	
02-54.9711-132.0600-2-12-			0-A99012			73280	-0.12	-382	-3996	61	-310	37.6	68	-2.1	3	1.4	91540	3.4	-11140	22	0.4	
02-54.9711-132.0600-2-32-			0-A99012			69640	-0.12	-279	-3043	70	-226	37.6	71	-2.1	-2	1.8	84860	3.3	-8138	31	0.4	
02-54.9711-132.0600-2-42-			0-A99012			75730	-0.11	-227	-4422	64	-337	45.2	74	-2.0	-2	1.5	109100	2.5		25	0.4	
02-54.9711-132.0600-2-71-			0-A99012			47190	-0.12		-4154	56	-349	28.4	41	-2.2		1.4	38760	2.6		25	0.4	
02-54.9711-132.0600-2-72-			0-A99012			46790	-0.13		-3739	76	581	30.8	53	-2.3	-3	1.5	39030	3.1		22	0.4	
02-54.9711-132.0600-2-73-			0-A99012			47290	-0.14		-3371	73	-275	30.2	39	-2.5	-3	1.7	47420	4.1	-11410	34	0.5	
02-54.9711-132.0600-2-74-			0-A99012			42100	-0.12		7597	64	-294	29.5	44	-2.1	-3	1.7	37580	3.9		28	0.4	
02-54.9711-132.0600-2-75-			0-A99012			45700	-0.11	-395	6501	55	568	27.5	42	-2.0	6	1.5	37880	2.8		20	0.4	
02-54.9072-132.0244-2-32-			0-A99013			71840	-0.08	731	9823	39	445	19.6	72	-1.6	2	1.0	47030	3.0	14960	17	0.3	
02-54.9072-132.0244-2-42-			0-A99013			75570	-0.12	967	8579	43	912	25.9	94	-2.1	4	1.4	60770	4.4	10660	25	0.3	
02-54.9072-132.0244-2-71-			0-A99013			77070	-0.11	955	8876	33	994	21.0	73	-2.0	3	1.0	54900	3.5	11460	17	0.3	
02-54.9072-132.0244-2-72-			0-A99013			77500	-0.11	1019	10380	37	1734	31.6	74	-2.1	3	1.1	59740	3.8	14330	17	0.4	
02-54.9072-132.0244-2-73-			0-A99013			77670	-0.15	1081	10380	37	2141	41.3	72	-3.0	4	1.2	60160	3.4	-10070	24	0.4	
02-54.8233-132.0569-2-12-			0-A99014			92110	-0.14	300	43590	22	420	43.6	217	-2.7	-2	1.0	70150	2.9	-5801	11	0.2	
02-54.8233-132.0569-2-32-			0-A99014			74810	-0.12	393	35210	24	302	28.8	86	1.4	2	1.1	70450	2.7	11060	11	0.2	
02-54.8233-132.0569-2-42-			0-A99014			77230	-0.12	-170	38670	20	402	43.0	104	-2.3	3	1.2	74500	3.7	8149	12	0.3	
02-54.8233-132.0569-2-71-			0-A99014			70670	-0.10	487	25100	17	1270	17.5	46	-2.0	-1	0.9	48280	2.2	12130	-7	0.2	
02-54.8233-132.0569-2-72-			0-A99014			69710	-0.14	-167	24820	25	2150	18.8	48	-2.7	-1	1.1	61290	5.1	9734	-9	0.2	
02-54.8233-132.0569-2-73-			0-A99014			71120	-0.18	319	25770	27	2764	20.7	59	-3.4	3	1.0	76570	5.3	9324	10	0.3	
02-54.8233-132.0569-2-74-			0-A99014			62550	-0.14	-187	20860	26	3232	21.7	57	-2.8	3	1.1	65670	3.8	-4870	-10	-0.1	
02-54.8233-132.0569-2-75-			0-A99014			65500	-0.14	-369	19790	24	3473	21.8	51	2.0	3	1.0	67490	4.3	-7231	-10	0.2	
02-54.9036-132.1119-2-12-			0-A99015			72690	-0.14	-330	22330	77	484	83.4	111	-2.7	-3	1.2	77670	4.7	-10900	33	0.5	
02-54.9036-132.1119-2-32-			0-A99015			72450	-0.14	-271	22390	71	413	62.6	119	-2.7	5	1.4	83680	4.6	-7281	34	0.6	
02-54.9036-132.1119-2-42-			0-A99015			76250	-0.13	-349	22220	66	-266	99.6	99	-2.5	4	1.5	88550	4.1	-10120	34	0.6	
02-54.9089-132.0881-2-12-			0-A99015			69550	-0.12	-255	27070	27	332	24.3	64	-2.4	4	1.2	73190	3.8	-6311	19	0.3	
02-54.9089-132.0881-2-32-			0-A99015			70040	-0.12	-153	30570	30	257	18.5	73	-2.2	3	1.0	63440	4.1	-4820	13	0.3	
02-54.9089-132.0881-2-42-			0-A99015			72000	-0.17	-206	28790	38	434	24.8	95	-3.2	4	1.3	98130	3.5	7362	13	0.5	
02-54.9089-132.0881-2-52-			0-A99015			73760	-0.13	-187	26900	31	472	27.5	79	-2.5	4	1.2	80240	3.1	10310	20	0.3	
02-54.9089-132.0881-2-62-			0-A99015			72540	-0.13	-275	29520	28	314	26.8	74	-2.6	4	1.2	77520	3.1	-6571	11	0.3	
02-54.8792-132.0692-2-12-			0-A99017			52450	-0.13		-6185	41		61.6	90	-2.4		1.0	77400	2.6		23	0.3	
02-54.8792-132.0692-2-32-			0-A99017			34590	-0.11	-382	-5079	50		57.4	88	-2.1	-2	1.2	84400	3.6	-11710	25	0.2	
02-54.8792-132.0692-2-42-			0-A99017			83460	-0.10	-378	26350	43	-337	62.3	74	-2.0	-3	1.2	76390	3.0	-11630	25	0.3	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

4

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)													U/Th RATIO			
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
02-54.9297-132.1972-2-42-						0-A99009	-3625	2989	7515	-53	-3	11.2	6.2		-3	-1	5.6	-1746	138	6.6	-84	1.446
02-54.9297-132.1972-2-52-						0-A99009	-3487	3310	7462	-53	-3	10.3	5.1		-2	1	5.2	-1573	114	4.4	71	1.481
02-54.9297-132.1972-2-52-						0-A99009	7111	3291	12410	-45	-2	10.3	5.4		-2	-1	4.5	-2216	150	4.4	62	1.867
02-54.9297-132.1972-2-71-						0-A99009	-7035	9433	15440	-50	-3	10.4	3.1		-2	-1	4.3	-2608	154	3.9	68	0.767
02-54.9297-132.1972-2-72-						0-A99009	-7730	11190	11720	-55	-3	9.2	3.2		-2	1	4.6	-3088	124	4.8	57	0.891
02-54.9297-132.1972-2-73-						0-A99009	-7460	11520	10130	-58	-3	9.4	3.6		-2	-1	3.8	-2985	145	4.8	41	1.013
02-54.9297-132.1972-2-74-						0-A99009	-7990	11750	9051	-69	-3	7.4	2.8		-3	-2	4.0	-2981	136	4.5	66	0.980
02-54.9297-132.1972-2-75-						0-A99009	-3275	12540	9033	-50	-3	7.9	4.1		-2	-1	3.9	-2923	102	3.9	111	1.000
02-54.9411-132.2156-2-12-						0-A99009	-5705	9169	13550	-52	-4	23.7	4.7		-2	1	4.8	-2306	214	3.8	122	0.521
02-54.9411-132.2156-2-32-						0-A99009	14700	5691	19570	-39	-3	17.8	3.6		-1	-1	4.1	-1781	203	-1.8	76	0.585
02-54.9411-132.2156-2-42-						0-A99009	-5125	7366	15210	-42	-3	13.6	4.6		-1	-1	4.3	6144	223	-2.0	76	0.581
02-54.9411-132.2156-2-52-						0-A99009	-5790	5623	11410	-44	-3	13.0	3.6		-2	1	3.9	-2068	147	-2.3	-54	0.641
02-54.9378-132.2225-2-32-						0-A99010	17520	3900	12460	-33	-3	23.9	4.9		-1	-1	6.0	-1353	210	2.9	120	0.450
02-54.9378-132.2225-2-42-						0-A99010	-9045	8072	14770	-51	-4	17.3	3.8		-2	-1	5.7	-3430	51	-2.4	195	0.614
02-54.9378-132.1100-2-32-						0-A99011	10440	3999	23970	-43	-3	16.2	4.4		-2	-1	4.0	-2006	132	-2.2	138	1.075
02-54.9736-132.1100-2-71-						0-A99011	13635	1688	25890	-28	-2	13.7	2.9	-441	-1	-1	3.1	3270	121	2.7	68	0.748
02-54.9736-132.1100-2-72-						0-A99011	8295	3045	19130	-44	-3	13.6	5.3		-1	-1	5.0	2476	135	2.9	152	0.540
02-54.9736-132.1100-2-73-						0-A99011	9440	3795	16740	-41	-3	12.5	3.5		-2	-1	4.2	2168	110	4.0	121	0.738
02-54.9736-132.1100-2-74-						0-A99011	12240	5095	16190	-58	-4	12.0	4.0		-2	-1	3.5	-2793	127	-2.7	213	0.914
02-54.9711-132.0600-2-12-						0-A99012	-6030	9402	12670	-40	-3	11.9	5.8		-1	1	4.0	-2269	126	4.3	138	1.575
02-54.9711-132.0600-2-32-						0-A99012	-4335	6183	21920	-42	-3	15.0	7.2		-2	-1	5.1	-1715	110	3.4	189	0.922
02-54.9711-132.0600-2-42-						0-A99012	-6090	10270	12040	-42	-3	12.4	5.7		-1	1	3.9	-2131	164	-1.7	169	1.795
02-54.9711-132.0600-2-71-						0-A99012	-6795	6907	12020	-43	-3	9.0	4.9		-2	-1	3.7	-2682	64	3.1	183	1.105
02-54.9711-132.0600-2-72-						0-A99012	-5660	6562	11700	-40	-3	9.2	5.6		-1	-1	4.5	-2910	42	3.7	138	0.911
02-54.9711-132.0600-2-73-						0-A99012	-5580	5745	13190	-49	-3	11.6	7.0		-2	-1	6.0	-2516	-24	4.9	164	0.650
02-54.9711-132.0600-2-74-						0-A99012	-5590	5148	11890	-38	-3	9.5	5.6		-2	1	5.0	-2325	-26	3.7	128	0.760
02-54.9711-132.0600-2-75-						0-A99012	-5670	5713	10940	-37	-3	9.0	6.2		-1	-1	3.7	-2249	73	3.6	170	1.027
02-54.9072-132.0244-2-32-						0-A99013	10090	407	23170	-27	-2	13.1	3.7	-301	-1	-1	4.0	2424	139	2.3	79	1.400
02-54.9072-132.0244-2-42-						0-A99013	14030	1661	21840	-32	-3	19.7	4.1	-401	-1	-1	3.9	3902	197	3.3	123	2.564
02-54.9072-132.0244-2-71-						0-A99013	13515	1001	25050	-32	-3	21.9	3.6	-360	-1	1	5.1	3896	147	3.1	114	0.529
02-54.9072-132.0244-2-72-						0-A99013	14020	1579	22220	-35	-3	21.0	3.2	-462	-1	-1	4.5	4658	170	-1.8	137	0.933
02-54.9072-132.0244-2-73-						0-A99013	15580	2071	24750	-50	-4	17.9	3.0		-2	-1	3.6	3712	186	-2.5	115	1.500
02-54.8233-132.0569-2-12-						0-A99014	36130	1717	16470	-43	-3	24.4	2.4	-480	-2	-1	1.6	5400	211	-2.4	119	1.500
02-54.8233-132.0569-2-32-						0-A99014	25150	1141	19950	-35	-3	29.0	2.9	637	-1	-1	-1.2	4902	143	-2.0	-66	
02-54.8233-132.0569-2-42-						0-A99014	20145	1528	17770	-38	-3	26.7	2.8	1041	-1	-1	2.3	4386	193	-1.9	159	1.043
02-54.8233-132.0569-2-71-						0-A99014	17820	909	22590	-35	-2	16.3	2.3	599	-1	-1	2.9	4491	138	-1.7	120	0.586
02-54.8233-132.0569-2-72-						0-A99014	17435	924	18740	-42	-3	17.6	2.6	-419	-2	-1	2.8	5643	158	-2.5	156	0.929
02-54.8233-132.0569-2-73-						0-A99014	20720	939	17330	-55	-4	21.7	2.4		-2	-1	-2.0	5272	164	-3.0	170	
02-54.8233-132.0569-2-74-						0-A99014	12160	887	15770	-48	-3	16.9	3.0	-478	-2	-1	3.2	5836	147	-2.4	92	1.000
02-54.8233-132.0569-2-75-						0-A99014	15350	977	18640	-53	-3	16.3	3.2		-2	-1	2.1	5236	177	-2.5	128	1.524
02-54.9036-132.1119-2-12-						0-A99015	25060	7477	14470	-49	-3	19.4	5.6		-2	1	6.8	3146	186	4.9	128	1.662
02-54.9036-132.1119-2-32-						0-A99015	19200	4373	22300	-48	-4	27.1	5.6		-2	-1	6.8	2093	176	5.0	154	1.044
02-54.9036-132.1119-2-42-						0-A99015	25440	7887	14990	-49	-3	19.4	6.1		-2	-1	7.7	-2165	241	5.2	196	1.455
02-54.9089-132.0881-2-12-						0-A99016	24560	1705	20080	-41	-3	24.7	3.5	-478	-2	-1	4.1	4050	197	-2.0	150	0.488
02-54.9089-132.0881-2-32-						0-A99016	21205	1357	23330	-34	-3	22.5	3.6	-396	-1	-1	2.6	4732	174	4.2	41	0.573
02-54.9089-132.0881-2-42-						0-A99016	24075	1553	20190	-52	-4	33.1	4.2		-2	-1	3.7	5235	208	4.2	202	0.514
02-54.9089-132.0881-2-52-						0-A99016	26665	1578	19580	-42	-3	25.9	3.1	-496	-2	-1	3.6	5496	200	3.2	159	0.553
02-54.9089-132.0881-2-62-						0-A99016	25490	1851	20710	-44	-3	26.0	4.1		-2	-1	2.9	6005	218	2.8	201	0.690
02-54.8792-132.0692-2-12-						0-A99017	-8190	7694	12120	-46	-3	10.5	4.1		-1	-1	3.1	-2783	106	-2.3	114	4.129
02-54.8792-132.0692-2-32-						0-A99017	-6455	4290	9722	-42	-3	13.7	3.0		-1	-1	3.4	-2265	59	-1.9	131	3.000
02-54.8792-132.0692-2-42-						0-A99017	-6300	10850	17930	-39	-2	12.5	4.3		-1	-1	2.5	-2356	208	-1.7	106	4.480

[illegible]

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER						DOE LAB LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE									ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY Concentrations in weight ppm	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE		Concentrations reported in weight parts per million (ppm)									Be	Li
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W		
02-54.8522-132.0419-2-12-			0-899019				-5	-5	-5	32	-20	18	-5	-10	-15	1	8
02-54.8522-132.0419-2-32-			0-899019				-5	-5	-5	29	-20	-15	-5	-10	-15	1	11
02-54.8522-132.0419-2-42-			0-899019				-5	-5	5	32	-20	22	-5	-10	-15	1	10
02-54.8522-132.0419-2-52-			0-899019				-5	-5	-5	46	-20	16	-5	13	-15	-1	30
02-54.8381-132.0636-2-32-			0-899019				-5	-5	-5	30	-20	-15	-5	-10	-15	1	12
02-54.8722-132.3406-2-12-			0-899020				-5	-5	-5	11	-20	-15	-5	-10	-15	2	5
02-54.8722-132.3406-2-32-			0-899020				-5	-5	-5	15	20	-15	-5	-10	-15	2	5
02-54.8722-132.3406-2-42-			0-899020				-5	-5	-5	16	32	-15	-5	-10	-15	2	4
02-54.8722-132.3406-2-52-			0-899020				-5	-5	-5	10	42	-15	-5	-10	-15	2	4
02-54.8722-132.3406-2-62-			0-899020				-5	-5	-5	19	21	-15	-5	-10	-15	1	5
02-54.8956-132.3397-2-12-			0-899021				-5	-5	-5	40	41	-15	-5	-10	-15	-1	4
02-54.8956-132.3397-2-32-			0-899021				-5	-5	5	28	-20	-15	-5	-10	-15	-1	5
02-54.8956-132.3397-2-42-			0-899021				-5	-5	-5	30	-20	-15	-5	-10	-15	-1	4
02-54.8956-132.3397-2-52-			0-899021													-1	7
02-54.9192-132.3772-2-12-			0-899022				-5	-5	-5	14	-20	-15	-5	-10	-15	2	17
02-54.9192-132.3772-2-32-			0-899022				-5	-5	-5	16	-20	-15	-5	-10	-15	2	18
02-54.9192-132.3772-2-42-			0-899022				-5	-5	-5	17	-20	19	9	-10	-15	2	20
02-54.9192-132.3772-2-52-			0-899022				-5	-5	-5	24	-20	-15	-5	-10	-15	2	14
02-54.9192-132.3772-2-62-			0-899022				-5	-5	-5	20	-20	-15	-5	-10	-15	2	15
02-54.9622-132.4272-2-12-			0-899023				-5	-5	9	103	24	386	-5	-10	-15	1	36
02-54.9622-132.4272-2-32-			0-899023				-5	-5	6	76	27	409	-5	-10	-15	2	41
02-54.9622-132.4272-2-42-			0-899023				-5	-5	9	96	-20	361	-5	-10	-15	2	39
02-54.9622-132.4272-2-52-			0-899023				-5	-5	10	115	-20	340	-5	12	-15	1	31
02-54.9622-132.4272-2-62-			0-899023				-5	-5	-5	120	-20	431	-5	-10	-15	-1	44
02-54.9783-132.4306-2-32-			0-899024				-5	-5	-5	64	-20	73	-5	-10	-15	2	30
02-54.9783-132.4306-2-42-			0-899024				-5	-5	5	67	-20	78	-5	-10	-15	2	38
02-54.9975-132.4319-2-12-			0-899025				-5	-5	-5	56	-20	20	-5	-10	-15	2	34
02-54.9975-132.4319-2-32-			0-899025				-5	-5	-5	44	23	25	-5	-10	-15	2	42
02-54.9975-132.4319-2-42-			0-899025				-5	-5	-5	56	21	21	-5	-10	-15	2	39
02-54.9975-132.4319-2-52-			0-899025				-5	-5	-5	57	-20	39	-5	-10	-15	3	47
02-54.9975-132.4319-2-62-			0-899025				5	-5	-5	114	-20	40	10	-10	19	1	46
02-54.9253-132.4347-2-12-			0-899026				-5	-5	-5	56	34	-15	7	-10	-15	2	23
02-54.9253-132.4347-2-32-			0-899026				-5	-5	-5	40	-20	25	-5	-10	-15	2	20
02-54.9253-132.4347-2-42-			0-899026				-5	-5	5	60	-20	29	-5	-10	-15	2	19
02-54.9253-132.4347-2-52-			0-899026				-5	-5	9	62	-20	20	-5	-10	-15	2	18
02-54.9253-132.4347-2-62-			0-899026				-5	-5	-5	67	-20	-15	6	-10	-15	2	17
02-54.9081-132.4811-2-12-			0-899027				-5	-5	-5	27	28	15	-5	-10	-15	1	3
02-54.9081-132.4811-2-32-			0-899027				-5	-5	-5	29	-20	-15	-5	-10	-15	-1	5
02-54.9081-132.4811-2-42-			0-899027				-5	-5	-5	37	-20	-15	-5	-10	-15	1	4
02-54.9081-132.4811-2-52-			0-899027				-5	-5	-5	37	-20	31	-5	-10	-15	1	4
02-54.9128-132.5133-2-12-			0-899028				-5	-5	5	27	-20	33	-5	-10	-15	1	9
02-54.9128-132.5133-2-32-			0-899028				-5	-5	-5	21	-20	23	-5	-10	-15	1	11
02-54.9128-132.5133-2-42-			0-899028				-5	-5	-5	19	-20	25	-5	-10	-15	-1	10
02-54.9128-132.5133-2-52-			0-899028				-5	-5	-5	27	-20	-15	-5	-10	-15	1	10
02-54.9128-132.5133-2-62-			0-899028				-5	-5	5	37	-20	-15	-5	-10	-15	1	9
02-54.8472-132.6333-2-11-			0-899029				-5	-5	6	59	-20	86	-5	-10	-15	1	7
02-54.8472-132.6333-2-31-			0-899029				-5	-5	-5	92	-20	86	-5	-10	-15	-1	7
02-54.8472-132.6333-2-41-			0-899029				-5	-5	-5	72	-20	46	-5	-10	-15	-1	7
02-54.8472-132.6333-2-51-			0-899029				-5	-5	-5	59	-20	65	13	-10	-15	1	8
02-54.8472-132.6333-2-61-			0-899029				-5	-5	-5	72	-20	44	-5	13	-15	1	10
02-54.9392-132.4722-2-12-			0-899030				-5	7	-5	144	-20	31	-5	-10	-15	5	23

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
02-54.8522-132.0419-2-12-			0-1899019			69810	-0.11	-220	25850	32	265	25.4	31	-2.1	4	1.5	59440	6.1	12130	19	0.3	
02-54.8522-132.0419-2-32-			0-1899019			77470	-0.19	327	22330	31	272	19.7	43	-2.0	-1	1.3	54920	4.8	9687	16	0.4	
02-54.8522-132.0419-2-42-			0-1899019			78570	-0.10	331	26890	31	288	20.7	44	-2.1	4	1.4	57880	4.0	-4542	13	0.3	
02-54.8522-132.0419-2-52-			0-1899019			78860	-0.11	512	21150	38	277	31.5	57	-2.3	3	1.5	59650	4.7	10940	16	0.3	
02-54.8381-132.0535-2-32-			0-1899019			59240	-0.08	943	17720	34	-136	21.4	40	1.5	2	0.9	45970	3.9	18100	23	0.2	
02-54.8722-132.3406-2-12-			0-1899020			74660	-0.09	572	-1310	72	248	4.0	32	-2.3	4	1.1	30380	6.9	14940	42	0.5	
02-54.8722-132.3406-2-32-			0-1899020			72630	-0.10	549	5202	80	357	4.7	33	-2.5	5	1.3	26610	6.6	18230	40	0.5	
02-54.8722-132.3406-2-42-			0-1899020			64940	-0.09	590	5298	76	434	4.6	43	-2.3	4	1.3	32410	5.8	17280	38	0.5	
02-54.8722-132.3406-2-52-			0-1899020			59240	-0.09	585	-1339	77	396	4.2	31	-2.2	5	1.3	30740	6.8	14260	39	0.5	
02-54.8722-132.3406-2-62-			0-1899020			65920	-0.09	572	5610	70	498	4.2	41	-2.3	5	1.2	31940	5.8	12370	35	0.4	
02-54.8956-132.3397-2-12-			0-1899021			43400	-0.14	-345	-1817	41	-162	46.9	45	-3.5	-2	1.1	30020	-2.5	-9012	17	0.2	
02-54.8956-132.3397-2-32-			0-1899021			44900	-0.12	-2774	-2774	41	-220	51.5	53	-3.1	-3	1.1	42400	-2.1		15	-0.2	
02-54.8956-132.3397-2-42-			0-1899021			43140	-0.13	-392	-2671	49	-209	42.7	53	-3.3	-3	0.8	38670	-2.3	-11830	26	-0.2	
02-54.8956-132.3397-2-52-			0-1899021			42480	-0.10		7277	40	-165	36.3	42	-3.4	5	0.9	30300	-1.0	-9606	-8	-0.2	
02-54.9192-132.3772-2-12-			0-1899022			91250	-0.10	-379	-3739	76	-295	65.5	48	-2.7	-3	1.8	53940	7.1	-11190	36	0.4	
02-54.9192-132.3772-2-32-			0-1899022			77120	-0.11		-3839	69	-236	35.0	73	2.4	-2	1.6	37870	7.6	17540	42	0.5	
02-54.9192-132.3772-2-42-			0-1899022			70740	-0.11	-371	-4639	100		64.8	53	-2.8	-3	1.3	59730	7.1		36	0.5	
02-54.9192-132.3772-2-52-			0-1899022			85830	-0.08	746	-2995	88	-241	43.1	47	-2.2	6	1.1	51400	7.7	28740	45	0.5	
02-54.9192-132.3772-2-62-			0-1899022			76190	-0.08	716	-3051	75	-244	54.1	49	2.4	4	1.3	49920	6.8	-9898	44	0.4	
02-54.9622-132.4272-2-12-			0-1899023			51630	-0.12	-221	19010	50	349	82.8	696	3.4	-2	1.5	78300	4.6	-9303	21	0.3	
02-54.9622-132.4272-2-32-			0-1899023			45030	-0.12	-249	25920	39	323	73.6	792	-3.2	-2	1.4	86570	3.3	-6591	20	0.3	
02-54.9622-132.4272-2-42-			0-1899023			49340	-0.14	-306	19560	64	-198	95.3	727	-2.4	-2	1.6	86960	3.4	-8499	25	0.3	
02-54.9622-132.4272-2-52-			0-1899023			49990	-0.15		17950	67	-249	97.1	579	3.9	-3	1.7	79220	3.1		27	0.3	
02-54.9622-132.4272-2-62-			0-1899023			52610	-0.17	-314	22460	75	-238	87.6	608	-2.7	-3	1.6	85850	3.7	-9966	19	0.2	
02-54.9783-132.4306-2-32-			0-1899024			91150	-0.14	1132	6679	24	-137	49.1	226	-3.6	4	1.3	56390	3.9	14120	16	0.4	
02-54.9783-132.4306-2-42-			0-1899024			74690	-0.17	991	8331	47	-191	80.7	233	-2.7	-2	1.9	67350	2.4	23660	24	0.4	
02-54.9975-132.4319-2-12-			0-1899025			73190	-0.11	971	18500	111	300	28.6	88	2.7	6	2.8	64340	4.8	17970	53	0.4	
02-54.9975-132.4319-2-32-			0-1899025			92490	-0.10	1240	15900	94	-156	17.0	79	1.5	5	2.2	50630	4.4	21990	40	0.4	
02-54.9975-132.4319-2-42-			0-1899025			77700	-0.10	979	17710	89	202	22.0	101	2.2	6	2.5	62580	4.9	18860	45	0.4	
02-54.9975-132.4319-2-52-			0-1899025			72350	-0.13	507	17260	156	337	39.6	84	3.1	7	3.8	72180	6.0	11630	62	0.5	
02-54.9975-132.4319-2-62-			0-1899025			69330	-0.13	-346	17260	141	401	39.1	64	3.0	6	3.3	72090	4.4	-8799	61	0.4	
02-54.9253-132.4347-2-12-			0-1899026			78320	-0.14	-292	9522	86	-256	53.1	111	-3.7	4	1.8	79630	3.5	-9740	33	0.3	
02-54.9253-132.4347-2-32-			0-1899026			97150	-0.13	1054	8547	95	-160	30.4	92	-2.0	3	1.7	59560	3.3	28320	37	0.4	
02-54.9253-132.4347-2-42-			0-1899026			75870	-0.14	-319	-3176	101	-248	70.3	122	-3.7	9	2.2	88640	3.3	-9223	41	0.4	
02-54.9253-132.4347-2-52-			0-1899026			79100	-0.14		-5912	92	520	75.5	125	1.5	-3	1.9	95570	3.1		39	0.5	
02-54.9253-132.4347-2-62-			0-1899026			79120	-0.12	-340	-3767	106	-297	66.4	117	-3.2	-3	1.9	96180	3.1	-11300	37	0.5	
02-54.9081-132.4811-2-12-			0-1899027			54180	-0.13		-7591	29		117.0	123	-3.3		1.1	85790	2.5		-10	-0.2	
02-54.9081-132.4811-2-32-			0-1899027			57760	-0.11		-5715	29		127.7	132	-3.2	-3	1.0	85760	3.2		-8	0.3	
02-54.9081-132.4811-2-42-			0-1899027			65440	-0.12		-7758	35		145.1	144	-3.3	-3	1.0	97020	1.6		9	0.4	
02-54.9081-132.4811-2-52-			0-1899027			42030	-0.11		-7841	34		127.4	140	-3.0		1.0	95110	3.5		16	0.2	
02-54.9128-132.5133-2-12-			0-1899028			56950	-0.13	-240	26880	25	445	33.0	124	-3.5	5	1.4	63070	2.9	-5984	11	0.4	
02-54.9128-132.5133-2-32-			0-1899028			63990	-0.11	-159	24850	29	-134	30.7	131	-3.0	4	1.5	61650	3.7	-4612	13	0.3	
02-54.9128-132.5133-2-42-			0-1899028			49000	-0.12	-187	20020	26	-167	36.9	138	-3.1	-1	1.4	69530	2.4	-6078	-7	0.3	
02-54.9128-132.5133-2-52-			0-1899028			51790	-0.13	-241	21770	24	552	39.8	160	-3.6	-2	1.2	81210	2.8	-7323	12	0.4	
02-54.9128-132.5133-2-62-			0-1899028			50900	-0.15	-322	23980	22	540	36.6	149	-4.0	4	1.4	75970	-2.5	-7308	-10	0.3	
02-54.8472-132.6333-2-11-			0-1899029			53190	-0.13		32540	46	1122	171.6	174	-3.5	-3	1.7	85550	2.4		26	0.4	
02-54.8472-132.6333-2-31-			0-1899029			52730	-0.13		26030	53	1121	173.8	173	-3.4	-3	1.4	86930	-2.0		23	0.4	
02-54.8472-132.6333-2-41-			0-1899029			41740	-0.11		30760	47	1578	156.0	168	-3.0		1.4	85080	-1.8		20	0.3	
02-54.8472-132.6333-2-51-			0-1899029			54130	-0.14		36810	41	1198	118.0	178	-3.7	-3	1.6	88940	-2.3		19	0.5	
02-54.8472-132.6333-2-61-			0-1899029			56360	-0.13	1352	33970	55	990	119.3	153	-2.7	-3	1.6	73810	2.7		18	0.3	
02-54.9392-132.4722-2-12-			0-1899030			60690	0.29	-347	106700	563	-218	41.8	167	-2.5	16	11.5	97360	4.9	-9467	292	1.0	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

(4)

DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)															U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
02-54.8522-132.0419-2-12-	02-54.8522-132.0419-2-12-	02-54.8522-132.0419-2-12-	02-54.8522-132.0419-2-12-	02-54.8522-132.0419-2-12-	02-54.8522-132.0419-2-12-	02-54.8522-132.0419-2-12-	17730	1292	25910	-36	-3	21.4	4.3	-400	-1	1	2.5	5416	165	-1.7	140	1.000
02-54.8522-132.0419-2-32-	02-54.8522-132.0419-2-32-	02-54.8522-132.0419-2-32-	02-54.8522-132.0419-2-32-	02-54.8522-132.0419-2-32-	02-54.8522-132.0419-2-32-	02-54.8522-132.0419-2-32-	17330	1916	27130	-32	-2	19.0	3.8	645	-1	-1	2.5	4619	134	2.5	65	0.800
02-54.8522-132.0419-2-42-	02-54.8522-132.0419-2-42-	02-54.8522-132.0419-2-42-	02-54.8522-132.0419-2-42-	02-54.8522-132.0419-2-42-	02-54.8522-132.0419-2-42-	02-54.8522-132.0419-2-42-	19620	1149	25590	-36	-3	20.4	4.1	-438	-1	-1	2.3	5373	159	2.7	142	1.087
02-54.8522-132.0419-2-52-	02-54.8522-132.0419-2-52-	02-54.8522-132.0419-2-52-	02-54.8522-132.0419-2-52-	02-54.8522-132.0419-2-52-	02-54.8522-132.0419-2-52-	02-54.8522-132.0419-2-52-	21330	1395	24940	-37	-3	19.8	4.4	-460	-1	-1	3.4	7193	155	2.9	116	0.794
02-54.8381-132.0636-2-32-	02-54.8381-132.0636-2-32-	02-54.8381-132.0636-2-32-	02-54.8381-132.0636-2-32-	02-54.8381-132.0636-2-32-	02-54.8381-132.0636-2-32-	02-54.8381-132.0636-2-32-	11940	1282	23380	46	-2	12.8	2.9	-418	-1	-1	4.4	2922	100	-1.4	86	0.750
02-54.8722-132.3406-2-12-	02-54.8722-132.3406-2-12-	02-54.8722-132.3406-2-12-	02-54.8722-132.3406-2-12-	02-54.8722-132.3406-2-12-	02-54.8722-132.3406-2-12-	02-54.8722-132.3406-2-12-	-2800	514	34980	-40	-2	9.2	6.8	-379	-2	-1	11.5	4622	97	4.9	-61	0.487
02-54.8722-132.3406-2-32-	02-54.8722-132.3406-2-32-	02-54.8722-132.3406-2-32-	02-54.8722-132.3406-2-32-	02-54.8722-132.3406-2-32-	02-54.8722-132.3406-2-32-	02-54.8722-132.3406-2-32-	-2564	544	31540	-44	-2	7.4	5.8	-362	-2	-1	10.3	4513	106	5.7	36	0.534
02-54.8722-132.3406-2-42-	02-54.8722-132.3406-2-42-	02-54.8722-132.3406-2-42-	02-54.8722-132.3406-2-42-	02-54.8722-132.3406-2-42-	02-54.8722-132.3406-2-42-	02-54.8722-132.3406-2-42-	-2495	564	29930	-41	-2	9.0	7.7	-375	-2	-1	10.4	4395	110	3.4	37	0.490
02-54.8722-132.3406-2-52-	02-54.8722-132.3406-2-52-	02-54.8722-132.3406-2-52-	02-54.8722-132.3406-2-52-	02-54.8722-132.3406-2-52-	02-54.8722-132.3406-2-52-	02-54.8722-132.3406-2-52-	3696	482	31470	-40	-2	9.1	5.2	-353	-1	-1	12.4	4085	95	3.6	48	0.435
02-54.8722-132.3406-2-62-	02-54.8722-132.3406-2-62-	02-54.8722-132.3406-2-62-	02-54.8722-132.3406-2-62-	02-54.8722-132.3406-2-62-	02-54.8722-132.3406-2-62-	02-54.8722-132.3406-2-62-	4827	481	31250	-40	-2	7.5	4.9	-429	-2	-1	10.8	3917	88	3.4	-63	0.463
02-54.8956-132.3397-2-12-	02-54.8956-132.3397-2-12-	02-54.8956-132.3397-2-12-	02-54.8956-132.3397-2-12-	02-54.8956-132.3397-2-12-	02-54.8956-132.3397-2-12-	02-54.8956-132.3397-2-12-	-3950	3172	4404	-69	-3	6.7	3.8		-2	-2	3.7	-2107	80	-3.4	100	1.216
02-54.8956-132.3397-2-32-	02-54.8956-132.3397-2-32-	02-54.8956-132.3397-2-32-	02-54.8956-132.3397-2-32-	02-54.8956-132.3397-2-32-	02-54.8956-132.3397-2-32-	02-54.8956-132.3397-2-32-	-5189	4233	12780	-60	-3	7.6	3.0		-3	-1	3.9	-2466	78	-2.8	-93	1.184
02-54.8956-132.3397-2-42-	02-54.8956-132.3397-2-42-	02-54.8956-132.3397-2-42-	02-54.8956-132.3397-2-42-	02-54.8956-132.3397-2-42-	02-54.8956-132.3397-2-42-	02-54.8956-132.3397-2-42-	-4869	3923	4607	-70	-3	7.2	2.7		-3	-2	4.2	-2241	89	3.2	155	1.071
02-54.8956-132.3397-2-52-	02-54.8956-132.3397-2-52-	02-54.8956-132.3397-2-52-	02-54.8956-132.3397-2-52-	02-54.8956-132.3397-2-52-	02-54.8956-132.3397-2-52-	02-54.8956-132.3397-2-52-	-4210	2926	4342	-56	-3	6.3	2.5		-2	-1	-2.1	-2255	91	-2.7	-75	
02-54.9192-132.3772-2-12-	02-54.9192-132.3772-2-12-	02-54.9192-132.3772-2-12-	02-54.9192-132.3772-2-12-	02-54.9192-132.3772-2-12-	02-54.9192-132.3772-2-12-	02-54.9192-132.3772-2-12-	-5775	9175	17370	113	-3	8.3	4.9		-2	-1	10.9	-2360	106	4.7	82	0.514
02-54.9192-132.3772-2-32-	02-54.9192-132.3772-2-32-	02-54.9192-132.3772-2-32-	02-54.9192-132.3772-2-32-	02-54.9192-132.3772-2-32-	02-54.9192-132.3772-2-32-	02-54.9192-132.3772-2-32-	-4807	5778	16280	95	-3	9.0	5.3		-2	-1	12.2	-1960	158	3.6	89	0.459
02-54.9192-132.3772-2-42-	02-54.9192-132.3772-2-42-	02-54.9192-132.3772-2-42-	02-54.9192-132.3772-2-42-	02-54.9192-132.3772-2-42-	02-54.9192-132.3772-2-42-	02-54.9192-132.3772-2-42-	-5235	9191	15870	79	-3	9.7	5.7		-2	-2	11.0	-2170	115	4.3	-75	0.500
02-54.9192-132.3772-2-52-	02-54.9192-132.3772-2-52-	02-54.9192-132.3772-2-52-	02-54.9192-132.3772-2-52-	02-54.9192-132.3772-2-52-	02-54.9192-132.3772-2-52-	02-54.9192-132.3772-2-52-	-4879	6535	18150	96	-2	9.5	5.2		-1	-1	11.5	-2100	133	4.5	68	0.496
02-54.9192-132.3772-2-62-	02-54.9192-132.3772-2-62-	02-54.9192-132.3772-2-62-	02-54.9192-132.3772-2-62-	02-54.9192-132.3772-2-62-	02-54.9192-132.3772-2-62-	02-54.9192-132.3772-2-62-	-4973	6756	16450	-45	-2	9.3	6.4		-2	-1	12.2	-2164	154	3.8	79	0.475
02-54.9622-132.4272-2-12-	02-54.9622-132.4272-2-12-	02-54.9622-132.4272-2-12-	02-54.9622-132.4272-2-12-	02-54.9622-132.4272-2-12-	02-54.9622-132.4272-2-12-	02-54.9622-132.4272-2-12-	38440	4274	6685	-58	-3	15.1	4.6		-3	1	4.9	6111	128	4.7	486	0.776
02-54.9622-132.4272-2-32-	02-54.9622-132.4272-2-32-	02-54.9622-132.4272-2-32-	02-54.9622-132.4272-2-32-	02-54.9622-132.4272-2-32-	02-54.9622-132.4272-2-32-	02-54.9622-132.4272-2-32-	51250	3013	7397	-59	-3	18.5	3.7		-2	1	3.4	9894	147	-2.5	280	0.794
02-54.9622-132.4272-2-42-	02-54.9622-132.4272-2-42-	02-54.9622-132.4272-2-42-	02-54.9622-132.4272-2-42-	02-54.9622-132.4272-2-42-	02-54.9622-132.4272-2-42-	02-54.9622-132.4272-2-42-	44950	4308	6442	-47	-4	17.0	4.5		-2	-1	4.6	6488	137	-2.4	472	0.783
02-54.9622-132.4272-2-52-	02-54.9622-132.4272-2-52-	02-54.9622-132.4272-2-52-	02-54.9622-132.4272-2-52-	02-54.9622-132.4272-2-52-	02-54.9622-132.4272-2-52-	02-54.9622-132.4272-2-52-	35160	5504	6670	-54	-4	14.6	4.6		-2	-1	5.3	3677	112	4.6	474	0.811
02-54.9622-132.4272-2-62-	02-54.9622-132.4272-2-62-	02-54.9622-132.4272-2-62-	02-54.9622-132.4272-2-62-	02-54.9622-132.4272-2-62-	02-54.9622-132.4272-2-62-	02-54.9622-132.4272-2-62-	44775	4532	6972	-52	-4	15.2	5.9		-2	-1	4.0	4628	123	-2.8	459	0.975
02-54.9783-132.4306-2-32-	02-54.9783-132.4306-2-32-	02-54.9783-132.4306-2-32-	02-54.9783-132.4306-2-32-	02-54.9783-132.4306-2-32-	02-54.9783-132.4306-2-32-	02-54.9783-132.4306-2-32-	15550	2193	11710	-56	-4	31.3	3.9		-2	-1	-2.4	5656	283	-2.7	256	
02-54.9783-132.4306-2-42-	02-54.9783-132.4306-2-42-	02-54.9783-132.4306-2-42-	02-54.9783-132.4306-2-42-	02-54.9783-132.4306-2-42-	02-54.9783-132.4306-2-42-	02-54.9783-132.4306-2-42-	12440	3792	9750	-47	-4	35.1	4.8		-2	-1	2.5	6144	264	5.7	242	1.440
02-54.9975-132.4319-2-12-	02-54.9975-132.4319-2-12-	02-54.9975-132.4319-2-12-	02-54.9975-132.4319-2-12-	02-54.9975-132.4319-2-12-	02-54.9975-132.4319-2-12-	02-54.9975-132.4319-2-12-	14090	2182	25710	59	-3	16.4	8.7		-1	1	8.3	7724	156	4.1	199	0.627
02-54.9975-132.4319-2-32-	02-54.9975-132.4319-2-32-	02-54.9975-132.4319-2-32-	02-54.9975-132.4319-2-32-	02-54.9975-132.4319-2-32-	02-54.9975-132.4319-2-32-	02-54.9975-132.4319-2-32-	14100	1212	32290	63	-2	12.5	7.3	-363	-1	-1	7.1	6658	126	3.2	152	0.549
02-54.9975-132.4319-2-42-	02-54.9975-132.4319-2-42-	02-54.9975-132.4319-2-42-	02-54.9975-132.4319-2-42-	02-54.9975-132.4319-2-42-	02-54.9975-132.4319-2-42-	02-54.9975-132.4319-2-42-	15470	1548	28380	-43	-3	15.6	9.2	-456	-2	-1	8.4	8572	151	4.3	181	0.548
02-54.9975-132.4319-2-52-	02-54.9975-132.4319-2-52-	02-54.9975-132.4319-2-52-	02-54.9975-132.4319-2-52-	02-54.9975-132.4319-2-52-	02-54.9975-132.4319-2-52-	02-54.9975-132.4319-2-52-	14780	2736	22010	-40	-3	17.1	12.0		-2	2	10.4	6475	134	4.0	268	0.596
02-54.9975-132.4319-2-62-	02-54.9975-132.4319-2-62-	02-54.9975-132.4319-2-62-	02-54.9975-132.4319-2-62-	02-54.9975-132.4319-2-62-	02-54.9975-132.4319-2-62-	02-54.9975-132.4319-2-62-	13640	3276	23140	-38	-3	15.6	12.9		-2	1	9.5	5925	140	4.3	277	0.663
02-54.9253-132.4347-2-12-	02-54.9253-132.4347-2-12-	02-5																				

