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Informal Report

**Uranium Hydrogeochemical and Stream Sediment
Reconnaissance Data Release for the
Lewistown NTMS Quadrangle, Montana,
Including Concentrations of
Forty-Two Additional Elements**

University of California

U. S. DEPARTMENT OF ENERGY

Assistant Secretary for Resource Applications
Grand Junction Office, Colorado

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Reconnaissance Data Release for the
Lewistown NTMS Quadrangle, Montana,
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Forty-Two Additional Elements**

BY

Spencer S. Shannon, Jr.

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URANIUM HYDROGEOCHEMICAL AND STREAM SEDIMENT RECONNAISSANCE
DATA RELEASE FOR THE LEWISTOWN NTMS QUADRANGLE, MONTANA,
INCLUDING CONCENTRATIONS OF FORTY-TWO ADDITIONAL ELEMENTS

by

Spencer S. Shannon Jr.

SUMMARY

This report contains data collected during a geochemical survey for uranium in the Lewistown National Topographic Map Series (NTMS) quadrangle of Montana (Fig. 1) by the Los Alamos Scientific Laboratory (LASL) as part of the nationwide Hydrogeochemical and Stream Sediment Reconnaissance (HSSR). The LASL is responsible for conducting the HSSR primarily in the Rocky Mountain states of New Mexico, Colorado, Wyoming, and Montana and in Alaska. The HSSR program is part of the United States Department of Energy's (DOE) National Uranium Resource Evaluation (NURE), which is designed to provide an improved estimate of the availability and economics of nuclear fuel resources and to make available to industry information for use in the development and production of uranium resources. The HSSR data ultimately will be integrated with data from airborne radiometric surveys and geological investigations to complete the entire NURE program.

Totals of 758 water and 1170 sediment samples were collected from 1649 locations in the quadrangle by a commercial contractor. Water samples were collected at streams, springs, wells, ponds, and marshes; sediment samples were obtained from streams, springs, and ponds. Histograms and statistical data for uranium concentrations in water and sediment samples and thorium concentrations in sediment samples are given in Figs. 2-4. The samples were collected in the summer of 1978. All samples were collected at the nominal reconnaissance density of one sample location per 10 km². Standardized field, analytical, and data base management procedures were used during both sampling programs.

Elemental concentration, field measurement, weather, geologic, and geographic data for each sample location are listed for waters in Appendix I-A and for sediments in Appendix I-B. Uranium to thorium (U/Th) ratios for sediment samples are also included in Appendix I-B. The data presented in 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. A supplemental report that includes results of analyses for several elements in the water samples from this quadrangle is planned to be released in the future. The rear pocket of this report contains a geologic map (Plate I), sample location overlay (Plate II), uranium concentration overlay for waters (Plate III), conductivity overlay for waters (Plate IV), uranium concentration overlay for sediments

Fig. 1. Index map of the Lewistown NTMS quadrangle, Montana.

(Plate V), and thorium concentration overlay for sediments (Plate VI). All plates are 1:250 000 scale for use in conjunction with the Lewistown NTMS quadrangle sheet (US Geological Survey, 1954). Airborne radiometric data for the Lewistown quadrangle also have been published through the DOE by Texas Instruments, Inc. (1979).

All elemental analyses were performed at the LASL. Water samples were initially analyzed for uranium by fluorometry (Appendix I-A). All water samples containing more than 40 parts per billion (ppb) uranium were reanalyzed by delayed-neutron counting (DNC). Sediments were analyzed for uranium and

a. All waters

b. Well waters

c. Stream waters

d. Spring waters

Fig. 2. Semilogarithmic histograms and statistical data for uranium concentrations in water samples from the Lewistown quadrangle, Montana.

a. All sediments

Dry spring sediments included in this histogram only

b. Dry stream sediments

c. Wet stream sediments

d. Wet spring sediments

Fig. 3. Histograms and statistical data for uranium concentrations in sediment samples from the Lewistown quadrangle, Montana.

a. All sediments

Dry spring sediments included in this histogram only

b. Dry stream sediments

c. Wet stream sediments

d. Wet spring sediments

Fig. 4. Histograms and statistical data for thorium concentrations in sediment samples from the Lewistown quadrangle, Montana.

thorium as well as aluminum, antimony, barium, beryllium, bismuth, cadmium, calcium, cerium, cesium, chlorine, chromium, cobalt, copper, dysprosium, europium, gold, hafnium, iron, lanthanum, lead, lithium, lutetium, magnesium, manganese, nickel, niobium, potassium, rubidium, samarium, scandium, silver, sodium, strontium, tantalum, terbium, tin, titanium, tungsten, vanadium, ytterbium, and zinc. (Appendix I-B). All sediments were analyzed for uranium by DNC. Other elemental concentrations in sediments were determined by neutron activation analysis for 31 elements, by x-ray fluorescence for 9 elements, and by arc-source emission spectrography for 2 elements. Analytical results for sediments are reported as parts per million (ppm).

Descriptions of procedures used for analysis of water and sediment samples as well as analytical precisions and detection limits are given in Appendix II-A. Explanation of codes used and a key to sample types are shown in Appendixes II-B and II-C.

This report is simply a data release and is intended to make the data available to the DOE and to the public as quickly as possible. Therefore, no discussion of the geology of the region, uranium and other mineral occurrences, or data evaluation is included.

ACKNOWLEDGMENTS

The support and assistance of the following LASL groups and individuals are also gratefully acknowledged. Nearly all analyses of the water samples and the x-ray fluorescence and emission spectrometry of sediment samples were performed by the Analytical Chemistry Group, under the direction of Glenn R. Waterbury. The delayed-neutron counting and neutron activation analyses of the sediments were performed by the Research Reactor Group, directed by Merle E. Bunker. The Statistics Group, headed by Ray A. Waller, was responsible for the data management and computer graphics. Special thanks are due the following members of the Geosciences Division: Mary E. Luke who digitized latitudes and longitudes for all sample location points, Patricia R. O'Rourke who typed and edited the report, and Allan R. MacKinnon who drafted the figures and plates. Sincere appreciation is also expressed to the US Fish and Wildlife Service, the Tribal Council of the Fort Belknap Indian Agency, and individual landowners who granted access to lands under their control so that the survey could be completed.

APPENDIX I

LISTINGS OF FIELD DATA AND ELEMENTAL CONCENTRATIONS FOR SAMPLES FROM THE LEWISTOWN NTMS QUADRANGLE, MONTANA

APPENDIX I-A

Listings of Field Data and Uranium Concentrations
for Water Samples from the Lewistown Quadrangle, Montana
(Pages 8 through 22)

(See Appendix II-B for Code to Listings)