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																		U CONCENTRATION							
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLATOR (eU/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																							
02-54.9392	-132.4722	-2-32-	0-899730	08/24/79	9-	13-12.3-	-5-	7.2-	55-	22-2-7-2-7-3-2-1-2-1-4-3-2-	-1-	8.9-	8.10																		
02-54.9392	-132.4722	-2-42-	0-899730	08/24/79	9-	13-12.3-	-5-	7.2-	55-	22-2-7-2-7-3-2-1-2-1-4-3-2-	-1-	8.9-	7.80																		
02-54.9392	-132.4722	-2-52-	0-899730	08/24/79	9-	13-12.3-	-5-	7.2-	55-	22-2-7-2-7-3-2-1-2-1-4-3-2-	-1-	8.9-	7.90																		
02-54.9392	-132.4722	-2-62-	0-899730	08/24/79	9-	13-12.3-	-5-	7.2-	55-	22-2-7-2-7-3-2-1-2-1-4-3-2-	-1-	8.9-	8.10																		
02-54.9581	-132.4669	-2-12-	0-899731	08/24/79	9-	15-10.1-	-5-	7.3-	51-	10-2-7-1-7-4-2-1-2-1-4-5-2-	-1-	9.2-	7.10																		
02-54.9581	-132.4669	-2-32-	0-899731	08/24/79	9-	15-10.1-	-5-	7.3-	51-	10-2-7-1-7-4-2-1-2-1-4-5-2-	-1-	9.2-	6.20																		
02-54.9581	-132.4669	-2-42-	0-899731	08/24/79	9-	15-10.1-	-5-	7.3-	51-	10-2-7-1-7-4-2-1-2-1-4-5-2-	-1-	9.2-	7.00																		
02-54.9808	-132.4583	-2-12-	0-899732	08/24/79	10-	15-9.9-	-5-	7.3-	71-	13-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.1-	4.30																		
02-54.9808	-132.4583	-2-32-	0-899732	08/24/79	10-	15-9.9-	-5-	7.3-	71-	13-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.1-	3.60																		
02-54.9808	-132.4583	-2-42-	0-899732	08/24/79	10-	15-9.9-	-5-	7.3-	71-	13-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.1-	4.10																		
02-54.9808	-132.4583	-2-52-	0-899732	08/24/79	10-	15-9.9-	-5-	7.3-	71-	13-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.1-	4.00																		
02-54.9808	-132.4583	-2-62-	0-899732	08/24/79	10-	15-9.9-	-5-	7.3-	71-	13-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.1-	4.30																		
02-54.9944	-132.4661	-2-12-	0-899733	08/24/79	11-	16-10.2-	-5-	7.6-	31-	8-2-7-2-7-2-2-1-2-2-3-3-2-	-1-	6.8-	5.10																		
02-54.9944	-132.4661	-2-32-	0-899733	08/24/79	11-	16-10.2-	-5-	7.6-	31-	8-2-7-2-7-2-2-1-2-2-3-3-2-	-1-	6.8-	4.30																		
02-54.9944	-132.4661	-2-42-	0-899733	08/24/79	11-	16-10.2-	-5-	7.6-	31-	8-2-7-2-7-2-2-1-2-2-3-3-2-	-1-	6.8-	5.20																		
02-54.9706	-132.5042	-2-12-	0-899734	08/24/79	10-	16-10.7-	-5-	6.5-	59-	4-2-6-2-6-3-2-1-2-1-3-3-2-	-1-	7.3-	1.00																		
02-54.9706	-132.5042	-2-32-	0-899734	08/24/79	10-	16-10.7-	-5-	6.5-	59-	4-2-6-2-6-3-2-1-2-1-3-3-2-	-1-	7.3-	1.03																		
02-54.9706	-132.5042	-2-42-	0-899734	08/24/79	10-	16-10.7-	-5-	6.5-	59-	4-2-6-2-6-3-2-1-2-1-3-3-2-	-1-	7.3-	0.91																		
02-54.9706	-132.5042	-2-52-	0-899734	08/24/79	10-	16-10.7-	-5-	6.5-	59-	4-2-6-2-6-3-2-1-2-1-3-3-2-	-1-	7.3-	1.11																		
02-54.9517	-132.5372	-2-12-	0-899735	08/24/79	13-	-16.0-C-	-5-	6.8-	32-	4-2-1-1-6-3-2-1-2-1-3-4-1-	-1-	8.4-	1.30																		
02-54.9517	-132.5372	-2-32-	0-899735	08/24/79	13-	-16.0-C-	-5-	6.8-	32-	4-2-1-1-6-3-2-1-2-1-3-4-1-	-1-	8.4-	1.28																		
02-54.9517	-132.5372	-2-42-	0-899735	08/24/79	13-	-16.0-C-	-5-	6.8-	32-	4-2-1-1-6-3-2-1-2-1-3-4-1-	-1-	8.4-	1.45																		
02-54.9517	-132.5372	-2-52-	0-899735	08/24/79	13-	-16.0-C-	-5-	6.8-	32-	4-2-1-1-6-3-2-1-2-1-3-4-1-	-1-	8.4-	1.36																		
02-54.9517	-132.5372	-2-62-	0-899735	08/24/79	13-	-16.0-C-	-5-	6.8-	32-	4-2-1-1-6-3-2-1-2-1-3-4-1-	-1-	8.4-	1.37																		
02-54.9464	-132.5681	-2-12-	0-899737	08/24/79	13-	16-10.7-	-5-	7.5-	44-	6-2-6-2-6-3-2-1-2-1-3-4-2-	-1-	9.3-	1.30																		
02-54.9464	-132.5681	-2-32-	0-899737	08/24/79	13-	16-10.7-	-5-	7.5-	44-	6-2-6-2-6-3-2-1-2-1-3-4-2-	-1-	9.3-	1.40																		
02-54.9464	-132.5681	-2-42-	0-899737	08/24/79	13-	16-10.7-	-5-	7.5-	44-	6-2-6-2-6-3-2-1-2-1-3-4-2-	-1-	9.3-	1.60																		
02-54.9464	-132.5681	-2-52-	0-899737	08/24/79	13-	16-10.7-	-5-	7.5-	44-	6-2-6-2-6-3-2-1-2-1-3-4-2-	-1-	9.3-	1.50																		
02-54.9464	-132.5681	-2-62-	0-899737	08/24/79	13-	16-10.7-	-5-	7.5-	44-	6-2-6-2-6-3-2-1-2-1-3-4-2-	-1-	9.3-	1.40																		
02-54.9781	-132.5672	-2-12-	0-899739	08/24/79	14-	17-10.3-	-5-	7.5-	42-	6-2-6-2-6-3-2-1-2-1-3-3-1-	-1-	9.0-	1.55																		
02-54.9781	-132.5672	-2-32-	0-899739	08/24/79	14-	17-10.3-	-5-	7.5-	42-	6-2-6-2-6-3-2-1-2-1-3-3-1-	-1-	9.0-	1.40																		
02-54.9781	-132.5672	-2-42-	0-899739	08/24/79	14-	17-10.3-	-5-	7.5-	42-	6-2-6-2-6-3-2-1-2-1-3-3-1-	-1-	9.0-	1.60																		
02-54.9781	-132.5672	-2-52-	0-899739	08/24/79	14-	17-10.3-	-5-	7.5-	42-	6-2-6-2-6-3-2-1-2-1-3-3-1-	-1-	9.0-	1.67																		
02-54.9781	-132.5672	-2-62-	0-899739	08/24/79	14-	17-10.3-	-5-	7.5-	42-	6-2-6-2-6-3-2-1-2-1-3-3-1-	-1-	9.0-	1.74																		
02-54.9911	-132.5347	-2-12-	0-899739	08/24/79	15-	17-13.8-	-5-	7.5-	66-	5-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.8-	2.56																		
02-54.9911	-132.5347	-2-32-	0-899739	08/24/79	15-	17-13.8-	-5-	7.5-	66-	5-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.8-	1.99																		
02-54.9911	-132.5347	-2-42-	0-899739	08/24/79	15-	17-13.8-	-5-	7.5-	66-	5-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.8-	2.58																		
02-54.9911	-132.5347	-2-52-	0-899739	08/24/79	15-	17-13.8-	-5-	7.5-	66-	5-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.8-	2.69																		
02-54.9911	-132.5347	-2-62-	0-899739	08/24/79	15-	17-13.8-	-5-	7.5-	66-	5-2-7-2-7-3-2-1-2-1-3-4-2-	-1-	8.8-	2.61																		
02-54.9375	-132.9700	-2-12-	0-899741	08/24/79	17-	16-9.8-	-5-	7.8-	90-	5-2-6-2-6-3-3-1-2-1-4-5-1-	-1-	9.1-	2.70																		
02-54.9375	-132.9700	-2-32-	0-899741	08/24/79	17-	16-9.8-	-5-	7.8-	90-	5-2-6-2-6-3-3-1-2-1-4-5-1-	-1-	9.1-	2.10																		
02-54.9375	-132.9700	-2-42-	0-899741	08/24/79	17-	16-9.8-	-5-	7.8-	90-	5-2-6-2-6-3-3-1-2-1-4-5-1-	-1-	9.1-	2.60																		
02-54.9553	-132.9819	-2-12-	0-899742	08/24/79	19-	16-10.0-C-	-5-	8.0-	116-	10-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	7.1-	6.20																		
02-54.9553	-132.9819	-2-32-	0-899742	08/24/79	19-	16-10.0-C-	-5-	8.0-	116-	10-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	7.1-	4.60																		
02-54.9553	-132.9819	-2-42-	0-899742	08/24/79	19-	16-10.0-C-	-5-	8.0-	116-	10-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	7.1-	5.80																		
02-54.9553	-132.9819	-2-52-	0-899742	08/24/79	19-	16-10.0-C-	-5-	8.0-	116-	10-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	7.1-	6.00																		
02-54.9553	-132.9819	-2-62-	0-899742	08/24/79	19-	16-10.0-C-	-5-	8.0-	116-	10-2-7-2-7-3-3-1-2-1-4-4-1-	-1-	7.1-	5.50																		
02-54.9400	-132.9614	-2-12-	0-899743	08/24/79	19-	16-11.0-	-5-	7.7-	82-	6-2-7-2-7-3-2-1-2-2-4-5-1-	-1-	8.3-	3.60																		
02-54.9400	-132.9614	-2-32-	0-899743	08/24/79	19-	16-11.0-	-5-	7.7-	82-	6-2-7-2-7-3-2-1-2-2-4-5-1-	-1-	8.3-	2.60																		
02-54.9400	-132.9614	-2-42-	0-899743	08/24/79	19-	16-11.0-	-5-	7.7-	82-	6-2-7-2-7-3-2-1-2-2-4-5-1-	-1-	8.3-	3.30																		
02-54.9400	-132.9614	-2-52-	0-899743	08/24/79	19-	16-11.0-	-5-	7.7-	82-	6-2-7-2-7-3-2-1-2-2-4-5-1-	-1-	8.3-	4.10																		

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APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
02-54.9392-132.4722-2-32-	0-499030	55900	0.32	-195	151100	543	-197	23.6	139	-1.9	24	13.9	92330	6.6	-6492	238	1.4					
02-54.9392-132.4722-2-42-	0-499030	70010	0.21	433	109900	497	-204	31.0	129	-2.0	16	9.9	76150	4.6	-7081	215	0.8					
02-54.9392-132.4722-2-52-	0-499030	79960	0.30	-270	79030	604	-213	45.4	126	-2.3	15	9.8	73740	4.9	-7641	235	0.8					
02-54.9392-132.4722-2-62-	0-499030	77560	0.40		77170	614	-255	53.8	140	-2.7	16	9.7	91820	5.0	-11040	262	0.8					
02-54.9581-132.4669-2-12-	0-499031	65270	-0.11	394	7018	52	-204	44.3	180	-2.2	4	1.7	79350	3.7	11520	27	0.4					
02-54.9581-132.4669-2-32-	0-499031	67130	-0.09	459	6542	44	-150	33.1	148	4.7	5	1.5	64950	3.7	16570	29	0.3					
02-54.9581-132.4669-2-42-	0-499031	67450	-0.11	441	3898	55	-165	46.3	138	6.0	4	1.9	69760	4.0	16490	29	0.4					
02-54.9808-132.4583-2-12-	0-499032	76490	-0.16	949	12490	52	319	53.8	171	-3.3	5	2.1	73720	3.0	-8663	26	0.4					
02-54.9808-132.4583-2-32-	0-499032	90760	-0.11	1154	10080	38	-148	39.4	138	-2.2	4	1.5	53400	2.6	14890	18	0.4					
02-54.9808-132.4583-2-42-	0-499032	77950	-0.12	972	11700	43	-154	44.5	138	-2.7	5	1.7	59190	3.6	7925	20	0.3					
02-54.9808-132.4583-2-52-	0-499032	74450	-0.14	1104	10120	43	-170	66.0	158	-2.9	4	2.0	60940	2.3	11540	27	0.5					
02-54.9808-132.4583-2-62-	0-499032	79450	-0.18	985	11120	60	-185	73.3	176	-3.6	4	1.7	86230	2.3	13600	26	0.4					
02-54.9944-132.4661-2-12-	0-499033	66060	-0.11	-338	14260	62	-302	53.3	84	-2.3	3	1.6	60550	2.6	-11340	28	0.3					
02-54.9944-132.4661-2-32-	0-499033	70720	-0.09	377	9138	49	-174	30.7	74	-1.8	4	1.6	50060	3.3	13130	28	0.4					
02-54.9944-132.4661-2-42-	0-499033	55900	-0.12	-325	12910	65	-242	54.3	80	-2.3	3	1.6	58180	4.0	-9259	28	0.4					
02-54.9706-132.5042-2-12-	0-499034	-36220	-0.16			50		294.7	90	-3.3		1.4	178100	2.6		14	0.4					
02-54.9706-132.5042-2-32-	0-499034	-29750	-0.12			42		262.5	65	-2.6		1.3	142800	1.8		-8	0.3					
02-54.9706-132.5042-2-42-	0-499034	-47700	-0.15			48		388.1	122	-3.0		1.0	161000	-1.4		16	0.3					
02-54.9706-132.5042-2-52-	0-499034	-50790	-0.16			48		305.8	84	-3.2		1.7	143400	-1.5		-7	0.2					
02-54.9517-132.5372-2-12-	0-499035	-35630	-0.18			56		288.5	133	-3.6		1.1	174900	-1.6		-11	0.3					
02-54.9517-132.5372-2-32-	0-499035	47570	-0.13			30		89.7	95	-2.7		1.0	101200	1.9		-8	0.3					
02-54.9517-132.5372-2-42-	0-499035	56330	-0.14			36		262.8	71	-2.9		1.2	137300	2.1		-8	-0.1					
02-54.9517-132.5372-2-52-	0-499035	41910	-0.16			37		170.0	70	-3.2		1.0	112300	-1.5		-8	0.2					
02-54.9517-132.5372-2-62-	0-499035	44850	-0.19			51		190.7	113	-3.9		1.4	152300	-1.9		-11	-0.2					
02-54.9464-132.5681-2-12-	0-499037	35590	-0.11			34	-249	60.4	120	-2.3	-2	1.4	89100	2.8	-10640	-6	0.4					
02-54.9464-132.5681-2-32-	0-499037	75660	-0.10	-316	15430	35	-221	45.5	100	-2.1	5	1.3	84970	2.3	-9300	10	0.3					
02-54.9464-132.5681-2-42-	0-499037	72530	-0.14	-320	10410	42	-232	55.6	106	-2.8	7	1.5	87640	2.4	-10360	15	0.5					
02-54.9464-132.5681-2-52-	0-499037	73220	-0.16	-381	8704	45	-268	63.4	116	-3.2	3	1.6	119000	3.0	-11810	19	0.5					
02-54.9464-132.5681-2-62-	0-499037	95240	-0.12	-357	17370	37	-247	56.7	98	-2.6	3	1.5	93430	3.5	-10940	-7	0.4					
02-54.9781-132.5672-2-12-	0-499038	79070	-0.12		-9515	28		42.3	124	-2.5		1.2	86880	2.3		13	0.3					
02-54.9781-132.5672-2-32-	0-499038	82720	-0.11		11430	32	-235	29.9	115	-2.3	3	1.1	69000	2.9	-11700	11	0.3					
02-54.9781-132.5672-2-42-	0-499038	81910	-0.15		-5013	33	-321	36.5	140	-3.1	4	1.5	99240	2.6		14	0.4					
02-54.9781-132.5672-2-52-	0-499038	72470	-0.13		-9228	29		41.5	134	-2.7		1.4	89240	2.6		15	0.5					
02-54.9781-132.5672-2-62-	0-499038	77130	-0.14		-7899	28		38.8	114	2.5		1.2	83390	3.1		17	0.4					
02-54.9911-132.5347-2-12-	0-499039	58470	-0.11		-5908	34		46.9	180	-2.3		1.0	69080	3.8		11	0.3					
02-54.9911-132.5347-2-32-	0-499039	67810	-0.11	-350	7599	32	-208	27.5	101	-2.2	4	1.1	90470	4.3	-9878	16	0.3					
02-54.9911-132.5347-2-42-	0-499039	61240	-0.10		-5746	33		50.5	237	-2.1		1.1	73700	2.2		13	0.3					
02-54.9911-132.5347-2-52-	0-499039	55290	-0.11		-5759	30		54.7	211	-2.3		1.2	78400	2.8		19	0.4					
02-54.9911-132.5347-2-62-	0-499039	69950	-0.14		-5322	37		54.0	241	-2.7		1.2	77350	2.5		14	0.4					
02-54.9875-132.9700-2-12-	0-499041	65380	-0.15	-198	13280	27	-130	24.9	173	-2.3	4	1.3	71970	2.4	11780	13	0.3					
02-54.9875-132.9700-2-32-	0-499041	62890	-0.15	-160	21140	26	-112	22.8	92	-2.2	4	1.3	68380	2.5	10150	13	0.4					
02-54.9875-132.9700-2-42-	0-499041	62650	-0.14	-239	21900	26	-152	26.6	149	-3.7	4	1.5	79340	3.3	-6064	16	0.4					
02-54.9553-132.9819-2-12-	0-499042	59350	-0.13	874	8022	49		350	23.1	87	-1.9	4	1.6	54410	3.1	17650	29	0.4				
02-54.9553-132.9819-2-32-	0-499042	59680	0.12	940	9176	34		235	17.5	79	-1.6	4	1.3	48190	3.4	13170	17	0.3				
02-54.9553-132.9819-2-42-	0-499042	59650	-0.13	780	7505	49		367	21.4	95	-2.0	4	1.5	52120	3.9	14670	24	0.4				
02-54.9553-132.9819-2-52-	0-499042	66500	-0.13	1069	7723	47		346	23.5	253	-3.3	4	1.4	62460	4.4	19900	29	0.5				
02-54.9553-132.9819-2-62-	0-499042	69670	-0.16	1270	4909	50		340	23.1	271	-2.4	6	1.2	59710	4.7	17900	20	0.5				
02-54.9400-132.9614-2-12-	0-499043	52850	-0.15	-371	12420	34	-230	31.7	118	-2.3	4	1.4	54770	2.7	-10810	-11	0.5					
02-54.9400-132.9614-2-32-	0-499043	63310	-0.14	541	12470	33	-149	22.4	110	-2.1	4	1.2	45880	1.8	10830	14	0.3					
02-54.9400-132.9614-2-42-	0-499043	58190	-0.13	-356	13700	31	-211	28.1	141	-3.4	4	1.4	57300	3.7	-9624	17	0.3					
02-54.9400-132.9614-2-52-	0-499043	51470	-0.17		16990	40	-273	40.4	104	-2.6	-3	1.4	61490	2.7		18	0.4					

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)													U/Th RATIO		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)														
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn
02-54.9392-132.4722-2-32-			0-499030			20240	4197	19180	-35	-2	23.7	55.2	1537	-2	4	32.9	7128	493	12.5	190	0.246
02-54.9392-132.4722-2-42-			0-499030			29180	5138	21140	-37	-2	23.0	39.5		-2	3	32.2	5812	332	7.6	203	0.242
02-54.9392-132.4722-2-52-			0-499030			32970	5404	22990	-40	-3	19.0	39.0	2743	-2	3	35.1	5171	289	8.1	201	0.225
02-54.9392-132.4722-2-62-			0-499030			37510	6164	24130	-50	-3	22.1	39.7	1011	-2	3	41.2	-1920	313	10.6	236	0.197
02-54.9581-132.4567-2-12-			0-499031			16060	3293	14790	-40	7	20.5	5.2		-1	1	5.6	3644	411	4.4	534	1.268
02-54.9581-132.4569-2-32-			0-499031			15600	2319	15490	-32	4	17.7	5.1		-1	1	5.3	3443	379	2.6	437	1.170
02-54.9581-132.4669-2-42-			0-499031			12140	3265	14710	-35	6	19.9	5.2		-1	-1	5.4	3691	409	3.9	472	1.296
02-54.9808-132.4583-2-12-			0-499032			12050	2524	15920	-55	-4	31.0	5.7		-2	-1	3.8	5477	214	-3.0	370	1.132
02-54.9808-132.4583-2-32-			0-499032			13610	1759	15180	-37	-3	24.5	4.8	-449	-1	1	3.6	5024	227	3.4	207	1.000
02-54.9808-132.4583-2-42-			0-499032			13910	2236	15260	-44	-3	25.4	5.2		-2	-1	3.0	4977	225	4.3	255	1.367
02-54.9808-132.4593-2-52-			0-499032			11170	2941	14940	-46	-3	23.7	4.5		-2	-1	2.3	4601	211	-2.4	306	1.739
02-54.9808-132.4583-2-62-			0-499032			12350	3233	15270	-63	-4	32.3	5.8		-2	-1	3.7	4412	251	-3.2	428	1.162
02-54.9944-132.4661-2-12-			0-499033			-5490	5232	13370	-42	-3	17.5	5.5		-2	-1	4.7	2927	158	-1.9	206	1.085
02-54.9944-132.4661-2-32-			0-499033			7239	2492	20710	-30	-2	19.8	5.1		-1	-1	4.9	3711	167	-1.5	-69	0.878
02-54.9944-132.4661-2-42-			0-499033			-4807	4505	14900	-39	-3	17.5	6.5		-1	1	4.7	3421	133	3.2	271	1.106
02-54.9706-132.5042-2-12-			0-499034				50460	9398	-80	-4	15.6	4.1		-2	-1	-1.9			-3.0	1027	
02-54.9706-132.5042-2-32-			0-499034			43690	7269	-61	-3	13.8	3.0			-2	-1	-1.4			-2.1	711	
02-54.9706-132.5042-2-42-			0-499034			74060	9018	-76	-4	13.7	3.4			-2	-1	-1.7			-2.4	1282	
02-54.9706-132.5042-2-52-			0-499034			70910	11050	-73	-4	13.6	3.2			-2	-1	-1.8			-2.7	1027	
02-54.9517-132.5372-2-12-			0-499036			54560	5423	-85	-4	17.8	3.4			-3	-1	3.2			-2.7	172	0.406
02-54.9517-132.5372-2-32-			0-499036			21720	12990	-54	-3	16.5	2.8			-2	-1	-1.5		186	-2.2	104	
02-54.9517-132.5372-2-42-			0-499036			44830	9665	-70	-3	13.6	2.8			-2	-1	-1.6			-2.5	206	
02-54.9517-132.5372-2-52-			0-499036			34220	10180	-64	-4	13.9	2.6			-2	-1	2.9			-2.6	-45	0.469
02-54.9517-132.5372-2-62-			0-499036			32270	10550	-84		13.4	3.3			-3	-1	4.0			-2.9	177	0.343
02-54.9464-132.5681-2-12-			0-499037			14560	5307	25990	-41	-3	25.0	3.6		-1	1	2.0	11250	238	3.4	161	0.650
02-54.9464-132.5681-2-32-			0-499037			15760	5275	23750	-37	-3	25.5	4.3		-1	-1	2.4	5484	224	3.8	179	0.583
02-54.9464-132.5681-2-42-			0-499037			18950	5681	23650	-44	-3	25.1	3.6		-2	-1	1.7	3801	179	2.9	161	0.941
02-54.9464-132.5681-2-52-			0-499037			9825	6161	27500	-56	-4	31.2	5.0		-2	-1	-1.8	4134	171	5.7	358	
02-54.9464-132.5681-2-62-			0-499037			20990	5797	29220	-45	-3	25.9	4.2		-2	-1	2.5	4103	212	4.7	192	0.560
02-54.9781-132.5672-2-12-			0-499039			-12435	14330	23110	-44	-3	24.9	4.0		-2	-1	2.0		217	-2.3	164	0.775
02-54.9781-132.5672-2-32-			0-499039			23260	5300	27050	-35	-3	24.8	3.3		-1	-1	2.5	3999	240	2.5	-38	0.560
02-54.9781-132.5672-2-42-			0-499039			15990	7396	25910	-53	-4	32.9	4.7		-2	-1	2.8	7096	217	-2.6	127	0.571
02-54.9781-132.5672-2-52-			0-499039			-12705	14310	24920	-45	-3	26.7	4.0		-2	-1	3.7		236	-2.1	156	0.451
02-54.9781-132.5672-2-62-			0-499039			-11015	13440	23720	-52	-3	26.1	3.6		-2	-1	2.7		280	-2.3	180	0.644
02-54.9911-132.5347-2-12-			0-499039			-9485	7113	24550	-37	-3	19.4	3.2		-1	-1	2.9		144	3.2	106	0.883
02-54.9911-132.5347-2-32-			0-499039			14120	3183	23560	-38	-3	23.1	4.2		-1	1	3.2	4601	172	2.9	121	0.622
02-54.9911-132.5347-2-42-			0-499039			-3879	7739	23610	-39	-3	23.2	3.5		-1	-1	3.9		158	-1.8	145	0.662
02-54.9911-132.5347-2-52-			0-499039			-2530	8134	24740	-43	-3	20.7	3.9		-2	-1	3.3		131	-1.9	137	0.815
02-54.9911-132.5347-2-62-			0-499039			-9815	8232	26340	-45	-3	21.5	3.1		-2	-1	3.9		200	2.6	88	0.669
02-54.9875-132.9700-2-12-			0-499041			15610	1332	25020	-41	-4	30.7	4.5	-431	-1	-1	-1.3	7209	244	3.9	-13	
02-54.9875-132.9700-2-32-			0-499041			19770	1755	23370	-32	-4	31.7	3.7	-343	-1	-1	1.7	7281	262	3.6	-38	1.235
02-54.9875-132.9700-2-42-			0-499041			17490	1361	23840	-59	-4	33.0	4.0		-2	-2	2.5	7213	245	-2.8	133	1.040
02-54.9553-132.9819-2-12-			0-499042			12800	1913	19030	-33	-3	19.1	5.0	-492	-1	-1	4.5	4012	149	2.7	155	1.378
02-54.9553-132.9819-2-32-			0-499042			12995	1337	17540	-27	-3	19.0	4.3	-376	-1	-1	3.5	4662	188	2.9	132	1.314
02-54.9553-132.9819-2-42-			0-499042			14950	1855	18910	-30	-3	17.7	4.1	-467	-1	1	4.7	5392	187	3.9	136	1.234
02-54.9553-132.9819-2-52-			0-499042			14500	2235	18750	-55	-3	20.9	5.5		-2	1	4.9	4358	195	2.7	162	1.224
02-54.9553-132.9819-2-62-			0-499042			14400	1990	19240	-82	-4	21.7	5.9		-2	-1	6.4	4306	212	3.9	193	0.859
02-54.9400-132.9614-2-12-			0-499043			11240	3257	18080	-42	-4	21.2	4.3		-2	1	2.9	4228	109	-2.2	100	1.241
02-54.9400-132.9614-2-32-			0-499043			14405	2034	21240	-32	-3	19.9	3.8		-1	-1	3.2	5823	141	-2.6	129	0.812
02-54.9400-132.9614-2-42-			0-499043			12440	2939	20670	-54	-3	23.1	4.4		-3	1	3.8	5368	146	3.8	83	0.868
02-54.9400-132.9614-2-52-			0-499043			13005	4999	16050	-45	-4	21.5	5.0		-2	-1	3.5	4153	126	2.7	221	1.171

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER					LASL SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION						
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REFLUTATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (eU/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																							
02-54	9400-132.9514	-2-52	0-890743	09/24/79	19	16-11.0	-5	7.7	92	6-2-7-2-7-3-2-1-2-2-4-5-1	-1	8.3	4.20																		
02-54	8017-132.9583	-2-32	0-890744	09/23/79	12	22-10.9	-5	6.9	63	33-3-1-2-6-4-3-1-2-1-5-5-2	-1	10.0	5.20																		
02-54	8017-132.9593	-2-42	0-890744	09/23/79	12	22-10.9	-5	6.9	63	33-3-1-2-6-4-3-1-2-1-5-5-2	-1	10.0	6.70																		
02-54	9017-132.0583	-2-71	0-890744	09/23/79	12	22-10.9	-5	6.9	63	33-3-1-2-6-4-3-1-2-1-5-5-2	-1	10.0	5.50																		
02-54	9017-132.0583	-2-72	0-890744	09/23/79	12	22-10.9	-5	6.9	63	33-3-1-2-6-4-3-1-2-1-5-5-2	-1	10.0	6.70																		
02-54	9017-132.0583	-2-73	0-890744	09/23/79	12	22-10.9	-5	6.9	63	33-3-1-2-6-4-3-1-2-1-5-5-2	-1	10.0	7.80																		
02-54	9017-132.0583	-2-74	0-890744	09/23/79	12	22-10.9	-5	6.9	63	33-3-1-2-6-4-3-1-2-1-5-5-2	-1	10.0	8.70																		
02-54	9017-132.0583	-2-75	0-890744	09/23/79	12	22-10.9	-5	6.9	63	33-3-1-2-6-4-3-1-2-1-5-5-2	-1	10.0	9.50																		
02-54	7531-132.0167	-2-32	0-890745	09/23/79	13	22-15.2	-5	7.0	27	2-3-1-1-6-4-3-1-2-1-5-5-2	-1	9.7	8.97																		
02-54	7531-132.0167	-2-42	0-890745	09/23/79	13	22-15.2	-5	7.0	27	2-3-1-1-6-4-3-1-2-1-5-5-2	-1	9.7	10.89																		
02-54	7531-132.0167	-2-71	0-890745	09/23/79	13	22-15.2	-5	7.0	27	2-3-1-1-6-4-3-1-2-1-5-5-2	-1	9.7	4.80																		
02-54	7531-132.0167	-2-72	0-890745	09/23/79	13	22-15.2	-5	7.0	27	2-3-1-1-6-4-3-1-2-1-5-5-2	-1	9.7	6.40																		
02-54	7589-132.3692	-2-12	0-890746	09/23/79	14	22-12.4	-5	4.7	245	3-1-2-6-2-2-2-2-1-5-3-2	-1	5.7	1.50																		
02-54	7589-132.3692	-2-32	0-890746	09/23/79	14	22-12.4	-5	4.7	245	3-1-2-6-2-2-2-2-1-5-3-2	-1	5.7	1.20																		
02-54	7589-132.3692	-2-42	0-890746	09/23/79	14	22-12.4	-5	4.7	245	3-1-2-6-2-2-2-2-1-5-3-2	-1	5.7	1.40																		
02-54	7589-132.3692	-2-52	0-890746	09/23/79	14	22-12.4	-5	4.7	245	3-1-2-6-2-2-2-2-1-5-3-2	-1	5.7	1.70																		
02-54	7589-132.3692	-2-62	0-890746	09/23/79	14	22-12.4	-5	4.7	245	3-1-2-6-2-2-2-2-1-5-3-2	-1	5.7	1.70																		
02-54	7589-132.3692	-2-71	0-890746	09/23/79	14	22-12.4	-5	4.7	245	3-1-2-6-2-2-2-2-1-5-3-2	-1	5.7	1.50																		
02-54	7589-132.3692	-2-72	0-890746	09/23/79	14	22-12.4	-5	4.7	245	3-1-2-6-2-2-2-2-1-5-3-2	-1	5.7	1.60																		
02-54	7589-132.3692	-2-73	0-890746	09/23/79	14	22-12.4	-5	4.7	245	3-1-2-6-2-2-2-2-1-5-3-2	-1	5.7	1.80																		
02-54	7589-132.3692	-2-74	0-890746	09/23/79	14	22-12.4	-5	4.7	245	3-1-2-6-2-2-2-2-1-5-3-2	-1	5.7	1.70																		
02-54	7589-132.3692	-2-75	0-890746	09/23/79	14	22-12.4	-5	4.7	245	3-1-2-6-2-2-2-2-1-5-3-2	-1	5.7	1.80																		
02-54	7933-132.6317	-2-32	0-890749	09/23/79	17	20-11.6	-5	6.7	91	38-2-5-3-6-3-3-1-2-1-5-3-2	-1	9.6	2.58																		
02-54	7933-132.6317	-2-42	0-890749	09/23/79	17	20-11.6	-5	6.7	91	38-2-5-3-6-3-3-1-2-1-5-3-2	-1	9.6	2.73																		
02-54	7733-132.6131	-2-12	0-890749	09/23/79	19	19-11.8	-5	6.9	102	13-2-5-1-6-4-3-1-2-1-5-4-2	-1	9.4	1.10																		
02-54	7733-132.6131	-2-32	0-890749	09/23/79	19	19-11.8	-5	6.9	102	13-2-5-1-6-4-3-1-2-1-5-4-2	-1	9.4	1.20																		
02-54	7733-132.6131	-2-42	0-890749	09/23/79	19	19-11.8	-5	6.9	102	13-2-5-1-6-4-3-1-2-1-5-4-2	-1	9.4	1.20																		
02-54	7669-132.6272	-2-12	0-890750	09/23/79	19	20-10.8	-5	6.8	126	9-2-5-3-6-3-2-1-2-1-5-3-2	-1	9.6	1.30																		
02-54	7669-132.6272	-2-32	0-890750	09/23/79	19	20-10.8	-5	6.8	126	9-2-5-3-6-3-2-1-2-1-5-3-2	-1	9.6	1.30																		
02-54	7669-132.6272	-2-42	0-890750	09/23/79	19	20-10.8	-5	6.8	126	9-2-5-3-6-3-2-1-2-1-5-3-2	-1	9.6	1.40																		
02-54	7669-132.6272	-2-52	0-890750	09/23/79	19	20-10.8	-5	6.8	126	9-2-5-3-6-3-2-1-2-1-5-3-2	-1	9.6	1.20																		
02-54	7669-132.6272	-2-62	0-890750	09/23/79	19	20-10.8	-5	6.8	126	9-2-5-3-6-3-2-1-2-1-5-3-2	-1	9.6	1.30																		
02-54	7644-132.7514	-2-12	0-890751	09/23/79	19	17-12.3	-5	7.5	95	6-2-5-2-6-4-3-1-2-1-5-4-2	-1	10.2	1.80																		
02-54	7644-132.7514	-2-32	0-890751	09/23/79	19	17-12.3	-5	7.5	95	6-2-5-2-6-4-3-1-2-1-5-4-2	-1	10.2	1.30																		
02-54	7644-132.7514	-2-42	0-890751	09/23/79	19	17-12.3	-5	7.5	95	6-2-5-2-6-4-3-1-2-1-5-4-2	-1	10.2	1.70																		
02-54	7644-132.7514	-2-52	0-890751	09/23/79	19	17-12.3	-5	7.5	95	6-2-5-2-6-4-3-1-2-1-5-4-2	-1	10.2	2.50																		
02-54	7644-132.7514	-2-62	0-890751	09/23/79	19	17-12.3	-5	7.5	95	6-2-5-2-6-4-3-1-2-1-5-4-2	-1	10.2	2.80																		
02-54	7567-132.7500	-2-12	0-890752	09/23/79	20	16-10.3	-5	7.5	111	2-2-5-2-6-3-3-1-2-1-5-4-2	-1	10.1	1.90																		
02-54	7567-132.7500	-2-32	0-890752	09/23/79	20	16-10.3	-5	7.5	111	2-2-5-2-6-3-3-1-2-1-5-4-2	-1	10.1	1.50																		
02-54	7567-132.7500	-2-42	0-890752	09/23/79	20	16-10.3	-5	7.5	111	2-2-5-2-6-3-3-1-2-1-5-4-2	-1	10.1	1.80																		
02-54	7567-132.7500	-2-52	0-890752	09/23/79	20	16-10.3	-5	7.5	111	2-2-5-2-6-3-3-1-2-1-5-4-2	-1	10.1	2.10																		
02-54	7567-132.7500	-2-62	0-890752	09/23/79	20	16-10.3	-5	7.5	111	2-2-5-2-6-3-3-1-2-1-5-4-2	-1	10.1	2.20																		
02-54	7750-133.5325	-2-12	0-890753	09/24/79	9	20-10.7	-5	5.3	143	29-3-1- - -4-3-1-2-1-5-5-1	-1	9.9	4.50																		
02-54	7750-133.5325	-2-32	0-890753	09/24/79	9	20-10.7	-5	5.3	143	29-3-1- - -4-3-1-2-1-5-5-1	-1	9.9	4.00																		
02-54	7750-133.5325	-2-42	0-890753	09/24/79	9	20-10.7	-5	5.3	143	29-3-1- - -4-3-1-2-1-5-5-1	-1	9.9	4.13																		
02-54	7750-133.5325	-2-52	0-890753	09/24/79	9	20-10.7	-5	5.3	143	29-3-1- - -4-3-1-2-1-5-5-1	-1	9.9	5.00																		
02-54	7750-133.5325	-2-62	0-890753	09/24/79	9	20-10.7	-5	5.3	143	29-3-1- - -4-3-1-2-1-5-5-1	-1	9.9	3.96																		
02-54	7750-133.5325	-2-71	0-890753	09/24/79	9	20-10.7	-5	5.3	143	29-3-1- - -4-3-1-2-1-5-5-1	-1	9.9	3.59																		
02-54	7750-133.5325	-2-72	0-890753	09/24/79	9	20-10.7	-5	5.3	143	29-3-1- - -4-3-1-2-1-5-5-1	-1	9.9	5.00																		
02-54	7750-133.5325	-2-73	0-890753	09/24/79	9	20-10.7	-5	5.3	143	29-3-1- - -4-3-1-2-1-5-5-1	-1	9.9	5.57																		
02-54	7750-133.5325	-2-74	0-890753	09/24/79	9	20-10.7	-5	5.3	143	29-3-1- - -4-3-1-2-1-5-5-1	-1	9.9	7.01																		

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER						LAS SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE									ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY Concentrations in weight ppm		
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE		Concentrations reported in weight parts per million (ppm)									Be	Li	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W			
02-54.9400-132.9514-2-62-			0-189043				-5	-5	-5	28	-20	16	-5	-10	-15		-1	23
02-54.8017-132.0583-2-32-			0-189044				-5	-5	-5	89	-20	-15	12	-10	-15		3	47
02-54.8017-132.0583-2-42-			0-189044															
02-54.8017-132.0583-2-71-			0-189044				-5	-5	-5	42	-20	-15	15	-10	-15		2	45
02-54.8017-132.0583-2-72-			0-189044				-5	-5	-5	33	-20	-15	22	-10	-15		2	38
02-54.8017-132.0583-2-73-			0-189044				-5	-5	-5	39	-20	-15	28	-10	-15		2	47
02-54.8017-132.0583-2-74-			0-189044				-5	-5	-5	45	-20	-15	24	-10	-15		2	46
02-54.8017-132.0583-2-75-			0-189044				-5	-5	-5	42	-20	-15	27	-10	-15		2	41
02-54.7631-132.0167-2-32-			0-189045				-5	-5	-5	274	-20	-15	28	-10	-15		3	36
02-54.7631-132.0167-2-42-			0-189045				-5	-5	-5	334	-20	36	78	13	16		-1	38
02-54.7631-132.0167-2-71-			0-189045				-5	-5	-5	261	-20	27	7	-10	-15		3	43
02-54.7631-132.0167-2-72-			0-189045															
02-54.7589-132.3692-2-12-			0-189045				-5	-5	-5	33	-20	32	-5	12	-15		-1	2
02-54.7589-132.3692-2-32-			0-189045				-5	-5	-5	19	-20	-15	-5	-10	-15		1	1
02-54.7589-132.3692-2-42-			0-189045				-5	-5	-5	26	-20	24	-5	-10	-15		-1	1
02-54.7589-132.3692-2-52-			0-189045				-5	-5	-5	53	-20	60	-5	65	-15		-1	-1
02-54.7589-132.3692-2-62-			0-189045															
02-54.7589-132.3692-2-71-			0-189045				-5	-5	-5	24	-20	-15	-5	-10	-15		1	2
02-54.7589-132.3692-2-72-			0-189045				-5	-5	-5	18	-20	17	-5	-10	-15		2	2
02-54.7589-132.3692-2-73-			0-189045				-5	-5	-5	16	-20	15	-5	-10	-15		1	3
02-54.7589-132.3692-2-74-			0-189045				-5	-5	-5	16	-20	21	-5	-10	-15		1	2
02-54.7589-132.3692-2-75-			0-189045				-5	-5	-5	34	-20	-15	-5	-10	-15		1	2
02-54.7933-132.6317-2-32-			0-189048				-5	-5	-5	35	-20	-15	-5	-10	-15		1	18
02-54.7933-132.6317-2-42-			0-189048														-1	29
02-54.7733-132.6131-2-12-			0-189049				-5	-5	-5	48	-20	127	-5	-10	-15		-1	42
02-54.7733-132.6131-2-32-			0-189049				-5	-5	-5	25	-20	70	-5	-10	-15		1	23
02-54.7733-132.6131-2-42-			0-189049				-5	-5	-5	39	-20	87	-5	-10	-15		1	26
02-54.7669-132.6272-2-12-			0-189050				-5	-5	-5	68	-20	34	-5	10	-15		1	17
02-54.7669-132.6272-2-32-			0-189050				-5	-5	-5	53	-20	48	-5	-10	-15		1	14
02-54.7669-132.6272-2-42-			0-189050				-5	-5	-5	84	-20	70	-5	-10	-15		1	18
02-54.7669-132.6272-2-52-			0-189050				-5	-5	-5	38	-20	40	-5	35	-15		1	19
02-54.7669-132.6272-2-62-			0-189050				-5	-5	-5	76	-20	56	-5	-10	-15		1	19
02-54.7644-132.7514-2-12-			0-189051				-5	-5	-5	68	-20	63	-5	-10	-15		1	23
02-54.7644-132.7514-2-32-			0-189051				-5	-5	-5	48	-20	62	-5	-10	-15		1	20
02-54.7644-132.7514-2-42-			0-189051				-5	-5	-5	39	-20	72	-5	-10	-15		1	20
02-54.7644-132.7514-2-52-			0-189051				-5	-5	-5	67	-20	66	-5	-10	-15		1	26
02-54.7644-132.7514-2-62-			0-189051															
02-54.7567-132.7500-2-12-			0-189052				-5	-5	-5	55	-20	56	-5	-10	-15		1	27
02-54.7567-132.7500-2-32-			0-189052				-5	-5	-5	53	-20	65	-5	-10	-15		1	19
02-54.7567-132.7500-2-42-			0-189052				-5	-5	-5	53	-20	54	-5	-10	-15		2	25
02-54.7567-132.7500-2-52-			0-189052				-5	-5	-5	62	-20	62	-5	-10	-15		2	38
02-54.7567-132.7500-2-62-			0-189052				-5	-5	-5	70	-20	61	8	-10	20		-1	41
02-54.7750-133.5325-2-12-			0-189053				-5	-5	-5	25	-20	36	-5	-10	-15		2	7
02-54.7750-133.5325-2-32-			0-189053				-5	-5	-5	22	-20	-15	-5	-10	-15		2	7
02-54.7750-133.5325-2-42-			0-189053				-5	-5	-5	-10	-20	-15	-5	-10	-15		1	5
02-54.7750-133.5325-2-52-			0-189053				-5	-5	-5	23	-20	19	-5	-10	-15		1	6
02-54.7750-133.5325-2-62-			0-189053				-5	-5	-5	29	-20	53	-5	-10	-15		1	7
02-54.7750-133.5325-2-71-			0-189053				-5	-5	-5	16	-20	-15	-5	-10	-15		2	6
02-54.7750-133.5325-2-72-			0-189053				-5	-5	-5	13	-20	-15	-5	-10	-15		1	5
02-54.7750-133.5325-2-73-			0-189053				-5	11	-5	17	-20	-15	-5	-10	-15		1	5
02-54.7750-133.5325-2-74-			0-189053				-5	-5	-5	25	-20	-15	-5	-10	-15		1	6

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
02-54.9400-132.9614-2-52-			0-A99743			51960	-0.17			12270	39	-257	35.2	108	-2.5	5	1.4	60710	3.1		21	0.5
02-54.8017-132.0583-2-32-			0-A99744			79920	-0.09	854	7180	76	212	13.5	36	2.0	2	1.1	34780	4.7	30510	37	0.2	
02-54.8017-132.0583-2-42-			0-A99744			34390	-0.10	1153	-3943	59	-265	22.5	75	2.0	3	1.2	47200	3.4	34310	43	0.2	
02-54.8017-132.0583-2-71-			0-A99744			84930	-0.08	1002	5579	62	1892	9.8	20	2.2	2	1.0	28720	4.9	33380	40	0.3	
02-54.8017-132.0583-2-72-			0-A99744			82200	-0.09	959	6134	62	3259	10.9	27	2.1	2	1.0	30270	5.4	34400	36	0.2	
02-54.9017-132.0583-2-73-			0-A99744			73150	0.28	839	5714	75	4205	13.1	22	2.0	3	1.2	31920	5.5	26750	43	0.2	
02-54.8017-132.0583-2-74-			0-A99744			74010	0.22	815	5566	77	5320	15.3	32	2.2	4	1.5	30910	5.1	27450	43	0.3	
02-54.8017-132.0583-2-75-			0-A99744			57420	-0.11	551	5025	70	5302	16.9	28	-1.5	3	1.1	37740	3.9	24100	40	0.3	
02-54.7631-132.0167-2-32-			0-A99745			50270	-0.17			112	1743	138.7	230	-2.6		1.7	113500	2.8		54	0.3	
02-54.7631-132.0167-2-42-			0-A99745			87040	-0.20			181		215.9	249	-3.0		1.7	111500	3.2		55	-0.2	
02-54.7631-132.0167-2-71-			0-A99745			56610	-0.14		44310	115	459	65.5	212	2.0		1.8	102200	5.0		50	-0.2	
02-54.7631-132.0167-2-72-			0-A99745			30520	-0.24		21510	103		92.5	173	-3.8		1.6	102900	5.0		60	-0.2	
02-54.7589-132.3692-2-12-			0-A99746			60370	-0.16	-185	37520	28	2487	6.3	115	-2.5	4	1.3	31480	3.1	-4582	12	0.3	
02-54.7589-132.3692-2-32-			0-A99746			50400	-0.16	292	27770	25	1956	2.8	80	-2.4	4	1.1	23110	2.8	8070	14	0.3	
02-54.7589-132.3692-2-42-			0-A99746			54310	-0.12	-225	32860	37	2415	4.9	117	-3.3	4	1.3	31200	4.2	-5057	12	0.3	
02-54.7589-132.3692-2-52-			0-A99746			53140	-0.18	-187	47440	43	1598	10.0	193	-2.7	5	1.7	40760	4.7	-4935	32	0.5	
02-54.7589-132.3692-2-62-			0-A99746			69850	-0.27	-359	53640	40	1164	8.6	184	-4.1	6	1.4	29930	5.0	9761	-21	0.5	
02-54.7589-132.3692-2-71-			0-A99746			77850	-0.20	-217	22900	44	2220	5.3	73	-3.0	3	1.3	23630	4.0	7358	20	0.4	
02-54.7589-132.3692-2-72-			0-A99746			70110	-0.13	282	27400	47	2564	7.7	109	-3.5	4	1.4	34200	5.5	8944	18	0.3	
02-54.7589-132.3692-2-73-			0-A99746			68790	-0.20	-224	26390	51	2905	7.9	104	-3.1	4	1.4	33390	5.4	8746	22	0.4	
02-54.7589-132.3692-2-74-			0-A99746			69930	-0.20	-227	26200	34	3167	7.1	96	-3.0	4	1.3	31760	5.0	7659	18	0.4	
02-54.7589-132.3692-2-75-			0-A99746			73170	-0.24	-236	25930	42	3428	7.8	114	-3.5	4	1.4	34070	6.6	11190	21	0.5	
02-54.7933-132.6317-2-32-			0-A99748			74900	-0.15		-9855	48		165.7	169	-4.2		1.5	97480	-2.5		-10	0.2	
02-54.7933-132.6317-2-42-			0-A99748			60200	-0.20			47		152.1	194	-3.0		1.3	106600	2.4		17	0.2	
02-54.7733-132.6131-2-12-			0-A99749			60280	-0.18		10380	36	-325	95.8	313	-2.8	-3	1.4	86240	-1.3		13	0.3	
02-54.7733-132.6131-2-32-			0-A99749			97950	-0.15	263	24880	41	-220	55.7	276	-2.4	5	1.5	67740	2.5	-9190	15	0.3	
02-54.7733-132.6131-2-42-			0-A99749			82090	-0.13	-342	12760	38	-237	72.6	298	-3.8	-2	1.2	78270	3.8	-10570	18	0.2	
02-54.7669-132.6272-2-12-			0-A99750			85950	-0.19	-337	21440	38	502	87.8	161	-2.8	6	1.5	80340	2.7	-11920	9	0.5	
02-54.7669-132.6272-2-32-			0-A99750			83300	-0.15	-279	23750	39	285	67.6	133	-2.4	6	1.7	72790	2.6	-8416	14	0.4	
02-54.7669-132.6272-2-42-			0-A99750			81700	-0.20		20900	42	752	81.6	139	-2.9	3	1.6	73220	2.3		13	0.5	
02-54.7669-132.6272-2-52-			0-A99750			83810	-0.13	-395	16360	33	401	107.6	206	-3.8	8	1.5	85240	2.9		15	0.4	
02-54.7669-132.6272-2-62-			0-A99750			81780	-0.20		21650	31	746	89.9	236	-3.0	4	1.3	79850	3.4		-15	0.4	
02-54.7644-132.7514-2-12-			0-A99751			75410	-0.15	-226	34780	26	-193	32.5	243	-2.2	2	0.9	57150	3.4	-8720	12	0.3	
02-54.7644-132.7514-2-32-			0-A99751			75580	-0.15	-286	34930	21	-182	25.9	206	-2.2	2	0.9	48440	3.2	-7659	10	0.4	
02-54.7644-132.7514-2-42-			0-A99751			77590	-0.10	-293	38510	24	-196	33.6	266	-3.0	3	1.1	57940	2.6	-8945	17	0.3	
02-54.7644-132.7514-2-52-			0-A99751			57040	-0.17		41710	40	-307	39.2	269	-2.6	-3	1.0	65820	1.7		-13	0.4	
02-54.7644-132.7514-2-62-			0-A99751			41040	-0.20		20260	39		47.7	261	-3.0		1.3	66070	2.4		20	0.4	
02-54.7567-132.7500-2-12-			0-A99752			83300	-0.17	-281	32440	46	-178	30.4	170	-2.5	6	1.5	74640	3.6	-7650	19	0.5	
02-54.7567-132.7500-2-32-			0-A99752			69920	-0.12	339	18370	36	-152	29.6	166	-1.9	2	1.1	69780	2.9	-6574	16	0.4	
02-54.7567-132.7500-2-42-			0-A99752			83210	-0.21	-240	29810	43	-159	30.1	172	-2.1	6	1.3	73600	3.5	-6992	15	0.4	
02-54.7567-132.7500-2-52-			0-A99752			95810	-0.23	-267	31460	44	-170	33.8	161	-2.3	7	1.5	72510	3.7	-7709	34	0.5	
02-54.7567-132.7500-2-62-			0-A99752			85570	-0.25	-338	29880	50	-207	36.3	174	-2.5	6	1.6	72120	3.9	-9196	19	0.6	
02-54.7750-133.5325-2-12-			0-A99753			70500	-0.20	404	25780	74	354	11.8	96	-1.9	4	1.7	40020	14.5	15150	85	0.8	
02-54.7750-133.5325-2-32-			0-A99753			63530	-0.14	582	21810	92	345	9.2	30	-1.4	4	1.5	33820	10.8	13500	48	0.5	
02-54.7750-133.5325-2-42-			0-A99753			55250	-0.17	-261	21780	74	449	9.4	47	-1.6	4	1.5	35490	11.8	11290	40	0.6	
02-54.7750-133.5325-2-52-			0-A99753			56600	-0.20	515	24770	82	547	10.2	59	-1.8	4	1.6	37010	19.5	12500	47	0.7	
02-54.7750-133.5325-2-62-			0-A99753			62620	-0.22	387	19140	113	515	13.9	144	-2.3	4	1.0	35230	14.0	18800	32	0.4	
02-54.7750-133.5325-2-71-			0-A99753			67100	-0.12	835	21810	87	217	5.3	19	-1.2	5	1.8	23790	12.5	16100	48	0.6	
02-54.7750-133.5325-2-72-			0-A99753			63390	-0.15	677	23860	92	384	6.6	27	-1.5	6	1.9	29320	20.5	13600	45	0.6	
02-54.7750-133.5325-2-73-			0-A99753			65300	-0.18	451	24170	96	490	5.5	27	-1.7	5	1.9	29100	23.6	12900	36	0.7	
02-54.7750-133.5325-2-74-			0-A99753			59990	-0.25	428	22290	100	537	8.8	53	-2.2	6	2.0	39310	41.6	12120	50	0.9	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						DOE LAB LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)															U/Th RATIO		
STATE	LATITUDE	LONGITUDE	DOE LAB SAMPLE TYPE	REPLICATE	Concentrations reported in weight parts per million (ppm)																			
					Mg		Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn				
02-54	9400-132.9614-2-52-	0-1997443	10420	4749	17650	-46	-4	22.1	4.6			-2	-1	3.9	4719	126	-2.5	213	1.077					
02-54	8017-132.0583-2-32-	0-1997444	5540	1475	25340	84	-2	7.0	3.9	616		-1	-1	8.2	4134	96	2.1	82	0.634					
02-54	8017-132.0583-2-42-	0-1997444	9190	3565	25460	132	-2	6.2	3.4			-2	-1	11.6	-2819	110	-2.3	130	0.578					
02-54	8017-132.0583-2-71-	0-1997444	7675	836	29330	115	-2	5.0	2.8	-371		-1	-1	8.1	3935	100	2.2	96	0.679					
02-54	8017-132.0583-2-72-	0-1997444	9785	1068	29070	71	-2	6.1	3.5	619		-1	-1	8.5	4758	102	2.3	84	0.788					
02-54	8017-132.0583-2-73-	0-1997444	7025	1557	25550	68	-2	5.3	4.9			-1	-1	8.3	4840	95	-2.1	130	0.940					
02-54	8017-132.0583-2-74-	0-1997444	3515	1727	26170	93	-3	5.7	4.4	843		-3	-1	8.6	3767	100	-2.6	92	1.012					
02-54	8017-132.0583-2-75-	0-1997444	9147	1363	25970	45	-3	5.4	4.8			-1	-1	8.8	2988	95	-1.6	95	1.080					
02-54	7631-132.0167-2-32-	0-1997445	32330	15490	-52	-4	30.5	5.6				-2	-1	8.4		321	-2.6	351	1.068					
02-54	7631-132.0167-2-42-	0-1997445	42470	9242	-62	-4	21.7	6.5				-2	-1	9.6			-3.2	107	1.134					
02-54	7631-132.0167-2-71-	0-1997445	30550	7397	19330	-54	-4	35.9	6.7			-3	-2	6.4		365	-3.2	118	0.750					
02-54	7631-132.0167-2-72-	0-1997445	-11610	9482	9787	-71	-4	28.8	7.7			-2	-1	10.6		165	-3.7	94	0.604					
02-54	7589-132.3692-2-12-	0-1997445	11270	518	23350	-36	-4	25.4	5.4	-357		-2	-1	2.1	8193	172	-2.6	-72	0.714					
02-54	7589-132.3692-2-32-	0-1997445	9095	338	26720	-33	-4	18.4	3.0	622		-2	-1	2.6	5650	122	-2.5	139	0.462					
02-54	7589-132.3692-2-42-	0-1997445	9262	487	21520	-48	-3	24.7	3.6	-417		-2	-1	3.0	7755	161	-2.5	71	0.467					
02-54	7589-132.3692-2-52-	0-1997445	13040	718	22590	-60	-4	33.5	5.2	-385		-2	1	3.3	9437	214	4.0	140	0.515					
02-54	7589-132.3692-2-62-	0-1997445	14590	914	23150	-59	-3	26.3	3.5			-3	-1	3.9	10840	233	-4.3	220	0.436					
02-54	7589-132.3692-2-71-	0-1997445	2375	436	30220	-39	-3	24.0	3.2	-414		-2	-1	3.4	7757	192	-3.3	-49	0.441					
02-54	7589-132.3692-2-72-	0-1997445	10760	478	30610	-51	-3	30.3	3.8	-484		-3	-1	4.2	8634	203	4.7	-80	0.381					
02-54	7589-132.3692-2-73-	0-1997445	12010	471	30210	-45	-3	31.2	5.4	-431		-2	-1	5.2	8550	212	4.1	82	0.346					
02-54	7589-132.3692-2-74-	0-1997445	12350	508	28950	-45	-4	29.0	5.1	-431		-2	-1	2.8	10040	230	5.1	215	0.607					
02-54	7589-132.3692-2-75-	0-1997445	11720	539	27520	-47	-4	31.3	6.3	-441		-2	-1	4.6	11580	247	-4.2	-78	0.391					
02-54	7933-132.6317-2-32-	0-1997448	-13325	14350	19570	-75	-4	28.1	3.7			-3	-2	-2.8		392	3.4	122						
02-54	7933-132.6317-2-42-	0-1997448	-14315	12520	14590	-59	-3	32.4	3.6			-2	-1	-1.6		218	-3.0	59						
02-54	7733-132.6131-2-12-	0-1997449	19580	5703	18500	-53	-3	30.7	4.5			-2	-1	-1.6	3615	266	-2.9	58						
02-54	7733-132.6131-2-32-	0-1997449	30560	4363	28070	-37	-4	30.5	4.6			-1	-1	-1.4	3954	290	-2.4	26						
02-54	7733-132.6131-2-42-	0-1997449	32010	5651	26950	-63	-3	32.9	3.8			-3	-2	-2.4	2305	341	-2.4	201						
02-54	7669-132.6272-2-12-	0-1997450	23240	7121	25760	-51	-3	34.0	4.5			-2	-1	3.5	7576	301	-2.8	147	0.371					
02-54	7669-132.6272-2-32-	0-1997450	12540	5114	27810	-62	-4	34.2	4.6			-1	-1	-1.3	4970	275	3.9	-50						
02-54	7669-132.6272-2-42-	0-1997450	25780	6164	26890	-47	-3	32.7	5.5			-2	1	2.2	4742	280	-2.9	-59	0.636					
02-54	7669-132.6272-2-52-	0-1997450	24030	6799	25710	-55	-4	31.7	3.6			-3	-2	-2.5	3434	352	3.4	113						
02-54	7669-132.6272-2-62-	0-1997450	27490	5899	24540	-54	-4	29.8	3.5			-2	-1	-1.7	7487	305	3.9	86						
02-54	7644-132.7514-2-12-	0-1997451	26890	4473	23590	-37	-4	26.7	3.5			-1	-1	2.9	3339	174	2.4		0.621					
02-54	7644-132.7514-2-32-	0-1997451	25980	2702	27070	-34	-4	23.8	2.6			-1	-1	2.2	3740	151	2.5	78	0.591					
02-54	7644-132.7514-2-42-	0-1997451	30910	3730	26260	-48	-3	27.2	2.7			-2	-1	2.2	3458	201	3.7	176	0.773					
02-54	7644-132.7514-2-52-	0-1997451	27790	9081	20400	-43	-4	23.5	3.9			-2	-1	3.1	2946	263	4.0	113	0.806					
02-54	7644-132.7514-2-62-	0-1997451	12750	9207	12000	-51	-3	23.9	4.2			-2	-1	3.6	-3967	102	3.1	134	0.778					
02-54	7567-132.7500-2-12-	0-1997452	25600	2779	23580	-60	-4	29.4	5.1			-1	-1	4.6	5844	191	3.9	142	0.413					
02-54	7567-132.7500-2-32-	0-1997452	16430	2366	22840	-33	-3	23.7	4.5	-481		-1	-1	4.2	5917	166	3.5	118	0.357					
02-54	7567-132.7500-2-42-	0-1997452	23360	3054	24060	-37	-2	27.4	5.7			-1	-1	4.3	4046	225	3.1	154	0.419					
02-54	7567-132.7500-2-52-	0-1997452	27690	3423	22550	-42	-2	28.5	5.7			-1	1	4.8	7032	177	4.1	-149	0.438					
02-54	7567-132.7500-2-62-	0-1997452	23665	4191	19550	-42	-2	28.7	6.8			-1	-1	5.1	3942	162	3.5	162	0.431					
02-54	7750-133.5325-2-12-	0-1997453	9520	1391	30590	-38	-2	9.2	6.9	-499		3	-1	17.2	4318	71	7.2	75	0.262					
02-54	7750-133.5325-2-32-	0-1997453	7210	1110	26020	-25	-3	7.5	6.4	462		2	-1	19.8	4048	66	6.0	47	0.202					
02-54	7750-133.5325-2-42-	0-1997453	6830	1341	26220	-33	-4	8.3	8.8			2	-1	15.1	4553	83	4.0	47	0.274					
02-54	7750-133.5325-2-52-	0-1997453	8757	1447	26650	-32	-2	9.6	5.7			2	-1	17.7	4917	91	-3.4	137	0.282					
02-54	7750-133.5325-2-62-	0-1997453	6315	1447	24550	-43	-3	7.9	3.9			-2	-1	14.3	4904	69	5.9	-88	0.277					
02-54	7750-133.5325-2-71-	0-1997453	5170	410	27300	-24	-3	7.3	6.2	-308		3	-1	11.4	3697	63	4.7	-22	0.315					
02-54	7750-133.5325-2-72-	0-1997453	7810	904	25610	-28	-4	9.2	9.3	-415		3	1	12.9	6314	71	5.1	56	0.388					
02-54	7750-133.5325-2-73-	0-1997453	6472	850	26080	-27	-4	9.0	7.7	-379		3	-1	14.3	6101	80	9.3	-62	0.390					
02-54	7750-133.5325-2-74-	0-1997453	8430	912	24010	-42	-4	10.0	10.0	-429		-1	2	20.5	6473	99	12.5	76	0.342					