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

JOE SAMPLE NUMBER						LASL SAMPLE LOCATION NUMBER AND FIELD DATA																							U CONCENTRATION					
STATE	LATITUDE	LONGITUDE	DOE U-ID	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	CUMULANTS	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	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	WATER SAMPLES ANALYZED BY FLUOROMETRY OR DNC (H) UNITS IN PPB
							DATE	HOUR																										
30-47.8669-109.2922-2-08-	0-M19163-08/11/78-12-	30-19.5-C-	4.4-	1000-	18-3-7-	-3-4-1-	-4-4-2-1-	-1-8-36-	18-	10-	3.49																							
30-47.8661-109.2903-2-08-	0-M19161-08/11/78-13-	30-12.2-C-	4.1-	1400-	13-2-7-	-3-4-1-	-4-4-2-2-	-1-	-	-	27.74*																							
30-47.8692-109.3164-2-06-	0-M19162-08/11/78-12-	30-13.8-C-	3.8-	700-	7-3-7-	-3-4-1-	-4-4-2-2-	-1-	-	-	23.23*																							
30-47.8722-109.3400-2-08-	0-M19163-08/11/78-14-	30-13.8-C-	-	750-	14-3-7-	-3-4-1-	-4-4-2-2-	-1-4-36-	30-	20-	28.76*																							
30-47.8572-109.3708-2-06-	0-M19164-08/11/78-14-	30-13.8-C-	3.4-	1900-	13-3-7-	-3-4-1-	-4-4-2-2-	-1-	-	-	68.76*																							
30-47.8508-109.3425-2-06-	0-M19165-08/11/78-14-	30-12.5-C-	3.6-	850-	3-3-7-	-3-4-1-	-4-4-2-2-	-1-	-	-	19.35																							
30-47.8544-109.3569-2-08-	0-M19166-08/11/78-15-	30-23.2-C-	3.9-	240-	7-3-7-	-3-2-2-	-4-4-2-2-	-1-8-	-	-	0.18																							
30-47.8461-109.3281-2-06-	0-M19167-08/11/78-15-	30-20.2-C-	4.0-	900-	12-3-7-	-3-4-1-	-4-4-2-2-	-1-	-	-	18.83																							
30-47.7900-109.4081-2-08-	0-M19168-08/11/78-16-	30-17.5-C-	3.2-	6000-	4-3-7-	-3-4-1-	-4-4-2-2-	-1-3-	6-	250-100-	7.14																							
30-47.7825-109.4461-2-08-	0-M19169-08/11/78-17-	30-18.2-C-	3.7-	1500-	11-3-7-	-3-4-1-	-4-4-3-2-	-1-8-	-	-	2.17																							
30-47.7661-109.4858-2-08-	0-M19170-08/11/78-19-	30-15.5-C-	3.6-	750-	9-3-7-	-3-4-1-	-4-4-2-2-	-1-9-	-	-	18.93																							
30-47.7744-109.4172-2-08-	0-M19171-08/11/78-19-	26-13.5-C-	3.2-	450-	13-3-7-	-3-4-1-	-4-4-2-2-	-1-8-	-	-	0.82																							
30-47.7291-109.3950-2-08-	0-M19180-08/11/78-21-	26-18.2-C-	3.6-	9000-	7-3-7-	-3-4-1-	-4-3-4-4-	-1-8-	-	-	0.28																							
30-47.6714-109.4817-2-08-	0-M19182-08/13/78-12-	32-13.5-C-	4.7-	2200-	9-3-7-	-3-4-1-	-4-4-2-1-	-1-5-36-	25-	-	7.30																							
30-47.6439-109.4614-2-06-	0-M19185-08/13/78-13-	32-26.5-	5.3-	14000-	7-3-7-5-7-2-4-2-	-4-4-2-1-	-1-	-	-	-	50.43*																							
30-47.6447-109.3089-2-08-	0-M19187-08/13/78-14-	32-14.5-C-	5.1-	1500-	9-3-7-	-3-3-1-	-4-4-2-1-	-1-9-	30-	10-	5.09																							
30-47.6267-109.2800-2-06-	0-M19190-08/13/78-15-	32-17.5-C-	5.3-	2200-	6-3-7-	-3-4-1-	-4-4-2-1-	-1-	-	-	2.14																							
30-47.8158-108.6733-2-08-	0-M19198-08/14/78-14-	34-20.5-C-	4.6-	2500-	9-2-7-	-3-4-1-	-4-4-2-1-	-1-8-	-	-	1.77																							
30-47.7969-108.6217-2-08-	0-M19200-08/14/78-14-	34-18.5-C-	5.4-	1600-	6-3-7-	-3-4-1-	-4-3-2-1-	-1-6-	-	-	0.92																							
30-47.6339-109.5011-2-08-	0-M19202-07/02/78-10-	25-21.0-C-	7.7-	730-	4-1-1-	-3-3-1-	-4-2-2-3-	-	-	-	1.27																							
30-47.6558-109.5256-2-08-	0-M19203-07/02/78-10-	27-19.5-	7.7-	470-	4-1-1-	-3-3-1-	-4-3-2-2-	-1-	-	-	0.79																							
30-47.6914-109.5167-2-06-	0-M19204-07/02/78-10-	27-13.0-C-	7.5-	470-	6-1-1-	-3-3-1-	-4-4-3-2-	-3-	-	-	2.30																							
30-47.1042-109.5551-2-07-	0-M19206-07/02/78-11-	25-20.0-C-	7.6-	550-	4-1-1-	-3-3-1-1-	-4-4-3-3-	-3-	-	-	3.41																							
30-47.0792-109.6086-2-06-	0-M19207-07/02/78-12-	26-13.0-C-	7.7-	510-	4-1-1-	-3-2-1-	-4-3-3-3-	-3-	-	-	3.85																							
30-47.0297-109.5447-2-06-	0-M19209-07/02/78-14-	26-13.0-C-	7.2-	420-	13-1-1-	-3-3-1-	-4-4-3-3-	-1-	-	-	0.58																							
30-47.0008-109.5622-2-08-	0-M19210-07/02/78-14-	25-20.0-C-	7.4-	320-	9-1-1-	-3-2-1-	-4-3-3-3-	-1-8-	-	-	1.14																							
30-47.0431-109.5830-2-07-	0-M19212-07/02/78-15-	25-21.0-	7.8-	450-	13-1-1-5-5-4-4-2-1-	-4-3-2-3-	-3-	-	-	-	1.90																							
30-47.0231-109.6039-2-06-	0-M19214-07/02/78-15-	24-11.0-C-	7.6-	650-	11-1-1-	-3-3-1-	-4-3-2-3-	-1-	-	-	9.38																							
30-47.0353-109.6697-2-08-	0-M19215-07/02/78-16-	25-18.0-C-	7.7-	420-	13-1-1-	-3-3-1-	-4-3-2-3-	-1-	-	-	0.53																							
30-47.0572-109.7036-2-06-	0-M19218-07/02/78-18-	25-	-	7.8-	13-1-1-	-3-2-1-	-4-3-2-3-	-1-	-	-	0.37																							
30-47.1069-109.7383-2-08-	0-M19219-07/02/78-19-	23-13.0-C-	7.5-	510-	13-1-1-	-3-2-1-	-4-3-2-3-	-1-	-	-	6.28																							
30-47.0664-109.7344-2-06-	0-M19220-07/02/78-19-	23-12.5-C-	7.7-	750-	8-1-1-	-3-2-1-	-4-3-3-2-	-3-	-	-	5.70																							
30-47.0781-109.6969-2-08-	0-M19223-07/03/78-14-	27-14.5-	7.7-	370-	4-1-1-	-3-3-1-	-4-3-2-3-	-1-	-	-	0.97																							
30-47.0100-109.7003-2-08-	0-M19225-07/03/78-12-	27-16.0-C-	7.6-	550-	4-1-	-	-3-3-1-	-4-3-2-3-	-1-4-	22-	3.48																							
30-47.0194-109.7456-2-06-	0-M19226-07/03/78-12-	27-11.0-C-	7.5-	510-	4-1-1-	-3-3-1-	-4-3-2-3-	-3-	-	-	1.15																							
30-47.0183-109.8072-2-08-	0-M19227-07/03/78-12-	27-14.0-	7.6-	700-	4-1-1-	-3-3-1-	-4-3-2-3-	-1-4-	15-	-	4.64																							
30-47.0547-109.8091-2-06-	0-M19230-07/03/78-14-	27-13.5-C-	8.1-	370-	9-1-1-	-3-3-1-	-4-3-2-3-	-1-	-	-	3.80																							
30-47.0822-109.7778-2-08-	0-M19232-07/03/78-14-	27-18.0-C-	7.5-	480-	4-1-1-	-3-3-1-	-4-3-2-3-	-1-4-	7-	-	2.23																							
30-47.0986-109.8082-2-08-	0-M19235-07/03/78-15-	27-14.0-C-	7.8-	470-	18-1-1-	-3-3-1-	-4-3-2-2-	-1-	-	-	8.96																							
30-47.1004-109.7775-2-08-	0-M19236-07/03/78-17-	26-21.0-C-	7.6-	420-	6-1-1-	-3-3-1-	-4-3-2-3-	-1-8-	40-	-	8.51																							
30-47.0558-109.8625-2-08-	0-M19237-07/03/78-17-	26-13.0-	-	7.8-	-1-1-	-3-3-1-	-4-3-2-3-	-1-8-	-	-	2.82																							
30-47.0081-109.8628-2-08-	0-M19239-07/03/78-15-	25-14.0-	-	7.4-	6-1-1-	-3-3-1-	-4-3-2-3-	-1-8-	-	-	4.10																							
30-47.0294-109.8783-2-06-	0-M19240-07/03/78-19-	23-18.0-	-	7.8-	11-1-1-	-7-2-1-	-4-3-2-3-	-3-	-	-	6.19																							
30-47.0411-109.9658-2-08-	0-M19242-07/06/78-15-	23-13.0-C-	7.6-	700-	4-1-1-	-3-3-1-	-4-3-2-3-	-1-8-	-	-	7.46																							
30-47.0478-109.9247-2-08-	0-M19243-07/06/78-15-	27-13.0-	-	7.8-	2-1-1-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	4.11																							
30-47.0044-109.9453-2-08-	0-M19245-07/06/78-14-	23-17.0-	-	7.6-	4-1-1-	-3-3-1-	-4-3-2-3-	-1-8-	-	-	1.32																							
30-47.0122-109.9081-2-08-	0-M19246-07/06/78-14-	23-17.0-	-	7.7-	6-1-1-	-3-3-1-	-4-3-2-3-	-1-8-	-	-	1.96																							
30-47.0983-109.9761-2-08-	0-M19248-07/06/78-14-	23-	-	7.6-	9-1-1-	-3-2-1-	-4-3-2-3-	-1-4-	27-	-	39.88*																							
30-47.0719-109.9253-2-06-	0-M19249-07/06/78-15-	23-18.0-C-	7.8-	1500-	9-1-1-	-3-3-1-	-4-3-3-4-	-1-	-	-	4.38																							
30-47.0139-108.7972-2-08-	0-M19252-07/12/78-11-	27-15.0-C-	6.8-	1550-	6-1-6-	-3-3-1-	-4-3-2-2-	-1-8-	45-	-	0.65																							
30-47.0067-108.7592-2-07-	0-M19253-07/02/78-11-	27-25.2-	-	7.9-	5-1-6-5-6-2-3-1-2-4-3-2-2-	-1-	-	-	-	-	2.35																							

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	REPLCAT	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (c/s, 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	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	WATER SAMPLES ANALYZED BY FLUOROMETRY OR DNC (H) UNITS IN ppb
							DATE	HOUR																										
30-47.0422-108.8272-2-08-	0-419255-07/02/78-12-	28-15.9-C-	7.8-	2600-	4-1-6-	-3-3-1-	-4-3-2-2-	-1-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.24	
30-47.0250-108.9261-2-08-	0-419256-07/02/78-12-	28-19.9-C-	7.3-	1525-	6-1-6-	-3-3-1-	-4-3-2-2-	-1-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.39
30-47.0294-108.9056-2-07-	0-419257-07/02/78-12-	28-22.8-C-	7.8-	1200-	6-1-6-4-6-3-3-2-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.48
30-47.0092-108.8556-2-08-	0-419260-07/02/78-13-	29-19.4-C-	7.4-	470-	6-1-6-	-2-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14
30-47.0122-108.8094-2-07-	0-419262-07/02/78-14-	29-26.6-C-	7.9-	1375-	10-1-6-5-6-3-3-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.44
30-47.0475-108.8406-2-08-	0-419264-07/02/78-14-	28-15.8-C-	7.8-	1600-	13-1-6-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.49
30-47.0453-108.9111-2-07-	0-419266-07/02/78-15-	28-26.2-C-	7.6-	775-	16-1-6-5-6-3-3-2-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.84
30-47.0514-108.9447-2-08-	0-419267-07/02/78-15-	28-19.2-C-	7.2-	4100-	10-1-6-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.10
30-47.0533-108.9892-2-08-	0-419269-07/02/78-16-	28-21.2-C-	7.8-	1500-	6-1-6-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.44
30-47.0789-108.8647-2-08-	0-419272-07/02/78-17-	26-21.2-C-	8.2-	1000-	13-1-6-	-3-3-1-	-4-3-2-2-	-3-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23
30-47.0789-108.8347-2-08-	0-419273-07/02/78-17-	26-24.2-C-	7.3-	1425-	12-1-6-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.69
30-47.0633-108.7928-2-08-	0-419275-07/02/78-18-	26-21.9-C-	7.6-	4050-	11-1-6-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.15
30-47.0889-108.9725-2-08-	0-419277-07/03/78-11-	27-19.2-C-	6.8-	4800-	16-1-6-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.28*
30-47.1003-108.9311-2-06-	0-419279-07/03/78-11-	27-17.2-C-	5.9-	1775-	12-1-6-	-3-3-1-	-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.16
30-47.1306-108.9167-2-08-	0-419281-07/02/78-13-	28-17.2-C-	7.4-	700-	16-1-6-	-3-3-1-	-4-3-2-2-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18
30-47.1306-108.9250-2-07-	0-419282-07/03/78-13-	28-23.8-C-	7.8-	1600-	13-1-6-5-6-3-3-1-	-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.71
30-47.1586-108.9114-2-08-	0-419285-07/03/78-14-	28-12.9-C-	7.1-	2075-	12-1-6-	-3-3-1-	-4-3-2-2-	-1-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.67
30-47.1314-108.7961-2-08-	0-419286-07/03/78-14-	28-22.8-C-	7.2-	950-	13-1-6-	-3-3-1-	-4-3-2-2-	-1-6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23
30-47.1503-108.7950-2-08-	0-419287-07/03/78-15-	28-22.6-C-	7.3-	800-	13-1-6-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21
30-47.1603-108.7554-2-07-	0-419288-07/03/78-15-	28-23.2-	7.2-	650-	11-1-6-5-6-3-3-4-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.65
30-47.0881-108.7644-2-08-	0-419290-07/03/78-15-	28-24.2-C-	7.8-	1350-	13-1-6-	-3-3-1-	-4-3-2-2-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.03
30-47.0636-108.7711-2-08-	0-419291-07/02/78-16-	27-15.2-C-	7.6-	800-	9-1-6-	-3-3-1-	-4-3-2-2-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.65
30-47.0633-108.7450-2-08-	0-419292-07/03/78-16-	27-15.4-C-	7.5-	800-	15-1-6-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.36
30-47.0350-108.6103-2-08-	0-419293-07/03/78-16-	27-19.3-C-	6.0-	1600-	5-1-6-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.00
30-47.0442-108.6264-2-07-	0-419294-07/03/78-17-	26-23.4-	7.3-	1650-	16-1-6-5-6-3-3-2-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.30
30-47.0675-108.6778-2-07-	0-419298-07/03/78-17-	26-22.8-C-	6.9-	470-	13-1-6-5-6-3-3-4-2-4-3-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.32
30-47.0510-108.6964-2-08-	0-419299-07/03/78-18-	26-20.4-C-	7.2-	600-	9-1-6-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.11
30-47.0419-109.4456-2-06-	0-419301-07/02/78-10-	25-15.0-C-	7.5-	470-	12-1-7-5-6-2-2-1-	-4-4-2-2-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.68
30-47.0183-109.4600-2-08-	0-419302-07/02/78-11-	26-17.2-C-	7.3-	420-	9-1-7-	-3-3-1-	-4-2-1-2-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.61
30-47.0393-109.3661-2-07-	0-419305-07/02/78-12-	27-17.2-C-	7.9-	500-	9-1-7-4-6-2-2-2-2-2-2-2-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.34
30-47.0011-109.3417-2-08-	0-419306-07/02/78-13-	27-15.5-C-	7.3-	500-	9-1-7-5-6-5-4-1-	-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.44
30-47.0261-109.2606-2-07-	0-419307-07/02/78-13-	27-17.3-	7.6-	500-	6-1-7-5-6-2-2-2-2-2-4-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.77
30-47.0122-109.2819-2-07-	0-419308-07/02/78-13-	27-17.9-C-	8.0-	500-	9-1-7-4-6-2-2-2-2-4-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19
30-47.0350-109.2933-2-06-	0-419309-07/02/78-13-	27-10.2-C-	7.2-	500-	9-1-6-6-6-3-3-1-	-4-3-3-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.19
30-47.0653-109.3756-2-07-	0-419310-07/02/78-14-	27-21.5-	7.8-	850-	4-1-1-5-6-2-2-2-1-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.77
30-47.0794-109.3642-2-07-	0-419311-07/02/78-14-	27-20.0-	8.0-	700-	2-1-1-6-6-2-2-2-1-4-4-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.39
30-47.0683-109.3382-2-07-	0-419312-07/02/78-15-	27-19.8-C-	7.8-	600-	7-1-4-5-6-3-2-2-2-4-4-3-3-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.13
30-47.0642-109.2864-2-07-	0-419313-07/02/78-15-	27-25.0-	7.4-	750-	10-1-1-6-6-2-2-2-1-2-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.78
30-47.0953-109.3136-2-07-	0-419314-07/02/78-16-	27-19.0-	7.8-	700-	9-1-1-5-6-2-2-2-1-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.50
30-47.0992-109.2956-2-07-	0-419315-07/02/78-16-	27-14.5-	7.6-	800-	6-1-1-6-6-3-3-1-2-4-4-3-3-	-3-	-	-	-	-																								

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

[illegible]

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	LAS SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (µmho/cm)	SCINTILLOMETER (cpi, ppm)	ROCK TYPE	ROCK FRAGMENT TYPE	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	WATER SAMPLES ANALYZED BY FLUOROMETRY OR DNC (H) UNITS IN PPB	
							DATE	HOUR																											
30-47.2406-109.7233-2-07-						0-M18409-07/06/78-16-	26-14.6-C	-	7.2-	3300-					18-1-7-6-6-2-2-1-2-4-3-2-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.97	
30-47.2394-109.7394-2-08-						0-M18410-07/06/78-17-	26-15.0-C	-	6.9-	3400-					6-1-7-6-6-2-3-3-1-2-2-2-4-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37.70*
30-47.2150-109.7033-2-07-						0-M18411-07/06/78-17-	26-16.9-C	-	7.6-	2200-					6-1-7-6-6-3-3-4-2-2-2-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.25
30-47.2150-109.7003-2-08-						0-M18417-07/06/78-17-	26-14.6-C	-	6.9-	1500-					18-1-7-6-6-2-3-3-1-4-3-2-4-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.70
30-47.1861-109.6931-2-08-						0-M18413-07/06/78-17-	26-15.0-C	-	7.2-	2300-					4-1-7-6-6-2-3-3-1-2-2-1-4-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.46
30-47.1856-109.6717-2-08-						0-M18414-07/06/78-18-	26-13.8-C	-	7.0-	800-					9-1-7-6-6-2-3-3-1-4-3-2-4-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.79
30-47.1736-109.6942-2-07-						0-M18415-07/06/78-18-	25-17.0-C	-	7.1-	2400-					4-1-7-4-6-2-2-7-1-2-4-3-2-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
30-47.1633-109.6936-2-08-						0-M18416-07/06/78-18-	24-11.6-C	-	6.9-	2100-					14-1-7-6-6-2-3-3-1-4-2-2-4-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.07
30-47.1344-109.6936-2-07-						0-M18417-07/06/78-18-	24-15.5-C	-	7.4-	1100-					4-1-7-4-6-3-3-4-2-4-3-2-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.29
30-47.1281-109.6708-2-07-						0-M18419-07/06/78-19-	23-17.3-C	-	7.3-	900-					9-1-7-5-6-2-3-3-4-2-4-3-2-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.46
30-47.1353-109.7319-2-08-						0-M18419-07/09/78-11-	20-16.0-C	-	6.9-	3400-					13-1-6-6-2-3-3-1-4-3-2-2-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.07
30-47.1361-109.7281-2-07-						0-M18420-07/09/78-12-	22-16.2-C	-	7.7-	1000-					9-1-7-5-6-2-3-3-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.41
30-47.1394-109.7794-2-07-						0-M18421-07/09/78-12-	23-17.1-C	-	7.6-	1400-					13-1-7-5-6-2-3-3-2-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.26
30-47.1417-109.7803-2-07-						0-M18422-07/09/78-13-	24-18.9-C	-	7.5-	3000-					4-1-7-5-6-2-3-3-2-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.79
30-47.1594-109.7783-2-07-						0-M18423-07/09/78-13-	24-21.6-C	-	7.7-	8000-					11-1-7-5-6-2-2-2-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76.62*
30-47.1753-109.7781-2-07-						0-M18424-07/09/78-13-	24-20.2-C	-	7.8-	2700-					9-1-7-5-6-2-3-3-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.77
30-47.1828-109.7764-2-07-						0-M18425-07/09/78-13-	24-17.2-C	-	7.6-	1150-					6-1-7-5-6-2-2-2-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.11
30-47.2018-109.8078-2-08-						0-M18426-07/09/78-13-	24-11.3-C	-	7.2-	1200-					4-1-7-6-6-2-3-3-1-4-3-1-2-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.29
30-47.1736-109.8369-2-07-						0-M18427-07/09/78-14-	25-18.3-C	-	7.5-	1400-					6-1-7-5-6-2-2-2-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.97
30-47.2144-109.7814-2-08-						0-M18428-07/09/78-14-	25-14.5-C	-	7.4-	1050-					9-1-7-6-6-2-3-3-1-4-3-1-2-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.56
30-47.1417-109.8206-2-07-						0-M18430-07/09/78-15-	25-22.8-C	-	7.7-	3100-					3-1-7-6-6-2-2-2-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.55
30-47.1397-109.8206-2-07-						0-M18431-07/09/78-16-	25-21.0-C	-	7.8-	3200-					4-1-7-5-6-2-2-2-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.05*
30-47.1269-109.8044-2-08-						0-M18432-07/09/78-16-	25-19.5-C	-	7.2-	3150-					11-1-7-6-6-2-3-3-1-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.75
30-47.1475-109.6386-2-07-						0-M18433-07/09/78-17-	27-19.5-C	-	7.5-	2800-					3-1-7-5-6-2-2-2-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.08
30-47.6483-109.6453-2-06-						0-M18437-07/10/78-16-	29-25.5-C	-	7.1-	3900-					2-1-6-5-6-2-2-2-2-6-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.36
30-47.5169-109.7894-2-08-						0-M18440-07/11/78-12-	29-18.4-C	-	7.2-	32000-					9-1-6-6-6-2-3-3-1-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	102.03*
30-47.5489-109.7581-2-08-						0-M18441-07/11/78-12-	29-16.3-C	-	7.2-	3100-					6-1-6-6-6-2-3-3-1-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	115.32*
30-47.5628-109.7822-2-08-						0-M18442-07/11/78-12-	29-25.3-C	-	7.3-	1700-					6-1-6-6-6-2-3-3-1-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.55
30-47.5981-109.7864-2-08-						0-M18445-07/11/78-13-	29-19.0-C	-	7.3-	1000-					6-1-6-6-6-2-3-3-1-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.47
30-47.6239-109.7586-2-08-						0-M18446-07/11/78-14-	29-20.5-C	-	7.3-	1700-					13-1-6-6-6-2-3-3-1-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.26
30-47.6481-109.7722-2-08-						0-M18448-07/11/78-15-	28-15.5-C	-	7.4-	1800-					6-1-6-6-6-2-3-3-2-4-3-2-2-	-1-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.35
30-47.0950-109.9253-2-09-						0-M18451-07/06/78-16-	23-15.0-C	-	7.6-	610-					2-1-1-6-6-2-3-3-1-4-3-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.44
30-47.1317-109.9464-2-08-						0-M18453-07/06/78-16-	22-20.0-C	-	7.6-	700-					9-1-1-6-6-2-3-3-1-4-3-2-3-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.92
30-47.1419-109.9725-2-08-						0-M18454-07/08/78-12-	20-12.0-C	-	8.3-	510-					22-1-1-6-6-2-3-3-1-4-3-3-3-	-1-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.32
30-47.1781-109.9153-2-07-						0-M18455-07/08/78-15-	20-16.0-C	-	8.1-	1600-					13-1-1-5-6-3-4-2-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.02
30-47.6100-109.5103-2-08-						0-M18456-07/10/78-13-	28-21.0-C	-	8.1-	3000-					6-1-1-1-6-6-2-3-3-1-4-3-3-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48.31*
30-47.7119-108.4367-2-07-						0-M18458-07/14/78-15-	28-28.0-C	-	8.4-	3000-					9-1-1-5-6-2-2-2-1-1-4-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.13
30-47.7264-108.5719-2-07-						0-M18463-07/13/78-17-	27-26.0-C	-	8.6-	2400-					13-1-1-5-6-3-3-3-2-1-4-3-4-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.92
30-47.7239-108.5772-2-06-						0-M18465-07/13/78-17-	27-25.0-C	-	8.2-	13000-					6-1-1-5-6-2-2-2-1-4-3-4-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.07
30-47.7222-108.5761-2-08-						0-M18466-07/13/78-16-	28-10.0-C	-	8.8-	2000-					9-																				