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																		U CONCENTRATION						
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SONTELOMETER (eU/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	CHANGES	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																						
02-54.7750-133.5325-2-75-						0-882753-09/23/79-10-	20-10.7-0-0-	5.3-	143-	29-3-1-	-	-4-3-1-2-1-5-5-1-	-1-	9.9-	6.12															
02-54.7850-133.5154-2-12-						0-882754-09/23/79-10-	23-10.5-0-0-	4.1-	197-	11-3-1-1-1-4-3-1-2-1-5-5-1-	-1-	10.4-	3.12																	
02-54.7950-133.5164-2-32-						0-882754-09/23/79-11-	23-10.5-0-0-	4.1-	197-	11-3-1-1-1-4-3-1-2-1-5-5-1-	-1-	10.4-	1.56																	
02-54.7850-133.5164-2-42-						0-882754-09/23/79-11-	23-10.5-0-0-	4.1-	197-	11-3-1-1-1-4-3-1-2-1-5-5-1-	-1-	10.4-	2.80																	
02-54.7850-133.5164-2-52-						0-882754-09/23/79-11-	23-10.5-0-0-	4.1-	197-	11-3-1-1-1-4-3-1-2-1-5-5-1-	-1-	10.4-	3.42																	
02-54.7950-133.5164-2-62-						0-882754-09/23/79-11-	23-10.5-0-0-	4.1-	197-	11-3-1-1-1-4-3-1-2-1-5-5-1-	-1-	10.4-	2.87																	
02-54.7914-133.5164-2-12-						0-882755-09/23/79-11-	25-10.4-0-0-	5.9-	193-	4-3-1-2-6-4-3-1-2-1-5-4-1-	-1-	10.6-	4.52																	
02-54.7914-133.5164-2-32-						0-882755-09/23/79-11-	25-10.4-0-0-	5.9-	193-	4-3-1-2-6-4-3-1-2-1-5-4-1-	-1-	10.6-	4.13																	
02-54.7914-133.5164-2-42-						0-882755-09/23/79-11-	25-10.4-0-0-	5.9-	193-	4-3-1-2-6-4-3-1-2-1-5-4-1-	-1-	10.6-	4.10																	
02-54.7914-133.5164-2-52-						0-882755-09/23/79-11-	25-10.4-0-0-	5.9-	193-	4-3-1-2-6-4-3-1-2-1-5-4-1-	-1-	10.6-	4.20																	
02-54.7914-133.5164-2-57-						0-882755-09/23/79-11-	25-10.4-0-0-	5.9-	193-	4-3-1-2-6-4-3-1-2-1-5-4-1-	-1-	10.6-	4.00																	
02-54.7914-133.5164-2-71-						0-882755-09/23/79-11-	25-10.4-0-0-	5.9-	193-	4-3-1-2-6-4-3-1-2-1-5-4-1-	-1-	10.6-	3.60																	
02-54.7914-133.5164-2-72-						0-882755-09/23/79-11-	25-10.4-0-0-	5.9-	193-	4-3-1-2-6-4-3-1-2-1-5-4-1-	-1-	10.6-	4.10																	
02-54.7914-133.5164-2-73-						0-882755-09/23/79-11-	25-10.4-0-0-	5.9-	193-	4-3-1-2-6-4-3-1-2-1-5-4-1-	-1-	10.6-	4.10																	
02-54.7914-133.5164-2-74-						0-882755-09/23/79-11-	25-10.4-0-0-	5.9-	193-	4-3-1-2-6-4-3-1-2-1-5-4-1-	-1-	10.6-	4.10																	
02-54.7914-133.5164-2-75-						0-882755-09/23/79-11-	25-10.4-0-0-	5.9-	193-	4-3-1-2-6-4-3-1-2-1-5-4-1-	-1-	10.6-	4.00																	
02-54.8059-133.5186-2-12-						0-882756-09/23/79-12-	20-10.8-0-0-	5.8-	174-	18-3-1-2-1-3-3-1-2-1-5-4-1-	-1-	8.7-	5.40																	
02-54.8058-133.5186-2-32-						0-882756-09/23/79-12-	20-10.8-0-0-	5.8-	174-	18-3-1-2-1-3-3-1-2-1-5-4-1-	-1-	8.7-	4.70																	
02-54.8058-133.5186-2-42-						0-882756-09/23/79-12-	20-10.8-0-0-	5.8-	174-	18-3-1-2-1-3-3-1-2-1-5-4-1-	-1-	8.7-	5.10																	
02-54.8108-133.5217-2-12-						0-882757-09/23/79-13-	25-8.4-0-0-	6.4-	337-	13-3-1-2-1-3-3-1-2-1-5-4-1-	-1-	11.1-	12.15																	
02-54.8108-133.5217-2-32-						0-882757-09/23/79-13-	25-8.4-0-0-	6.4-	337-	13-3-1-2-1-3-3-1-2-1-5-4-1-	-1-	11.1-	10.27																	
02-54.8108-133.5217-2-42-						0-882757-09/23/79-13-	25-8.4-0-0-	6.4-	337-	13-3-1-2-1-3-3-1-2-1-5-4-1-	-1-	11.1-	10.10																	
02-54.8108-133.5217-2-52-						0-882757-09/23/79-13-	25-8.4-0-0-	6.4-	337-	13-3-1-2-1-3-3-1-2-1-5-4-1-	-1-	11.1-	11.98																	
02-54.8267-133.5250-2-12-						0-882758-09/23/79-13-	20-10.6-0-0-	6.9-	298-	6-3-1-3-6-2-2-1-2-1-5-5-1-	-1-	8.3-	3.39																	
02-54.8267-133.5250-2-32-						0-882758-09/23/79-13-	20-10.6-0-0-	6.9-	298-	6-3-1-3-6-2-2-1-2-1-5-5-1-	-1-	8.3-	3.10																	
02-54.8267-133.5250-2-42-						0-882758-09/23/79-13-	20-10.6-0-0-	6.9-	298-	6-3-1-3-6-2-2-1-2-1-5-5-1-	-1-	8.3-	3.20																	
02-54.8267-133.5250-2-52-						0-882758-09/23/79-13-	20-10.6-0-0-	6.9-	298-	6-3-1-3-6-2-2-1-2-1-5-5-1-	-1-	8.3-	3.63																	
02-54.8267-133.5250-2-62-						0-882758-09/23/79-13-	20-10.6-0-0-	6.9-	298-	6-3-1-3-6-2-2-1-2-1-5-5-1-	-1-	8.3-	3.59																	
02-54.9642-133.1419-2-12-						0-882759-09/23/79-16-	25-9.4-0-0-	7.5-	191-	9-2-1-2-6-3-3-1-2-1-5-5-1-	-1-	11.1-	3.69																	
02-54.9642-133.1419-2-32-						0-882759-09/23/79-16-	25-9.4-0-0-	7.5-	191-	9-2-1-2-6-3-3-1-2-1-5-5-1-	-1-	11.1-	3.60																	
02-54.9642-133.1419-2-42-						0-882759-09/23/79-16-	25-9.4-0-0-	7.5-	191-	9-2-1-2-6-3-3-1-2-1-5-5-1-	-1-	11.1-	3.70																	
02-54.9642-133.1419-2-52-						0-882759-09/23/79-16-	25-9.4-0-0-	7.5-	191-	9-2-1-2-6-3-3-1-2-1-5-5-1-	-1-	11.1-	3.90																	
02-54.9642-133.1419-2-62-						0-882759-09/23/79-16-	25-9.4-0-0-	7.5-	191-	9-2-1-2-6-3-3-1-2-1-5-5-1-	-1-	11.1-	4.13																	
02-54.8267-133.5347-2-15-						0-882760-09/23/79-15-	25-0-0-0-	-	-	-3-1-1-1-1-	-1-	-	12.10																	
02-54.8267-133.5347-2-35-						0-882760-09/23/79-15-	25-0-0-0-	-	-	-3-1-1-1-1-	-1-	-	9.55																	
02-54.8267-133.5347-2-45-						0-882760-09/23/79-15-	25-0-0-0-	-	-	-3-1-1-1-1-	-1-	-	10.65																	
02-54.8267-133.5347-2-55-						0-882760-09/23/79-15-	25-0-0-0-	-	-	-3-1-1-1-1-	-1-	-	11.90																	
02-54.8267-133.5347-2-65-						0-882760-09/23/79-15-	25-0-0-0-	-	-	-3-1-1-1-1-	-1-	-	12.61																	
02-54.9531-133.0931-2-12-						0-882761-09/23/79-19-	25-11.0-0-0-	8.1-	225-	20-2-7-2-6-3-2-1-2-1-5-5-1-	-1-	10.5-	2.17																	
02-54.9531-133.0931-2-32-						0-882761-09/23/79-19-	25-11.0-0-0-	8.1-	225-	20-2-7-2-6-3-2-1-2-1-5-5-1-	-1-	10.5-	2.08																	
02-54.9531-133.0931-2-42-						0-882761-09/23/79-19-	25-11.0-0-0-	8.1-	225-	20-2-7-2-6-3-2-1-2-1-5-5-1-	-1-	10.5-	2.19																	
02-54.9531-133.0931-2-52-						0-882761-09/23/79-19-	25-11.0-0-0-	8.1-	225-	20-2-7-2-6-3-2-1-2-1-5-5-1-	-1-	10.5-	2.29																	
02-54.9531-133.0931-2-62-						0-882761-09/23/79-19-	25-11.0-0-0-	8.1-	225-	20-2-7-2-6-3-2-1-2-1-5-5-1-	-1-	10.5-	2.30																	
02-54.9403-133.0658-2-12-						0-882762-09/23/79-17-	25-7.7-0-0-	7.9-	168-	4-2-7-2-6-2-2-1-2-1-5-5-1-	-1-	10.9-	4.08																	
02-54.9403-133.0658-2-32-						0-882762-09/23/79-17-	25-7.7-0-0-	7.9-	168-	4-2-7-2-6-2-2-1-2-1-5-5-1-	-1-	10.9-	3.26																	
02-54.9403-133.0658-2-42-						0-882762-09/23/79-17-	25-7.7-0-0-	7.9-	168-	4-2-7-2-6-2-2-1-2-1-5-5-1-	-1-	10.9-	3.91																	
02-54.9403-133.0658-2-52-						0-882762-09/23/79-17-	25-7.7-0-0-	7.9-	168-	4-2-7-2-6-2-2-1-2-1-5-5-1-	-1-	10.9-	4.65																	
02-54.9472-133.0478-2-17-						0-882763-09/23/79-18-	25-8.7-0-0-	7.9-	164-	4-2-1-2-6-2-2-1-2-1-5-5-1-	-1-	10.3-	7.70																	
02-54.9472-133.0479-2-32-						0-882763-09/23/79-18-	25-8.7-0-0-	7.9-	164-	4-2-1-2-6-2-2-1-2-1-5-5-1-	-1-	10.3-	6.00																	
02-54.9472-133.0478-2-42-						0-882763-09/23/79-18-	25-8.7-0-0-	7.9-	164-	4-2-1-2-6-2-2-1-2-1-5-5-1-	-1-	10.3-	7.67																	
02-54.9472-133.0479-2-52-						0-882763-09/23/79-18-	25-8.7-0-0-	7.9-	164-	4-2-1-2-6-2-2-1-2-1-5-5-1-	-1-	10.3-	8.36																	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
02-54.7750-133.5325-2-75-			0-A90053				-5	-5	-5	18	-20	-15	-5	-10	-15	2	5	
02-54.7850-133.5164-2-12-			0-A90054				-5	-5	-5	16	-20	-15	-5	-10	-15	2	2	
02-54.7850-133.5164-2-32-			0-A90054				-5	-5	-5	10	-20	-15	-5	-10	-15	1	3	
02-54.7850-133.5164-2-42-			0-A90054				-5	-5	-5	15	-20	-15	-5	-10	-15	1	2	
02-54.7850-133.5164-2-52-			0-A90054				-5	-5	-5	23	-20	-15	-5	-10	-15	1	4	
02-54.7850-133.5164-2-62-			0-A90054				-5	-5	-5	13	-20	-15	-5	-10	-15	1	4	
02-54.7914-133.5164-2-12-			0-A90055				-5	7	-5	23	-20	-15	-5	-10	-15	2	13	
02-54.7914-133.5164-2-32-			0-A90055				-5	5	-5	23	-20	-15	-5	-10	-15	2	16	
02-54.7914-133.5164-2-42-			0-A90055				-5	-5	6	24	-20	-15	-5	-10	-15	2	13	
02-54.7914-133.5164-2-52-			0-A90055				-5	-5	-5	37	-20	-15	-5	-10	-15	1	10	
02-54.7914-133.5164-2-62-			0-A90055				-5	-5	7	34	-20	-15	-5	-10	-15	1	9	
02-54.7914-133.5164-2-71-			0-A90055				-5	7	5	19	-20	-15	-5	-10	-15	2	23	
02-54.7914-133.5164-2-72-			0-A90055				-5	5	-5	19	-20	-15	-5	-10	-15	1	17	
02-54.7914-133.5164-2-73-			0-A90055				-5	-5	-5	24	-20	-15	-5	-10	-15	2	16	
02-54.7914-133.5164-2-74-			0-A90055				-5	8	-5	32	-20	-15	-5	-10	-15	2	13	
02-54.7914-133.5164-2-75-			0-A90055				-5	-5	-5	31	-20	-15	-5	-10	-15	1	11	
02-54.8058-133.5186-2-12-			0-A90056				-5	5	-5	15	-20	-15	-5	-10	-15	1	11	
02-54.8058-133.5186-2-32-			0-A90056				-5	-5	-5	16	-20	-15	-5	-10	-15	2	16	
02-54.8058-133.5186-2-42-			0-A90056				-5	-5	-5	18	-20	19	-5	-10	-15	1	12	
02-54.8108-133.5217-2-12-			0-A90057				-5	-5	-5	24	-20	-15	-5	-10	-15	8	11	
02-54.8108-133.5217-2-32-			0-A90057				-5	-5	-5	22	-20	-15	-5	-10	-15	5	14	
02-54.8108-133.5217-2-42-			0-A90057				-5	-5	5	26	-20	-15	-5	-10	-15	5	16	
02-54.8108-133.5217-2-52-			0-A90057				-5	-5	6	29	-20	-15	-5	-10	-15	8	15	
02-54.8267-133.5250-2-12-			0-A90059				-5	-5	-5	63	-20	-15	9	-10	-15	1	27	
02-54.8267-133.5250-2-32-			0-A90059				-5	-5	-5	46	-20	17	-5	-10	-15	1	24	
02-54.8267-133.5250-2-42-			0-A90059				-5	5	-5	43	-20	-15	-5	-10	-15	2	24	
02-54.8267-133.5250-2-52-			0-A90059				-5	-5	-5	68	-20	34	8	-10	-15	2	23	
02-54.8267-133.5250-2-62-			0-A90059				-5	-5	-5							-1	44	
02-54.9642-133.1419-2-12-			0-A90059				-5	-5	-5	49	-20	-15	-5	-10	-15	1	23	
02-54.9642-133.1419-2-32-			0-A90059				-5	-5	-5	42	-20	22	-5	-10	-15	1	30	
02-54.9642-133.1419-2-42-			0-A90059				-5	-5	6	60	-20	-15	-5	-10	-15	1	24	
02-54.9642-133.1419-2-52-			0-A90059				-5	-5	-5	49	-20	18	6	-10	-15	1	22	
02-54.9642-133.1419-2-62-			0-A90059				-5	-5	-5	55	-20	30	-5	-10	-15	-1	23	
02-54.8267-133.5347-2-15-			0-A90060				-5	-5	-5	79	-20	-15	-5	-10	-15	-1	4	
02-54.8267-133.5347-2-35-			0-A90060				-5	-5	-5	42	-20	-15	-5	-10	-15	-1	5	
02-54.8267-133.5347-2-45-			0-A90060				-5	-5	-5	86	-20	-15	-5	-10	-15	-1	5	
02-54.8267-133.5347-2-55-			0-A90060				-5	-5	-5	73	-20	-15	-5	-10	16	-1	4	
02-54.8267-133.5347-2-65-			0-A90060				-5	-5	-5	66	-20	-15	-5	-10	-15	-1	3	
02-54.9531-133.0931-2-12-			0-A90061				-5	-5	-5	43	-20	-15	-5	-10	-15	-1	15	
02-54.9531-133.0931-2-32-			0-A90061				-5	-5	-5	25	-20	-15	-5	-10	-15	1	22	
02-54.9531-133.0931-2-42-			0-A90061				-5	-5	-5	41	-20	32	-5	-10	-15	-1	21	
02-54.9531-133.0931-2-52-			0-A90061				-5	5	5	37	-20	-15	-5	-10	-15	1	23	
02-54.9531-133.0931-2-62-			0-A90061				-5	-5	-5	30	-20	-15	-5	-10	-15	1	18	
02-54.9403-133.0658-2-12-			0-A90062				-5	-5	5	45	-20	27	-5	-10	-15	-1	22	
02-54.9403-133.0658-2-32-			0-A90062				-5	-5	-5	34	-20	-15	7	-10	-15	1	31	
02-54.9403-133.0658-2-42-			0-A90062				-5	-5	-5	30	-20	19	-5	-10	-15	-1	22	
02-54.9403-133.0658-2-52-			0-A90062				-5	-5	-5	55	-20	-15	-5	-10	-15	-1	20	
02-54.9472-133.0478-2-12-			0-A90063				-5	-5	-5	45	-20	-15	-5	-10	-15	2	33	
02-54.9472-133.0478-2-32-			0-A90063				-5	-5	-5	51	-20	-15	-5	-10	-15	1	30	
02-54.9472-133.0478-2-42-			0-A90063				-5	-5	-5	44	-20	-15	-5	-10	-15	2	27	
02-54.9472-133.0478-2-52-			0-A90063				-5	-5	-5	61	-20	-15	6	-10	-15	2	28	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
02-54.7750-133.5325-2-75-			0-889053			62590	-0.19	519	20420	90	610	6.7	43	-1.8	5	1.8	35200	27.2	14110	-18	0.7		
02-54.7850-133.5164-2-12-			0-889054			71950	-0.18	638	37720	77	389	8.9	24	-1.8	7	2.4	35820	16.2	13260	-18	0.6		
02-54.7850-133.5164-2-32-			0-889054			73300	0.10	860	32220	53	200	5.8	15	-1.3	4	1.8	20150	5.4	16480	-12	0.5		
02-54.7850-133.5164-2-42-			0-889054			71610	-0.18	793	35990	88	332	11.4	35	-2.0	6	2.3	38550	14.0	16310	18	0.5		
02-54.7850-133.5164-2-52-			0-889054			73140	-0.20	767	34110	70	692	9.8	39	-1.9	6	2.2	37440	19.3	13970	-16	0.6		
02-54.7850-133.5164-2-62-			0-889054			72850	-0.19	770	29430	44	701	8.0	36	-1.8	4	1.6	29120	12.2	14950	-21	0.2		
02-54.7914-133.5164-2-12-			0-889055			67830	-0.23	-293	27070	74	795	19.6	-11	-2.2	6	2.1	54590	14.4	11840	33	0.6		
02-54.7914-133.5164-2-32-			0-889055			68200	-0.26	659	29150	94	501	22.8	-16	-2.4	6	2.3	66040	12.5	14720	-23	0.8		
02-54.7914-133.5164-2-42-			0-889055			71490	-0.21	596	25740	74	616	21.5	-10	-2.1	5	2.3	57360	14.9	16440	32	0.5		
02-54.7914-133.5164-2-52-			0-889055			65950	-0.21	-257	23740	47	822	19.8	21	-2.0	4	1.6	48610	11.2	-7901	25	0.4		
02-54.7914-133.5164-2-62-			0-889055			69220	-0.24	408	21480	65	1187	19.1	-11	-2.1	3	1.6	45680	11.9	-7489	22	0.4		
02-54.7914-133.5164-2-71-			0-889055			80030	-0.10	1421	38280	85	344	30.2	-15	1.5	7	2.4	60660	6.3	11240	33	0.6		
02-54.7914-133.5164-2-72-			0-889055			94250	-0.21	-257	31000	79	446	38.5	-9	-2.0	5	2.4	70170	10.9	-7277	32	0.6		
02-54.7914-133.5164-2-73-			0-889055			91090	-0.21	-321	23450	69	947	38.7	15	-2.0	-3	2.1	68750	11.7	-10730	34	0.5		
02-54.7914-133.5164-2-74-			0-889055			80000	-0.24		29100	66	912	41.6	-12	1.6	3	2.0	63740	12.3	-11620	28	0.5		
02-54.7914-133.5164-2-75-			0-889055			78490	-0.26		18760	73	946	49.7	-12	-2.5	-3	1.6	63880	10.8	-11910	27	1.1		
02-54.8058-133.5186-2-12-			0-889056			71390	-0.17	-199	15780	80	574	15.8	55	2.0	4	1.6	63630	11.3	20090	43	0.5		
02-54.8058-133.5186-2-32-			0-889056			67790	-0.14	655	12020	79	200	13.2	-7	2.1	5	1.8	53080	7.2	22750	50	0.5		
02-54.8058-133.5186-2-42-			0-889056			66040	-0.17	428	13980	73	451	14.8	76	2.2	5	1.5	64740	8.1	18570	45	0.3		
02-54.8108-133.5217-2-12-			0-889057			71310	-0.05			310		74.9	29	-2.2		1.9	37010	8.7		69	0.6		
02-54.8108-133.5217-2-32-			0-889057			91470	-0.16			216		41.1	-8	0.9		1.7	24990	3.9		74	0.5		
02-54.8108-133.5217-2-42-			0-889057			60770	-0.18			177		42.9	52	-1.7		1.6	31680	4.9		69	0.4		
02-54.8108-133.5217-2-52-			0-889057			55150	-0.22			278		53.3	-11	-2.0		1.7	27630	7.4		51	0.5		
02-54.8267-133.5250-2-12-			0-889059			71430	-0.10	448	34790	52	568	20.2	70	-2.8	4	1.3	44610	4.2	14240	20	0.3		
02-54.8267-133.5250-2-32-			0-889059			66000	-0.22	431	35840	41	373	17.9	76	1.9	4	1.2	41670	3.9	13420	43	0.3		
02-54.8267-133.5250-2-42-			0-889059			70470	-0.22	496	34850	49	466	19.7	64	1.9	4	1.3	41600	4.5	15190	24	0.4		
02-54.8267-133.5250-2-52-			0-889059			70940	-0.25	440	39000	46	561	19.7	77	-2.3	3	1.4	42470	3.3	12820	22	0.4		
02-54.8267-133.5250-2-62-			0-889059			68420	-0.26	531	40320	52	431	17.9	80	-2.5	4	1.4	48730	4.9	13890	32	0.3		
02-54.9642-133.1419-2-12-			0-889059			58990	-0.19	637	14340	39	-195	20.2	47	-1.9	6	1.4	51140	2.6	-8610	17	0.5		
02-54.9642-133.1419-2-32-			0-889059			63830	-0.18	722	10330	33	-168	15.8	24	-1.8	4	1.2	47180	2.9	9984	20	0.4		
02-54.9642-133.1419-2-42-			0-889059			59510	-0.21	329	8981	43	-194	19.2	50	-2.0	3	1.3	47480	2.5	-9574	13	0.4		
02-54.9642-133.1419-2-52-			0-889059			63990	-0.10	640	12000	43	-246	22.9	55	-2.9	9	1.5	52070	6.1	-11120	20	0.4		
02-54.9642-133.1419-2-62-			0-889059			60480	-0.21	-374	8851	42	-247	24.2	61	-2.0	3	1.4	53320	2.6	-11320	19	0.6		
02-54.8267-133.5347-2-15-			0-889060			68100	-0.18	-216	7818	54	572	5.3	19	-1.7	4	1.1	67580	4.3	12840	39	0.3		
02-54.8267-133.5347-2-35-			0-889060			57430	-0.20	439	9367	54	600	3.9		-1.8	3	1.2	57160	5.4	19200	40	0.3		
02-54.8267-133.5347-2-45-			0-889060			51820	-0.25	368	10100	60	592	6.3	28	-2.2	4	1.3	73890	6.3	16640	38	0.4		
02-54.8267-133.5347-2-55-			0-889060			47930	-0.23	345	11720	69	564	5.7	39	-2.1	3	1.2	82040	8.7	12550	36	0.4		
02-54.8267-133.5347-2-65-			0-889060			46770	-0.14	279	7988	48	782	5.4	29	-2.0	3	1.0	75220	5.4	12310	44	0.3		
02-54.9531-133.0931-2-12-			0-889061			59630	-0.22	-395	17030	34	782	24.7	43	-2.2	-2	1.2	48040	2.7		14	0.4		
02-54.9531-133.0931-2-32-			0-889061			51220	-0.25	784	14550	38	-206	25.4	56	-2.7	3	1.3	59000	3.4	-9764	12	0.4		
02-54.9531-133.0931-2-42-			0-889061			58820	-0.21		15550	37	390	25.7	51	-2.3	3	1.2	52620	2.0	-11780	14	0.3		
02-54.9531-133.0931-2-52-			0-889061			58240	-0.21		20380	34	-347	29.2	46	-2.3	-3	1.2	51490	1.9		16	0.4		
02-54.9531-133.0931-2-62-			0-889061			54890	-0.25		20190	34	350	27.2	42	-2.5	-3	1.3	48000	2.3		-20	0.4		
02-54.9403-133.0659-2-12-			0-889062			46220	-0.28		27900	45		35.0	84	-2.9		1.3	74400	-1.4		18	0.3		
02-54.9403-133.0659-2-32-			0-889062			43870	-0.22		22410	36		26.4	75	-2.3		1.2	64370	2.1		12	0.3		
02-54.9403-133.0659-2-42-			0-889062			48050	-0.23		23160	36		27.7	50	-2.4		1.3	58930	2.2		21	0.4		
02-54.9403-133.0659-2-52-			0-889062			46540	-0.28		31020	39		31.9	74	-2.8		1.4	57370	3.4		-24	0.4		
02-54.9472-133.0478-2-12-			0-889063			56230	-0.31		13720	40	-165	23.6	48	-3.2	3	1.3	68940	3.4	12010	13	0.4		
02-54.9472-133.0478-2-32-			0-889063			67090	-0.23	-225	10260	26	-152	22.0	29	-2.4	4	1.1	59470	2.0	9468	-21	0.5		
02-54.9472-133.0478-2-42-			0-889063			67400	-0.25	-311	14440	29	-191	20.7	37	-2.7	4	1.2	53940	2.1	-7851	15	0.3		
02-54.9472-133.0478-2-52-			0-889063			68590	-0.29	-259	14010	51	-191	18.3	49	-2.9	5	1.2	50030	2.5	-7590	16	0.4		

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
02-54.7750-133.5325-2-75-	0-1897553	7420	850	24720	-34		10.1	5.1	517	-1	-1	17.6	5948	85	6.2	-82	0.348					
02-54.7850-133.5164-2-12-	0-1897554	11687	978	28090	-33	-4	13.3	8.4	-471	-1	-1	7.0	6331	97	5.3	-88	0.446					
02-54.7850-133.5154-2-32-	0-1897554	5850	574	20900	-22	-3	7.7	5.0	589	-1	-1	3.8	3383	66	3.3	39	0.411					
02-54.7850-133.5164-2-42-	0-1897554	11075	915	27390	-36		13.0	6.1	645	3	1	5.2	5164	89	6.5	80	0.452					
02-54.7850-133.5164-2-52-	0-1897554	11170	901	27330	-35		13.3	6.8	-417	-1	-1	6.9	5215	93	6.0	73	0.496					
02-54.7850-133.5154-2-62-	0-1897554	13445	754	27200	-34		10.4	3.7	-495	-1	-1	5.4	5201	86	3.3	-35	0.531					
02-54.7914-133.5164-2-17-	0-1897555	11190	2358	16000	-41		11.1	8.5		-1	-1	11.0	4787	132	-3.0	60	0.411					
02-54.7914-133.5164-2-32-	0-1897555	13070	1922	17070	-48		14.5	7.6		-2	-1	8.9	6908	144	-2.6	86	0.464					
02-54.7914-133.5164-2-42-	0-1897555	15895	2213	17670	-40	-2	12.1	7.2	-430	-1	-1	7.1	5589	147	5.5	66	0.577					
02-54.7914-133.5164-2-52-	0-1897555	10110	2569	14530	-44	-2	9.5	4.3		-1	-1	6.8	4778	115	-2.9	93	0.618					
02-54.7914-133.5164-2-62-	0-1897555	10010	2630	14440	-43	-2	9.3	3.6		-2	-1	5.4	4293	129	-1.7	81	0.741					
02-54.7914-133.5164-2-71-	0-1897555	22330	4101	19850	-47	-2	12.4	8.0		-2	1	7.5	5623	188	4.6	85	0.480					
02-54.7914-133.5164-2-72-	0-1897555	12850	5930	18560	-43	-2	13.8	8.1		-1	1	8.1	10420	177	4.6	80	0.506					
02-54.7914-133.5164-2-73-	0-1897555	19510	7204	17430	-42	-2	13.3	8.4		-1	1	7.5	9946	193	4.2	93	0.547					
02-54.7914-133.5164-2-74-	0-1897555	-5985	9505	16310	-47	-2	11.8	6.0		-1	-1	6.9	-2501	173	-1.8	106	0.594					
02-54.7914-133.5164-2-75-	0-1897555	-6295	9072	15050	-50	-2	11.5	9.0		-2	-1	5.9	4005	207	-1.9	161	0.678					
02-54.8058-133.5186-2-12-	0-1897554	4098	2343	17330	88	-4	5.8	6.4	-416	1	-1	12.9	2872	105	2.5	58	0.419					
02-54.8058-133.5186-2-32-	0-1897554	5685	1550	18250	74	-3	4.6	7.2	-413	2	-1	11.3	3804	105	3.4	54	0.416					
02-54.8058-133.5186-2-42-	0-1897554	4756	2287	16780	-36	-4	5.0	4.5		-1	-1	15.5	3781	99	3.6	56	0.329					
02-54.8108-133.5217-2-12-	0-1897557	21570	10563	-50	-2	5.9	4.8			-2	-1	10.4		-93	3.5	281	1.168					
02-54.8108-133.5217-2-32-	0-1897557	19490	15210	83	-4	4.5	6.6			-1	-1	6.8		-140	3.6	165	1.510					
02-54.8108-133.5217-2-42-	0-1897557	15220	14210	-40	-4	4.9	5.8			-2	-1	12.9		-106	3.9	201	0.783					
02-54.8108-133.5217-2-52-	0-1897557	20740	10140	-43	-2	5.0	7.1			-2	-1	8.2		-98	5.5	204	1.461					
02-54.8267-133.5250-2-12-	0-1897558	13845	926	17740	-46	-3	15.5	4.6	-415	-2	-1	3.7	5978	144	3.3	199	0.916					
02-54.8267-133.5250-2-32-	0-1897558	12950	884	17740	-37	-2	14.8	5.0	-381	-1	-1	5.0	6745	133	-2.7	170	0.620					
02-54.8267-133.5250-2-42-	0-1897558	14345	933	18570	-37	-2	15.2	4.3	-454	-1	-1	3.6	7536	137	3.4	210	0.889					
02-54.8267-133.5250-2-52-	0-1897558	16345	921	17250	-39	-3	14.2	6.1	-412	-1	-1	4.2	5527	161	-2.5	-76	0.864					
02-54.8267-133.5250-2-62-	0-1897558	14430	884	17390	-45	-2	15.0	4.2	-393	-2	2	6.5	5485	154	-2.2	190	0.552					
02-54.9642-133.1419-2-12-	0-1897559	6345	4695	24930	-35	-2	17.1	4.4		1	1	3.8	4602	151	3.3	101	1.024					
02-54.9642-133.1419-2-32-	0-1897559	21930	2022	26650	-33	-4	13.0	3.8		-1	1	3.4	4896	148	3.8	106	1.059					
02-54.9642-133.1419-2-42-	0-1897559	-3925	5095	23850	-33	-2	15.3	3.7		-1	-1	3.7	-1682	140	3.5	84	1.000					
02-54.9642-133.1419-2-52-	0-1897559	-5170	5061	25140	-48	-3	15.3	3.9		-2	-1	2.8	-2312	151	3.0	123	1.393					
02-54.9642-133.1419-2-62-	0-1897559	-5245	5157	25910	-39	-2	15.0	5.0		-1	1	3.1	3975	136	4.0	114	1.332					
02-54.8267-133.5347-2-15-	0-1897560	-2450	530	13130	-43	-4	5.1	4.5	-412	-1	-1	13.1	2555	74	-2.7	56	0.924					
02-54.8267-133.5347-2-35-	0-1897560	-2366	438	17260	-33	-4	4.3	3.7	-345	-1	-1	10.6	2705	76	-2.9	36	0.901					
02-54.8267-133.5347-2-45-	0-1897560	5690	604	15320	-51	-2	5.8	3.5	-374	-2	-1	15.6	3397	92	1.8	51	0.683					
02-54.8267-133.5347-2-55-	0-1897560	4975	562	13370	-47	-2	5.2	3.0	-367	-2	-1	13.9	3239	87	-2.4	-65	0.862					
02-54.8267-133.5347-2-65-	0-1897560	3508	545	11510	-44	-3	5.4	3.6	-461	-2	-1	13.5	2945	89	-2.4	-51	0.934					
02-54.9531-133.0931-2-12-	0-1897561	-5785	7290	21600	-38	-3	15.4	3.4		-1	-1	1.7	-2478	124	2.9	103	1.276					
02-54.9531-133.0931-2-32-	0-1897561	2220	4343	22720	-47	-2	21.9	5.0		-2	-1	2.6	5805	164	2.5	109	0.800					
02-54.9531-133.0931-2-42-	0-1897561	-5495	6153	24270	-42	-2	17.7	3.8		-1	-1	3.5	-2435	165	-2.9	122	0.626					
02-54.9531-133.0931-2-52-	0-1897561	-7315	7850	23220	-44	-2	16.8	3.6		-2	-1	3.1	-3433	166	3.3	140	0.739					
02-54.9531-133.0931-2-62-	0-1897561	-6500	7830	22400	-44	-3	16.4	3.5		-2	-1	3.2	-2345	131	-3.0	134	0.719					
02-54.9403-133.0659-2-12-	0-1897562	-11140	10290	11700	-56	-3	20.5	4.7		-2	-1	5.2		131	-2.5	189	0.785					
02-54.9403-133.0659-2-32-	0-1897562	15045	5690	15320	-43	-2	19.1	3.6		-2	-1	2.7		115	-2.3	132	1.207					
02-54.9403-133.0659-2-42-	0-1897562	-9650	8634	13120	-45	-3	17.5	3.9		-2	-1	2.3		116	-2.5	165	1.700					
02-54.9403-133.0659-2-52-	0-1897562	22635	12340	10410	-49	-3	17.0	3.8		-2	-1	3.0		143	-3.5	279	1.550					
02-54.9472-133.0478-2-12-	0-1897563	14450	1737	27040	-54	-3	30.4	4.9		-2	-1	-2.0	4699	217	-2.7	199						
02-54.9472-133.0478-2-32-	0-1897563	16355	1355	30810	-45	-3	24.3	4.2	-475	-1	-1	2.5	5094	203	-2.4	135	2.400					
02-54.9472-133.0478-2-42-	0-1897563	17050	1425	28350	-49	-3	24.1	3.4		-2	-1	4.3	5905	227	2.5	-65	1.784					
02-54.9472-133.0478-2-52-	0-1897563	17000	1834	26830	-45	-3	24.5	2.8		-2	-1	4.0	5289	234	-3.1	61	2.090					

DOE SAMPLE NUMBER						LAST SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION																																																																																																																																																																																																																																																																																																																																																																										
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLATOR (eU/gpm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm																																																																																																																																																																																																																																																																																																																																																																					
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02-54.9472-133.0479-2-62	02-54.9306-132.9351-2-12	02-54.9306-132.9351-2-32	02-54.9306-132.9351-2-42	02-54.9306-132.9351-2-52	02-54.9306-132.9351-2-62	02-54.9306-132.9351-2-72	02-54.9306-132.9351-2-82	02-54.9306-132.9351-2-92	02-54.9306-132.9351-2-102	02-54.9306-132.9351-2-112	02-54.9306-132.9351-2-122	02-54.9306-132.9351-2-132	02-54.9306-132.9351-2-142	02-54.9306-132.9351-2-152	02-54.9306-132.9351-2-162	02-54.9306-132.9351-2-172	02-54.9306-132.9351-2-182	02-54.9306-132.9351-2-192	02-54.9306-132.9351-2-202	02-54.9306-132.9351-2-212	02-54.9306-132.9351-2-222	02-54.9306-132.9351-2-232	02-54.9306-132.9351-2-242	02-54.9306-132.9351-2-252	02-54.9306-132.9351-2-262	02-54.9306-132.9351-2-272	02-54.9306-132.9351-2-282	02-54.9306-132.9351-2-292	02-54.9306-132.9351-2-302	02-54.9306-132.9351-2-312	02-54.9306-132.9351-2-322	02-54.9306-132.9351-2-332	02-54.9306-132.9351-2-342	02-54.9306-132.9351-2-352	02-54.9306-132.9351-2-362	02-54.9306-132.9351-2-372	02-54.9306-132.9351-2-382	02-54.9306-132.9351-2-392	02-54.9306-132.9351-2-402	02-54.9306-132.9351-2-412	02-54.9306-132.9351-2-422	02-54.9306-132.9351-2-432	02-54.9306-132.9351-2-442	02-54.9306-132.9351-2-452	02-54.9306-132.9351-2-462	02-54.9306-132.9351-2-472	02-54.9306-132.9351-2-482	02-54.9306-132.9351-2-492	02-54.9306-132.9351-2-502	02-54.9306-132.9351-2-512	02-54.9306-132.9351-2-522	02-54.9306-132.9351-2-532	02-54.9306-132.9351-2-542	02-54.9306-132.9351-2-552	02-54.9306-132.9351-2-562	02-54.9306-132.9351-2-572	02-54.9306-132.9351-2-582	02-54.9306-132.9351-2-592	02-54.9306-132.9351-2-602	02-54.9306-132.9351-2-612	02-54.9306-132.9351-2-622	02-54.9306-132.9351-2-632	02-54.9306-132.9351-2-642	02-54.9306-132.9351-2-652	02-54.9306-132.9351-2-662	02-54.9306-132.9351-2-672	02-54.9306-132.9351-2-682	02-54.9306-132.9351-2-692	02-54.9306-132.9351-2-702	02-54.9306-132.9351-2-712	02-54.9306-132.9351-2-722	02-54.9306-132.9351-2-732	02-54.9306-132.9351-2-742	02-54.9306-132.9351-2-752	02-54.9306-132.9351-2-762	02-54.9306-132.9351-2-772	02-54.9306-132.9351-2-782	02-54.9306-132.9351-2-792	02-54.9306-132.9351-2-802	02-54.9306-132.9351-2-812	02-54.9306-132.9351-2-822	02-54.9306-132.9351-2-832	02-54.9306-132.9351-2-842	02-54.9306-132.9351-2-852	02-54.9306-132.9351-2-862	02-54.9306-132.9351-2-872	02-54.9306-132.9351-2-882	02-54.9306-132.9351-2-892	02-54.9306-132.9351-2-902	02-54.9306-132.9351-2-912	02-54.9306-132.9351-2-922	02-54.9306-132.9351-2-932	02-54.9306-132.9351-2-942	02-54.9306-132.9351-2-952	02-54.9306-132.9351-2-962	02-54.9306-132.9351-2-972	02-54.9306-132.9351-2-982	02-54.9306-132.9351-2-992	02-54.9306-132.9351-2-1002	02-54.9306-132.9351-2-1012	02-54.9306-132.9351-2-1022	02-54.9306-132.9351-2-1032	02-54.9306-132.9351-2-1042	02-54.9306-132.9351-2-1052	02-54.9306-132.9351-2-1062	02-54.9306-132.9351-2-1072	02-54.9306-132.9351-2-1082	02-54.9306-132.9351-2-1092	02-54.9306-132.9351-2-1102	02-54.9306-132.9351-2-1112	02-54.9306-132.9351-2-1122	02-54.9306-132.9351-2-1132	02-54.9306-132.9351-2-1142	02-54.9306-132.9351-2-1152	02-54.9306-132.9351-2-1162	02-54.9306-132.9351-2-1172	02-54.9306-132.9351-2-1182	02-54.9306-132.9351-2-1192	02-54.9306-132.9351-2-1202	02-54.9306-132.9351-2-1212	02-54.9306-132.9351-2-1222	02-54.9306-132.9351-2-1232	02-54.9306-132.9351-2-1242	02-54.9306-132.9351-2-1252	02-54.9306-132.9351-2-1262	02-54.9306-132.9351-2-1272	02-54.9306-132.9351-2-1282	02-54.9306-132.9351-2-1292	02-54.9306-132.9351-2-1302	02-54.9306-132.9351-2-1312	02-54.9306-132.9351-2-1322	02-54.9306-132.9351-2-1332	02-54.9306-132.9351-2-1342	02-54.9306-132.9351-2-1352	02-54.9306-132.9351-2-1362	02-54.9306-132.9351-2-1372	02-54.9306-132.9351-2-1382	02-54.9306-132.9351-2-1392	02-54.9306-132.9351-2-1402	02-54.9306-132.9351-2-1412	02-54.9306-132.9351-2-1422	02-54.9306-132.9351-2-1432	02-54.9306-132.9351-2-1442	02-54.9306-132.9351-2-1452	02-54.9306-132.9351-2-1462	02-54.9306-132.9351-2-1472	02-54.9306-132.9351-2-1482	02-54.9306-132.9351-2-1492	02-54.9306-132.9351-2-1502	02-54.9306-132.9351-2-1512	02-54.9306-132.9351-2-1522	02-54.9306-132.9351-2-1532	02-54.9306-132.9351-2-1542	02-54.9306-132.9351-2-1552	02-54.9306-132.9351-2-1562	02-54.9306-132.9351-2-1572	02-54.9306-132.9351-2-1582	02-54.9306-132.9351-2-1592	02-54.9306-132.9351-2-1602	02-54.9306-132.9351-2-1612	02-54.9306-132.9351-2-1622	02-54.9306-132.9351-2-1632	02-54.9306-132.9351-2-1642	02-54.9306-132.9351-2-1652	02-54.9306-132.9351-2-1662	02-54.9306-132.9351-2-1672	02-54.9306-132.9351-2-1682	02-54.9306-132.9351-2-1692	02-54.9306-132.9351-2-1702	02-54.9306-132.9351-2-1712	02-54.9306-132.9351-2-1722	02-54.9306-132.9351-2-1732	02-54.9306-132.9351-2-1742	02-54.9306-132.9351-2-1752	02-54.9306-132.9351-2-1762	02-54.9306-132.9351-2-1772	02-54.9306-132.9351-2-1782	02-54.9306-132.9351-2-1792	02-54.9306-132.9351-2-1802	02-54.9306-132.9351-2-1812	02-54.9306-132.9351-2-1822	02-54.9306-132.9351-2-1832	02-54.9306-132.9351-2-1842	02-54.9306-132.9351-2-1852	02-54.9306-132.9351-2-1862	02-54.9306-132.9351-2-1872	02-54.9306-132.9351-2-1882	02-54.9306-132.9351-2-1892	02-54.9306-132.9351-2-1902	02-54.9306-132.9351-2-1912	02-54.9306-132.9351-2-1922	02-54.9306-132.9351-2-1932	02-54.9306-132.9351-2-1942	02-54.9306-132.9351-2-1952	02-54.9306-132.9351-2-1962	02-54.9306-132.9351-2-1972	02-54.9306-132.9351-2-1982	02-54.9306-132.9351-2-1992	02-54.9306-132.9351-2-2002	02-54.9306-132.9351-2-2012	02-54.9306-132.9351-2-2022	02-54.9306-132.9351-2-2032	02-54.9306-132.9351-2-2042	02-54.9306-132.9351-2-2052	02-54.9306-132.9351-2-2062	02-54.9306-132.9351-2-2072	02-54.9306-132.9351-2-2082	02-54.9306-132.9351-2-2092	02-54.9306-132.9351-2-2102	02-54.9306-132.9351-2-2112	02-54.9306-132.9351-2-2122	02-54.9306-132.9351-2-2132	02-54.9306-132.9351-2-2142	02-54.9306-132.9351-2-2152	02-54.9306-132.9351-2-2162	02-54.9306-132.9351-2-2172	02-54.9306-132.9351-2-2182	02-54.9306-132.9351-2-2192	02-54.9306-132.9351-2-2202	02-54.9306-132.9351-2-2212	02-54.9306-132.9351-2-2222	02-54.9306-132.9351-2-2232	02-54.9306-132.9351-2-2242	02-54.9306-132.9351-2-2252	02-54.9306-132.9351-2-2262	02-54.9306-132.9351-2-2272	02-54.9306-132.9351-2-2282	02-54.9306-132.9351-2-2292	02-54.9306-132.9351-2-2302	02-54.9306-132.9351-2-2312	02-54.9306-132.9351-2-2322	02-54.9306-132.9351-2-2332	02-54.9306-132.9351-2-2342	02-54.9306-132.9351-2-2352	02-54.9306-132.9351-2-2362	02-54.9306-132.9351-2-2372	02-54.9306-132.9351-2-2382	02-54.9306-132.9351-2-2392	02-54.9306-132.9351-2-2402	02-54.9306-132.9351-2-2412	02-54.9306-132.9351-2-2422	02-54.9306-132.9351-2-2432	02-54.9306-132.9351-2-2442	02-54.9306-132.9351-2-2452	02-54.9306-132.9351-2-2462	02-54.9306-132.9351-2-2472	02-54.9306-132.9351-2-2482	02-54.9306-132.9351-2-2492	02-54.9306-132.9351-2-2502	02-54.9306-132.9351-2-2512	02-54.9306-132.9351-2-2522	02-54.9306-132.9351-2-2532	02-54.9306-132.9351-2-2542	02-54.9306-132.9351-2-2552	02-54.9306-132.9351-2-2562	02-54.9306-132.9351-2-2572	02-54.9306-132.9351-2-2582	02-54.9306-132.9351-2-2592	02-54.9306-132.9351-2-2602	02-54.9306-132.9351-2-2612	02-54.9306-132.9351-2-2622	02-54.9306-132.9351-2-2632	02-54.9306-132.9351-2-2642	02-54.9306-132.9351-2-2652	02-54.9306-132.9351-2-2662	02-54.9306-132.9351-2-2672	02-54.9306-132.9351-2-2682	02-54.9306-132.9351-2-2692	02-54.9306-132.9351-2-2702	02-54.9306-132.9351-2-2712	02-54.9306-132.9351-2-2722	02-54.9306-132.9351-2-2732	02-54.9306-132.9351-2-2742	02-54.9306-132.9351-2-2752	02-54.9306-132.9351-2-2762	02-54.9306-132.9351-2-2772	02-54.9306-132.9351-2-2782	02-54.9306-132.9351-2-2792	02-54.9306-132.9351-2-2802	02-54.9306-132.9351-2-2812	02-54.9306-132.9351-2-2822	02-54.9306-132.9351-2-2832	02-54.9306-132.9351-2-2842	02-54.9306-132.9351-2-2852	02-54.9306-132.9351-2-2862	02-54.9306-132.9351-2-2872	02-54.9306-132.9351-2-2882	02-54.9306-132.9351-2-2892	02-54.9306-132.9351-2-2902	02-54.9306-132.9351-2-2912	02-54.9306-132.9351-2-2922	02-54.9306-132.9351-2-2932	02-54.9306-132.9351-2-2942	02-54.9306-132.9351-2-2952	02-54.9306-132.9351-2-2962	02-54.9306-132.9351-2-2972	02-54.9306-132.9351-2-2982	02-54.9306-132.9351-2-2992	02-54.9306-132.9351-2-3002	02-54.9306-132.9351-2-3012	02-54.9306-132.9351-2-3022	02-54.9306-132.9351-2-3032	02-54.9306-132.9351-2-3042	02-54.9306-132.9351-2-3052	02-54.9306-132.9351-2-3062	02-54.9306-132.9351-2-3072	02-54.9306-132.9351-2-3082	02-54.9306-132.9351-2-3092	02-54.9306-132.9351-2-3102	02-54.9306-132.9351-2-3112	02-54.9306-132.9351-2-3122	02-54.9306-132.9351-2-3132	02-54.9306-132.9351-2-3142	02-54.9306-132.9351-2-3152	02-54.9306-132.9351-2-3162	02-54.9306-132.9351-2-3172	02-54.9306-132.9351-2-3182	02-54.9306-132.9351-2-3192	02-54.9306-132.9351-2-3202	02-54.9306-132.9351-2-3212	02-54.9306-132.9351-2-3222	02-54.9306-132.9351-2-3232	02-54.9306-132.9351-2-3242	02-54.9306-132.9351-2-3252	02-54.9306-132.9351-2-3262	02-54.9306-132.9351-2-3272	02-54.9306-132.9351-2-3282	02-54.9306-132.9351-2-3292	02-54.9306-132.9351-2-3302	02-54.9306-132.9351-2-3312	02-54.9306-132.9351-2-3322	02-54.9306-132.9351-2-3332	02-54.9306-132.9351-2-3342	02-54.9306-132.9351-2-3352	02-54.9306-132.9351-2-3362	02-54.9306-132.9351-2-3372	02-54.9306-132.9351-2-3382	02-54.9306-132.9351-2-3392	02-54.9306-132.9351-2-3402	02-54.9306-132.9351-2-3412	02-54.9306-132.9351-2-3422	02-54.9306-132.9351-2-3432	02-54.9306-132.9351-2-3442	02-54.9306-132.9351-2-3452	02-54.9306-132.9351-2-3462	02-54.9306-132.9351-2-3472	02-54.9306-132.9351-2-3482	02-54.9306-132.9351-2-3492	02-54.9306-132.9351-2-3502	02-54.9306-132.9351-2-3512	02-54.9306-132.9351-2-3522	02-54.9306-132.9351-2-3532	02-54.9306-132.9351-2-3542	02-54.9306-132.9351-2-3552	02-54.9306-132.9351-2-3562	02-54.9306-132.9351-2-3572	02-54.9306-132.9351-2-3582	02-54.9306-132.9351-2-3592	02-54.9306-132.9351-2-3602	02-54.9306-132.9351-2-3612	02-54.9306-132.9351-2-3622	02-54.9306-132.9351-2-3632	02-54.9306-132.9351-2-3642	02-54.9306-132.9351-2-3652	02-54.9306-132.9351-2-3662	02-54.9306-132.9351-2-3672	02-54.9306-132.9351-2-3682	02-54.9306-132.9351-2-3692	02-54.9306-132.9351-2-3702	02-54.9306-132.9351-2-3712	02-54.9306-132.9351-2-3722	02-54.9306-132.9351-2-3732	02-54.9306-132.9351-2-3742	02-54.9306-132.9351-2-3752	02-54.9306-132.9351-2-3762	02-54.9306-132.9351-2-3772	02-54.9306-132.9351-2-3782	02-54.9306-132.9351-2-3792	02-54.9306-132.9351-2-3802	02-54.9306-132.9351-2-3812	02-54.9306-132.9351-2-3822	02-54.9306-132.9351-2-3832	02-54.9306-132.9351-2-3842	02-54.9306-132.9351-2-3852	02-54.9306-132.9351-2-3862	02-54.9306-132.9351-2-3872	02-54.9306-132.9351-2-3882	02-54.9306-132.

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
02-54.9472-133.0478-2-62-	0-899053	-5	-5	-5	56	-20	-15	-5	-10	-15	2	31						
02-54.9306-132.9361-2-12-	0-899054	-5	-5	-5	44	-20	30	-5	-10	-15	1	24						
02-54.9306-132.9361-2-32-	0-899054	-5	-5	-5	40	-20	50	-5	-10	-15	-1	20						
02-54.9306-132.9361-2-42-	0-899054	-5	-5	-5	33	-20	34	-5	-10	-15	1	20						
02-54.9306-132.9361-2-52-	0-899054	-5	-5	-5	44	-20	55	-5	-10	-15	1	19						
02-54.9306-132.9361-2-62-	0-899054	-5	-5	-5	51	-20	28	-5	-10	-15	1	24						
02-54.9072-132.9286-2-12-	0-899055	-5	-5	-5	38	-20	30	-5	-10	31	1	32						
02-54.9072-132.9286-2-32-	0-899055	-5	-5	-5	32	-20	24	-5	-10	-15	1	28						
02-54.9072-132.9286-2-42-	0-899055	-5	-5	-5	46	-20	30	-5	-10	18	2	43						
02-54.8964-132.8883-2-12-	0-899056	-5	-5	-5	45	-20	83	-5	-10	-15	2	39						
02-54.8964-132.8883-2-32-	0-899056	-5	-5	-5	30	-20	54	-5	-10	-15	1	23						
02-54.8964-132.8883-2-42-	0-899056	-5	-5	-5	21	-20	68	-5	-10	-15	1	26						
02-54.8964-132.8883-2-52-	0-899056	-5	-5	-5	41	-20	49	-5	-10	-15	1	31						
02-54.8964-132.8883-2-62-	0-899056	-5	-5	-5	42	-20	42	-5	-10	-15	1	29						
02-54.8800-132.8556-2-12-	0-899057	-5	-5	-5	73	-20	83	-5	-10	-15	1	25						
02-54.8800-132.8556-2-32-	0-899057	-5	-5	9	56	-20	93	-5	-10	-15	1	19						
02-54.8800-132.8556-2-42-	0-899057	-5	-5	9	75	-20	135	-5	-10	-15	1	21						
02-54.8667-132.8281-2-12-	0-899058	-5	-5	-5	65	-20	139	-5	-10	-15	1	19						
02-54.8667-132.8281-2-32-	0-899058	-5	-5	-5	47	-20	190	-5	-10	-15	1	21						
02-54.8667-132.8281-2-42-	0-899058	-5	-5	-5	58	-20	140	-5	-10	-15	1	19						
02-54.8667-132.8281-2-52-	0-899058	-5	-5	-5	52	-20	140	-5	-10	15	1	21						
02-54.8667-132.8281-2-62-	0-899058	-5	-5	-5	73	-20	146	-5	-10	-15	1	20						
02-54.8472-132.8469-2-12-	0-899059	-5	-5	5	43	-20	95	-5	-10	-15	1	23						
02-54.8472-132.8469-2-32-	0-899059	-5	-5	-5	49	-20	82	-5	-10	-15	1	24						
02-54.8472-132.8469-2-42-	0-899059	-5	-5	-5	52	-20	106	-5	-10	-15	2	28						
02-54.8472-132.8469-2-52-	0-899059	-5	-5	-5	76	-20	99	-5	14	-15	1	23						
02-54.8472-132.8469-2-62-	0-899059	-5	-5	-5	52	-20	88	-5	-10	-15	2	37						
02-54.8250-132.7711-2-12-	0-899070	-5	-5	-5	46	-20	64	8	-10	22	-1	23						
02-54.8250-132.7711-2-32-	0-899070	-5	-5	-5	45	-20	44	-5	-10	28	1	17						
02-54.8250-132.7711-2-42-	0-899070	-5	-5	-5	56	-20	69	-5	-10	-15	-1	21						
02-54.8250-132.7711-2-52-	0-899070	-5	-5	-5	66	-20	84	-5	-10	-15	2	25						
02-54.8250-132.7711-2-62-	0-899070	-5	5	5	58	-20	61	-5	-10	-15	1	22						
02-54.8106-132.7939-2-12-	0-899071	-5	-5	6	44	-20	18	-5	10	30	-1	34						
02-54.8106-132.7939-2-32-	0-899071	-5	-5	6	44	-20	-15	-5	-10	34	1	45						
02-54.8106-132.7939-2-42-	0-899071	-5	-5	-5	13	-20	-15	-5	-10	-15	-1	46						
02-54.8106-132.7939-2-52-	0-899071	-5	-5	-5	31	-20	-15	-5	-10	-15	-1	40						
02-54.8106-132.7939-2-62-	0-899071	-5	-5	9	30	-20	19	-5	-10	-15	-1	43						
02-54.8044-132.7792-2-12-	0-899072	-5	-5	-5	74	-20	45	-5	-10	-15	2	29						
02-54.8044-132.7792-2-32-	0-899072	-5	-5	-5	34	-20	42	6	-10	-15	2	20						
02-54.8044-132.7792-2-42-	0-899072	-5	-5	-5	55	-20	51	7	-10	-15	1	17						
02-54.8044-132.7792-2-52-	0-899072	-5	-5	-5	74	-20	54	-5	-10	-15	2	37						
02-54.8044-132.7792-2-62-	0-899072	-5	-5	5	86	-20	88	5	20	21	-1	38						
02-54.7697-132.6714-2-12-	0-899073	-5	-5	-5	70	-20	43	-5	-10	-15	-1	25						
02-54.7697-132.6714-2-32-	0-899073	-5	-5	-5	47	-20	39	-5	-10	-15	1	24						
02-54.7697-132.6714-2-42-	0-899073	-5	-5	-5	33	-20	46	21	-10	-15	1	21						
02-54.9253-133.0989-2-12-	0-899074	-5	-5	-5	33	-20	30	-5	-10	-15	2	21						
02-54.9253-133.0989-2-32-	0-899074	-5	-5	-5	33	-20	30	-5	-10	-15	1	24						
02-54.9253-133.0989-2-42-	0-899074	-5	-5	8	31	-20	26	20	-10	40	1	23						
02-54.9253-133.0989-2-52-	0-899074	-5	7	5	27	-20	39	30	-10	-15	1	23						
02-54.9253-133.0989-2-62-	0-899074	-5	-5	-5	42	-20	26	6	-10	-15	1	31						
02-54.9133-133.0447-2-12-	0-899075	-5	-5	-5	55	-20	-15	-5	-10	21	-1	15						

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS															
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)														
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La
02-54.9472-133.0478-2-62-	0-AR9063	62750	-0.34	415	15140	42	-176	22.7	47	-3.5	4	1.4	67150	3.2	14060		0.5				
02-54.9306-132.9361-2-12-	0-AR9064	51750	-0.22	266	20390	29	-119	20.0	160	-2.3	4	1.2	63840	2.6	9794	14	0.3				
02-54.9306-132.9361-2-32-	0-AR9064	50650	-0.19	-176	20110	29	-122	19.9	147	-2.0	4	1.2	62760	1.8	7199	15	0.3				
02-54.9306-132.9361-2-42-	0-AR9064	54900	-0.23	-162	21310	31	-121	19.9	154	-2.4	4	1.3	62670	2.3	10080	16	0.3				
02-54.9306-132.7361-2-52-	0-AR9064	53680	-0.11	195	19720	29	-135	21.3	143	-3.1	4	1.4	66140	4.0	8038	14	0.4				
02-54.9306-132.9361-2-62-	0-AR9064	67670	-0.47	-207	18630	32	-140	20.3	139	-2.6	4	1.2	67050	2.1	10480	16	0.3				
02-54.9072-132.9286-2-12-	0-AR9065	70070	-0.22	-254	14450	34	-161	24.5	94	-2.4	5	1.3	68640	2.3	11420	18	0.4				
02-54.9072-132.9286-2-32-	0-AR9065	59120	-0.22	-177	17160	29	-126	19.7	92	-2.2	3	1.1	64030	2.4	12800	-16	0.3				
02-54.9072-132.9286-2-42-	0-AR9065	59610	-0.28	253	18530	35	-139	25.3	106	-2.8	3	1.2	77970	5.3	13350	15	0.5				
02-54.8964-132.8883-2-12-	0-AR9066	59900	-0.23	-269	29740	30	-162	29.3	352	-2.5	4	1.3	68710	2.0	10490	16	0.3				
02-54.8964-132.8883-2-32-	0-AR9066	50030	-0.21	-259	27550	32	-165	30.3	390	-2.2	4	1.1	67520	1.6	-7241	13	0.3				
02-54.8964-132.8883-2-42-	0-AR9066	55900	-0.26	-255	27100	32	-165	28.7	351	-2.6	4	1.3	66220	2.4	-7534	11	0.2				
02-54.8964-132.8883-2-52-	0-AR9066	53060	-0.33	-354	22520	42	-225	35.8	310	-3.3	4	1.2	85230	2.6	-10510	-24	0.3				
02-54.8964-132.8883-2-62-	0-AR9066	67290	-0.25	-337	29840	41	-207	29.7	232	-2.7	3	1.4	71570	2.4	-9726	18	0.4				
02-54.8800-132.8656-2-12-	0-AR9067	79310	-0.24		28440	25	-265	45.1	148	-2.6	4	1.0	86530	1.9		-22	0.2				
02-54.8800-132.8656-2-32-	0-AR9067	55320	-0.23		25460	23	-262	47.5	187	-2.3	4	1.1	89110	2.3		13	0.2				
02-54.8800-132.8656-2-42-	0-AR9067	67390	-0.31		29360	27		70.3	285	-3.0		1.3	107900	-1.5		-28	0.5				
02-54.8667-132.8281-2-12-	0-AR9068	54850	-0.24		41250	41	-293	38.4	471	-2.5	4	1.2	68530	2.4		-24	0.3				
02-54.8667-132.8281-2-32-	0-AR9068	62460	-0.21	-278	37680	34	-181	31.9	449	-2.2	-2	1.2	62650	2.4	-8393	15	0.3				
02-54.8667-132.8281-2-42-	0-AR9068	55170	-0.24	-272	41950	32	-207	34.7	494	-2.4	3	1.2	61560	1.8	-9736	14	0.4				
02-54.8667-132.8281-2-52-	0-AR9068	70970	-0.13		36590	43	-297	39.7	429	-3.7	-3	1.4	66020	2.6		13	0.4				
02-54.8667-132.8281-2-62-	0-AR9068	53570	-0.25		35310	46		41.1	422	-2.6	-3	1.3	74870	2.4		16	0.3				
02-54.8472-132.8469-2-12-	0-AR9069	72740	-0.22	-213	26940	32	-149	28.7	287	-2.3	4	1.2	61020	3.2	-6068	10	0.5				
02-54.8472-132.8469-2-32-	0-AR9069	73050	-0.21	322	26150	25	-117	24.3	273	-2.1	3	1.1	52490	3.2	-4396	13	0.4				
02-54.8472-132.8469-2-42-	0-AR9069	74620	-0.11	-174	26960	28	-132	28.9	315	-3.1	5	1.0	63870	3.4	8840	11	0.4				
02-54.8472-132.8469-2-52-	0-AR9069	92000	-0.24	-267	26380	35	-170	30.5	334	-2.6	4	1.4	64970	3.7	-6723	16	0.5				
02-54.8472-132.8469-2-62-	0-AR9069	90970	-0.26	-235	27190	34	-163	29.8	350	-2.7	4	1.5	67590	3.8	-6770	14	0.4				
02-54.8250-132.7711-2-12-	0-AR9070	90630	-0.24		42580	52		63.4	113	3.0		1.3	61770	3.4		21	0.4				
02-54.8250-132.7711-2-32-	0-AR9070	94590	-0.09		44320	34		25.8	147	-2.7		1.1	59710	3.8		16	0.4				
02-54.8250-132.7711-2-42-	0-AR9070	84260	-0.21		43750	45		65.9	121	1.5		1.2	67670	3.2		18	0.3				
02-54.8250-132.7711-2-52-	0-AR9070	85930	-0.22		46930	40		59.9	158	2.0		1.4	66410	4.0		26	0.4				
02-54.8250-132.7711-2-62-	0-AR9070	99200	-0.25		31100	47		45.2	125	-2.5		1.3	63900	4.4		24	0.4				
02-54.8106-132.7939-2-12-	0-AR9071	57930	-0.11			90		106.0	96	-3.0		1.5	119700	3.5		26	0.4				
02-54.8106-132.7939-2-32-	0-AR9071	70790	-0.22			66		70.2	82	1.9		1.2	102400	4.6		19	0.5				
02-54.8106-132.7939-2-42-	0-AR9071	72210	-0.25			90		146.6	116	-2.6		1.4	121900	2.6		22	0.5				
02-54.8106-132.7939-2-52-	0-AR9071	56650	-0.21			117		127.6	110	-3.1		1.9	133700	4.6		31	0.5				
02-54.8106-132.7939-2-62-	0-AR9071	51050	-0.30			121		147.2	124	-3.1		1.8	142900	3.5		30	0.5				
02-54.8044-132.7792-2-12-	0-AR9072	52830	-0.24	549	17510	60	-164	24.9	176	2.2	4	1.7	67030	4.3	-7158	32	0.5				
02-54.8044-132.7792-2-32-	0-AR9072	52950	-0.16	392	17000	53	-118	15.9	118	-1.7	4	1.4	43460	3.0	-4681	39	0.4				
02-54.8044-132.7792-2-42-	0-AR9072	56770	-0.17	533	17940	49	143	19.9	128	-1.8	4	1.4	49240	4.2	7134	34	0.3				
02-54.8044-132.7792-2-52-	0-AR9072	56350	-0.24	674	21480	78	-176	28.1	174	-2.5	5	1.9	65760	6.0	-8098	30	0.6				
02-54.8044-132.7792-2-62-	0-AR9072	72810	-0.29	819	13770	98	-212	39.3	229	-3.1	5	2.2	79320	8.0	-9660	31	0.8				
02-54.7697-132.6714-2-12-	0-AR9073	67670	-0.25	-311	13950	36	-222	44.2	131	-2.7	3	1.2	78910	2.0	-9659	-22	0.3				
02-54.7697-132.6714-2-32-	0-AR9073	93660	-0.20	364	-4026	31	-224	49.3	137	-2.2	2	1.1	79360	2.1	-9470	13	0.3				
02-54.7697-132.6714-2-42-	0-AR9073	82840	-0.26	-340	15630	35	-233	50.6	135	-2.8	2	1.1	80790	-1.3	-10270	11	0.3				
02-54.9253-133.0989-2-12-	0-AR9074	54630	-0.15	-231	27060	53	345	22.7	96	-2.3	5	1.8	76760	4.0	12300	25	0.3				
02-54.9253-133.0989-2-32-	0-AR9074	65150	-0.12	-159	30350	39	195	21.0	86	-3.1	4	1.7	64790	3.1	12010	17	0.4				
02-54.9253-133.0989-2-42-	0-AR9074	62880	-0.14	274	25190	57	384	24.0	99	-2.3	5	1.8	88240	5.1	8495	33	0.4				
02-54.9253-133.0989-2-52-	0-AR9074	67490	-0.15	456	25400	50	582	21.8	66	2.2	6	1.8	65670	3.7	11910	24	0.4				
02-54.9253-133.0989-2-62-	0-AR9074	73750	-0.12	381	20850	41	511	26.6	66	-3.5	6	1.7	71830	3.5	13170	17	0.5				
02-54.9139-133.0447-2-12-	0-AR9075	60570	-0.13	-232	18490	20	-156	26.3	51	-3.7	3	1.3	84100	-1.9	-6812	14	0.4				

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

(4)

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	DOE SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
02-54.9472-133.0478-2-62-	0-199063	15245	1709	26560	-61	-3	30.5	4.3	-2	-1	-2.2	4729	244	-3.2	200							
02-54.9306-132.9361-2-12-	0-199064	20040	813	24970	-60	-3	27.7	4.8	-358	-1	-1	-1.3	6448	180	4.2	135						
02-54.9306-132.9361-2-32-	0-199064	19345	712	24530	-36	-2	26.2	4.3	-360	-1	-1	2.3	6445	171	3.2	105						0.696
02-54.9306-132.9361-2-42-	0-199064	20730	790	25240	-38	-3	26.0	2.1	-345	-1	-1	2.5	5744	190	-2.9	182						0.680
02-54.9306-132.9361-2-52-	0-199064	17510	915	26740	-48	-3	27.3	4.7	-411	-2	-1	2.6	6351	169	3.6	137						0.769
02-54.9306-132.9361-2-62-	0-199064	21990	1034	28170	-46	-3	27.6	3.5	-432	-2	-1	2.6	5529	161	3.7	177						0.838
02-54.9072-132.9286-2-12-	0-199065	19915	1453	24950	-44	-3	27.1	4.3		-2	-1	2.5	5633	169	3.3	135						0.720
02-54.9072-132.9286-2-32-	0-199065	20850	1121	24390	-35	-2	25.0	3.9	-376	-1	-2	2.5	5198	174	3.2	-25						0.600
02-54.9072-132.9286-2-42-	0-199065	19205	1468	24300	-50	-3	33.4	-2.3	-466	-2	-1	2.5	5864	166	-3.7	235						0.716
02-54.8964-132.8883-2-12-	0-199065	21170	2509	18850	-42	-3	29.0	4.2		-2	-1	2.9	5519	153	-2.5	95						0.517
02-54.8964-132.8883-2-32-	0-199065	22490	2074	19540	-60	-2	27.8	3.5		-1	-1	2.6	6851	150	2.8	145						0.508
02-54.8964-132.8883-2-42-	0-199065	19830	2411	17840	-62	-3	27.0	3.1		-2	-1	2.6	4926	151	3.7	-66						0.592
02-54.8964-132.8883-2-52-	0-199065	16040	3921	19350	-58	-3	35.3	3.5		-2	-1	3.5	4023	161	-3.3	328						0.503
02-54.8964-132.8883-2-62-	0-199065	13920	3491	21260	-47	-3	30.3	4.9		-2	-1	4.0	3694	146	-2.9	89						0.465
02-54.8800-132.8656-2-12-	0-199067	15415	4709	21870	-67	-3	33.0	4.1		-2	-1	1.8	7489	201	4.5	-74						0.633
02-54.8800-132.8656-2-32-	0-199067	19145	3941	20440	-39	-2	31.6	2.7		-1	-1	1.7	6422	202	-2.4	75						0.588
02-54.8900-132.8656-2-42-	0-199067	13150	6595	20330	-53	-3	37.3	2.4		-2	-1	2.0	4692	208	-2.5	120						0.550
02-54.8667-132.8281-2-12-	0-199068	24930	6876	17930	-65	-3	28.2	5.2		-2	-1	2.7	-2896	177	3.3	149						0.781
02-54.8667-132.8281-2-32-	0-199068	28970	3360	18270	-62	-2	26.4	3.4		-1	-1	2.5	4114	196	-2.3	45						0.708
02-54.8667-132.8281-2-42-	0-199068	37060	5235	17690	-61	-2	26.8	3.6		-1	-1	2.5	6043	217	2.2	-42						0.760
02-54.8667-132.8281-2-52-	0-199068	39500	7969	18300	-59	-3	25.6	4.0		-3	-2	4.1	4020	195	-2.9	102						0.561
02-54.8667-132.8281-2-62-	0-199068	40430	8505	18570	-68	-3	29.5	4.1		-2	-1	3.5	-3434	142	2.6	164						0.680
02-54.8472-132.8469-2-12-	0-199069	22445	1474	26500	-61	-3	28.9	4.5	-459	-1	-1	2.9	5018	185	3.1	-59						0.638
02-54.8472-132.8469-2-32-	0-199069	22290	871	26120	-34	-2	26.0	2.1	-347	-1	-1	2.2	5311	171	3.1	97						0.727
02-54.8472-132.8469-2-42-	0-199069	25520	1177	26450	-69	-3	31.2	3.9	-410	-2	-1	2.4	5875	191	2.9	141						0.750
02-54.8472-132.8469-2-52-	0-199069	20930	1501	27460	-63	-2	32.8	4.4		-2	-1	3.3	4517	199	3.5	223						0.606
02-54.8472-132.8469-2-62-	0-199069	21635	1649	27910	-47	-3	34.2	6.4		-2	1	3.0	4398	212	3.6	170						0.700
02-54.8250-132.7711-2-12-	0-199070		15030	14500	-62	-2	24.2	5.0		-2	1	3.9		211	2.9	159						0.738
02-54.8250-132.7711-2-32-	0-199070	22490	4409	20090	-61	-2	24.9	3.7		-2	-1	4.1		211	3.3	102						0.505
02-54.8250-132.7711-2-42-	0-199070		16470	14140	-62	-2	25.6	5.0		-1	1	4.4		223	3.2	186						0.545
02-54.8250-132.7711-2-52-	0-199070		15150	15940	-65	-3	25.5	5.3		1	1	4.4		229	2.7	161						0.609
02-54.8250-132.7711-2-62-	0-199070	39870	11350	26050	-61	-3	22.9	3.0		-2	1	4.0		275	4.0	-165						0.780
02-54.8106-132.7939-2-12-	0-199071		24590	15360	-57	-3	21.3	5.0		-2	-1	5.2		-146	4.0	212						0.662
02-54.8106-132.7939-2-32-	0-199071		14590	15360	73	-2	21.5	4.1		-1	1	5.2		152	3.9	167						0.508
02-54.8106-132.7939-2-42-	0-199071		39710	11510	-63	-3	19.5	5.2		-2	-1	5.3			-3.0	236						0.634
02-54.8106-132.7939-2-52-	0-199071		31540	12720	-65	-3	20.9	6.3		-2	1	8.3			5.3	215						0.513
02-54.8106-132.7939-2-62-	0-199071		40150	11450	-64	-3	19.5	7.1		-2	-1	8.5			6.3	239						0.516
02-54.8044-132.7792-2-12-	0-199072	19910	1904	20740	-66	-2	27.5	5.2		-2	1	5.5	5878	160	4.8	131						0.464
02-54.8044-132.7792-2-32-	0-199072	13215	1063	22840	-30	-4	19.9	5.2	-359	-1	1	3.4	4594	135	2.9	88						0.582
02-54.8044-132.7792-2-42-	0-199072	17010	1504	21400	-32	-4	21.5	5.2	-433	-1	1	3.9	5373	142	3.0	79						0.608
02-54.8044-132.7792-2-52-	0-199072	19025	2761	19320	-62	-3	24.8	6.0		-1	1	5.3	5678	184	5.1	133						0.653
02-54.8044-132.7792-2-62-	0-199072	13290	3050	17650	-55	-3	35.3	8.2		-2	1	7.8	7096	192	6.5	188						0.500
02-54.7697-132.6714-2-12-	0-199073	19730	3085	27960	-68	-3	33.0	3.2		-2	-1	-1.5	3897	250	-3.2	172						
02-54.7697-132.6714-2-32-	0-199073	24020	5035	32160	-61	-2	30.7	2.8		-1	-1	1.8	5084	267	-2.8	185						0.589
02-54.7697-132.6714-2-42-	0-199073	22290	5338	29970	-62	-3	32.4	3.1		-2	-1	-1.7	6794	297	3.0	-50						
02-54.9253-133.0989-2-12-	0-199074	11910	1399	11500	-37	-4	20.6	4.5	-476	-1	1	3.0	21500	266	3.2	209						1.150
02-54.9253-133.0989-2-32-	0-199074	17070	1079	10980	-51	-3	20.7	5.0	-340	-2	-1	2.7	14650	225	3.2	147						0.974
02-54.9253-133.0989-2-42-	0-199074	16330	1375	11540	-61	-3	23.3	5.8	-424	-2	-1	4.4	21360	266	2.8	258						0.782
02-54.9253-133.0989-2-52-	0-199074	17825	1113	12400	-63	-4	21.8	6.4	-418	-2	-1	3.9	13660	203	3.9	278						0.985
02-54.9253-133.0989-2-62-	0-199074	17910	1021	15750	-56	-3	25.5	5.3		-2	-1	3.0	9540	190	2.8	316						1.133
02-54.9139-133.0447-2-12-	0-199075	10620	2061	20370	-54	-3	32.8	3.9		-2	-2	2.6	5922	194	3.5	223						0.615

DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION					
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REF/CATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SOLITOMETER (eU/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																							
02-54	9139-133	0447-2-32	0-890775-03	124/79-14	20-10.7-C-S	7.5	91-	6-2-7-2-7-4-3-1-2-1-5-5-1-1-	10.9-	1.66																					
02-54	9139-133	0447-2-62	0-890775-03	124/79-14	20-10.7-C-S	7.5	91-	6-2-7-2-7-4-3-1-2-1-5-5-1-1-	10.9-	1.60																					
02-54	9139-133	0447-2-52	0-890775-03	124/79-14	20-10.7-C-S	7.5	91-	6-2-7-2-7-4-3-1-2-1-5-5-1-1-	10.9-	1.70																					
02-54	9139-133	0447-2-62	0-890775-03	124/79-14	20-10.7-C-S	7.5	91-	6-2-7-2-7-4-3-1-2-1-5-5-1-1-	10.9-	1.60																					
02-54	9203-133	0214-2-12	0-890776-03	124/79-14	20-10.0-C-S	7.9	135-	2-	11.0-	1.60																					
02-54	9203-133	0214-2-32	0-890776-03	124/79-14	20-10.0-C-S	7.9	135-	2-	11.0-	1.30																					
02-54	9203-133	0214-2-42	0-890776-03	124/79-14	20-10.0-C-S	7.9	135-	2-	11.0-	1.50																					
02-54	9203-133	0214-2-52	0-890776-03	124/79-14	20-10.0-C-S	7.9	135-	2-	11.0-	1.40																					
02-54	9203-133	0214-2-62	0-890776-03	124/79-14	20-10.0-C-S	7.9	135-	2-	11.0-	1.40																					
02-54	9203-133	0214-2-71	0-890776-03	124/79-14	20-10.0-C-S	7.9	135-	2-	11.0-	1.40																					
02-54	9203-133	0214-2-72	0-890776-03	124/79-14	20-10.0-C-S	7.9	135-	2-	11.0-	1.66																					
02-54	9203-133	0214-2-73	0-890776-03	124/79-14	20-10.0-C-S	7.9	135-	2-	11.0-	1.77																					
02-54	9203-133	0214-2-74	0-890776-03	124/79-14	20-10.0-C-S	7.9	135-	2-	11.0-	1.88																					
02-54	9203-133	0214-2-75	0-890776-03	124/79-14	20-10.0-C-S	7.9	135-	2-	11.0-	1.65																					
02-54	9317-133	0206-2-17	0-890777-03	124/79-15	20-4.4-C-S	8.0	135-	-2-1-2-1-4-3-1-2-1-5-5-1-1-	12.6-	3.00																					
02-54	9317-133	0206-2-32	0-890777-03	124/79-15	20-4.4-C-S	8.0	135-	-2-1-2-1-4-3-1-2-1-5-5-1-1-	12.6-	2.97																					
02-54	9317-133	0206-2-42	0-890777-03	124/79-15	20-4.4-C-S	8.0	135-	-2-1-2-1-4-3-1-2-1-5-5-1-1-	12.6-	3.00																					
02-54	9317-133	0206-2-52	0-890777-03	124/79-15	20-4.4-C-S	8.0	135-	-2-1-2-1-4-3-1-2-1-5-5-1-1-	12.6-	3.30																					
02-54	9317-133	0206-2-67	0-890777-03	124/79-15	20-4.4-C-S	8.0	135-	-2-1-2-1-4-3-1-2-1-5-5-1-1-	12.6-	3.70																					
02-54	8531-133	0153-2-12	0-890778-03	124/79-15	20-9.4-C-S	8.3	327-	6-2-8-2-8-3-3-1-2-1-5-5-1-1-	10.8-	1.15																					
02-54	8531-133	0153-2-32	0-890778-03	124/79-15	20-9.4-C-S	8.3	327-	6-2-8-2-8-3-3-1-2-1-5-5-1-1-	10.8-	1.10																					
02-54	8531-133	0153-2-42	0-890778-03	124/79-15	20-9.4-C-S	8.3	327-	6-2-8-2-8-3-3-1-2-1-5-5-1-1-	10.8-	1.06																					
02-54	8531-133	0153-2-52	0-890778-03	124/79-15	20-9.4-C-S	8.3	327-	6-2-8-2-8-3-3-1-2-1-5-5-1-1-	10.8-	1.20																					
02-54	8531-133	0153-2-62	0-890778-03	124/79-15	20-9.4-C-S	8.3	327-	6-2-8-2-8-3-3-1-2-1-5-5-1-1-	10.8-	1.16																					
02-54	8400-132	9578-2-12	0-890779-03	124/79-15	20-10.7-C-S	8.2	203-	13-2-5-2-5-4-3-1-2-1-5-5-1-1-	10.4-	1.40																					
02-54	8400-132	9578-2-32	0-890779-03	124/79-15	20-10.7-C-S	8.2	203-	13-2-5-2-5-4-3-1-2-1-5-5-1-1-	10.4-	1.40																					
02-54	8400-132	9578-2-42	0-890779-03	124/79-15	20-10.7-C-S	8.2	203-	13-2-5-2-5-4-3-1-2-1-5-5-1-1-	10.4-	1.24																					
02-54	8400-132	9578-2-52	0-890779-03	124/79-15	20-10.7-C-S	8.2	203-	13-2-5-2-5-4-3-1-2-1-5-5-1-1-	10.4-	1.40																					
02-54	8400-132	9578-2-62	0-890779-03	124/79-15	20-10.7-C-S	8.2	203-	13-2-5-2-5-4-3-1-2-1-5-5-1-1-	10.4-	1.20																					
02-54	8222-132	9389-2-12	0-890780-03	124/79-15	20-9.8-C-S	7.5	113-	11-2-7-2-7-3-2-1-2-1-5-5-1-1-	10.6-	3.50																					
02-54	8222-132	9389-2-32	0-890780-03	124/79-15	20-9.8-C-S	7.5	113-	11-2-7-2-7-3-2-1-2-1-5-5-1-1-	10.6-	3.30																					
02-54	8222-132	9389-2-42	0-890780-03	124/79-15	20-9.8-C-S	7.5	113-	11-2-7-2-7-3-2-1-2-1-5-5-1-1-	10.6-	3.40																					
02-54	8222-132	9389-2-52	0-890780-03	124/79-15	20-9.8-C-S	7.5	113-	11-2-7-2-7-3-2-1-2-1-5-5-1-1-	10.6-	3.70																					
02-54	8222-132	9389-2-62	0-890780-03	124/79-15	20-9.8-C-S	7.5	113-	11-2-7-2-7-3-2-1-2-1-5-5-1-1-	10.6-	3.90																					
02-54	8281-132	9247-2-12	0-890781-03	124/79-15	20-10.7-C-S	8.2	221-	9-2-1-1-1-4-3-1-2-1-5-5-1-1-	10.5-	2.77																					
02-54	8281-132	9247-2-32	0-890781-03	124/79-15	20-10.7-C-S	8.2	221-	9-2-1-1-1-4-3-1-2-1-5-5-1-1-	10.5-	2.10																					
02-54	8281-132	9247-2-42	0-890781-03	124/79-15	20-10.7-C-S	8.2	221-	9-2-1-1-1-4-3-1-2-1-5-5-1-1-	10.5-	2.85																					
02-54	8281-132	9247-2-52	0-890781-03	124/79-15	20-10.7-C-S	8.2	221-	9-2-1-1-1-4-3-1-2-1-5-5-1-1-	10.5-	3.04																					
02-54	8281-132	9247-2-62	0-890781-03	124/79-15	20-10.7-C-S	8.2	221-	9-2-1-1-1-4-3-1-2-1-5-5-1-1-	10.5-	3.12																					
02-54	8281-132	9247-2-71	0-890781-03	124/79-15	20-10.7-C-S	8.2	221-	9-2-1-1-1-4-3-1-2-1-5-5-1-1-	10.5-	2.32																					
02-54	8281-132	9247-2-72	0-890781-03	124/79-15	20-10.7-C-S	8.2	221-	9-2-1-1-1-4-3-1-2-1-5-5-1-1-	10.5-	2.49																					
02-54	8281-132	9247-2-73	0-890781-03	124/79-15	20-10.7-C-S	8.2	221-	9-2-1-1-1-4-3-1-2-1-5-5-1-1-	10.5-	2.70																					
02-54	8281-132	9247-2-74	0-890781-03	124/79-15	20-10.7-C-S	8.2	221-	9-2-1-1-1-4-3-1-2-1-5-5-1-1-	10.5-	3.02																					
02-54	7903-132	9403-2-12	0-890782-03	124/79-17	20-9.9-C-S	8.1	200-	-2-1-2-1-3-3-1-2-1-5-5-1-1-	10.1-	1.80																					
02-54	7903-132	9403-2-32	0-890782-03	124/79-17	20-9.9-C-S	8.1	200-	-2-1-2-1-3-3-1-2-1-5-5-1-1-	10.1-	1.60																					
02-54	7903-132	9403-2-42	0-890782-03	124/79-17	20-9.9-C-S	8.1	200-	-2-1-2-1-3-3-1-2-1-5-5-1-1-	10.1-	1.80																					
02-54	7903-132	9403-2-52	0-890782-03	124/79-17	20-9.9-C-S	8.1	200-	-2-1-2-1-3-3-1-2-1-5-5-1-1-	10.1-	1.80																					
02-54	7903-132	9403-2-62	0-890782-03	124/79-17	20-9.9-C-S	8.1	200-	-2-1-2-1-3-3-1-2-1-5-5-1-1-	10.1-	1.80																					
02-54	7475-132	8458-2-12	0-890783-03	124/79-18	20-12.7-C-S	7.8	107-	6-2-7-2-7-3-3-1-2-1-5-5-1-1-	9.5-	1.90																					
02-54	7475-132	8453-2-32	0-890783-03	124/79-18	20-12.7-C-S	7.8	107-	6-2-7-2-7-3-3-1-2-1-5-5-1-1-	9.5-	1.40																					
02-54	7475-132	8453-2-42	0-890783-03	124/79-18	20-12.7-C-S	7.8	107-	6-2-7-2-7-3-3-1-2-1-5-5-1-1-	9.5-	1.90																					