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

[illegible]

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	LAS SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLATOR (uCi/gpm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER LULL	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	WATER SAMPLES ANALYZED BY FLUOROMETRY OR DNC (H) UNITS IN PPB
							DATE	HOUR																										
30-47.3669-109.8936-2-07-	0-M18620-07/14/78-14-	25-29.0-	-	8.0-	1700-	2-1-6-5-6-2-3-1-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.08	
30-47.3633-109.8950-2-08-	0-M18621-07/14/78-14-	25-17.5-	-	7.6-	1900-	2-1-6-5-6-2-3-1-2-4-3-2-1-	-2-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	92.28*
30-47.3367-109.9208-2-08-	0-M18623-07/04/78-15-	25-19.5-	-	8.0-	1100-	16-1-6-5-6-2-3-1-2-4-3-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.02
30-47.3439-109.9583-2-08-	0-M18624-07/14/78-15-	25-13.5-	-	7.7-	4800-	-1-6-5-6-2-3-1-2-4-3-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.77
30-47.2975-109.9575-2-08-	0-M18628-07/14/78-16-	26-19.8-	-	8.0-	900-	9-1-6-5-6-2-3-1-2-4-3-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.88
30-47.2819-109.9567-2-08-	0-M18629-07/14/78-16-	26-17.5-C-	-	7.9-	700-	11-1-6-5-6-2-3-1-2-4-3-2-1-	-3-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.65
30-47.2831-109.9572-2-07-	0-M18630-07/14/78-17-	25-21.5-	-	8.0-	800-	4-1-6-5-6-2-3-1-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.54
30-47.2550-109.9672-2-08-	0-M18631-07/14/78-17-	25-22.2-	-	7.8-	100-	2-1-6-5-6-2-3-1-2-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.68*
30-47.2725-109.9589-2-08-	0-M18632-07/14/78-17-	25-26.2-	-	7.4-	2600-	4-1-6-5-6-2-3-1-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.93
30-47.2872-109.9244-2-08-	0-M18634-07/14/78-18-	25-14.2-	-	7.7-	24000-	11-1-6-5-6-2-3-1-2-4-3-2-1-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	68.98*
30-47.2792-109.7653-2-07-	0-M18635-07/14/78-20-	25-23.2-	-	8.0-	36000-	18-1-6-5-6-2-3-1-2-4-3-2-1-	-5-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.49
30-47.5589-109.9833-2-08-	0-M18636-07/17/78-12-	19-19.0-	-	7.2-	500-	15-1-6-5-6-2-3-1-2-4-3-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.47
30-47.5706-109.9253-2-08-	0-M18638-07/17/78-12-	19-15.0-	-	7.2-	3800-	2-1-6-5-6-2-3-1-2-4-3-2-3-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.92*
30-47.5750-109.9589-2-08-	0-M18639-07/17/78-12-	19-13.3-	-	7.0-	1200-	2-1-6-5-6-2-3-1-2-4-3-2-3-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.16
30-47.5852-109.9244-2-08-	0-M18640-07/17/78-12-	19-17.5-C-	-	7.4-	1000-	4-1-6-5-6-2-3-1-2-4-3-2-3-	-3-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.39
30-47.5914-109.9964-2-08-	0-M18641-07/17/78-12-	19-14.5-	-	7.2-	4800-	2-1-6-5-6-2-3-1-2-4-3-2-3-	-4-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.19
30-47.6003-109.9792-2-08-	0-M18642-07/17/78-12-	19-24.5-	-	8.6-	1700-	2-1-6-5-6-2-3-1-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.98
30-47.6769-109.9667-2-08-	0-M18644-07/17/78-13-	19-17.3-	-	7.6-	3000-	6-1-6-5-6-2-3-1-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.52
30-47.6864-109.9760-2-07-	0-M18645-07/17/78-14-	19-23.2-	-	8.4-	3200-	2-1-6-5-6-2-3-1-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.35
30-47.7253-109.6186-2-08-	0-M18647-07/17/78-14-	20-13.8-	-	7.3-	2700-	4-1-6-5-6-2-3-1-2-4-3-2-3-	-3-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.11
30-47.1133-108.3528-2-07-	0-M18656-07/11/78-15-	24-27.2-C-	-	7.3-	500-	16-1-6-5-6-2-2-4-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.77
30-47.0578-108.3567-2-08-	0-M18658-07/11/78-16-	24-19.2-C-	-	7.4-	1000-	9-1-6-5-6-2-3-1-2-4-3-2-2-	-1-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22
30-47.0711-108.3233-2-06-	0-M18660-07/11/78-16-	24-19.6-C-	-	6.5-	27000-	6-1-6-5-6-2-3-1-2-4-3-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.13
30-47.0558-108.2850-2-08-	0-M18661-07/11/78-17-	23-24.8-C-	-	6.9-	2700-	5-1-6-5-6-2-3-1-2-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22
30-47.0783-108.2633-2-08-	0-M18664-07/11/78-17-	23-15.4-C-	-	7.8-	4100-	5-1-6-5-6-2-3-1-2-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.44
30-47.0703-108.2381-2-07-	0-M18665-07/11/78-17-	23-23.4-C-	-	7.4-	1300-	10-1-6-5-6-2-3-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.48
30-47.1331-108.2733-2-07-	0-M18669-07/11/78-18-	22-21.8-C-	-	8.1-	4900-	9-1-6-5-6-2-3-1-2-4-3-2-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.14
30-47.1025-108.6533-2-08-	0-M18672-07/13/78-11-	22-16.0-C-	-	8.6-	1125-	13-1-6-5-6-2-3-1-2-4-3-2-1-	-1-5-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23
30-47.1269-108.6653-2-08-	0-M18673-07/13/78-11-	22-17.8-C-	-	7.8-	600-	5-1-6-5-6-2-3-1-2-4-3-2-1-	-1-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16
30-47.0694-108.6656-2-08-	0-M18676-07/13/78-12-	22-15.9-C-	-	8.3-	1525-	13-1-6-5-6-2-3-1-2-4-3-2-1-	-1-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.08
30-47.0422-108.5889-2-07-	0-M18677-07/13/78-12-	24-23.1-	-	7.6-	2525-	9-1-6-5-6-2-3-1-2-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.66
30-47.0392-108.5681-2-07-	0-M18679-07/13/78-13-	24-24.2-	-	7.6-	2480-	9-1-6-5-6-2-3-1-2-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.60
30-47.0317-108.5339-2-07-	0-M18682-07/13/78-13-	24-24.5-	-	7.9-	3550-	15-1-6-5-6-2-3-1-2-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.77
30-47.0322-108.5225-2-07-	0-M18683-07/13/78-14-	24-25.5-C-	-	7.7-	1825-	9-1-6-5-6-2-2-2-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.97
30-47.0281-108.5108-2-07-	0-M18684-07/13/78-14-	24-25.4-C-	-	7.9-	1880-	10-1-6-3-6-3-3-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.65
30-47.0472-108.4847-2-08-	0-M18686-07/13/78-15-	25-19.5-C-	-	7.2-	1130-	11-1-6-5-6-2-3-1-2-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.41
30-47.0111-108.4336-2-07-	0-M18688-07/13/78-15-	25-24.8-C-	-	7.6-	3150-	18-1-6-5-6-2-2-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.31
30-47.0869-108.4214-2-08-	0-M18693-07/13/78-16-	25-19.9-C-	-	7.2-	930-	11-1-6-5-6-2-3-1-2-4-3-2-1-	-1-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18
30-47.0942-108.4925-2-08-	0-M18695-07/13/78-18-	23-15.6-C-	-	7.1-	1050-	11-1-6-5-6-2-3-1-2-4-3-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.38

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

DOE SAMPLE NUMBER						LA-3 SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION							
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LA-3 SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	PH	CONDUCTIVITY (umho/cm)	SCLINOMETER (uL ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	WETLAND PLANT	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	WATER SAMPLES ANALYZED BY FLUOROMETRY OR DRC (H) UNITS IN PPB
							DATE	HOUR																									
30-47.8375-109.7694-2-08	0-18722-08/18/78-11	26-11.7-C	7.8	1900-	4-3-7-	-3-4-1-	-4-4-2-3-	-1-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.22	
30-47.8503-109.6953-2-08	0-18726-08/18/78-12	25-17.5-C	7.6	4000-	7-3-7-	-3-3-1-	-4-4-2-3-	-1-3-	-112-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.65	
30-47.8481-109.6747-2-08	0-18729-08/18/78-14	26-13.5-	8.2	2400-	9-3-7-	-3-3-1-	-4-4-2-2-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.23	
30-47.8622-109.7669-2-08	0-18732-08/18/78-16	28-16.0-C	8.2	1400-	11-3-7-	-3-3-1-	-4-4-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.92	
30-47.8581-109.8203-2-08	0-18735-08/18/78-17	26-13.8-C	7.2	1600-	5-3-7-	-3-3-1-	-4-4-2-4-	-1-3-48-	20-	10-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.25	
30-47.8717-109.8556-2-08	0-18736-08/18/78-17	24-14.5-C	8.2	2500-	7-3-7-	-3-3-1-	-4-4-2-4-	-1-3-	6-	85-	80-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.08	
30-47.8158-109.8507-2-08	0-18737-08/18/78-17	24-13.5-	7.8	1350-	7-3-7-	-3-4-1-	-4-4-2-4-	-1-8-24-	10-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.62	
30-47.8269-109.8700-2-06	0-18738-08/18/78-18	26-19.5-C	7.8	1350-	7-3-7-	-3-4-1-	-4-4-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.40	
30-47.8622-109.8892-2-08	0-18739-08/18/78-19	26-22.5-C	7.8	1700-	11-3-7-	-3-3-1-	-4-4-2-3-	-1-3-48-	16-	8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.01	
30-47.8444-109.9131-2-08	0-18741-08/18/78-19	24-14.8-C	8.8	11100-	5-3-7-	-3-3-1-	-4-4-2-3-	-1-3-	-350-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.55	
30-47.8192-109.9219-2-08	0-18742-08/18/78-19	24-13.5-C	8.2	800-	1-3-7-	-3-3-1-	-4-4-2-4-	-1-3-36-	15-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.80	
30-47.8002-109.9331-2-08	0-18743-08/18/78-19	24-16.5-C	7.8	900-	9-3-7-	-3-4-1-	-4-4-2-4-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	
30-47.8400-109.9564-2-08	0-18744-08/18/78-20	24-17.8-C	7.8	1400-	7-3-7-	-3-4-1-	-4-4-2-3-	-1-4-48-	16-	10-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.12	
30-47.8408-109.9569-2-08	0-18745-08/18/78-20	24-12.5-C	7.8	2000-	11-3-7-	-3-4-1-	-4-4-2-3-	-1-3-48-	20-	4-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.03	
30-47.9800-109.9369-2-08	0-18747-08/11/78-12	28-15.5-C	7.2	1500-	9-1-6-	-3-3-1-	-4-4-2-2-	-1-3-	5-	90-	18-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.35*	
30-47.9402-109.9856-2-08	0-18749-08/11/78-13	28-15.5-C	7.6	4200-	9-1-6-	-3-3-1-	-4-4-2-2-	-1-3-	-350-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.83	
30-47.9225-109.9322-2-08	0-18751-08/11/78-13	30-22.5-C	7.6	1100-	11-1-7-	-3-3-1-	-4-4-2-2-	-1-5-60-	9-	4-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.69	
30-47.9027-109.9139-2-08	0-18752-08/11/78-14	30-23.5-C	8.0	3000-	9-1-7-	-3-3-3-	-4-4-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.23	
30-47.8819-109.9361-2-06	0-18753-08/11/78-14	32-15.5-C	7.4	1100-	4-1-7-	-3-3-1-	-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.65	
30-47.8757-109.9850-2-08	0-18754-08/11/78-15	30-22.2-C	7.8	1100-	7-1-6-	-3-2-1-	-4-4-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.98	
30-47.8917-109.9000-2-08	0-18755-08/11/78-15	30-18.5-C	8.1	2700-	7-1-6-	-3-3-1-	-4-4-2-2-	-1-3-	6-1C6-	91-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.65	
30-47.9161-109.9222-2-08	0-18758-08/11/78-16	30-22.2-C	8.0	2800-	6-1-7-	-3-3-1-	-4-4-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.96*	
30-47.9425-109.8847-2-08	0-18760-08/11/78-16	30-26.5-C	7.8	1000-	9-1-6-	-3-3-1-	-4-4-2-2-	-1-	-24-	30-	24-	-	-	-	-																		

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

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)	SCINTILOMETER (ELV. ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	REFLECT	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	WATER SAMPLES ANALYZED BY FLUOROMETRY OR DNC (#) UNITS IN PPB
							DATE	HOUR																										
30-47.4744-108.0769-2-07-	0-M18935-07/15/78-10-	28-23.4-C-	-	7.5-	9000-	13-1-6-5-6-3-3-1-2-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.11		
30-47.4622-108.0331-2-08-	0-M18940-07/15/78-16-	34-20.2-C-	-	7.9-	2500-	11-1-6-	-	-3-3-1-	-4-3-2-1-	-1-	9-	5-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.88	
30-47.3950-108.2158-2-08-	0-M18845-07/15/78-19-	32-19.6-C-	-	8.2-	2500-	7-1-6-	-	-3-3-1-	-4-3-3-1-	-1-	6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.91	
30-47.3808-108.2467-2-07-	0-M18847-07/15/78-19-	31-23.9-	-	7.4-	1300-	14-1-6-5-6-3-3-1-1-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.31		
30-47.3856-108.2556-2-06-	0-M18848-07/15/78-19-	29-18.9-C-	-	6.8-	280-	11-1-6-	-	-3-3-1-	-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.85		
30-47.4264-109.7758-2-08-	0-M18953-07/18/78-20-	26-10.0-	-	7.9-	600-	9-1-1-	-	-3-3-1-	-4-3-3-3-	-1-	4-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C.4C		
30-47.4239-109.8094-2-08-	0-M18854-07/18/78-19-	24-10.0-	-	7.9-	1300-	6-1-1-	-	-3-3-1-	-4-3-3-3-	-1-	7-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.87		
30-47.4178-109.8392-2-08-	0-M18855-07/18/78-																																	

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	REMARKS	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (c.u. 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	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	WATER SAMPLES ANALYZED BY FLUOROMETRY OR DNC (H) UNITS IN ppb
							DATE	TIME																										
30-47.0242-108.187-2-C8-						0-418954-07/14/73-13-	25-17.1-C-		8.4-29000-	11-1-6-	-	-3-3-1-	-4-3-2-2-	-1-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.87	
30-47.0050-108.1508-2-08-						0-418956-07/14/73-14-	26-26.6-C-		7.9- 4800-	8-1-6-	-	-3-3-1-	-4-3-2-2-	-1-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.85
30-47.0561-108.0983-2-08-						0-418961-07/14/73-15-	26-17.4-C-		7.2- 775-	8-1-6-	-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.96
30-47.0608-108.0069-2-08-						0-418962-07/14/73-15-	26-18.4-C-		8.1- 1300-	11-1-6-	-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.37
30-47.0031-108.2286-2-C8-						0-418973-07/14/73-17-	25-15.8-C-		6.9- 4900-	5-1-6-	-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.24
30-47.2611-109.6700-2-C8-						0-418974-07/15/73-11-	29-18.6-		6.9- 3800-	3-1-7-	-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.94
30-47.2742-109.7086-2-07-						0-418975-07/15/73-11-	30-20.7-		7.7- 3100-	9-1-7-5-6-3-3-4-2-3-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.75
30-47.2819-109.7322-2-07-						0-418976-07/15/73-12-	30-27.4-C-		7.9-50000-	16-1-7-5-6-2-2-2-2-3-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33.64
30-47.2756-109.7433-2-08-						0-418977-07/15/73-12-	30-17.0-C-		7.5- 1900-	9-1-6-	-	-3-3-1-	-4-3-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.15
30-47.3397-109.7036-2-08-						0-418978-07/15/73-13-	30-23.8-C-		6.8- 4100-	13-1-6-	-	-3-3-1-	-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.24
30-47.3411-109.7151-2-07-						0-418979-07/15/73-13-	30-30.8-		6.9- 9000-	6-1-6-5-6-2-2-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34.71*
30-47.3569-109.6831-2-08-						0-418980-07/15/73-13-	30-19.2-C-		7.1- 1000-	6-1-6-	-	-3-3-1-	-2-2-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.74
30-47.3728-109.6756-2-08-						0-418981-07/15/73-15-	31-16.2-C-		7.3- 650-	6-1-6-	-	-3-3-1-	-2-2-2-1-	-1-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.17
30-47.3586-109.6528-2-07-						0-418982-07/15/73-14-	31-32.0-		8.0-10000-	6-1-7-4-6-2-2-1-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62.63*
30-47.2819-109.6775-2-08-						0-418983-07/15/73-15-	33-19.8-C-		7.0- 9000-	13-1-6-	-	-3-3-1-	-2-2-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.66*
30-47.3056-109.6950-2-08-						0-418984-07/15/73-15-	33-18.8-C-		7.0- 2100-	11-1-6-	-	-3-3-1-	-4-3-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.90
30-47.3033-109.6837-2-07-						0-418985-07/15/73-15-	33-30.0-		8.0- 6000-	16-1-6-5-6-2-2-1-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.95*
30-47.3053-109.6544-2-06-						0-418986-07/15/73-16-	33-24.6-C-		7.5- 1125-	2-1-6-	-	-3-3-1-	-1-2-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.14
30-47.3033-109.6156-2-08-						0-418987-07/15/73-16-	33-19.6-C-		7.1- 750-	6-1-6-	-	-3-3-1-	-4-3-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.68
30-47.3075-109.6175-2-07-						0-418988-07/15/73-16-	33-24.8-		7.5- 700-	9-1-6-5-6-2-2-1-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.06
30-47.2642-109.5857-2-08-						0-418989-07/15/73-16-	32-15.5-C-		7.1- 1600-	13-1-6-	-	-3-3-1-	-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.46
30-47.2969-109.5419-2-06-						0-418990-07/15/73-17-	33-17.0-C-		7.4- 500-	9-1-6-	-	-3-3-1-	-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.28
30-47.3139-109.5619-2-08-						0-418991-07/15/73-17-	32-14.6-C-		7.3- 500-	19-1-6-	-	-3-3-1-	-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.33
30-47.3300-109.5547-2-08-						0-418992-07/15/73-17-	32-13.6-C-		7.1- 800-	9-1-6-	-	-3-3-1-	-4-3-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.55
30-47.3314-109.5600-2-07-						0-418993-07/15/73-17-	33-23.2-		7.7- 850-	5-1-6-5-6-2-2-2-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.98
30-47.3453-109.5950-2-07-						0-418995-07/15/73-17-	32-17.6-		6.1- 1700-	9-1-6-5-6-3-3-4-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.95
30-47.3650-109.6017-2-07-						0-418996-07/15/73-18-	31-29.0-		8.2- 1700-	4-1-6-5-6-2-2-1-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.13
30-47.3364-109.5228-2-06-						0-418997-07/15/73-18-	31-17.0-C-		7.5- 500-	9-1-6-	-	-3-3-1-	-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.35
30-47.3686-109.5561-2-07-						0-418999-07/15/73-18-	31-22.5-		8.0- 900-	4-1-6-5-6-2-2-1-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.26
30-47.2769-109.5592-2-08-						0-419000-07/15/73-19-	30-15.0-C-		7.3- 2800-	6-1-6-	-	-3-3-1-	-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.82
30-47.2553-109.5636-2-07-						0-419001-07/15/73-19-	30-20.5-		7.9- 1300-	4-1-6-5-6-2-2-1-2-4-4-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.97
30-47.3883-109.5883-2-08-						0-419002-07/18/73-12-	21-14.9-C-		7.2- 1700-	6-1-6-	-	-3-3-1-	-4-3-2-3-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.64
30-47.4061-109.6117-2-07-						0-419003-07/18/73-12-	22-19.8-C-		8.2- 1275-	20-1-6-5-6-3-3-1-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.95
30-47.4172-109.5508-2-07-						0-419007-07/18/73-15-	24-20.8-C-		7.9- 3700-	10-1-6-5-6-3-3-4-2-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.10
30-47.4911-109.5233-2-07-						0-419008-07/18/73-16-	24-19.2-C-		7.7- 2550-	5-1-6-5-6-3-3-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.11
30-47.4656-109.5756-2-08-						0-419009-07/18/73-17-	23-14.4-C-		7.1- 4100-	9-1-6-	-	-3-3-1-	-4-3-3-3-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.64
30-47.4619-109.5175-2-08-						0-419011-07/18/73-17-	22-17.2-C-		8.6- 1575-	20-1-6-	-	-3-3-1-	-4-3-2-4-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.38
30-47.4208-109.5225-2-08-						0-419013-07/18/73-18-	22-12.8-C-		7.2- 4100-	25-1-6-	-	-3-3-1-	-4-3-2-4-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.44
30-47.3942-109.7464-2-07-						0-419015-07/20/73-13-	23-19.2-C-		7.6- 2525-	9-1-6-5-6-2-3-2-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.36
30-47.3908-109.7344-2-07-						0-419016-07/20/73-13-	23-18.4-C-		6.5- 2675-	9-1-6-5-6-2-2-1-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.29
30-47.4189-109.6606-2-06-																																		