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER						LAS SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE		Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li	
02-54,9139-133.0447-2-32-						0-A99075	-5	-5	-5	59	-20	-15	-5	-10	-15	-1	17	
02-54,9139-133.0447-2-42-						0-A99075	-5	-5	-5	62	-20	-15	-5	-10	-15	-1	16	
02-54,9139-133.0447-2-52-						0-A99075	-5	-5	9	51	-20	-15	-5	-10	-15	1	21	
02-54,9139-133.0447-2-62-						0-A99075	-5	-5	5	58	-20	-15	-5	-10	-15	-1	17	
02-54,9203-133.0214-2-12-						0-A99075	-5	-5	6	56	-20	64	-5	-10	-15	1	20	
02-54,9203-133.0214-2-32-						0-A99076	-5	13	-5	60	-20	48	-5	-10	-15	1	20	
02-54,9203-133.0214-2-42-						0-A99076	-5	-5	-5	42	-20	54	-5	11	-15	-1	24	
02-54,9203-133.0214-2-52-						0-A99076	-5	-5	5	52	-20	37	-5	-10	-15	1	24	
02-54,9203-133.0214-2-62-						0-A99076	-5	-5	-5	43	-20	38	-5	-10	-15	-1	31	
02-54,9203-133.0214-2-71-						0-A99076	-5	-5	-5	61	-20	-15	-5	-10	-15	1	16	
02-54,9203-133.0214-2-72-						0-A99076	-5	-5	-5	95	-20	41	-5	25	-15	-1	22	
02-54,9203-133.0214-2-73-						0-A99076	-5	-5	-5	103	-20	45	-5	21	-15	-1	22	
02-54,9203-133.0214-2-74-						0-A99076	-5	-5	-5	113	-20	50	-5	52	-15	1	26	
02-54,9203-133.0214-2-75-						0-A99076	-5	8	-5	63	-20	-15	-5	-10	-15	1	28	
02-54,9317-133.0206-2-17-						0-A99077	-5	-5	-5	34	-20	45	8	-10	-15	2	22	
02-54,9317-133.0206-2-32-						0-A99077	-5	-5	-5	45	-20	31	-5	-10	17	1	19	
02-54,9317-133.0206-2-42-						0-A99077	-5	-5	-5	43	-20	41	14	-10	-15	2	23	
02-54,9317-133.0206-2-52-						0-A99077	-5	-5	-5	45	-20	32	9	-10	-15	2	21	
02-54,9317-133.0206-2-62-						0-A99077	-5	-5	-5	45	-20	34	11	-10	-15	2	25	
02-54,8531-133.0153-2-12-						0-A99078	-5	-5	-5	60	-20	-15	-5	-10	-15	1	12	
02-54,8531-133.0153-2-32-						0-A99078	-5	-5	-5	61	-20	-15	-5	-10	-15	1	12	
02-54,8531-133.0153-2-42-						0-A99078	-5	-5	-5	78	-20	-15	-5	-10	-15	1	10	
02-54,8531-133.0153-2-52-						0-A99078	-5	7	-5	77	-20	-15	-5	-10	-15	-1	12	
02-54,8531-133.0153-2-62-						0-A99078	-5	-5	5	99	-20	15	-5	-10	-15	-1	9	
02-54,8400-132.9578-2-12-						0-A99079	-5	-5	-5	62	-20	-15	-5	-10	-15	1	25	
02-54,8400-132.9578-2-32-						0-A99079	-5	-5	-5	51	-20	19	-5	-10	-15	1	18	
02-54,8400-132.9578-2-42-						0-A99079	-5	-5	-5	54	-20	-15	-5	-10	16	1	29	
02-54,8400-132.9578-2-52-						0-A99079	-5	6	-5	48	-20	-15	-5	-10	-15	1	30	
02-54,8400-132.9578-2-62-						0-A99079	-5	-5	-5	51	-20	-15	-5	-10	25	1	26	
02-54,8222-132.9389-2-12-						0-A99080	-5	-5	-5	59	-20	39	-5	-10	15	1	74	
02-54,8222-132.9389-2-32-						0-A99080	-5	-5	-5	70	-20	54	-5	-10	-15	1	62	
02-54,8222-132.9389-2-42-						0-A99080	-5	-5	-5	41	-20	65	8	-10	-15	1	67	
02-54,8222-132.9389-2-52-						0-A99080	-5	-5	-5	142	-20	104	-5	21	-15	1	72	
02-54,8222-132.9389-2-62-						0-A99080	-5	-5	-5	140	-20	92	-5	41	23	1	51	
02-54,8281-132.9247-2-12-						0-A99081	-5	7	-5	58	-20	50	7	-10	24	1	25	
02-54,8281-132.9247-2-32-						0-A99081	-5	-5	-5	28	-20	62	8	-10	17	2	23	
02-54,8281-132.9247-2-42-						0-A99081	-5	-5	-5	56	-20	68	10	-10	19	1	18	
02-54,8281-132.9247-2-52-						0-A99081	-5	-5	-5	53	-20	67	5	-10	-15	1	19	
02-54,8281-132.9247-2-62-						0-A99081	-5	6	7	56	-20	70	-5	-10	19	1	21	
02-54,8281-132.9247-2-71-						0-A99081	-5	-5	-5	50	-20	63	-5	-10	16	1	18	
02-54,8281-132.9247-2-72-						0-A99081	-5	-5	-5	49	-20	61	12	-10	23	1	17	
02-54,8281-132.9247-2-73-						0-A99081	-5	5	-5	54	-20	54	8	-10	-15	1	17	
02-54,8281-132.9247-2-74-						0-A99081	-5	-5	-5	54	-20	50	-5	-10	22	1	14	
02-54,7903-132.9403-2-12-						0-A99082	-5	-5	5	59	-20	18	-5	-10	20	1	22	
02-54,7903-132.9403-2-32-						0-A99082	-5	10	-5	47	-20	60	-5	-10	-15	1	26	
02-54,7903-132.9403-2-42-						0-A99082	-5	9	6	46	-20	45	-5	-10	-15	1	23	
02-54,7903-132.9403-2-52-						0-A99082	-5	-5	-5	48	-20	58	-5	-10	-15	1	23	
02-54,7903-132.9403-2-62-						0-A99082	-5	-5	-5	60	-20	28	-5	-10	-15	1	26	
02-54,7475-132.8458-2-12-						0-A99083	-5	-5	-5	40	-20	26	-5	-10	-15	1	24	
02-54,7475-132.8458-2-32-						0-A99083	-5	-5	-5	62	-20	22	-5	-10	-15	1	29	
02-54,7475-132.8458-2-42-						0-A99083	-5	-5	-5	62	-20	22	-5	-10	-15	1	27	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAST SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
02-54.9139-133.0447-2-32-			0-899775			53153	-0.14	-232	17820	34	-132	28.3	35	-2.4	4	1.4	93060	2.0	-5651	15	0.5		
02-54.9139-133.0447-2-42-			0-899775			52007	-0.14	-234	18603	30	-147	27.2	33	-2.4	4	1.4	75910	2.4	-6512	12	0.3		
02-54.9139-133.0447-2-52-			0-899775			57400	-0.17	-315	17990	34	-192	27.6	35	-2.9	4	1.4	76270	1.7	-8371	-11	0.4		
02-54.9139-133.0447-2-62-			0-899775			71230	-0.11	-271	16390	29	-179	31.9	37	-3.3	4	1.4	82960	2.0	-7931	-7	0.4		
02-54.9203-133.0214-2-12-			0-899776			65380	-0.14	-253	34410	38	-153	29.7	69	-2.4	4	1.4	87970	2.5	-7408	17	0.3		
02-54.9203-133.0214-2-32-			0-899776			63320	-0.11	-194	30280	29	-126	30.0	52	-1.9	4	1.2	87850	1.6	8053	10	0.3		
02-54.9203-133.0214-2-42-			0-899776			45540	-0.15	-299	33440	37	-173	30.6	60	-2.5	3	1.3	88290	2.4	-8015	20	0.3		
02-54.9203-133.0214-2-52-			0-899776			74290	-0.12	-255	29950	26	-164	27.7	64	-3.5	3	1.4	81370	3.4	-7617	13	0.4		
02-54.9203-133.0214-2-62-			0-899776			72720	-0.14	-249	26730	37	-154	29.4	43	-2.4	4	1.4	90440	2.8	-6989	13	0.4		
02-54.9203-133.0214-2-71-			0-899776			62970	-0.12	-180	27690	30	-112	28.6	52	-2.0	3	1.3	90380	2.3	9753	13	0.3		
02-54.9203-133.0214-2-72-			0-899776			63960	-0.15	-292	31200	31	-158	30.3	97	-2.5	3	1.3	87950	2.0	-7396	16	0.5		
02-54.9203-133.0214-2-73-			0-899776			63990	-0.11	-255	31390	43	-157	29.9	128	-3.3	4	1.4	89610	3.8	-7524	16	0.3		
02-54.9203-133.0214-2-74-			0-899776			68670	-0.15	-295	32550	39	-161	29.9	134	-2.6	5	1.4	83320	2.3	-7811	15	0.3		
02-54.9203-133.0214-2-75-			0-899776			70900	-0.15	-292	27800	32	-172	31.5	64	-2.6	4	1.3	91120	2.2	-8094	13	0.3		
02-54.9317-133.0206-2-12-			0-899777			61020	-0.12	509	57930	55	-116	15.7	93	-2.0	4	1.5	49970	5.3	10480	28	0.4		
02-54.9317-133.0206-2-32-			0-899777			60560	-0.10	595	49080	46	-93	16.8	114	-2.7	4	1.6	54770	4.3	11500	20	0.5		
02-54.9317-133.0206-2-42-			0-899777			59840	-0.11	590	56300	57	-109	20.8	97	-1.9	5	2.0	52120	5.2	10460	31	0.4		
02-54.9317-133.0206-2-52-			0-899777			60130	-0.12	601	59940	53	-109	16.3	88	-1.9	4	1.7	47870	5.7	12120	35	0.3		
02-54.9317-133.0206-2-62-			0-899777			57840	0.20	565	59400	81	-128	14.5	91	-2.2	4	1.8	43680	7.3	12950	34	0.6		
02-54.8531-133.0153-2-12-			0-899778			49690	-0.10	-159	77000	31	-146	15.9	61	-2.7	5	1.2	54250	2.0	-4662	17	0.3		
02-54.8531-133.0153-2-32-			0-899778			53160	-0.13	-155	56640	28	-122	19.8	56	-2.2	4	1.3	58280	3.0	-3833	16	0.4		
02-54.8531-133.0153-2-42-			0-899778			50610	-0.15	-175	74720	30	-135	16.0	51	-2.5	5	1.2	51550	2.2	-4456	13	0.4		
02-54.8531-133.0153-2-52-			0-899778			44750	-0.17	-157	74000	35	-161	15.0	38	-2.7	5	1.2	44940	2.9	-5428	22	0.3		
02-54.8531-133.0153-2-62-			0-899778			49290	-0.11	-199	95050	33	264	16.0	69	-3.1	5	1.2	40240	2.6	-5895	11	0.4		
02-54.8400-132.9579-2-12-			0-899779			73120	-0.06	-239	11450	41	-178	28.9	50	-2.4	3	1.3	65250	2.6	16890	15	0.4		
02-54.8400-132.9579-2-32-			0-899779			91560	-0.06	-187	11460	38	-154	22.6	51	-2.3	4	1.5	58580	2.5	12750	16	0.3		
02-54.8400-132.9578-2-42-			0-899779			93470	-0.06	-396	7610	33	-218	19.6	29	1.2	3	1.0	50980	2.7	12480	11	0.3		
02-54.8400-132.9578-2-52-			0-899779			79013	-0.09	-218	10830	46	-204	29.1	62	-3.0	4	1.3	83050	3.8	13900	18	0.4		
02-54.8400-132.9573-2-62-			0-899779			96620	-0.06	-248	11360	35	-190	26.4	53	-2.3	3	1.0	60140	2.4	16580	12	0.3		
02-54.8222-132.9389-2-12-			0-899780			72530	-0.05	-290	34580	37	-225	33.1	165	2.3	-2	1.3	57520	3.1	-8393	16	0.3		
02-54.8222-132.9389-2-32-			0-899780			72030	-0.06	-399	21770	47	-238	31.3	158	2.5	4	1.1	56260	3.2	-10840	6	0.3		
02-54.8222-132.9389-2-42-			0-899780			72730	-0.07	-254	34930	44	-235	33.4	200	2.7	-2	1.3	72840	3.3	-8691	17	0.3		
02-54.8222-132.9389-2-52-			0-899780			71490	-0.05	-392	26670	43	-287	42.6	218	2.7	-2	1.2	59620	3.2	-10780	14	0.3		
02-54.8222-132.9389-2-62-			0-899780			84170	-0.06		27410	47	-330	43.8	235	2.0	-3	1.1	51470	3.7	-11940	15	0.3		
02-54.8281-132.9247-2-12-			0-899781			65830	-0.06		24820	44		37.1	189	2.0		1.2	63430	2.7		7	0.4		
02-54.8281-132.9247-2-32-			0-899781			74790	15.45	-239	27320	39	-251	29.6	246	-2.2	-2	1.1	65960	3.3	-8426	16	0.3		
02-54.8281-132.9247-2-42-			0-899781			61300	-0.05		22590	41		49.3	189	2.9		1.2	66640	2.0		13	0.3		
02-54.8281-132.9247-2-52-			0-899781			72670	-0.05		20330	39		45.5	154	1.3		1.1	64790	2.9		13	0.3		
02-54.8281-132.9247-2-62-			0-899781			62940	-0.06		17220	48		38.8	160	-2.3		1.0	66260	2.5		7	0.3		
02-54.8281-132.9247-2-71-			0-899781			65220	-0.07	-279	28090	41	-245	27.3	242	-2.6	-2	1.0	64080	2.5	-9093	17	0.3		
02-54.8281-132.9247-2-72-			0-899781			61970	-0.06	-340	31640	40	-254	31.1	227	-2.4	-2	1.2	61120	2.2	-9753	20	0.4		
02-54.8281-132.9247-2-73-			0-899781			61690	-0.06	-391	29640	41	-321	32.2	196	-2.3	-3	1.1	59110	2.3	-11450	14	0.3		
02-54.8281-132.9247-2-74-			0-899781			65040	-0.07		27310	45		34.3	214	2.7		1.2	63200	2.9		7	0.3		
02-54.7903-132.9403-2-12-			0-899782			69600	-0.07	-259	29970	51	433	27.8	132	-2.7	7	2.2	65330	4.7	-6629	16	0.6		
02-54.7903-132.9403-2-32-			0-899782			65710	-0.06	220	22940	39	358	23.6	127	-2.3	6	1.8	64940	3.8	-5027	13	0.5		
02-54.7903-132.9403-2-42-			0-899782			67440	-0.07	-207	23160	56	421	23.1	114	-2.7	8	2.0	65530	5.3	-6871	8	0.7		
02-54.7903-132.9403-2-52-			0-899782			71320	-0.09	-235	29350	56	449	26.8	145	-3.4	8	2.4	85080	5.5	-7447	24	1.0		
02-54.7903-132.9403-2-62-			0-899782			69470	-0.16	-289	27180	48	488	28.7	131	-2.6	6	2.2	64750	5.4	-7503	25	0.6		
02-54.7475-132.8458-2-12-			0-899783			93070	-0.14	-313	14750	35	-277	39.5	107	-2.3	-2	1.3	78480	2.2	-9495	15	0.4		
02-54.7475-132.8458-2-32-			0-899783			90060	-0.14	-210	22450	29	-210	29.2	94	-2.2	2	1.1	62800	2.8	-7310	12	0.3		
02-54.7475-132.8458-2-42-			0-899783			77590	-0.11	-324	24910	31	-335	40.0	146	-3.2	-3	1.1	82430	2.9	-11390	14	0.4		

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB. SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
02-54.9139-133.0447-2-32-	0-1990775	14200	1557	21290	-39	-3	33.6	4.8	-444	-1	-1	2.2	7701	200	3.5	121	0.664					
02-54.9139-133.0447-2-42-	0-1990775	12090	2017	20920	-41	-3	30.5	4.6		-2	-1	2.9	5580	200	-2.4	-67	0.552					
02-54.9139-133.0447-2-52-	0-1990775	12045	2307	22760	-44	-4	30.6	3.8		-2	-1	3.5	7857	202	3.6	146	0.486					
02-54.9139-133.0447-2-52-	0-1990775	10210	2326	24190	-54	-3	32.1	3.7		-2	-1	-2.1	7042	212	2.6	-74						
02-54.9203-133.0214-2-12-	0-1990776	19725	2437	14350	-42	-3	25.8	4.8		-1	-1	3.5	6691	169	3.2	185	0.457					
02-54.9203-133.0214-2-32-	0-1990776	14545	1989	14710	-35	-3	24.9	3.8	-436	-1	-1	2.3	5530	171	-1.7	96	0.565					
02-54.9203-133.0214-2-42-	0-1990776	13260	2461	15930	-40	-4	26.0	4.4		-1	-1	2.4	6014	167	3.0	138	0.625					
02-54.9203-133.0214-2-52-	0-1990776	19975	2348	19110	-57	-3	25.5	4.7		-2	1	2.6	5299	177	2.5	-147	0.538					
02-54.9203-133.0214-2-52-	0-1990776	15150	2157	19750	-43	-4	30.2	4.6		-2	-1	3.1	6881	178	4.4	165	0.452					
02-54.9203-133.0214-2-71-	0-1990776	15815	1516	14710	-36	-3	25.8	4.1	-390	-1	1	2.5	7220	173	2.8	139	0.560					
02-54.9203-133.0214-2-72-	0-1990776	17025	2162	14560	-41	-4	25.7	4.2		-2	1	2.4	7244	171	-2.3	149	0.692					
02-54.9203-133.0214-2-73-	0-1990776	18110	2419	14860	-53	-3	27.4	3.9		-2	-1	2.3	6364	169	2.8	206	0.770					
02-54.9203-133.0214-2-74-	0-1990776	19525	2457	16230	-46	-4	29.3	5.2		-2	-1	4.5	7152	174	-2.8	239	0.418					
02-54.9203-133.0214-2-75-	0-1990776	15410	2741	17450	-46	-4	27.8	4.3		-1	-1	2.9	6032	180	-2.3	183	0.569					
02-54.9317-133.0206-2-12-	0-1990777	23810	1227	13210	-32	-3	15.6	5.8	-402	-1	-1	4.4	7781	154	3.1	99	0.682					
02-54.9317-133.0206-2-32-	0-1990777	27115	1104	10350	-45	-2	16.4	4.6	-362	-2	-1	5.2	7466	144	2.7	150	0.571					
02-54.9317-133.0206-2-42-	0-1990777	23160	1202	13020	-32	-3	15.8	5.8	-386	-1	1	4.3	7990	152	4.0	153	0.698					
02-54.9317-133.0206-2-52-	0-1990777	24425	1405	11990	-34	-3	15.7	5.8	-409	-1	-1	5.1	5761	154	3.6	169	0.647					
02-54.9317-133.0206-2-62-	0-1990777	20950	1442	10910	-35	-3	16.4	6.9	-425	-1	-1	5.3	3073	110	3.0	172	0.698					
02-54.8531-133.0153-2-12-	0-1990778	16070	1046	19230	-45	-3	19.0	3.7	-398	-2	-1	2.9	5855	157	-2.2	103	0.397					
02-54.8531-133.0153-2-32-	0-1990778	16110	945	19890	-37	-3	19.7	4.4	-381	-1	-1	-1.2	5589	160	-2.0	76						
02-54.8531-133.0153-2-42-	0-1990778	16105	1107	19010	-44	-4	18.4	3.7	-445	-2	-1	2.0	5372	149	-2.3	103	0.530					
02-54.8531-133.0153-2-52-	0-1990778	13010	1168	17500	-40	-4	17.9	4.9	-468	-2	-1	2.8	4510	108	-2.9	126	0.429					
02-54.8531-133.0153-2-62-	0-1990778	19220	1392	17130	-47	-3	17.0	4.7		-2	-1	-2.1	5028	130	3.7	143						
02-54.8400-132.9578-2-12-	0-1990779	15830	2450	25790	-35	-1	25.8	4.0		-2	-1	4.8	4067	165	3.2	249	0.292					
02-54.8400-132.9578-2-32-	0-1990779	19770	1896	26490	-33	-1	27.5	4.2	-495	-1	-1	3.3	3897	159	2.6	152	0.424					
02-54.8400-132.9578-2-42-	0-1990779	13250	2529	21910	-31	-1	19.4	3.0		-1	-1	2.5	3468	144	2.8	113	0.496					
02-54.8400-132.9578-2-52-	0-1990779	17200	2501	26040	-45	-2	31.8	4.9		-2	-1	4.2	3778	158	3.1	374	0.333					
02-54.8400-132.9578-2-62-	0-1990779	16720	2313	31170	-35	-1	22.0	3.1		-1	-1	3.5	3931	140	2.7	194	0.343					
02-54.8222-132.9389-2-12-	0-1990780	29170	6260	15900	-33	-1	15.9	4.3		-1	-1	3.3	-1798	109	3.5	200	1.061					
02-54.8222-132.9389-2-32-	0-1990780	23870	5563	15300	-32	-1	15.7	5.1		-1	-1	4.7	-1873	111	3.0	185	0.702					
02-54.8222-132.9389-2-42-	0-1990780	35180	5360	17150	-41	-2	21.9	4.8		-1	-1	4.8	3034	192	5.0	128	0.708					
02-54.8222-132.9389-2-52-	0-1990780	27450	8258	16950	-35	-1	15.8	4.1		-1	-1	4.2	2851	140	3.7	214	0.881					
02-54.8222-132.9389-2-52-	0-1990780	10470	9698	18140	-39	-1	14.9	4.0		-2	-1	4.0	-2474	-62	2.6	300	0.975					
02-54.8281-132.9247-2-12-	0-1990781	-12330	13159	18550	-31	-1	18.5	3.4		-1	1	3.3		154	3.7	269	0.839					
02-54.8281-132.9247-2-32-	0-1990781	23460	5572	21870	-33	-1	23.9	4.0		-2	-1	4.7	2747	160	3.6	221	0.447					
02-54.8281-132.9247-2-42-	0-1990781	-13755	14960	17590	-32	-1	18.7	3.7		-1	-1	4.4		106	3.3	271	0.648					
02-54.8281-132.9247-2-52-	0-1990781	-14050	15600	23330	-32	-1	16.3	3.6		-1	-1	5.0		110	3.2	336	0.608					
02-54.8281-132.9247-2-62-	0-1990781	-10370	13390	26200	-35	-1	16.9	3.8		-2	-1	4.9	-3851	165	2.3	337	0.637					
02-54.8281-132.9247-2-71-	0-1990781	22100	5564	19390	-41	-2	23.4	4.5		-1	-1	4.4	-1611	128	2.7	200	0.527					
02-54.8281-132.9247-2-72-	0-1990781	18410	5558	17590	-37	-1	21.3	4.3		-2	-1	4.3	-2081	185	3.0	196	0.579					
02-54.8281-132.9247-2-73-	0-1990781	24180	9713	16300	-36	-1	19.1	3.9		-2	-1	3.3	-2345	138	2.3	223	0.818					
02-54.8281-132.9247-2-74-	0-1990781	22470	10900	18230	-39	-2	19.9	3.5		-2	-1	4.4		166	3.3	235	0.686					
02-54.7903-132.9403-2-12-	0-1990782	14430	2488	19470	-39	-2	25.5	6.4		-2	1	4.1	5067	137	5.5	212	0.439					
02-54.7903-132.9403-2-32-	0-1990782	12455	1883	20690	-34	-1	23.2	5.6	-491	-2	1	3.6	5830	132	5.0	122	0.444					
02-54.7903-132.9403-2-42-	0-1990782	12360	2190	18700	-38	-2	24.7	7.1		-1	1	3.7	7095	122	5.3	66	0.486					
02-54.7903-132.9403-2-52-	0-1990782	15200	2709	19510	-51	-2	33.8	8.7		-2	-2	5.2	5558	132	6.7	126	0.346					
02-54.7903-132.9403-2-52-	0-1990782	13530	3012	18490	-44	-4	25.0	7.6		-2	-1	4.2	6049	122	6.0	181	0.429					
02-54.7475-132.8458-2-12-	0-1990783	23020	8189	24760	-41	-4	25.4	3.8		-2	-1	2.6	-1939	223	3.8	152	0.731					
02-54.7475-132.8458-2-32-	0-1990783	24910	4499	28610	-36	-3	22.8	3.3		-1	-1	2.9	3238	248	-2.4	110	0.483					
02-54.7475-132.8458-2-42-	0-1990783	15610	8959	23910	-52	-3	25.2	3.1		-2	-1	2.4	3274	231	3.4	175	0.792					

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION					
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	PH	CONDUCTIVITY (umho/cm)	SCINTILLATOR (eU/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISSOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																							
02-54.7475-132.8459-2-52-						0-890993-09/24/79-19-	22-12.7	-0-5	7.3	107-				107-	6-2-7-2-7-3-3-1-2-1-5-5-1-1-														9.5-	2.00	
02-54.7475-132.8459-2-52-						0-890993-09/24/79-19-	22-12.7	-0-5	7.3	107-				107-	6-2-7-2-7-3-3-1-2-1-5-5-1-1-															9.5-	2.40
02-54.8267-132.6906-2-17-						0-890986-09/25/79-17-	15-7.9	-0-5	8.1	130-				130-	5-2-7-2-7-3-3-1-2-1-4-4-2-1-															10.5-	4.70
02-54.8267-132.6906-2-32-						0-890994-09/25/79-17-	15-7.9	-0-5	8.1	130-				130-	5-2-7-2-7-3-3-1-2-1-4-4-2-1-															10.5-	3.80
02-54.8267-132.6906-2-42-						0-890994-09/25/79-17-	15-7.9	-0-5	8.1	130-				130-	5-2-7-2-7-3-3-1-2-1-4-4-2-1-															10.5-	4.50
02-54.8267-132.6906-2-52-						0-890994-09/25/79-17-	15-7.9	-0-5	8.1	130-				130-	5-2-7-2-7-3-3-1-2-1-4-4-2-1-															10.5-	4.80
02-54.8267-132.6906-2-52-						0-890994-09/25/79-17-	15-7.9	-0-5	8.1	130-				130-	5-2-7-2-7-3-3-1-2-1-4-4-2-1-															10.5-	5.10
02-54.9031-132.6725-2-11-						0-890995-09/26/79-9-	14-10.0	-0-5	7.9	212-				212-	3-2-7-1-7-2-2-1-1-4-3-1-1-															6.8-	3.00
02-54.9031-132.6725-2-31-						0-890995-09/26/79-9-	14-10.0	-0-5	7.9	212-				212-	3-2-7-1-7-2-2-1-1-4-3-1-1-															6.8-	2.40
02-54.9031-132.6725-2-41-						0-890995-09/26/79-9-	14-10.0	-0-5	7.9	212-				212-	3-2-7-1-7-2-2-1-1-4-3-1-1-															6.8-	3.20
02-54.9031-132.6725-2-51-						0-890995-09/26/79-9-	14-10.0	-0-5	7.9	212-				212-	3-2-7-1-7-2-2-1-1-4-3-1-1-															6.8-	3.60
02-54.9031-132.6725-2-51-						0-890995-09/26/79-9-	14-10.0	-0-5	7.9	212-				212-	3-2-7-1-7-2-2-1-1-4-3-1-1-															6.8-	4.00
02-54.9089-132.7300-2-12-						0-890996-09/26/79-9-	14-9.4	-0-5	8.1	206-				206-	8-2-6-3-6-3-2-1-2-1-4-4-1-1-															8.2-	2.60
02-54.9089-132.7300-2-32-						0-890996-09/26/79-9-	14-9.4	-0-5	8.1	206-				206-	8-2-6-3-6-3-2-1-2-1-4-4-1-1-															8.2-	2.20
02-54.9089-132.7300-2-42-						0-890996-09/26/79-9-	14-9.4	-0-5	8.1	206-				206-	8-2-6-3-6-3-2-1-2-1-4-4-1-1-															8.2-	2.50
02-54.9089-132.7300-2-52-						0-890996-09/26/79-9-	14-9.4	-0-5	8.1	206-				206-	8-2-6-3-6-3-2-1-2-1-4-4-1-1-															8.2-	3.20
02-54.9089-132.7300-2-62-						0-890996-09/26/79-9-	14-9.4	-0-5	8.1	206-				206-	8-2-6-3-6-3-2-1-2-1-4-4-1-1-															8.2-	3.50
02-54.9214-132.7628-2-12-						0-890997-09/26/79-9-	15-10.2	-0-5	8.2	179-				179-	9-3-1-1-1-3-3-1-2-2-4-4-1-1-															7.3-	2.91
02-54.9214-132.7628-2-32-						0-890997-09/26/79-9-	15-10.2	-0-5	8.2	179-				179-	9-3-1-1-1-3-3-1-2-2-4-4-1-1-															7.3-	2.20
02-54.9214-132.7628-2-42-						0-890997-09/26/79-9-	15-10.2	-0-5	8.2	179-				179-	9-3-1-1-1-3-3-1-2-2-4-4-1-1-															7.3-	2.30
02-54.9214-132.7628-2-52-						0-890997-09/26/79-9-	15-10.2	-0-5	8.2	179-				179-	9-3-1-1-1-3-3-1-2-2-4-4-1-1-															7.3-	3.50
02-54.9214-132.7628-2-62-						0-890997-09/26/79-9-	15-10.2	-0-5	8.2	179-				179-	9-3-1-1-1-3-3-1-2-2-4-4-1-1-															7.3-	3.93
02-54.8933-132.8025-2-12-						0-890999-09/26/79-11-	14-7.0	-0-5	7.8	213-				213-	5-3-6-2-6-2-2-1-2-1-4-4-6-1-															8.9-	1.70
02-54.8933-132.8025-2-32-						0-890999-09/26/79-11-	14-7.0	-0-5	7.8	213-				213-	5-3-6-2-6-2-2-1-2-1-4-4-6-1-															8.9-	1.70
02-54.8933-132.8025-2-42-						0-890999-09/26/79-11-	14-7.0	-0-5	7.8	213-				213-	5-3-6-2-6-2-2-1-2-1-4-4-6-1-															8.9-	1.80
02-54.8933-132.8025-2-52-						0-890999-09/26/79-11-	14-7.0	-0-5	7.8	213-				213-	5-3-6-2-6-2-2-1-2-1-4-4-6-1-															8.9-	1.90
02-54.8933-132.8025-2-62-						0-890999-09/26/79-11-	14-7.0	-0-5	7.8	213-				213-	5-3-6-2-6-2-2-1-2-1-4-4-6-1-															8.9-	2.20
02-54.8581-132.7750-2-12-						0-890999-09/26/79-12-	16-9.7	-0-5	7.9	169-				169-	6-3-1-2-1-2-2-1-2-1-4-3-1-1-															7.7-	1.30
02-54.8581-132.7750-2-32-						0-890999-09/26/79-12-	16-9.7	-0-5	7.9	169-				169-	6-3-1-2-1-2-2-1-2-1-4-3-1-1-															7.7-	1.20
02-54.8581-132.7750-2-42-						0-890999-09/26/79-12-	16-9.7	-0-5	7.9	169-				169-	6-3-1-2-1-2-2-1-2-1-4-3-1-1-															7.7-	1.30
02-54.8581-132.7750-2-52-						0-890999-09/26/79-12-	16-9.7	-0-5	7.9	169-				169-	6-3-1-2-1-2-2-1-2-1-4-3-1-1-															7.7-	1.20
02-54.8581-132.7750-2-62-						0-890999-09/26/79-12-	16-9.7	-0-5	7.9	169-				169-	6-3-1-2-1-2-2-1-2-1-4-3-1-1-															7.7-	1.20
02-54.8208-132.7072-2-12-						0-890999-09/26/79-12-	16-14.5	-0-5	7.5	223-				223-	4-3-1-4-6-3-3-1-2-4-4-3-1-1-															6.3-	1.90
02-54.8208-132.7072-2-32-						0-890999-09/26/79-12-	16-14.5	-0-5	7.5	223-				223-	4-3-1-4-6-3-3-1-2-4-4-3-1-1-															6.3-	1.60
02-54.8208-132.7072-2-42-						0-890999-09/26/79-12-	16-14.5	-0-5	7.5	223-				223-	4-3-1-4-6-3-3-1-2-4-4-3-1-1-															6.3-	1.87
02-54.8208-132.7072-2-52-						0-890999-09/26/79-12-	16-14.5	-0-5	7.5	223-				223-	4-3-1-4-6-3-3-1-2-4-4-3-1-1-															6.3-	2.23
02-54.8208-132.7072-2-62-						0-890999-09/26/79-12-	16-14.5	-0-5	7.5	223-				223-	4-3-1-4-6-3-3-1-2-4-4-3-1-1-															6.3-	2.50
02-54.7464-132.8228-2-12-						0-890991-09/24/79-19-	25-11.0	-0-5	7.3	63-				63-	13-2-7-3-6-2-2-1-2-1-5-5-1-1-															9.7-	2.40
02-54.7464-132.8228-2-32-						0-890991-09/24/79-19-	25-11.0	-0-5	7.3	63-				63-	13-2-7-3-6-2-2-1-2-1-5-5-1-1-															9.7-	2.09
02-54.7464-132.8228-2-42-						0-890991-09/24/79-19-	25-11.0	-0-5	7.3	63-				63-	13-2-7-3-6-2-2-1-2-1-5-5-1-1-															9.7-	2.35
02-54.7464-132.8228-2-52-						0-890991-09/24/79-19-	25-11.0	-0-5	7.3	63-				63-	13-2-7-3-6-2-2-1-2-1-5-5-1-1-															9.7-	2.40
02-54.7464-132.8228-2-62-						0-890991-09/24/79-19-	25-11.0	-0-5	7.3	63-				63-	13-2-7-3-6-2-2-1-2-1-5-5-1-1-															9.7-	2.50
02-54.7464-132.8228-2-71-						0-890991-09/24/79-19-	25-11.0	-0-5	7.3	63-				63-	13-2-7-3-6-2-2-1-2-1-5-5-1-1-															9.7-	2.09
02-54.7464-132.8228-2-72-						0-890991-09/24/79-19-	25-11.0	-0-5	7.3	63-				63-	13-2-7-3-6-2-2-1-2-1-5-5-1-1-															9.7-	2.41
02-54.7464-132.8228-2-73-					</																										

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							DOE LAB LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY Concentrations in weight ppm	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	Concentrations reported in weight parts per million (ppm)										Be	Li		
						Ag		Bi	Cd	Cu	Nb	Ni	Pb	Sn	W				
02-54,7475-132.8459-2-52-			0-197993				-5	-5	-5	63	-20	46	-5	-10	19		1	22	
02-54,7475-132.8458-2-52-			0-197993																
02-54,8267-132.6806-2-12-			0-197994				-5	-5	6	94	-20	162	13	-10	-15		1	17	
02-54,8267-132.6806-2-32-			0-197994				-5	-5	-5	71	-20	95	-5	-10	-15		2	17	
02-54,8267-132.6806-2-42-			0-197994				-5	-5	7	88	-20	133	7	-10	-15		1	15	
02-54,8267-132.6806-2-52-			0-197994				-5	-5	-5	94	-20	145	10	-10	-15		1	14	
02-54,8267-132.6806-2-62-			0-197994				-5	-5	-5	115	-20	158	5	18	22		1	19	
02-54,9031-132.6725-2-11-			0-197995				-5	-5	-5	45	-20	65	-5	-10	-15		0	23	
02-54,9031-132.6725-2-31-			0-197995				-5	-5	-5	49	-20	80	-5	-10	-15		1	26	
02-54,9031-132.6725-2-41-			0-197995				-5	-5	-5	52	-20	71	-5	-10	-15		1	22	
02-54,9031-132.6725-2-51-			0-197995				-5	-5	-5	46	-20	58	-5	10	-15		1	22	
02-54,9031-132.6725-2-61-			0-197995				-5	-5	-5	39	-20	45	-5	-10	-15		1	30	
02-54,9089-132.7300-2-12-			0-197996				-5	-5	-5	38	-20	50	-5	-10	-15		2	28	
02-54,9089-132.7300-2-32-			0-197996				-5	-5	-5	32	-20	64	-5	-10	-15		1	28	
02-54,9089-132.7300-2-42-			0-197996				-5	-5	-5	33	-20	42	-5	-10	-15		1	37	
02-54,9089-132.7300-2-52-			0-197996				-5	11	-5	55	-20	34	-5	-10	-15		1	46	
02-54,9089-132.7300-2-62-			0-197996				-5	-5	-5	53	-20	64	8	-10	-15		2	33	
02-54,9214-132.7628-2-12-			0-197997				-5	-5	-5	21	-20	73	-5	-10	-15		2	28	
02-54,9214-132.7628-2-32-			0-197997				-5	-5	-5	33	-20	31	-5	-10	-15		1	31	
02-54,9214-132.7628-2-42-			0-197997				-5	-5	-5	35	-20	66	-5	-10	-15		1	30	
02-54,9214-132.7628-2-52-			0-197997				-5	-5	-5	40	-20	70	-5	-10	-15		1	39	
02-54,9214-132.7628-2-62-			0-197997				-5	-5	-5	37	-20	98	-5	-10	-15		2	32	
02-54,8933-132.8025-2-12-			0-197998				-5	-5	-5	37	-20	154	-5	-10	-15		2	19	
02-54,8933-132.8025-2-32-			0-197998				-5	-5	-5	22	-20	180	-5	-10	-15		1	20	
02-54,8933-132.8025-2-42-			0-197998				-5	-5	-5	48	-20	179	-5	-10	18		2	26	
02-54,8933-132.8025-2-52-			0-197998				-5	-5	-5	36	-20	137	7	-10	15		2	18	
02-54,8933-132.8025-2-62-			0-197998				-5	-5	-5	44	-20	159	7	-10	-15		2	28	
02-54,8581-132.7750-2-12-			0-197999				-5	-5	-5	54	-20	80	-5	-10	-15		-1	14	
02-54,8581-132.7750-2-32-			0-197999				-5	-5	6	45	-20	36	-5	-10	15		1	20	
02-54,8581-132.7750-2-42-			0-197999				-5	-5	-5	40	-20	52	-5	-10	-15		-1	14	
02-54,8581-132.7750-2-52-			0-197999				-5	-5	-5	42	-20	16	-5	-10	-15		1	14	
02-54,8581-132.7750-2-62-			0-197999				-5	-5	8	45	-20	22	-5	-10	-15		-1	14	
02-54,8208-132.7072-2-12-			0-197999				-5	-5	-5	15	-20	194	-5	-10	-15		2	18	
02-54,8208-132.7072-2-32-			0-197999				-5	-5	-5	18	-20	176	-5	-10	-15		2	14	
02-54,8208-132.7072-2-42-			0-197999				-5	-5	-5	29	-20	173	-5	-10	-15		2	10	
02-54,8208-132.7072-2-52-			0-197999				-5	-5	-5	29	-20	209	-5	-10	-15		2	24	
02-54,8208-132.7072-2-62-			0-197999				-5	-5	-5	45	-20	241	-5	-10	-15		-1	31	
02-54,7464-132.8228-2-12-			0-197999				-5	-5	-5	21	-20	28	7	-10	-15		1	16	
02-54,7464-132.8228-2-32-			0-197999				-5	-5	6	26	-20	17	-5	-10	-15		1	18	
02-54,7464-132.8228-2-42-			0-197999				-5	-5	6	25	-20	21	-5	-10	-15		1	17	
02-54,7464-132.8228-2-52-			0-197999				-5	-5	-5	30	-20	29	-5	-10	-15		1	18	
02-54,7464-132.8228-2-62-			0-197999				-5	-5	-5	23	-20	19	-5	-10	-15		2	23	
02-54,7464-132.8228-2-71-			0-197999				-5	-5	-5	22	-20	18	-5	-10	-15		1	17	
02-54,7464-132.8228-2-72-			0-197999				-5	-5	-5	23	-20	-15	-5	-10	-15		1	15	
02-54,7464-132.8228-2-73-			0-197999				-5	-5	-5	21	-20	-15	-5	-10	-15		1	13	
02-54,7464-132.8228-2-74-			0-197999				-5	-5	-5	27	-20	-15	-5	-10	-15		1	15	
02-54,7464-132.8228-2-75-			0-197999				-5	-5	6	26	-20	21	-5	-10	-15		1	11	
02-54,7181-132.8633-2-12-			0-197999				-5	-5	-5	51	-20	15	10	-10	-15		-1	9	
02-54,7181-132.8633-2-32-			0-197999				-5	-5	-5	40	-20	-15	11	-10	-15		-1	10	
02-54,7181-132.8633-2-42-			0-197999				-5	-5	-5	50	-20	-15	10	-10	-15		-1	9	
02-54,7181-132.8633-2-52-			0-197999				-5	-5	6	62	-20	-15	10	-10	-15		1	10	