19

[illegible]

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	REFLATE	LAS SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	PH	CONDUCTIVITY (umho/cm)	SCINOMETER (cu ft)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER TDS	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DEPTH (FOOT)	WATER DEPTH (FEET)	WATER SAMPLES ANALYZED BY FLUOROMETRY OR DINC (H) UNITS IN PPB
							DATE	HOUR																									
30-47.9456-108.5614-2-06-	0-419179-08/14/78-19-	26-11.0-	-	-	-	8.6-	3700-	13-1-1-4-6-3-3-1-	-4-3-4-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.72		
30-47.9261-108.5038-2-09-	0-419180-08/14/78-20-	27-9.0-	-	-	-	8.5-	500-	13-1-1-	-3-3-1-	-4-3-4-2-	-1-7-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.79	
30-47.8975-108.6139-2-08-	0-419183-08/15/78-10-	28-11.5-	-	-	-	8.8-	270-	13-1-1-	-3-3-1-	-4-3-4-1-	-1-7-	-	52-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.62	
30-47.9289-108.3772-2-08-	0-419186-08/15/78-16-	30-22.0-C-	-	-	-	8.3-	600-	9-1-1-	-3-3-1-	-4-3-2-1-	-1-8-	-	14-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.11	
30-47.6372-108.7003-2-08-	0-419100-08/15/78-20-	28-13.0-C-	-	-	-	9.1-	1900-	13-1-1-	-3-3-1-	-4-3-3-1-	-1-9-	-	280-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.89	
30-47.6267-108.6858-2-08-	0-419107-08/15/78-21-	28-	-	-	-	8.6-	1300-	13-1-1-	-3-3-1-	-4-3-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.80	
30-47.7131-108.6017-2-08-	0-419193-08/16/78-12-	30-15.0-C-	-	-	-	9.2-	2000-	9-1-1-	-3-3-1-	-4-3-3-3-	-1-9-	-	800-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.03	
30-47.6867-108.6717-2-08-	0-419270-08/16/78-14-	30-18.5-C-	-	-	-	8.5-	1200-	9-1-1-	-3-3-1-	-4-3-3-3-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.67	
30-47.9828-108.6849-2-07-	0-419204-08/14/78-13-	25-15.7-	-	-	-	7.4-	550-	4-1-6-6-8-2-3-1-	-3-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.31	
30-47.9691-108.6672-2-07-	0-419205-08/14/78-13-	25-14.2-	-	-	-	7.2-	440-	11-1-7-4-6-3-3-1-	-2-3-4-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.49	
30-47.9642-108.6661-2-06-	0-419206-08/14/78-13-	25-9.5-C-	-	-	-	7.3-	490-	7-1-7-	-3-3-1-	-2-4-4-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.48	
30-47.9586-108.6381-2-06-	0-419207-08/14/78-14-	25-12.5-	-	-	-	7.5-	510-	7-1-7-5-6-3-3-	-4-4-3-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.42	
30-47.9767-108.7283-2-06-	0-419208-08/14/78-15-	25-15.3-	-	-	-	7.1-	550-	12-1-7-5-7-3-3-	-4-4-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.66	
30-47.9033-108.6661-2-06-	0-419211-08/14/78-16-	25-19.5-C-	-	-	-	7.3-	340-	9-1-7-	-3-3-1-	-4-3-4-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.85	
30-47.8981-108.6711-2-06-	0-419212-08/14/78-16-	25-13.2-	-	-	-	7.1-	430-	13-1-7-6-8-3-3-	-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.54	
30-47.8764-108.6572-2-06-	0-419213-08/14/78-17-	25-20.5-	-	-	-	7.2-	1700-	9-1-7-5-6-4-3-1-	-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.11	
30-47.8847-108.6303-2-07-	0-419214-08/14/78-17-	25-14.3-	-	-	-	7.3-	650-	12-1-7-6-8-3-3-	-3-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.32	
30-47.8756-108.7353-2-07-	0-419215-08/14/78-17-	25-22.5-	-	-	-	7.4-	6000-	14-1-7-5-6-3-3-	-2-4-3-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.41	
30-47.8464-108.6914-2-08-	0-419216-08/14/78-17-	25-17.5-	-	-	-	6.9-	1200-	7-1-7-	-3-3-1-	-4-2-3-3-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.12	
30-47.8550-108.7481-2-07-	0-419218-08/14/78-18-	25-23.5-	-	-	-	7.3-	6500-	13-1-7-5-7-3-3-	-2-4-2-4-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.62*	
30-47.8367-108.6367-2-08-	0-419220-08/14/78-20-	25-20.5-C-	-	-	-	7.4-	1500-	13-1-7-	-3-3-1-	-4-4-2-2-	-1-5-	-	60-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.56	
30-47.8033-108.6555-2-06-	0-419225-08/15/78-11-	26-16.2-C-	-	-	-	7.4-	900-	7-1-7-	-3-3-1-	-4-4-2-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.38	
30-47.7764-108.5555-2-08-	0-419226-08/15/78-11-	28-15.2-C-	-	-	-	8.0-	1900-	7-1-7-	-3-3-1-	-4-3-2-1-	-1-3-	-	990-	80-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.48	
30-47.7703-108.5903-2-07-	0-419229-08/15/78-12-	30-21.2-	-	-	-	8.1-	4600-	12-1-7-4-7-3-3-	-2-4-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.36	
30-47.6600-108.5333-2-08-	0-419233-08/15/78-14-	30-15.5-C-	-	-	-	8.1-	1600-	6-1-7-	-3-3-1-	-4-4-2-2-	-1-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.99	
30-47.8499-108.5822-2-06-	0-419238-08/15/78-15-	30-26.5-	-	-	-	7.4-	1050-	7-1-7-6-8-2-3-1-	-4-3-3-2-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.74	
30-47.8283-108.5883-2-07-	0-419239-08/15/78-15-	30-22.5-	-	-	-																												

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)	SCINTILLATOR (p.u., 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	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	WATER SAMPLES ANALYZED BY FLUOROMETRY OR DNC (H) UNITS IN ppb
							DATE	HOUR																										
30-47.7961-108.1006-2-08-	0-419210-08/15/78-13-	26-12.5-C-	7.5-	1100-	6-1-6-	-3-3-1-	-4-3-2-2-	-1-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.82	
30-47.8267-108.1267-2-06-	0-419313-08/15/78-14-	25-19.1-C-	7.7-	2100-	7-1-6-	-3-3-1-	-4-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.35
30-47.8106-108.0458-2-08-	0-419315-08/15/78-15-	25-18.6-	8.4-	3200-	6-1-6-	-3-3-1-	-4-2-1-2-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.60
30-47.8564-108.0517-2-08-	0-419323-08/15/78-17-	26-23.6-C-	8.5-	3400-	10-1-6-	-3-3-1-	-4-3-1-1-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.39
30-47.8439-108.0081-2-08-	0-419324-08/15/78-18-	26-19.1-C-	8.7-	2800-	9-1-6-	-3-3-1-	-2-2-1-1-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.19
30-47.9558-108.0425-2-08-	0-419330-08/16/78-13-	21-16.2-C-	8.3-	2500-	7-1-6-	-3-3-1-	-4-3-2-3-	-1-5-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.01
30-47.9519-108.0414-2-08-	0-419336-08/16/78-15-	21-12.5-C-	7.8-	6000-	10-1-6-	-3-3-1-	-4-3-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.50
30-47.9419-108.0683-2-08-	0-419338-08/16/78-16-	21-18.2-	8.5-	2600-	6-1-6-	-3-3-1-	-4-3-2-3-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.29
30-47.8703-108.1531-2-08-	0-419341-08/16/78-18-	20-13.3-	8.4-	2600-	9-1-6-	-3-3-1-	-4-3-2-4-	-1-4-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.73
30-47.6150-108.6925-2-08-	0-419342-08/17/78-11-	10-12.5-C-	8.5-	1600-	9-1-6-	-3-3-1-	-4-2-3-4-	-9-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.38
30-47.5992-108.7133-2-08-	0-419344-08/17/78-12-	9-13.8-C-	8.6-	1500-	4-1-1-	-3-3-1-	-4-3-4-4-	-9-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.14
30-47.5769-108.7128-2-07-	0-419345-08/17/78-13-	9-12.6-	8.2-	3100-	4-1-6-5-6-2-2-1-2-4-3-2-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.25
30-47.7353-108.1958-2-08-	0-419354-08/17/78-15-	26-12.0-	9.4-	2300-	9-1-1-	-3-3-1-	-4-3-3-4-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.87
30-47.0850-109.5369-2-08-	0-419372-08/21/78-18-	22-19.6-C-	7.3-	520-	7-1-7-	-3-3-3-	-4-4-2-2-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03
30-47.0878-109.5164-2-07-	0-419374-08/21/78-18-	24-13.5-C-	7.2-	490-	9-1-7-4-6-3-3-1-2-4-4-2-2-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.73
30-47.0836-109.5647-2-07-	0-419376-08/21/78-19-	22-18.6-	7.8-	1350-	7-1-7-5-6-3-3-1-3-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.19
30-47.0189-109.6169-2-07-	0-419377-08/21/78-19-	22-15.5-C-	6.8-	500-	11-1-7-5-6-3-3-1-3-4-4-2-3-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.38
30-47.1122-109.8833-2-07-	0-419385-08/22/78-10-	22-12.8-C-	7.2-	550-	9-1-7-5-6-3-3-1-3-4-4-2-1-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.40
30-47.1122-109.6756-2-08-	0-419386-08/22/78-11-	25-14.2-C-	7.4-	650-	4-1-7-	-3-3-1-	-4-4-2-1-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.73*
30-47.1469-109.9047-2-07-	0-419388-08/22/78-11-	26-17.5-C-	7.4-	800-	9-1-7-6-7-3-3-2-3-4-4-2-1-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.69
30-47.1742-109.7994-2-07-	0-419390-08/22/78-12-	28-18.2-C-	8.0-	2400-	9-1-7-6-8-3-3-2-3-4-4-2-1-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.53
30-47.1564-109.7697-2-08-	0-419391-08/22/78-12-	28-14.0-C-	7.4-	800-	12-1-7-	-3-3-1-	-4-4-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.07
30-47.1411-109.7775-2-08-	0-419392-08/22/78-12-	28-16.8-C-	7.6-	2600-	7-1-7-	-3-3-1-	-4-4-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.21
30-47.0736-109.7781-2-07-	0-419393-08/22/78-13-	28-16.6-	7.4-	750-	11-1-7-6-8-3-3-1-3-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.88
30-47.0581-109.6417-2-07-	0-419394-08/22/78-13-	28-16.8-	7.5-	520-	9-1-7-5-6-3-3-2-3-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.29
30-47.0558-109.8394-2-08-	0-419395-08/22/78-13-	26-15.8-C-	7.1-	550-	9-1-7-	-3-3-1-	-4-4-2-1-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.01
30-47.0361-109.7794-2-08-	0-419396-08/22/78-15-	26-17.5-C-	7.2-	1200-	8-1-7-	-3-3-1-	-4-4-2-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.59
30-47.1675-109.6367-2-08-	0-419398-08/22/78-15-	28-18.2-C-	7.8-	1200-	6-1-7-	-3-3-1-	-4-4-3-1-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.26
30-47.9556-108.8036-2-08-	0-419401-08/16/78-12-	22-13.5-C-	7.3-	1650-	11-1-7-	-3-3-1-	-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79.31*
30-47.9547-108.7978-2-08-	0-419402-08/16/78-12-	22-19.8-C-	8.1-	1100-	11-1-7-	-3-3-1-	-4-4-3-3-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.60
30-47.9569-108.8000-2-06-	0-419403-08/16/78-12-	22-10.8-C-	6.9-	600-	13-1-7-	-3-3-1-	-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.05
30-47.9428-108.8039-2-06-	0-419407-08/16/78-13-	26-10.2-C-	7.2-	580-	5-1-7-	-3-3-1-	-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.48
30-47.8764-108.7683-2-08-	0-419412-08/16/78-15-	26-17.5-C-	7.8-	1450-	9-1-7-	-3-3-1-	-4-4-2-3-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.45
30-47.8600-108.8244-2-06-	0-419413-08/16/78-16-	26-14.2-C-	8.1-	3400-	13-1-7-	-2-3-1-	-4-3-3-3-	-5-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.57
30-47.8631-108.8333-2-06-	0-419415-08/16/78-16-	24-19.6-C-	8.5-	2800-	14-1-7-5-7-1-2-2-	-4-2-4-3-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.02
30-47.8681-108.7600-2-08-	0-419416-08/16/78-16-	26-14.4-C-	8.1-	2300-	11-1-7-	-3-3-1-	-4-4-4-3-	-1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.84
30-47.8611-108.7631-2-06-	0-419417-08/16/78-17-	24-14.5-	8.1-	3300-	12-1-7-6-6-3-3-1-	-4-3-4-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.41
30-47.8911-108.7767-2-06-	0-419419-08/16/78-18-	25-15.5-	7.4-	1100-	6-1-7-	-1-2-1-	-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.81
30-47.6667-108.9061-2-08-	0-419423-08/17/78-13-	15-14.2-C-	8.1-	1600-	11-1-7-	-3-3-1-	-4-3-3-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.51
30-47.0458-109.6539-2-08-	0-419428-08/21/78-13-	30-	-	P.0-	9-1-7-	-3-3-1-	-4-4-3-2-	-1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												

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		WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLATOR (uL ppm)	ROCK TYPE	POCK CTOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	WATER SAMPLES ANALYZED BY FLUOROMETRY OR DNC (H) UNITS IN PPB
							DATE	TIME																									
30-47.5411-108.4217-2-07-	0-19449-08/22/78-17-	21-21.6-	-	-	-	8.2-1000-	6-1-6-5-6-	-	2-4-3-3-3-	-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.29	
30-47.6157-108.5708-2-08-	0-19472-08/22/78-17-	21-17.8-C-	-	-	-	8.3-1850-	-1-6-	-	-3-3-1-	-	4-2-3-1-	-	1-3-	-	365-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.39
30-47.2497-109.6150-2-08-	0-19475-08/22/78-17-	25-15.8-C-	-	-	-	7.2-1200-	11-1-7-	-	-3-3-1-	-	4-4-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.79
30-47.2311-109.5581-2-06-	0-19470-08/22/78-17-	25-16.5-C-	-	-	-	7.8-1200-	11-1-7-	-	-3-3-1-	-	4-4-2-3-	-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.59
30-47.2239-109.5172-2-08-	0-19490-08/22/78-17-	24-16.2-C-	-	-	-	7.4-650-	9-1-7-	-	-3-3-1-	-	4-4-2-3-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.77
30-47.2039-109.4786-2-08-	0-19481-08/22/78-15-	25-19.5-C-	-	-	-	7.4-1050-	11-1-7-	-	-3-3-1-	-	4-4-2-3-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.53
30-47.1897-109.4614-2-08-	0-19482-08/22/78-13-	25-12.6-C-	-	-	-	7.8-950-	9-1-7-	-	-3-3-1-	-	4-4-2-3-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.42
30-47.1586-109.4647-2-08-	0-19483-08/22/78-13-	25-14.2-C-	-	-	-	7.2-1500-	9-1-7-	-	-3-3-1-	-	4-4-2-3-	-	1-5-36-	30-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.56
30-47.1661-109.4197-2-08-	0-19484-08/22/78-15-	25-17.2-C-	-	-	-	8.0-2300-	7-1-7-	-	-3-3-1-	-	4-4-2-2-	-	1-4-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8-	81.28*
30-47.1989-109.3664-2-08-	0-19485-08/22/78-19-	24-15.2-C-	-	-	-	7.2-650-	11-1-7-	-	-3-3-1-	-	4-4-2-2-	-	1-5-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.93
30-47.1972-109.2408-2-08-	0-19486-08/22/78-19-	24-16.5-C-	-	-	-	7.2-430-	12-1-7-	-	-3-3-1-	-	4-4-2-2-	-	1-5-	6-140-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.15
30-47.1858-109.2819-2-08-	0-19487-08/22/78-19-	24-16.1-C-	-	-	-	6.7-3000-	9-1-7-	-	-3-3-1-	-	4-4-3-1-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.01
30-47.1831-109.2586-2-08-	0-19488-08/22/78-19-	24-10.5-C-	-	-	-	6.8-3100-	9-1-7-	-	-3-3-1-	-	4-4-3-1-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.60
30-47.5331-109.3531-2-08-	0-19489-08/22/78-12-	26-15.7-C-	-	-	-	6.9-3350-	13-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	12-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.26
30-47.5486-109.3636-2-08-	0-19490-08/22/78-12-	26-17.2-C-	-	-	-	6.9-8000-	8-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	12-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.23
30-47.5408-109.3800-2-08-	0-19497-08/22/78-13-	27-16.4-C-	-	-	-	6.8-1550-	11-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.50
30-47.5519-109.3806-2-08-	0-19496-08/22/78-13-	27-12.2-C-	-	-	-	6.9-2025-	9-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	27-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.64
30-47.5472-109.4011-2-08-	0-19495-08/22/78-14-	28-18.4-C-	-	-	-	6.8-2975-	5-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35.39*
30-47.5444-109.4036-2-07-	0-19495-08/22/78-14-	28-18.8-C-	-	-	-	7.7-3400-	13-1-6-5-6-2-2-1-2-4-3-2-2-	-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.63	
30-47.5339-109.4497-2-08-	0-19501-08/22/78-15-	28-18.1-C-	-	-	-	7.2-2325-	13-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59.04*
30-47.5664-109.3894-2-08-	0-19502-08/22/78-15-	28-17.1-C-	-	-	-	7.5-3500-	10-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.67
30-47.5644-109.3847-2-07-	0-19503-08/22/78-15-	27-21.1-C-	-	-	-	8.6-3525-	6-1-6-5-6-2-3-1-2-4-3-2-2-	-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.31	
30-47.5625-109.4633-2-08-	0-19505-08/22/78-16-	27-19.8-C-	-	-	-	7.1-21000-	10-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82.12*
30-47.5508-109.4694-2-08-	0-19506-08/22/78-16-	26-16.1-C-	-	-	-	7.3-1300-	17-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-3-	-	290-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.22
30-47.5378-109.4414-2-08-	0-19510-08/22/78-16-	25-20.4-C-	-	-	-	7.6-8100-	9-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.22
30-47.6389-109.4208-2-08-	0-19513-08/22/78-17-	25-17.9-C-	-	-	-	8.1-4600-	9-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.18
30-47.5903-109.2300-2-08-	0-19521-08/23/78-13-	23-17.9-C-	-	-	-	7.9-14000-	8-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.44
30-47.6169-109.2456-2-08-	0-19527-08/23/78-13-	23-15.7-C-	-	-	-	6.8-4100-	13-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.30
30-47.6132-109.2900-2-08-	0-19535-08/23/78-14-	23-17.4-C-	-	-	-	7.8-5700-	10-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.30
30-47.5997-109.3572-2-08-	0-19538-08/23/78-14-	30-15.8-C-	-	-	-	7.9-4000-	9-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-3-	-	298-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39
30-47.5872-109.3483-2-08-	0-19539-08/23/78-15-	30-20.8-C-	-	-	-	7.1-1200-	11-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.38
30-47.5361-109.3019-2-08-	0-19545-08/23/78-16-	29-13.8-C-	-	-	-	6.9-2200-	9-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.16
30-47.5581-109.2664-2-08-	0-19546-08/23/78-16-	29-21.6-C-	-	-	-	7.2-1325-	13-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.94
30-47.7397-109.6228-2-08-	0-19548-08/25/78-13-	31-18.2-C-	-	-	-	7.2-2000-	5-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.55
30-47.7342-109.6331-2-08-	0-19549-08/25/78-13-	30-17.0-C-	-	-	-	6.8-1375-	9-1-6-	-	-3-3-1-	-	4-3-2-2-	-	1-8-	-	14-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.26
30-47.2697-109.9765-2-08-	0-19628-08/28/78-14-	26-22.2-C-	-	-	-	8.0-1200-	11-1-7-	-	-3-3-1-	-	4-4-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.96
30-47.3731-109.9631-2-08-	0-19630-08/28/78-10-	28-20.2-C-	-	-	-	7.6-3800-	9-1-7-	-	-3-3-1-	-	4-4-2-2-	-	1-3-	-	6-220-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.56
30-47.7323-109.9617-2-08-	0-19631-08/28/78-15-	28-11.5-	-	-	-	7.3-4400-	7-1-7-	-	-3-3-1-	-	4-4-2-2-	-	1-4-48-	90-	5-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29.94*
30-47.3450-109.6828-2-08-	0-19633-08/28/78-15-	20-19.2-C-	-	-	-	7.4-1200-	4-1-7-	-	-3-3-1-	-	4-4-2-2-	-	1-8-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.01
30-47.2733-109.7258-2-07-	0-19639-08/28/78-17-	28-24.5-	-	-	-	7.4-3000-	13-1-7-4-6-3-3-1-2-4-4-3-2-	-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.44	
30-47.7329-109.7183-2-08-	0-19640-08/28/78-17-	28-16.2-C-	-	-	-	7.2-2500-	3-1-7-	-	-3-3-1-	-	4-4-3-2-	-	1-4-	6-	90-	6-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.00*
30-47.2608-109.5639-2-08-	0-19644-08/28/78-18-	28-15.2-C-	-	-	-	7.4-4600-	6-1-7-	-	-3-3-1-	-	4-4-2-2-	-	1-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29.70*
30-47.3539-109.5358-2-07-	0-19648-08/28/78-19-	28-15.5-	-	-	-	7.2-1300-	13-1-7-5-6-3-3-1-2-4-4-2-2-	-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.46	
30-47.2797-109.5953-2-07-	0-19649-08/28/78-19-	24-14.5-	-	-	-	7.4-1250-	7-1-7-6-8-3-3-1-2-4-4-2-2-	-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.00	