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
02-54.7475-132.8458-2-52-			0-A99093			80100	-0.15	-395	24930	35	-317	47.6	121	-2.5	-2	1.3	79910	2.3	-11130	15	0.4		
02-54.7475-132.8458-2-52-			0-A99093			74130	-0.24		22290	-8		41.7	81	-3.9		0.8	68730	-1.8		-20	0.4		
02-54.8267-132.6806-2-12-			0-A99094			51720	-0.16		17950	51	265	45.1	271	3.1	3	1.7	81570	0.8	-10420	28	0.4		
02-54.8267-132.6806-2-32-			0-A99094			61770	-0.10	619	16870	48	308	34.9	268	-3.0	4	1.5	65900	3.1	9998	24	0.3		
02-54.8267-132.6806-2-42-			0-A99094			57170	-0.15	494	18970	47	377	47.8	271	4.2	3	1.5	73600	2.6	-7972	29	0.3		
02-54.8267-132.6806-2-52-			0-A99094			52770	-0.15	650	17930	53	461	49.4	276	2.4	-2	1.7	87560	3.6	-8635	30	0.4		
02-54.8267-132.6806-2-62-			0-A99094			50210	-0.19		15430	62	-297	51.7	259	2.9	4	1.7	98400	2.6		27	0.5		
02-54.9031-132.6725-2-11-			0-A99095			59090	-0.09		52100	64		69.0	265	-2.6	-3	1.6	73460	2.8		32	0.4		
02-54.9031-132.6725-2-31-			0-A99095			72770	-0.09	-299	31840	97	-239	57.6	255	-2.4	-2	1.4	52260	2.9	-8597	44	0.2		
02-54.9031-132.6725-2-41-			0-A99095			44610	-0.09		53450	79		60.9	276	-2.5		1.3	72160	2.6		31	0.4		
02-54.9031-132.6725-2-51-			0-A99095			61790	-0.10		29760	67		61.9	255	-2.9		1.7	64980	3.6		31	0.3		
02-54.9031-132.6725-2-61-			0-A99095			97660	-0.11		24260	80	-342	51.4	195	-3.0	-3	2.1	65760	5.0		36	0.4		
02-54.9089-132.7300-2-12-			0-A99096			80620	-0.22	-164	25290	56	-136	23.3	148	1.8	5	1.6	63650	4.6	-4456	21	0.5		
02-54.9089-132.7300-2-32-			0-A99096			69630	-0.10	324	22400	46	164	18.1	138	-2.8	4	1.4	42430	4.4	6578	24	0.3		
02-54.9089-132.7300-2-42-			0-A99096			74690	-0.12	-143	22510	54	-150	23.0	133	1.6	5	1.7	53830	3.7	10240	26	0.4		
02-54.9089-132.7300-2-52-			0-A99096			91530	-0.22	411	28180	68	-161	26.1	148	2.5	6	2.0	65250	5.2	-5773	40	0.7		
02-54.9089-132.7300-2-62-			0-A99096			96250	-0.22	431	27770	64	-151	22.5	123	1.9	6	2.1	61290	5.6	14330	34	0.8		
02-54.9214-132.7628-2-12-			0-A99097			68170	-0.18	-399	16830	39	-205	24.9	192	-1.9	5	1.2	45850	3.8	13560	13	0.4		
02-54.9214-132.7628-2-32-			0-A99097			62190	-0.19	531	19270	37	-140	24.8	221	-1.9	4	1.5	48880	3.2	-4714	18	0.4		
02-54.9214-132.7628-2-42-			0-A99097			58720	-0.16	590	20930	37	-145	21.7	210	-1.7	3	1.3	43790	3.4	-5103	13	0.4		
02-54.9214-132.7628-2-52-			0-A99097			50350	-0.16	-303	16020	33	-243	24.3	123	-1.7	-2	1.1	38480	2.7	-8848	18	0.4		
02-54.9214-132.7628-2-62-			0-A99097			77790	-0.24		24560	57		34.7	179	-2.5		1.6	62240	4.8		24	0.4		
02-54.8933-132.8025-2-12-			0-A99098			49670	-0.10	279	42600	37	-121	23.4	480	-2.8	4	1.4	40860	2.4	6229	15	0.3		
02-54.8933-132.8025-2-32-			0-A99098			56600	-0.17	241	34190	36	-103	22.6	462	-1.9	4	1.1	38970	1.9	11070	15	0.4		
02-54.8933-132.8025-2-42-			0-A99098			52120	-0.20	275	44730	30	-110	19.6	437	-2.1	4	1.1	37510	1.8	10980	15	0.4		
02-54.8933-132.8025-2-52-			0-A99098			38240	-0.23	-179	50960	32	-138	18.3	352	-2.4	-1	1.2	36510	1.7	-5192	16	0.4		
02-54.8933-132.8025-2-62-			0-A99098			56830	-0.28	-131	37950	45	-151	27.9	523	-2.9	4	1.7	51820	2.8	12560	23	0.4		
02-54.8581-132.7750-2-12-			0-A99099			59160	-0.17	-304	29010	30	490	59.4	114	-2.7	4	1.5	79970	1.8	-8296	15	-0.1		
02-54.8581-132.7750-2-32-			0-A99099			72530	-0.12	-269	38420	33	405	55.9	181	-3.4	3	1.4	88920	1.7	-7588	10	0.4		
02-54.8581-132.7750-2-42-			0-A99099			69890	-0.17	-269	41610	38	846	60.6	122	-2.7	3	1.5	91910	1.7	-9233	-12	0.2		
02-54.8581-132.7750-2-52-			0-A99099			72550	-0.16	-327	37040	30	-315	87.2	101	-2.6	-3	1.5	92330	1.7	-11160	14	0.4		
02-54.8581-132.7750-2-62-			0-A99099			83270	-0.17	-331	41360	35	494	66.1	102	-2.7	3	1.5	82840	-1.3	-9075	15	0.3		
02-54.8208-132.7072-2-12-			0-A99100			60210	-0.10	-269	54260	33	926	34.9	780	-2.8	-2	1.1	60930	1.7	-7626	12	0.3		
02-54.8208-132.7072-2-32-			0-A99100			56350	-0.13	-291	46260	35	644	26.6	673	-2.1	2	1.1	54100	1.8	-8038	17	0.3		
02-54.8208-132.7072-2-42-			0-A99100			56920	-0.13	-239	55480	25	287	29.6	706	-2.1	3	1.0	47490	1.6	-7951	-10	-0.1		
02-54.8208-132.7072-2-52-			0-A99100			56710	-0.16		43400	33	-297	36.0	633	-2.5	-2	1.1	56380	2.8		-8	0.3		
02-54.8208-132.7072-2-62-			0-A99100			52150	-0.12		41130	31		43.5	602	-3.1		1.2	56830	3.5		15	0.6		
02-54.7464-132.8228-2-12-			0-A99101			69640	-0.13	-219	21610	46	-156	16.2	83	-2.2	4	1.2	45470	4.1	-6012	22	0.5		
02-54.7464-132.8228-2-32-			0-A99101			66750	-0.12	-238	17980	36	-163	15.2	74	-1.9	3	1.1	42990	3.4	-6134	-9	0.3		
02-54.7464-132.8228-2-42-			0-A99101			72990	-0.14	351	19260	42	-165	15.3	73	-2.3	4	1.2	44860	4.2	-6326	19	0.4		
02-54.7464-132.8228-2-52-			0-A99101			71910	-0.11	-257	18470	55	-176	13.9	108	-3.0	5	1.4	45230	4.3	-6752	21	0.4		
02-54.7464-132.8228-2-62-			0-A99101			72590	-0.13	-218	19890	49	-159	15.5	65	-2.2	5	1.3	44140	4.0	-6006	-9	0.5		
02-54.7464-132.8228-2-71-			0-A99101			64490	-0.12	213	17460	35	-140	13.7	90	-1.9	4	1.2	47790	3.2	-5230	21	0.3		
02-54.7464-132.8228-2-72-			0-A99101			65050	-0.14	-229	19070	43	-163	12.1	94	-2.2	4	1.4	43890	4.8	-5817	-8	0.5		
02-54.7464-132.8228-2-73-			0-A99101			64900	-0.10	-299	17990	45	-189	13.0	121	-3.1	5	1.4	50290	3.9	-6918	23	0.5		
02-54.7464-132.8228-2-74-			0-A99101			65730	-0.13	-190	15850	51	228	13.3	83	-2.0	4	1.3	49950	3.5	-5296	-10	0.5		
02-54.7464-132.8228-2-75-			0-A99101			69790	-0.13	-200	18930	44	153	13.7	64	-2.1	4	1.1	44790	3.6	-5369	20	0.3		
02-54.7181-132.8633-2-12-			0-A99102			70510	-0.09		14330	55		11.0	53	-1.4	-3	0.9	27820	4.5		23	0.3		
02-54.7181-132.8633-2-32-			0-A99102			78770	-0.06	-362	13930	39	-231	9.1	32	-1.5	2	1.1	24350	2.4	-10900	19	0.3		
02-54.7181-132.8633-2-42-			0-A99102			74540	-0.09		-9000	53		10.8	17	-1.4		1.0	29440	4.1		24	0.2		
02-54.7181-132.8633-2-52-			0-A99102			73250	-0.09	-360	11500	42	-246	13.1	69	2.1	-2	1.0	30380	4.4	-9509	24	0.2		

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

④

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)																U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	Zn	
02-54.7475-132.8458-2-52-	02-54.7475-132.8458-2-52-	02-54.7475-132.8458-2-52-	02-54.7475-132.8458-2-52-	02-54.7475-132.8458-2-52-	02-54.7475-132.8458-2-52-	02-54.7475-132.8458-2-52-	15510	8921	24530	-43	-4	25.6	4.1	-2	-1	3.4	-2259	214	3.8	189	0.588	
02-54.7475-132.8458-2-52-	02-54.7475-132.8458-2-52-	02-54.7475-132.8458-2-52-	02-54.7475-132.8458-2-52-	02-54.7475-132.8458-2-52-	02-54.7475-132.8458-2-52-	02-54.7475-132.8458-2-52-	15355	9790	21150	-74	-3	17.4	4.3	-3	-1	-2.2		217	-2.9	227		
02-54.8267-132.6906-2-12-	02-54.8267-132.6906-2-12-	02-54.8267-132.6906-2-12-	02-54.8267-132.6906-2-12-	02-54.8267-132.6906-2-12-	02-54.8267-132.6906-2-12-	02-54.8267-132.6906-2-12-	7695	4493	12110	-45	-4	19.7	5.5	-2	-1	4.5	3241	156	2.8	276	1.044	
02-54.8267-132.6906-2-32-	02-54.8267-132.6906-2-32-	02-54.8267-132.6906-2-32-	02-54.8267-132.6906-2-32-	02-54.8267-132.6906-2-32-	02-54.8267-132.6906-2-32-	02-54.8267-132.6906-2-32-	14305	2484	12490	-50	-3	19.7	3.4	-2	-1	5.5	3552	160	2.6	200	0.691	
02-54.8267-132.6806-2-42-	02-54.8267-132.6806-2-42-	02-54.8267-132.6806-2-42-	02-54.8267-132.6806-2-42-	02-54.8267-132.6806-2-42-	02-54.8267-132.6806-2-42-	02-54.8267-132.6806-2-42-	12050	3531	11470	-42	-4	19.2	4.6	-2	-1	5.0	3490	147	-2.3	213	0.900	
02-54.8267-132.6806-2-52-	02-54.8267-132.6806-2-52-	02-54.8267-132.6806-2-52-	02-54.8267-132.6806-2-52-	02-54.8267-132.6806-2-52-	02-54.8267-132.6806-2-52-	02-54.8267-132.6806-2-52-	10455	4255	11340	-48	-4	20.3	5.7	-2	1	5.7	3147	143	-2.3	263	0.842	
02-54.8267-132.6806-2-52-	02-54.8267-132.6806-2-52-	02-54.8267-132.6806-2-52-	02-54.8267-132.6806-2-52-	02-54.8267-132.6806-2-52-	02-54.8267-132.6806-2-52-	02-54.8267-132.6806-2-52-	5900	5305	12280	-48	-4	20.7	4.6	-2	-1	4.8	-2570	141	3.7	255	1.063	
02-54.9031-132.6725-2-11-	02-54.9031-132.6725-2-11-	02-54.9031-132.6725-2-11-	02-54.9031-132.6725-2-11-	02-54.9031-132.6725-2-11-	02-54.9031-132.6725-2-11-	02-54.9031-132.6725-2-11-	42930	14250	10330	-47	-2	15.8	5.2	-2	-1	5.1	-2941	144	3.9	198	0.588	
02-54.9031-132.6725-2-31-	02-54.9031-132.6725-2-31-	02-54.9031-132.6725-2-31-	02-54.9031-132.6725-2-31-	02-54.9031-132.6725-2-31-	02-54.9031-132.6725-2-31-	02-54.9031-132.6725-2-31-	33820	8208	14230	-41	-2	14.3	7.3	-2	-1	5.2	-1784	101	-2.2	130	0.462	
02-54.9031-132.6725-2-41-	02-54.9031-132.6725-2-41-	02-54.9031-132.6725-2-41-	02-54.9031-132.6725-2-41-	02-54.9031-132.6725-2-41-	02-54.9031-132.6725-2-41-	02-54.9031-132.6725-2-41-	35410	13350	11530	-45	-2	17.0	5.1	-2	-1	5.0		111	-1.9	204	0.640	
02-54.9031-132.6725-2-51-	02-54.9031-132.6725-2-51-	02-54.9031-132.6725-2-51-	02-54.9031-132.6725-2-51-	02-54.9031-132.6725-2-51-	02-54.9031-132.6725-2-51-	02-54.9031-132.6725-2-51-	23380	13420	13240	-50	-3	19.6	6.0	-2	-1	6.4	-2797	160	4.1	133	0.562	
02-54.9031-132.6725-2-61-	02-54.9031-132.6725-2-61-	02-54.9031-132.6725-2-61-	02-54.9031-132.6725-2-61-	02-54.9031-132.6725-2-61-	02-54.9031-132.6725-2-61-	02-54.9031-132.6725-2-61-	17030	9432	14590	-52	-3	22.2	3.0	-2	-1	7.3	4970	167	3.8	218	0.548	
02-54.9089-132.7300-2-12-	02-54.9089-132.7300-2-12-	02-54.9089-132.7300-2-12-	02-54.9089-132.7300-2-12-	02-54.9089-132.7300-2-12-	02-54.9089-132.7300-2-12-	02-54.9089-132.7300-2-12-	19090	1395	25590	-41	-1	25.4	6.5	-2	-1	6.0	4542	129	4.1	145	0.433	
02-54.9089-132.7300-2-32-	02-54.9089-132.7300-2-32-	02-54.9089-132.7300-2-32-	02-54.9089-132.7300-2-32-	02-54.9089-132.7300-2-32-	02-54.9089-132.7300-2-32-	02-54.9089-132.7300-2-32-	17490	1022	24490	-44	-3	15.2	4.4	-2	-1	4.9	4940	116	2.9	99	0.449	
02-54.9089-132.7300-2-42-	02-54.9089-132.7300-2-42-	02-54.9089-132.7300-2-42-	02-54.9089-132.7300-2-42-	02-54.9089-132.7300-2-42-	02-54.9089-132.7300-2-42-	02-54.9089-132.7300-2-42-	17595	1181	27370	-31	-3	21.2	6.1	-1	1	5.9	4702	125	-1.8	114	0.424	
02-54.9089-132.7300-2-52-	02-54.9089-132.7300-2-52-	02-54.9089-132.7300-2-52-	02-54.9089-132.7300-2-52-	02-54.9089-132.7300-2-52-	02-54.9089-132.7300-2-52-	02-54.9089-132.7300-2-52-	19540	2001	23800	-44	-2	26.2	6.6	-1	1	7.8	6205	131	4.7	139	0.410	
02-54.9089-132.7300-2-62-	02-54.9089-132.7300-2-62-	02-54.9089-132.7300-2-62-	02-54.9089-132.7300-2-62-	02-54.9089-132.7300-2-62-	02-54.9089-132.7300-2-62-	02-54.9089-132.7300-2-62-	16360	1800	24250	-42	-2	25.2	7.2	-2	-1	7.1	6135	151	4.5	132	0.493	
02-54.9214-132.7628-2-12-	02-54.9214-132.7628-2-12-	02-54.9214-132.7628-2-12-	02-54.9214-132.7628-2-12-	02-54.9214-132.7628-2-12-	02-54.9214-132.7628-2-12-	02-54.9214-132.7628-2-12-	17870	3267	24910	-31	-4	15.9	5.2	-1	-1	4.6	3617	118	3.1	192	0.633	
02-54.9214-132.7628-2-32-	02-54.9214-132.7628-2-32-	02-54.9214-132.7628-2-32-	02-54.9214-132.7628-2-32-	02-54.9214-132.7628-2-32-	02-54.9214-132.7628-2-32-	02-54.9214-132.7628-2-32-	19295	1544	18990	-35	-4	18.9	4.9	-1	-1	4.4	3201	110	3.4	114	0.500	
02-54.9214-132.7628-2-42-	02-54.9214-132.7628-2-42-	02-54.9214-132.7628-2-42-	02-54.9214-132.7628-2-42-	02-54.9214-132.7628-2-42-	02-54.9214-132.7628-2-42-	02-54.9214-132.7628-2-42-	15950	1838	20540	-31	-4	15.9	5.3	-1	-1	3.9	2742	105	-2.0	114	0.590	
02-54.9214-132.7628-2-52-	02-54.9214-132.7628-2-52-	02-54.9214-132.7628-2-52-	02-54.9214-132.7628-2-52-	02-54.9214-132.7628-2-52-	02-54.9214-132.7628-2-52-	02-54.9214-132.7628-2-52-	-4666	4221	17970	-33	-4	12.5	4.8	-1	-1	3.8	-1856	98	3.5	123	0.921	
02-54.9214-132.7628-2-62-	02-54.9214-132.7628-2-62-	02-54.9214-132.7628-2-62-	02-54.9214-132.7628-2-62-	02-54.9214-132.7628-2-62-	02-54.9214-132.7628-2-62-	02-54.9214-132.7628-2-62-	10230	6520	27740	-44	-2	20.9	4.4	-1	-1	5.5	-3686	163	3.4	227	0.715	
02-54.8933-132.8025-2-12-	02-54.8933-132.8025-2-12-	02-54.8933-132.8025-2-12-	02-54.8933-132.8025-2-12-	02-54.8933-132.8025-2-12-	02-54.8933-132.8025-2-12-	02-54.8933-132.8025-2-12-	42975	1086	12970	-43	-3	21.4	4.5	-2	-1	3.2	4751	118	-2.4	101	0.531	
02-54.8933-132.8025-2-32-	02-54.8933-132.8025-2-32-	02-54.8933-132.8025-2-32-	02-54.8933-132.8025-2-32-	02-54.8933-132.8025-2-32-	02-54.8933-132.8025-2-32-	02-54.8933-132.8025-2-32-	42635	815	14950	-32	-4	19.4	4.5	-1	-1	3.4	4180	116	2.9	72	0.500	
02-54.8933-132.8025-2-42-	02-54.8933-132.8025-2-42-	02-54.8933-132.8025-2-42-	02-54.8933-132.8025-2-42-	02-54.8933-132.8025-2-42-	02-54.8933-132.8025-2-42-	02-54.8933-132.8025-2-42-	45930	1089	13250	-37	-2	20.2	3.7	-1	-1	2.6	4554	115	-2.6		0.692	
02-54.8933-132.8025-2-52-	02-54.8933-132.8025-2-52-	02-54.8933-132.8025-2-52-	02-54.8933-132.8025-2-52-	02-54.8933-132.8025-2-52-	02-54.8933-132.8025-2-52-	02-54.8933-132.8025-2-52-	35610	1366	9241	-38	-2	19.2	3.2	-2	-1	3.8	-1071	83	-2.2	-60	0.500	
02-54.8933-132.8025-2-62-	02-54.8933-132.8025-2-62-	02-54.8933-132.8025-2-62-	02-54.8933-132.8025-2-62-	02-54.8933-132.8025-2-62-	02-54.8933-132.8025-2-62-	02-54.8933-132.8025-2-62-	30730	1430	13930	-48	-3	27.7	5.0	-2	-1	4.4	3918	135	-2.5	143	0.500	
02-54.8581-132.7750-2-12-	02-54.8581-132.7750-2-12-	02-54.8581-132.7750-2-12-	02-54.8581-132.7750-2-12-	02-54.8581-132.7750-2-12-	02-54.8581-132.7750-2-12-	02-54.8581-132.7750-2-12-	14000	5654	20560	-44	-4	28.4	3.7	-1	-1	1.8	3975	258	3.8	192	0.722	
02-54.8581-132.7750-2-32-	02-54.8581-132.7750-2-32-	02-54.8581-132.7750-2-32-	02-54.8581-132.7750-2-32-	02-54.8581-132.7750-2-32-	02-54.8581-132.7750-2-32-	02-54.8581-132.7750-2-32-	12350	5179	22150	-46	-3	32.3	4.2	-2	-1	3.0	4041	220	4.1	107	0.400	
02-54.8581-132.7750-2-42-	02-54.8581-132.7750-2-42-	02-54.8581-132.7750-2-42-	02-54.8581-132.7750-2-42-	02-54.8581-132.7750-2-42-	02-54.8581-132.7750-2-42-	02-54.8581-132.7750-2-42-	14310	5632	21550	-46	-4	32.1	3.6	-2	-1	2.9	9730	219	-2.6	179	0.448	
02-54.8581-132.7750-2-52-	02-54.8581-132.7750-2-52-	02-54.8581-132.7750-2-52-	02-54.8581-132.7750-2-52-	02-54.8581-132.7750-2-52-	02-54.8581-132.7750-2-52-	02-54.8581-132.7750-2-52-	13390	7750	21910	-50	-4	28.6	3.9	-2	-1	2.5	4119	191	3.8	128	0.480	
02-54.8581-132.7750-2-62-	02-54.8581-132.7750-2-62-	02-54.8581-132.7750-2-62-	02-54.8581-132.7750-2-62-																			

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																	U CONCENTRATION								
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILMETER (eU/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	DISOLVED OXYGEN (ppm)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																							
02-54	7136-132	8119-2-12-	0-899733	03/26/79	8	15-10.3-C-S	7.5	110-	4-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.2-	4.00																				
02-54	7136-132	8119-2-32-	0-899733	03/26/79	8	15-10.3-C-S	7.5	110-	4-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.2-	2.40																				
02-54	7136-132	8119-2-42-	0-899733	03/26/79	8	15-10.3-C-S	7.5	110-	4-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.2-	3.60																				
02-54	7136-132	8119-2-52-	0-899733	03/26/79	8	15-10.3-C-S	7.5	110-	4-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.2-	3.70																				
02-54	7136-132	8119-2-71-	0-899733	03/26/79	8	15-10.3-C-S	7.5	110-	4-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.2-	1.70																				
02-54	7136-132	8119-2-72-	0-899733	03/26/79	8	15-10.3-C-S	7.5	110-	4-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.2-	2.30																				
02-54	7136-132	8119-2-73-	0-899733	03/26/79	8	15-10.3-C-S	7.5	110-	4-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.2-	2.20																				
02-54	7136-132	8119-2-74-	0-899733	03/26/79	8	15-10.3-C-S	7.5	110-	4-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.2-	2.60																				
02-54	7136-132	8119-2-75-	0-899733	03/26/79	8	15-10.3-C-S	7.5	110-	4-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.2-	3.10																				
02-54	6972-132	7547-2-12-	0-897034	03/26/79	0	20-9.6-C-S	7.5	101-	2-2-7-2-6-3-3-1-2-1-5-5-1-1-	10.1-	1.70																				
02-54	6972-132	7547-2-32-	0-897034	03/26/79	0	20-9.6-C-S	7.5	101-	2-2-7-2-6-3-3-1-2-1-5-5-1-1-	10.1-	1.60																				
02-54	6972-132	7547-2-42-	0-897034	03/26/79	0	20-9.6-C-S	7.5	101-	2-2-7-2-6-3-3-1-2-1-5-5-1-1-	10.1-	1.40																				
02-54	6972-132	7547-2-52-	0-897034	03/26/79	0	20-9.6-C-S	7.5	101-	2-2-7-2-6-3-3-1-2-1-5-5-1-1-	10.1-	1.60																				
02-54	7047-132	7231-2-12-	0-897035	03/26/79	10	20-10.2-C-S	7.4	101-	6-2-7-2-6-3-3-1-2-1-5-5-1-1-	9.4-	2.80																				
02-54	7047-132	7231-2-32-	0-897035	03/26/79	10	20-10.2-C-S	7.4	101-	6-2-7-2-6-3-3-1-2-1-5-5-1-1-	9.4-	2.40																				
02-54	7047-132	7231-2-42-	0-897035	03/26/79	10	20-10.2-C-S	7.4	101-	6-2-7-2-6-3-3-1-2-1-5-5-1-1-	9.4-	2.90																				
02-54	7047-132	7231-2-52-	0-897035	03/26/79	10	20-10.2-C-S	7.4	101-	6-2-7-2-6-3-3-1-2-1-5-5-1-1-	9.4-	2.80																				
02-54	7047-132	7231-2-71-	0-897035	03/26/79	10	20-10.2-C-S	7.4	101-	6-2-7-2-6-3-3-1-2-1-5-5-1-1-	9.4-	2.20																				
02-54	7047-132	7231-2-72-	0-897035	03/26/79	10	20-10.2-C-S	7.4	101-	6-2-7-2-6-3-3-1-2-1-5-5-1-1-	9.4-	2.50																				
02-54	7047-132	7231-2-73-	0-897035	03/26/79	10	20-10.2-C-S	7.4	101-	6-2-7-2-6-3-3-1-2-1-5-5-1-1-	9.4-	2.70																				
02-54	7047-132	7231-2-74-	0-897035	03/26/79	10	20-10.2-C-S	7.4	101-	6-2-7-2-6-3-3-1-2-1-5-5-1-1-	9.4-	2.90																				
02-54	7047-132	7231-2-75-	0-897035	03/26/79	10	20-10.2-C-S	7.4	101-	6-2-7-2-6-3-3-1-2-1-5-5-1-1-	9.4-	3.20																				
02-54	7350-132	7283-2-12-	0-897036	03/26/79	10	23-9.8-C-S	7.7	97-	24-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.0-	3.20																				
02-54	7350-132	7283-2-32-	0-897036	03/26/79	10	23-9.8-C-S	7.7	97-	24-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.0-	2.34																				
02-54	7350-132	7283-2-42-	0-897036	03/26/79	10	23-9.8-C-S	7.7	97-	24-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.0-	2.92																				
02-54	7350-132	7283-2-52-	0-897036	03/26/79	10	23-9.8-C-S	7.7	97-	24-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.0-	3.54																				
02-54	7350-132	7283-2-62-	0-897036	03/26/79	10	23-9.8-C-S	7.7	97-	24-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.0-	3.41																				
02-54	7350-132	7283-2-71-	0-897036	03/26/79	10	23-9.8-C-S	7.7	97-	24-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.0-	2.29																				
02-54	7350-132	7283-2-72-	0-897036	03/26/79	10	23-9.8-C-S	7.7	97-	24-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.0-	2.54																				
02-54	7350-132	7283-2-73-	0-897036	03/26/79	10	23-9.8-C-S	7.7	97-	24-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.0-	2.65																				
02-54	7350-132	7283-2-74-	0-897036	03/26/79	10	23-9.8-C-S	7.7	97-	24-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.0-	2.72																				
02-54	7350-132	7283-2-75-	0-897036	03/26/79	10	23-9.8-C-S	7.7	97-	24-2-8-2-6-3-3-1-2-1-5-5-1-1-	9.0-	2.73																				

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

2

DOE SAMPLE NUMBER							DOE SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	Concentrations reported in weight parts per million (ppm)										Concentrations in weight ppm			
						Ag		Bi	Cd	Cu	Nb	Ni	Pb	Sn	W	Be	Li		
02-54.7136-132.8119-2-12-						0-A99093	-5	-5	9	43	-20	31	-5	40	-15		1	31	
02-54.7136-132.8119-2-32-						0-A99093	5	-5	-5	38	-20	26	-5	-10	-15		1	25	
02-54.7136-132.8119-2-42-						0-A99093	-5	-5	5	24	-20	40	-5	15	-15		1	30	
02-54.7136-132.8119-2-52-						0-A99093	-5	-5	-5	60	-20	40	11	24	-15	-1	32		
02-54.7136-132.8119-2-71-						0-A99093	-5	-5	-5	35	-20	15	-5	-10	-15	1	17		
02-54.7136-132.8119-2-72-						0-A99093	-5	-5	-5	43	-20	28	-5	-10	-15	1	30		
02-54.7136-132.8119-2-73-						0-A99093	-5	-5	-5	24	-20	31	-5	-10	-15	1	34		
02-54.7136-132.8119-2-74-						0-A99093	-5	-5	-5	29	-20	28	5	-10	-15	1	45		
02-54.7136-132.8119-2-75-						0-A99093	-5	-5	-5	43	-20	22	-5	-10	-15	1	42		
02-54.6972-132.7547-2-12-						0-A99094	-5	-5	-5	48	-20	35	-5	-10	-15	1	23		
02-54.6972-132.7547-2-32-						0-A99094	-5	-5	-5	52	-20	44	-5	-10	20	1	18		
02-54.6972-132.7547-2-42-						0-A99094	-5	-5	-5	47	-20	32	11	-10	-15	1	25		
02-54.6972-132.7547-2-52-						0-A99094	-5	-5	10	54	-20	80	-5	52	-15	1	22		
02-54.7047-132.7231-2-12-						0-A99095	-5	-5	-5	37	-20	35	10	-10	-15	2	29		
02-54.7047-132.7231-2-32-						0-A99095	-5	-5	-5	29	-20	31	-5	-10	-15	2	19		
02-54.7047-132.7231-2-42-						0-A99095	-5	-5	-5	47	-20	38	9	-10	-15	1	29		
02-54.7047-132.7231-2-52-						0-A99095	-5	-5	5	31	-20	26	8	-10	-15	1	27		
02-54.7047-132.7231-2-71-						0-A99095	-5	-5	-5	35	-20	36	-5	-10	-15	1	19		
02-54.7047-132.7231-2-72-						0-A99095	-5	5	-5	47	-20	24	-5	-10	-15	2	24		
02-54.7047-132.7231-2-73-						0-A99095	-5	-5	9	57	-20	61	-5	-10	-15	2	24		
02-54.7047-132.7231-2-74-						0-A99095	-5	-5	-5	50	-20	23	-5	-10	-15	2	36		
02-54.7047-132.7231-2-75-						0-A99095	-5	-5	-5	60	-20	36	-5	-10	18	2	28		
02-54.7350-132.7283-2-12-						0-A99094	-5	-5	-5	63	-20	51	-5	13	-15	2	15		
02-54.7350-132.7283-2-32-						0-A99094	-5	-5	-5	39	-20	-15	-5	-10	-15	2	12		
02-54.7350-132.7283-2-42-						0-A99094	-5	-5	-5	62	-20	-15	-5	-10	-15	2	16		
02-54.7350-132.7283-2-52-						0-A99094	-5	-5	-5	46	-20	18	-5	15	-15	2	17		
02-54.7350-132.7283-2-62-						0-A99094	-5	-5	-5	54	-20	-15	-5	42	-15	2	19		
02-54.7350-132.7283-2-71-						0-A99094	-5	-5	-5	37	-20	18	-5	-10	-15	2	7		
02-54.7350-132.7283-2-72-						0-A99094	-5	-5	-5	19	-20	-15	-5	-10	-15	2	10		
02-54.7350-132.7283-2-73-						0-A99094	-5	-5	5	32	-20	-15	-5	-10	-15	3	11		
02-54.7350-132.7283-2-74-						0-A99094	-5	-5	5	40	-20	29	-5	-10	-15	2	10		
02-54.7350-132.7283-2-75-						0-A99094	-5	-5	-5	37	-20	18	-5	-10	-15	2	10		

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

③

DOE SAMPLE NUMBER						ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																	
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
02-54.7136-132.8119-2-12-			0-A99033			59090	-0.13	-255	23150	28	-235	28.3	111	-2.2	-2	1.2	94540	2.8	-8398	14	0.4		
02-54.7136-132.8119-2-32-			0-A99033			59850	-0.13	-193	21700	39	-148	21.4	150	-1.9	4	1.5	75480	3.4	-5115	18	0.5		
02-54.7136-132.8119-2-42-			0-A99033			60240	-0.11	-246	21180	32	-194	26.0	98	-3.0	3	1.4	86900	3.9	-6987	14	0.4		
02-54.7136-132.8119-2-52-			0-A99033			62450	-0.14	-215	24700	38	246	30.9	154	-2.3	4	1.3	104400	3.4	-5735	18	0.4		
02-54.7136-132.8119-2-71-			0-A99033			73670	-0.12	-133	25830	33	437	13.5	97	-1.9	5	1.2	40680	2.5	9328	16	0.4		
02-54.7136-132.8119-2-72-			0-A99033			73120	-0.15	176	27490	49	580	13.6	98	-2.2	5	1.6	43440	4.8	9152	20	0.5		
02-54.7136-132.8119-2-73-			0-A99033			73270	-0.11	-155	27860	54	543	15.7	123	-3.0	6	1.5	52710	5.7	9679	23	0.5		
02-54.7136-132.8119-2-74-			0-A99033			76770	-0.15	-132	26300	45	838	16.2	101	-2.4	7	1.5	54560	4.9	8240	24	0.5		
02-54.7136-132.8119-2-75-			0-A99033			93730	-0.15	-159	26420	35	1057	16.4	108	-2.5	6	1.4	47600	4.7	8175	24	0.4		
02-54.6972-132.7547-2-12-			0-A99034			62500	-0.15	-224	22270	36	-166	31.6	155	-2.3	5	1.4	65640	3.4	-5952	14	0.5		
02-54.6972-132.7547-2-32-			0-A99034			64340	-0.10	-170	20880	31	-136	31.5	165	-3.0	4	1.4	61850	4.6	-4628	13	0.5		
02-54.6972-132.7547-2-42-			0-A99034			69480	-0.14	-175	21700	37	-126	31.6	169	-2.3	4	1.3	69310	4.1	-4557	19	0.5		
02-54.6972-132.7547-2-52-			0-A99034			70900	-0.14	-219	21920	31	-200	33.0	177	-2.3	5	1.2	62240	3.1	-6937	16	0.5		
02-54.7047-132.7231-2-12-			0-A99035			68550	-0.14	515	14000	47	-161	25.6	92	2.8	4	1.6	60080	3.7	7743	20	0.5		
02-54.7047-132.7231-2-32-			0-A99035			61540	-0.09	327	13900	45	-123	20.8	115	-2.5	5	1.6	52150	4.3	8793	23	0.6		
02-54.7047-132.7231-2-42-			0-A99035			65640	-0.13	-156	14570	53	-117	26.8	113	-2.0	3	1.8	68110	4.3	7973	24	0.5		
02-54.7047-132.7231-2-52-			0-A99035			69270	-0.12	-195	13900	40	-176	24.7	90	-1.9	5	1.4	53950	4.2	-5872	24	0.4		
02-54.7047-132.7231-2-71-			0-A99035			66590	-0.13	423	13280	53	-123	20.8	111	-1.9	5	1.6	50110	4.1	10210	22	0.5		
02-54.7047-132.7231-2-72-			0-A99035			66640	-0.11	342	15640	69	-129	24.7	143	-2.9	6	1.8	56230	4.4	9189	27	0.6		
02-54.7047-132.7231-2-73-			0-A99035			71580	-0.14	539	16960	62	193	28.9	143	-2.3	6	2.1	68970	4.1	7834	26	0.6		
02-54.7047-132.7231-2-74-			0-A99035			72330	-0.15	415	18760	49	-165	30.2	133	-2.4	7	1.9	67000	3.1	8664	31	0.5		
02-54.7047-132.7231-2-75-			0-A99035			71870	-0.17	431	16560	55	252	31.9	133	2.5	6	1.8	67520	4.9	10110	24	0.5		
02-54.7350-132.7283-2-12-			0-A99036			67050	-0.12	-240	5839	82	-193	36.4	101	-3.3	6	2.0	90710	7.5	-6806	41	0.9		
02-54.7350-132.7283-2-32-			0-A99036			70690	-0.13	-137	9014	97	-117	35.9	82	-2.1	6	2.4	97790	5.4	-3544	44	0.7		
02-54.7350-132.7283-2-42-			0-A99036			68780	-0.15	-206	5358	86	-204	35.6	85	-2.3	8	2.2	90400	4.6	-6713	40	0.7		
02-54.7350-132.7283-2-52-			0-A99036			64860	-0.18	-305	7600	82	276	37.0	99	-2.7	7	2.2	77450	5.9	-8102	34	0.8		
02-54.7350-132.7283-2-62-			0-A99036			70200	-0.12	-255	5401	74	-201	33.4	105	-3.5	8	2.0	79940	7.8	-7136	28	1.0		
02-54.7350-132.7283-2-71-			0-A99036			74980	-0.10	-134	6476	79	476	18.1	82	-3.2	8	2.0	55300	6.7	-3245	27	0.7		
02-54.7350-132.7283-2-72-			0-A99036			73300	-0.16	-160	8738	92	504	18.6	80	-2.5	10	2.2	59860	5.9	-4948	34	0.7		
02-54.7350-132.7283-2-73-			0-A99036			72310	-0.18	228	7120	107	586	17.8	85	-2.8	10	2.3	58570	6.3	-4638	42	0.7		
02-54.7350-132.7283-2-74-			0-A99036			72880	-0.11	-175	5932	65	785	17.5	102	-3.2	10	1.8	66530	6.1	-4497	30	0.8		
02-54.7350-132.7283-2-75-			0-A99036			72130	-0.19	-142	7112	74	881	17.8	77	-3.0	9	1.8	65960	6.0	-3715	32	1.0		

APPENDIX I-B. (continued). Elemental Concentrations for Sediment Samples

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DOE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS (continued)														U/Th RATIO
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LAS SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)														
							Mg	Mn	Na	Rb	Sb	Sc	Sm	Sr	Ta	Tb	Th	Ti	V	Yb	
02-54	7136-132.8119-2-12-	0-1990033	13210	3598	18210	-42	-3	20.0	3.9	-2	-1	3.4	5525	176	4.2	138	1.176				
02-54	7136-132.8119-2-32-	0-1990033	12220	1981	19930	-32	-3	20.6	5.1	-485	-1	-1	2.4	6448	165	3.7	109	1.000			
02-54	7136-132.8119-2-42-	0-1990033	11960	3208	19050	-50	-3	20.6	4.0	-2	-1	3.2	4963	177	4.0	134	1.125				
02-54	7136-132.8119-2-52-	0-1990033	19010	3469	19990	-43	-3	22.0	3.8	-496	-1	-1	3.5	4680	173	3.7	142	1.057			
02-54	7136-132.8119-2-71-	0-1990033	17690	886	25630	-30	-3	19.2	3.3	-340	-1	1	2.9	4901	125	3.1	116	0.586			
02-54	7136-132.8119-2-72-	0-1990033	19330	389	25340	-33	-2	21.9	4.8	579	-1	1	3.6	7287	151	5.3	108	0.639			
02-54	7136-132.8119-2-73-	0-1990033	18470	1008	25150	-47	-3	24.9	4.5	-404	-2	-2	3.8	6985	138	3.6	164	0.579			
02-54	7136-132.8119-2-74-	0-1990033	19770	988	25580	-39	-4	25.7	6.3	-290	-2	1	3.9	5831	153	-2.3	109	0.667			
02-54	7136-132.8119-2-75-	0-1990033	21870	892	26610	-40	-4	22.8	5.4	-396	-2	1	3.5	6228	174	3.8	129	0.886			
02-54	6972-132.7547-2-12-	0-1990034	16610	2322	18750	-37	-4	25.3	4.8	-1	-1	2.7	3419	160	3.7	178	0.630				
02-54	6972-132.7547-2-32-	0-1990034	20760	1820	20280	-46	-3	25.2	3.2	-450	-2	1	3.3	4620	155	3.6	215	0.424			
02-54	6972-132.7547-2-42-	0-1990034	19150	2464	20910	-38	-3	27.0	4.1	-397	-1	1	3.4	4283	180	4.4	179	0.471			
02-54	6972-132.7547-2-52-	0-1990034	20300	2532	22430	-41	-4	23.5	3.4	-1	-1	3.0	4773	159	4.2	207	0.533				
02-54	7047-132.7231-2-12-	0-1990035	17030	2101	22470	-34	-3	19.8	5.4	-1	1	4.3	4332	162	4.3	230	0.651				
02-54	7047-132.7231-2-32-	0-1990035	20200	1473	21390	-41	-2	19.8	5.9	-398	-2	1	3.8	5070	161	2.6	217	0.632			
02-54	7047-132.7231-2-42-	0-1990035	19350	2057	22220	-34	-3	23.1	5.8	-352	-1	-1	5.0	4821	168	4.0	182	0.580			
02-54	7047-132.7231-2-52-	0-1990035	16700	2055	23520	-34	-3	18.9	5.1	-485	-1	-1	4.7	4127	154	3.4	355	0.596			
02-54	7047-132.7231-2-71-	0-1990035	21300	1211	21370	-30	-3	20.7	5.7	-388	-1	-1	4.4	4631	162	2.8	165	0.500			
02-54	7047-132.7231-2-72-	0-1990035	21750	1548	20740	-45	-3	23.0	7.1	-424	-2	-2	4.8	5829	179	4.6	198	0.521			
02-54	7047-132.7231-2-73-	0-1990035	22420	1489	21130	-39	-3	25.4	7.4	-325	-1	1	6.8	5783	184	3.9	173	0.397			
02-54	7047-132.7231-2-74-	0-1990035	23540	1931	20340	-42	-4	25.7	6.9	-477	-2	1	4.1	6071	190	4.1	180	0.707			
02-54	7047-132.7231-2-75-	0-1990035	22290	2174	19890	-42	-4	25.0	5.4	-2	-1	6.1	6065	191	4.5	211	0.525				
02-54	7350-132.7283-2-12-	0-1990036	16930	2964	24770	-56	-3	23.2	9.0	-2	1	5.1	7704	220	6.3		0.627				
02-54	7350-132.7283-2-32-	0-1990036	19950	1418	23310	-38	-3	23.4	10.5	-305	-1	1	4.4	5987	299	6.2	170	0.532			
02-54	7350-132.7283-2-42-	0-1990036	15310	2509	26850	-41	-4	26.2	9.9	-2	1	4.4	6778	243	6.3	174	0.664				
02-54	7350-132.7283-2-52-	0-1990036	14575	3461	24090	-44	-4	26.4	9.1	-2	1	5.3	7721	215	8.5	167	0.668				
02-54	7350-132.7283-2-62-	0-1990036	12925	3073	24830	-55	-3	28.0	8.2	-2	2	5.5	9155	177	7.5	167	0.620				
02-54	7350-132.7283-2-71-	0-1990036	14940	799	33790	-46	-3	21.4	10.8	-288	-1	1	5.1	6929	203	6.3	96	0.449			
02-54	7350-132.7283-2-72-	0-1990036	14935	942	30350	-46	-4	24.2	10.9	-400	-2	-1	5.6	8519	199	7.9	101	0.454			
02-54	7350-132.7283-2-73-	0-1990036	16775	864	29750	-42	-4	23.1	11.4	-452	-2	2	4.7	9779	221	6.0	161	0.564			
02-54	7350-132.7283-2-74-	0-1990036	15930	934	26270	-52	-3	24.9	7.8	-443	-2	1	6.4	9267	238	5.8	92	0.425			
02-54	7350-132.7283-2-75-	0-1990036	17805	918	24980	-49	-3	25.4	9.1	-326	-2	1	5.2	9351	210	6.9	137	0.525			

APPENDIX II

SUMMARY OF STANDARD LASL HSSR PROCEDURES AND CODES

APPENDIX II-A

Summary of Standard LASL HSSR Field and Analytical Procedures

APPENDIX II-A

SUMMARY OF STANDARD LASL HSSR FIELD AND ANALYTICAL PROCEDURES

I. FIELD PROCEDURES

Water Sampling

Water samples are collected first, directly from the source wherever possible, filtered through a 0.45- μ membrane filter (except in Alaska where this step is omitted) directly into two prewashed and sealed, 25-ml polyethylene vials. Water samples in both vials are then acidified to a pH <1 with 8N reagent-grade HNO_3 . All sample containers are doubly labeled with preprinted, adhesive labels carrying the same sample location number as that preprinted on the field data form. Springs are sampled as near to their point of emergence as possible; stream waters are taken from the fast-flowing current away from the bank; ponds (including small lakes and reservoirs) are sampled from just below the surface, near their center; and well waters are taken near the wellhead if the well is pumping or from a holding tank if not.

Sediment Sampling (Wet or Dry)

Following the collection of the water sample (if any), enough fine-grained, organic-rich, water-transported sediment to yield a composite sample of 25 g after processing (as indicated below) is taken from beneath the water level (where water exists) at three adjacent spots at each spring or stream location. In addition, a second sediment sample was collected from the proximate stream bank at selected locations within the Dixon Entrance and Prince Rupert D-6 quadrangles. The sediment is put into a new, clean, and originally sealed, rip-top polyethylene bag which is then properly double-labeled for delivery (with the field data form) to the contractor's drying facility. After drying at <100°C, each sample is split into five equal portions, each of which is then sieved through the appropriate stainless steel sieve (40, 80, 100, 170, or 230 mesh). Each sieved fraction is put into a prewashed, 25-ml polyethylene vial which is then appropriately double-labeled (using labels from the data form) and sealed for shipment to the LASL. In the case of lakes sampled in Alaska, the sediment is taken from as near the center of each lake as possible by dropping a tethered, stainless steel bottom sampler overboard from a pontoon-equipped helicopter. Here, only a bottom sample from a single location is taken (i.e., it is not a composite) and sampling is limited to lakes less than 10 m deep and about 0.3 to 2.0 km in least horizontal dimension. The sampler is rinsed before each use and the raw sample is put into a clean polyethylene bag, labeled, and treated as above.

Field Measurements

The air temperature, read in the shade at the time of sampling, is recorded to the nearest whole degree Celsius. The water temperature is measured in the source water and recorded to the nearest one-half degree Celsius. The pH of the source water is measured with a calibrated, portable pH meter and recorded to the nearest one-tenth of a pH unit. The conductivity (in $\mu\text{mho/cm}$) of the source water is measured with a calibrated, temperature-compensated (25°C), portable meter. The scintillometer readings are measured with a portable scintillometer on a flat, dry spot within a few meters of the sample location at spring or stream sites. Two readings are recorded, the first with a

radiation shield in place (blocking out ground radiation) and the second with the shield removed. The readings (in counts/s) are converted by computer, using measured calibration factors, to the equivalent uranium (eU) value in the data listings. Special measurements such as dissolved oxygen are made with a calibrated, commercially available, portable meter and probe. In lakes, the water temperature, pH, conductivity, and (special) dissolved oxygen are usually all measured with a single, digital-readout unit, utilizing a parameter selector switch and a composite probe that is lowered from the sampling helicopter to just below the water's surface. Care is taken to see that these measurements are made before the bottom sediment is disturbed.

Field Observations

These represent the best judgment of the field sampler at a location and include general descriptions of the local bedrock, sediment, water, vegetation, terrain, weather, possible contaminants, and well configuration, if applicable. Because these observations are subjective and made quickly in the field, they should be held subordinate to formally documented information such as that provided by published topographic or geologic maps, etc.

Sample Location Verification

Each contractor is supplied field maps with the desired sample types and general locations symbolically premarked at the LASL. In the lower states, the field maps are generally 1:24 000-scale or 1:62 500-scale USGS topographic maps; in Alaska, they are normally 1:250 000-scale NTMS quadrangle maps, also available from the USGS. As each location is sampled, a unique sample location number, preprinted on transparent adhesive labels (also used for labeling the samples) that are provided with each identically numbered field data form, is placed on top of the precisely marked point representing the sample site on the field map. When a desired sample as specified cannot be obtained, an identical or alternate sample type (as near as possible to the original one) is picked, and the new sample type and/or location is/are marked on the field map and properly labeled as above. The latitude and longitude of each location is then computed by the sampling contractor within 48 h of taking each sample. Every location is later checked (and corrected if necessary) at the LASL by digitizing the sample locations on each map and comparing them to those computed in the field. The latitudes and/or longitudes are corrected if the field-computed locations are displaced by more than 300 m from the locations marked on the field maps. A final visual check of sample locations is made by overlaying computer-produced location plots on the field maps used. The computer program for generating the Universal Transverse Mercator map projection overlays is described by Cheadle (1977).

II. ANALYTICAL PROCEDURES

Uranium Determination in Water Samples by Fluorometry

Under normal procedures, the 25-ml water vial is vigorously shaken and duplicate 2-ml aliquots of water are transferred to platinum dishes. A uranium concentration determined by analyses of duplicate 0.2-ml aliquots is identified in Appendix I-A by an asterisk. The aliquots are evaporated under heat lamps and a 0.4-g pellet of 2% LiF-98% NaF flux is added to each dish. The pellets are first preheated under lamps, then fused over special propane burners. After each pellet/sample cools, it is excited with ultraviolet radiation in

the fluorometer and the fluorescence is read and recorded. The uranium concentrations are determined by using a computer routine which compares the fluorescence from each pellet with those from other pellets, run at the same time, containing uranium-standard solutions and blanks. The uranium concentration of the sample, as given in Appendix I-A, is then the average obtained from the duplicate aliquots. The lower limit of detection for each aliquot by the normal procedure is 0.02 ppb. When a uranium concentration lower than 0.02 ppb is found in an aliquot, it is arbitrarily assigned a value of 0.01 ppb. If the uranium value given in the data listings is 0.01 ppb, both aliquots had uranium concentrations below the detection limit. The fluorometric analytical precision is $\approx 30\%$ at the lower detection limit, $\approx 20\%$ at one order of magnitude above this, and $\approx 10\%$ at two or more orders of magnitude above the lower detection limit. The basic fluorometric method used is described in detail by Hues et al (1977).

Uranium Determination in Sediment Samples by DNC

All sediment samples are analyzed for total uranium by DNC. A split of each sample (dried and sieved as described) is transferred to a clean 4-ml rabbit, weighed, and its weight (less that of the rabbit) recorded along with the appropriate location number. These rabbits are then loaded into a 50-sample transfer clip. The reactor pneumatic transfer system and background radiation levels are checked, and standards are run for calibration. The transfer clip is installed and the samples are cycled through the system (typically, a 20-s irradiation, 10-s delay, and 30-s count cycle is used). The uranium concentration is automatically measured, converted to ppm, and entered into the data base. The lower limit of detection of this method is 0.01 ppm uranium, far below the range of uranium concentrations in natural sediment samples. Above the 1 ppm level, the uranium values in sediment measured by DNC at the LASL have a one-sigma error of less than 4%. The specially designed delayed-neutron detectors, built by the LASL and used for these analyses, are described by Balestrini et al (1976).

Elemental Determinations in Sediment Samples by Energy Dispersive X-Ray Fluorescence

A computer-controlled, energy-dispersive x-ray fluorescence system is used to determine Ag, Bi, Cd, Cu, Nb, Ni, Pb, Sn, and W in sediments. The system consists of an automatic 20-position sample changer, a lithium-drifted silicon detector, a pulsed molybdenum transmission-target x-ray tube, a multichannel analyzer, and a minicomputer. The sediment samples are prepared for analysis by grinding 6 g of each minus 100-mesh sample to a minus 325-mesh powder. A computer program positions the 6-g samples in the x-ray beam, unfolds overlapping peaks, determines peak intensities for each element, and calculates the ratio of the intensity of each peak to that of the molybdenum $K\alpha$ Compton peak. Concentrations of each element are then calculated using equations obtained by analyzing prepared standards. Detection limits are: 5 ppm for Ag, Bi, Cd, and Pb; 10 ppm for Cu and Sn; 15 ppm for Ni and W; and 20 ppm for Nb. When an analysis results in an elemental concentration that is below the detection limit, a minus sign preceding the value of the detection limit for that element is inserted in the data listings. The relative standard deviation is 10% or less at the 100-ppm level and 20% or less at the 20-ppm level. Details of the method and equipment used are described by Hansel and Martell (1977).

Beryllium and Lithium Determinations in Sediment Samples by Arc-Source Emission Spectrography

A 5-mg portion of the -325-mesh sample that has already been analyzed by x-ray fluorescence is mixed with 10 mg of a buffer consisting of one part graphite and one part SiO_2 . The sample/buffer mixture is placed into a graphite electrode that is used as the anode of a dc arc having a short circuit current of 6A for 10 s, then 17A for 50 s. Photomultiplier tubes in a direct-reading spectrograph are used to measure the second order 313.0-nm line of Be, the first order 670.7- and 610.3-nm lines of Li, the background spectra near these lines, and the 327.6-nm line of V. The 670.7-nm Li line is used for Li concentrations up to 10 ppm and the 610.3-nm line of Li is used for concentrations above 10 ppm. The V line is used to correct the Be value when V is present. The signals from the photomultiplier tubes are read by a digital voltmeter and are processed by a desk-top calculator. The results are simultaneously printed on paper and written on cassette tape for later transmission to a computer data file. The elemental concentrations of Be and Li are determined from the spectra, based on the results of previously run calibration standards. The lower detection limit for both elements is 1 ppm. When an analysis results in an elemental concentration that is below the detection limit, a minus sign preceding the value of the detection limit for that element is inserted in the data listings. Precision at the lower detection limit is $\approx 50\%$ for both elements and improves to $\approx 25\%$ at one order of magnitude above the lower limit.

Elemental Determinations in Sediment Samples by Neutron Activation Analysis (NAA)

Immediately upon completion of the uranium analysis of sediment samples by DNC, the same 4-ml sediment splits are entered into the NAA sequence. The concentrations of 31 additional elements are determined by this procedure. The full DNC/NAA timing sequence used at the LASL for each sediment sample is: 20-s irradiation, 10-s delay, 30-s DNC analysis, 20-min delay, 500-s γ -ray count for short-lived radionuclides, 96-s re-irradiation, 14-day delay, and finally a 1000-s γ -ray count for long-lived radionuclides. The γ -ray counting is done by lead-shielded Ge(Li) detectors; the 4096-channel γ -ray data are recorded and subsequently analyzed for each individual element by computer. The analytical data for each sample are automatically printed out along with the associated statistical errors. The lower detection limits for the various elements as reflected by the "less than" values (denoted by a minus sign in front of a concentration) in the data listings are the values for the individual elements at which the statistical counting error approaches 50%. Current "typical" lower detection limits for the elements determined by NAA are reported in Nunes and Weaver (1978); however, the actual detection limit for an element depends upon the composition of the sample, and this limit may be higher or lower than the typical value. At concentration values one order of magnitude above the lower detection limits, the relative errors are generally less than 10%.

APPENDIX II-B

Explanation of Codes Used in Appendix I

APPENDIX II-B

EXPLANATION OF CODES USED

DOE SAMPLE NUMBER

STATE: A two-digit Federal Information Processing Standards (FIPS) code that designates the state from which each sample came. For the states being sampled by the LASL, the code numbers are:

Alaska	= 02	Montana	= 30	South Dakota	= 46
Arizona	= 04	Nebraska	= 31	Texas	= 48
Colorado	= 08	New Mexico	= 35	Utah	= 49
Idaho	= 16	North Dakota	= 38	Wyoming	= 56
Kansas	= 20	Oklahoma	= 40		

LATITUDE AND LONGITUDE: Sample location, in degrees and decimal degrees to four places. Although generally much better, locational accuracy cannot be guaranteed closer than about 300 m (1000 ft).

DOE LAB: A Department of Energy (DOE) one-digit identifier designating the DOE laboratory responsible for taking the samples and data shown in the listings, as well as providing the analyses of the uranium and other elemental concentrations, if any. The LASL is designated by the numeral 2.

SAMPLE TYPE: A two-digit identifier which specifically designates the pertinent properties defining the sample type to which the listed data relate. For explanation of the code used, refer to the attached "Key to Sample Types," in section C of this appendix.

REPLICATE: A three-digit sequential number assigned to indicate a multiple sample of a single sample type from a single location. The largest number in use indicates the most recent sample taken and there will always be all smaller sequential numbers representing earlier samples back to 0, which is the initial sample from any given location. Except in the case of special studies, there will be no replicate samples and this entry will therefore be a single zero.

LASL SAMPLE LOCATION NUMBER AND FIELD DATA

LASL SAMPLE LOCATION NUMBER: A unique six-place alphanumeric designator permanently assigned by the LASL to every location sampled. For internal use, these numbers are assigned in blocks to the various areas individually treated and reported upon, and therefore serve to generally locate the samples within various areas for which the LASL is responsible as follows.

<u>Location Numbers</u>	<u>State</u>
N00 001 through N99 999	= Principally New Mexico
C00 001 through C99 999	= Principally Colorado
W00 001 through W99 999	= Principally Wyoming
M00 001 through M99 999	= Principally Montana
A00 001 and above	= Alaska only
L00 001 and above	= Areas beyond the western boundary of LASL's region as established by DOE in 1977.
Ø00 001 and above	= Areas beyond the eastern boundary of LASL's region as established by DOE in 1977.

TIME SAMPLED: The DATE the sample was taken, in terms of the number of the MONTH, followed by the DAY and finally the YEAR, separated by slashes, and then the TIME it was taken on that date to the nearest whole HOUR on a 24-hour clock.

AIR TEMPERATURE: The temperature measured in the shade at the time of sampling, to the nearest whole degree Celsius (°C).

WATER TEMPERATURE: The temperature measured in the sample water (in situ whenever possible) at the time of sampling, to the nearest one-half of a degree Celsius (0.5°C).

COMMENTS: A "C" in this column indicates that some secondary comment not included in the listing was recorded at the sample location. This information will be used by the LASL in evaluating the data, and if appropriate, it will be mentioned in the final report.

SPECIAL MEASUREMENTS: An "S" in this column indicates that one or more field measurements in addition to those listed were made at the sample location. A description of any special parameters measured and the measured value at each sample location will be included in the final HSSR survey report on the area.

pH: The pH, to the nearest one-tenth (0.1) of a pH unit, measured in the water at the sample location at the time of sampling.

CONDUCTIVITY: The conductivity, in $\mu\text{mho/cm}$, measured in the water at the sample location at the time of sampling.

SCINTILLOMETER: The equivalent uranium (eU), in ppm, as measured on a flat ground surface within 10 m of the sample location using a scintillometer fitted with a differential gamma sampler (DGS). The effect of the DGS is to introduce a fixed geometry into the measurement and remove the background.

ROCK TYPE: The single digit in this column provides a general description of the dominant lithologic regime at or near the sample location, as given below.

1 = Sedimentary	3 = Igneous
2 = Metamorphic	4 = Unknown

ROCK COLOR: The single digit in this column provides an indication of the observed dominant color of local bedrock exposures at or near the sample location, as given below.

1 = White/Buff	4 = Pink/Red	7 = Gray
2 = Yellow	5 = Green	8 = Black
3 = Orange	6 = Brown	9 = Other

SEDIMENT TYPE: The single digit in this column provides a subjective evaluation of the dominant sediment type at the sample location, as given below.

1 = Boulders	4 = Sand	7 = Other
2 = Cobbles	5 = Mud	
3 = Gravel	6 = Muck	

SEDIMENT COLOR: The single digit in this column indicates the observed dominant color of the bottom sediment (stream channel, lake bed, etc.) at the sample location at the time of sampling, as given below.

1 = White/Buff	4 = Pink/Red	7 = Gray
2 = Yellow	5 = Green	8 = Black
3 = Orange	6 = Brown	9 = Other

WATER FLOW: The single digit in this column provides a subjective evaluation of the water movement at the sample location at the time of sampling, as given below.

1 = Stagnant	3 = Moderate	5 = Torrent
2 = Slow	4 = Fast	

WATER LEVEL: The single digit in this column provides a subjective estimate of water quantity at the time of sampling, relative to its usual condition at the sample location, as given below.

1 = Dry	3 = Normal	5 = Flood
2 = Low	4 = High	

WATER COLOR: The single digit in this column provides a subjective evaluation of suspended load in the sample water, as given below.

1 = Clear	3 = Cloudy	5 = Algal
2 = Murky	4 = Muddy	6 = Other

STREAM CHANNEL: The single digit here gives a subjective evaluation of stream channel character at the sample location at the time of sampling, as given below.

1 = Depositing	2 = Eroding	3 = Unknown
----------------	-------------	-------------

VEGETATION TYPE: The single digit in this column provides a subjective evaluation of the dominant plant type in the vicinity of the sample location, as given below.

1 = Conifers	4 = Grass	7 = Other
2 = Deciduous	5 = Moss	
3 = Brush	6 = Marsh	

VEGETATION DENSITY: The single digit in this column provides a subjective estimate of the amount of plant cover in the vicinity of the sample location, as given below.

1 = Barren	3 = Moderate	5 = Very Dense
2 = Sparse	4 = Dense	

RELIEF: The single digit in this column provides a subjective evaluation of the topography within a few hundred meters of the sample location, as given below.

1 = Flat	3 = Gentle (15-60 m)	5 = High (>300 m)
2 = Low (<15 m)	4 = Moderate (60-300 m)	6 = Other

WEATHER: The single digit in this column gives the observed climatic condition at the sample location at the time of sampling, as given below.

1 = Clear	3 = Overcast	5 = Snowy
2 = Partly cloudy	4 = Rainy	6 = Other

OWNERSHIP: Not used.

CONTAMINANTS: The single digit here indicates known or suspected local factors likely to influence analytical results, as given below.

1 = None	4 = Industry	7 = Urban
2 = Mining	5 = Sewage	8 = Recreation
3 = Agriculture	6 = Power generation	9 = Other

DISSOLVED OXYGEN: The dissolved oxygen, in parts per million, that was measured in the water at the sample location at the time of sampling.

URANIUM CONCENTRATION: The value given in this column is the analytically derived value of the total uranium concentration found in the water sample (in ppb) or in the sediment sample (in ppm). Those uranium concentrations in water that are shown with an asterisk were measured using the delayed-neutron counting method, while those without an asterisk were determined fluorometrically. The uranium analyses in water samples as determined by both of these methods at the LASL are directly comparable, as noted in section A of this appendix.

REMAINING ENTRIES: The data presented in the remaining entries of the listings utilize no codes as such and are described in the respective column headings. However, there are four conventions used throughout the listings of elemental concentrations: a) all concentrations in waters are reported in ppb; b) all concentrations in sediments are reported in ppm; c) concentrations "less than" the lower detection limit are denoted by a minus sign before this limit for the specific sample (except for fluorometrically determined uranium in waters, the convention for which is described in section A of this appendix); and d) a blank space in the data listings for any elemental concentration signifies that no analytical result was obtained for that element.

APPENDIX II-C

Key to Sample Types Listed in Appendix I

APPENDIX II-C

KEY TO SAMPLE TYPES

This numerical key provides the necessary tie between the specific type or form of each sample taken and each individual suite of field and laboratory data to which the sample relates. It defines the various sample types collected by the LASL in the DOE HSSR for uranium.

The two-digit key number assigned to each sample type designates three distinct properties of the samples taken. These properties are: (a) The general sample source (spring, stream, dry stream, etc.); (b) The sample medium (water or sediment); and (c) The treatment given the sample in the field or laboratory prior to its analysis by the LASL.

The key numbers are inserted in the sample type columns of the specially formatted DOE sample numbering system to positively identify the sample type for all LASL sample data submitted.

KEY NO.

SOURCE / MEDIUM / TREATMENT

- 06 - Spring water sample filtered through a 0.45- μ membrane filter and acidified to a pH of ≤ 1 with reagent-grade nitric acid (HNO_3).
- 07 - Stream water sample filtered through a 0.45- μ membrane filter and acidified to a pH of ≤ 1 with reagent-grade nitric acid (HNO_3).
- 09 - Natural pond water sample filtered through a 0.45- μ membrane filter and acidified to a pH of ≤ 1 with reagent-grade nitric acid (HNO_3).
- 11 - Wet spring sediment sample dried at $\leq 100^\circ\text{C}$ and sieved to -100 mesh through stainless steel sieves.
- 12 - Wet stream sediment sample dried at $\leq 100^\circ\text{C}$ and sieved to -100 mesh through stainless steel sieves.
- 13 - Wet natural lake sediment sample dried at $\leq 100^\circ\text{C}$ and sieved to -100 mesh through stainless steel sieves.
- 15 - Dry stream sediment sample dried at $\leq 100^\circ\text{C}$ (if necessary) and sieved to -100 mesh through stainless steel sieves.
- 26 - Spring water sample acidified to a pH of ≤ 1 with reagent-grade nitric acid (HNO_3).
- 27 - Stream water sample acidified to a pH of ≤ 1 with reagent-grade nitric acid (HNO_3).
- 29 - Natural pond or lake water sample acidified to a pH of ≤ 1 with reagent-grade nitric acid (HNO_3).
- 31- Wet spring sediment sample dried at $\leq 100^\circ\text{C}$ and sieved to -40 mesh through stainless steel sieves.

- 32- Wet stream sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -40 mesh through stainless steel sieves.
- 33- Wet natural lake sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -40 mesh through stainless steel sieves.
- 35- Dry stream sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -40 mesh through stainless steel sieves.
- 41- Wet spring sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -80 mesh through stainless steel sieves.
- 42- Wet stream sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -80 mesh through stainless steel sieves.
- 43- Wet natural lake sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -80 mesh through stainless steel sieves.
- 45- Dry stream sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -80 mesh through stainless steel sieves.
- 51- Wet spring sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -170 mesh through stainless steel sieves.
- 52- Wet stream sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -170 mesh through stainless steel sieves.
- 53- Wet natural lake sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -170 mesh through stainless steel sieves.
- 55- Dry stream sediment sample dried at $\leq 100^{\circ}\text{C}$ and sieved to -170 mesh through stainless steel sieves.
- 61- Wet spring sediment sample dried at -100°C and sieved to -230 mesh through stainless steel sieves.
- 62- Wet stream sediment sample dried at -100°C and sieved to -230 mesh through stainless steel sieves.
- 63- Wet natural lake sediment sample dried at -100°C and sieved to -230 mesh through stainless steel sieves.
- 65- Dry stream sediment sample dried at -100°C and sieved to -230 mesh through stainless steel sieves.
- 71- Sediment sample collected from the stream bank, dried at $\leq 100^{\circ}\text{C}$, and sieved to -40 mesh through stainless steel sieves.
- 72- Sediment sample collected from the stream bank, dried at $\leq 100^{\circ}\text{C}$, and sieved to -80 mesh through stainless steel sieves.
- 73- Sediment sample collected from the stream bank, dried at $\leq 100^{\circ}\text{C}$, and sieved to -100 mesh through stainless steel sieves.

- 74- Sediment sample collected from the stream bank, dried at $\leq 100^{\circ}\text{C}$, and sieved to -170 mesh through stainless steel sieves.
- 75- Sediment sample collected from the stream bank, dried at $\leq 100^{\circ}\text{C}$, and sieved to -230 mesh through stainless steel sieves.

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From MacKevett (1963) and Beikman (1975)

DESCRIPTION OF MAP UNITS

METAMORPHIC ROCKS

MzPz	Slate, phyllite, quartzite, schist and phyllite with interlayered beds of marble, layered gneiss with interlayered beds of marble, and minor amphibolite.
D	Graywacke and conglomerate equivalent to the lower part of the Port Refugio formation on Prince of Wales Island.
DS	Siltstone, mudstone, limestone, conglomerate, sandstone, graywacke, and minor red beds and volcanic rocks equivalent to the Karheen formation on Prince of Wales Island and related rocks on Dall Island.
SO	Graywacke, conglomerate, cherty shale and siltstone, basaltic tuff and lava, and local limestone equivalent to the Descon formation on Prince of Wales Island.
Osl	SLATE - Black carbonaceous slate, phyllite, quartzite, metasiltstone and hornfels.
Ogn	GNEISS - Biotite-hornblende quartzo-feldspathic gneiss.
Osc	SCHIST - Fine-grained, well-foliated schist containing abundant hornblende and plagioclase.
Oam	AMPHIBOLITE - Coarse-grained amphibolite commonly containing between 50 and 90 percent hornblende.
Ov	METAVOLCANIC ROCKS - Chiefly quartz keratophyre.
OEpE	Heterogeneous rocks consisting mainly of volcanogenic greenschist and semischist with locally interstratified marble equivalent to the Wales group.

PLUTONIC ROCKS

KJqd	Quartz diorite on Dall and Forrester Islands.
Dbm	BOKAN MOUNTAIN GRANITE - Riebeckite- and aegirine-bearing peralkaline granite. Includes aplite, aplite dikes and subordinate alaskite related to Bokan Mountain granite.
Osy	SYENITE - Light-colored medium-grained syenite and lesser monzonite.
Ogq	GNEISSIC QUARTZ MONZONITE - Strongly foliated, coarse-grained quartz monzonite and granodiorite.
Oqm	QUARTZ MONZONITE AND GRANODIORITE - Hornblende and biotite granodiorite and quartz monzonite. Albitized in vicinity of Bokan Mountain stock.
Oqd	QUARTZ DIORITE AND DIORITE - Chiefly hornblende quartz diorite and diorite, and subordinate biotite- and aegirine-bearing rocks.
Og	GRANITIC ROCKS - Chiefly granodiorite, quartz monzonite, and quartz diorite on Prince of Wales Island.
Ogb	GABBRO - Plagioclase-rich, aegirine- and uraninite-bearing gabbro.
Opy	PYROXENITE - Coarse-grained rock consisting chiefly of aegirine in a plagioclase-rich groundmass.
SOum	Hornblende and pyroxenite on Prince of Wales Island.

CORRELATION OF MAP UNITS

GEOLOGIC MAP OF THE DIXON ENTRANCE NTMS AND PRINCE RUPERT D-6 QUADRANGLES, ALASKA.

LA-8006-MS

PLATE II

NOTE: ONLY THE LAST FOUR DIGITS OF THE SAMPLE LOCATION NUMBERS LISTED IN APPENDIX I ARE PLOTTED

SCALE 1:250 000

University of California
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SAMPLE LOCATION OVERLAY FOR THE DIXON ENTRANCE NTMS AND
PRINCE RUPERT D-6 QUADRANGLES, ALASKA.

LA-8006-MS

PLATE III

LEGEND

SYMBOLS	CONCENTRATIONS (ppb)			
◇ SPRING	◇	◇	△	.00- .01
	◇	◇	△	.02- .02
	◇	◇	△	.03- .05
	◇	◇	△	.06- .10
□ STREAM	◇	□	△	.11- .20
	◇	□	△	.21- .50
	◇	□	△	.51- 1.00
	◇	□	△	> 1.00
△ NATURAL LAKE OR POND	◇	□	△	
	◇	□	△	
	◇	□	△	
	◇	□	△

 University of California
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 Post Office Box 1663 Los Alamos, New Mexico 87545
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URANIUM CONCENTRATIONS (ppb) IN WATERS (ACIDIFIED ONLY)
 OVERLAY TO THE DIXON ENTRANCE NTMS AND
 PRINCE RUPERT D-6 QUADRANGLES, ALASKA.

LA-8006-MS

PLATE IV

LEGEND

SYMBOLS	CONDUCTIVITIES ($\mu\text{mho/cm}$)			
◇ SPRING	◇	◇	△	≤ 10
	◇	◇	△	11- 20
	◇	◇	△	21- 50
□ STREAM	◇	□	△	51- 100
	◇	□	△	101- 200
	◇	□	△	201- 500
△ NATURAL LAKE OR POND	◇	□	△	501-1000
	◇	□	△	> 1000

LSL
University of California
LOS ALAMOS SCIENTIFIC LABORATORY
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CONDUCTIVITIES ($\mu\text{mho/cm}$) IN WATERS
OVERLAY TO THE DIXON ENTRANCE NTMS AND
PRINCE RUPERT D-6 QUADRANGLES, ALASKA.

LA-8006-MS

PLATE V

DIXON ENTRANCE NTMS QUADRANGLE (NORTHERN PORTION) | PRINCE RUPERT D-6 QUADRANGLE

LEGEND

SYMBOLS	CONCENTRATIONS (ppm)				
◇ WET SPRING	◇	□	△	⊠	0.00- 1.00
	◇	□	△	⊠	1.01- 2.00
	◇	□	△	⊠	2.01- 3.00
	◇	□	△	⊠	3.01- 4.00
	◇	□	△	⊠	4.01- 6.00
	◇	□	△	⊠	6.01- 8.00
	◇	□	△	⊠	8.01- 12.00
	◇	□	△	⊠	> 12.00
□ WET STREAM					
△ WET NATURAL LAKE OR POND					
⊠ DRY STREAM

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URANIUM CONCENTRATIONS (ppm) IN -100 MESH SEDIMENTS
OVERLAY TO THE DIXON ENTRANCE NTMS AND
PRINCE RUPERT D-6 QUADRANGLES, ALASKA.

LA-8006-MS

PLATE VI

LEGEND

SYMBOLS	CONCENTRATIONS (ppm)				
◇ WET SPRING	◇	□	△	⊠	0.0- 2.0
	◇	□	△	⊠	2.1- 4.0
	◇	□	△	⊠	4.1- 6.0
	◇	□	△	⊠	6.1- 8.0
	◇	□	△	⊠	8.1- 12.0
	◇	□	△	⊠	12.1- 16.0
	◇	□	△	⊠	16.1- 24.0
	◇	□	△	⊠	> 24.0
□ WET STREAM	□	□	□	□	
△ WET NATURAL LAKE OR POND	△	△	△	△	
⊠ DRY STREAM	⊠	⊠	⊠	⊠

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THORIUM CONCENTRATIONS (ppm) IN-100 MESH SEDIMENTS
OVERLAY TO THE DIXON ENTRANCE NTMS AND
PRINCE RUPERT D-6 QUADRANGLES, ALASKA.