APPENDIX I-B

Listings of Field Data and Elemental Concentrations for Sediment Samples from the Lewistown Quadrangle, Montana (Pages 24 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-B for Code to Listings)

APPENDIX I-B. Elemental Concentrations for Sediment Samples

①

[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	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	
30-47.2709-109.4275-2-12-						0-4190003	5	-5	-5	17	-20	20	75	-10	-15		1	33
30-47.2692-109.4319-2-12-						0-4190004	-5	6	-5	24	-20	-15	16	-10	-15		1	24
30-47.2500-109.3969-2-15-						0-4190005	-5	-5	-5	31	-20	28	-5	-10	-15		2	55
30-47.2972-109.3639-2-12-						0-4190007	-5	-5	-5	29	-20	24	-5	-10	-15		1	43
30-47.3025-109.3933-2-12-						0-4190008	-5	-5	-5	27	-20	15	13	-10	-15		2	41
30-47.3254-109.4139-2-15-						0-4190110	-5	-5	-5	26	-20	16	7	-10	-15		2	43
30-47.4056-109.4805-2-15-						0-4190112	-5	-5	-5	32	-20	15	5	-10	-15		2	32
30-47.4494-109.3653-2-15-						0-4190114	-5	-5	-5	26	-20	-15	8	-10	-15		2	31
30-47.4389-109.4383-2-12-						0-4190217	-5	-5	-5	19	-20	-15	-5	-10	-15		2	29
30-47.4817-109.4375-2-15-						0-4190218	-5	-5	-5	22	-20	-15	13	-10	-15		2	32
30-47.4800-109.3700-2-15-						0-4190219	-5	-5	-5	20	-20	-15	-5	-10	-15		2	39
30-47.4653-109.3178-2-15-						0-4190220	-5	-5	-5	24	-20	-15	5	-10	-15		1	34
30-47.4533-109.3453-2-15-						0-4190221	-5	-5	-5	27	-20	-15	9	-10	-15		2	32
30-47.4181-109.3208-2-12-						0-4190222	-5	-5	-5	23	-20	21	5	-10	-15		1	27
30-47.3392-109.4069-2-15-						0-4190225	-5	-5	-5	25	-20	-15	7	-10	15		2	22
30-47.3842-109.4339-2-12-						0-4190226	-5	-5	-5	23	-20	-15	6	-10	-15		1	22
30-47.3617-109.3639-2-12-						0-4190227	-5	-5	-5	14	-20	-15	5	-10	-15		2	23
30-47.3603-109.3364-2-15-						0-4190228	-5	-5	-5	26	-20	-15	5	-10	-15		1	23
30-47.2625-109.3275-2-15-						0-4190229	-5	-5	-5	35	-20	-15	7	-10	-15		1	34
30-47.2931-109.2972-2-12-						0-4190331	-5	-5	-5	22	-20	-15	10	-10	-15		1	25
30-47.2853-109.2986-2-15-						0-4190332	-5	-5	-5	30	23	-15	5	-10	-15		2	38
30-47.2611-109.2694-2-12-						0-4190334	-5	-5	-5	24	-20	-15	10	-10	-15		1	27
30-47.2850-109.1333-2-12-						0-4190337	-5	-5	-5	37	30	-15	16	-10	-15		2	21
30-47.2883-109.0806-2-12-						0-4190340	-5	-5	-5	24	-20	-15	7	-10	-15		1	18
30-47.3219-109.0835-2-15-						0-4190402	-5	-5	-5	15	-20	-15	7	-10	-15		1	30
30-47.3511-109.1356-2-12-						0-4190405	-5	-5	-5	14	-20	23	11	-10	-15		1	19
30-47.4354-109.0881-2-15-						0-4190407	-5	-5	-5	21	-20	-15	7	-10	-15		2	25
30-47.4156-109.1056-2-15-						0-4190409	-5	5	-5	38	20	-15	10	-10	-15		2	33
30-47.3297-109.1653-2-15-						0-4190450	-5	-5	-5	15	-20	15	-5	-10	-15		1	20
30-47.3144-109.1881-2-12-						0-4190451	-5	-5	-5	44	-20	18	10	-10	-15		1	32
30-47.3297-109.2186-2-11-						0-4190452	-5	-5	-5	38	-20	26	6	-10	-15		2	39
30-47.3236-109.2031-2-15-						0-4190453	-5	-5	-5	41	-20	27	-5	-10	-15		2	58
30-47.3461-109.0569-2-15-						0-4190457	-5	5	-5	33	-20	34	10	-10	-15		2	43
30-47.3794-109.0528-2-15-						0-4190458	-5	-5	-5	19	21	22	-5	-10	-15		2	56
30-47.4099-109.9117-2-12-						0-4190459	-5	-5	-5	16	-20	-15	-5	-10	-15		2	44
30-47.4511-108.8500-2-12-						0-4190462	-5	-5	-5	25	-20	-15	11	-10	-15		2	43
30-47.4300-108.8500-2-12-						0-4190464	-5	-5	-5	29	24	18	-5	-10	-15		2	44
30-47.3992-108.3325-2-15-						0-4190465	-5	-5	-5	21	-20	28	9	-10	-15		2	49
30-47.4042-108.8128-2-12-						0-4190466	-5	5	-5	20	-20	19	-5	-10	-15		2	38
30-47.4133-108.7944-2-12-						0-4190467	-5	-5	-5	20	-20	-15	-5	-10	-15		2	41
30-47.4144-108.7905-2-12-						0-4190468	-5	-5	-5	27	-20	15	5	-10	-15		2	43
30-47.4269-109.7569-2-15-						0-4190701	-5	-5	-5	22	-20	22	6	-10	-15		2	39
30-47.3899-109.7594-2-12-						0-4190702	-5	-5	-5	28	32	-15	5	-10	-15		2	43
30-47.3489-108.8153-2-12-						0-4190705	-5	-5	-5	23	-20	-15	6	-10	-15		2	44
30-47.3433-108.9022-2-12-						0-4190706	-5	-5	-5	24	-20	-15	14	-10	-15		2	41
30-47.2281-108.8023-2-15-						0-4190707	-5	-5	-5	42	-20	35	11	-10	-15		3	67
30-47.2669-108.8053-2-15-						0-4190901	-5	-5	-5	28	-20	-15	-5	-10	-15		2	31
30-47.2347-108.8258-2-15-						0-4190902	-5	5	-5	20	20	-15	-5	-10	-15		2	49
30-47.2389-108.8267-2-15-						0-4190903	-5	-5	-5	15	-20	20	-5	-10	-15		2	55
30-47.2433-109.9042-2-15-						0-4190905	-5	-5	-5	20	-20	28	-5	-10	-15		2	43
30-47.2700-109.9037-2-15-						0-4190906	-5	-5	-5	42	-20	30	-5	-10	-15		2	44

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
30-47.2708-109.4275-2-12-	0-419003	19290	0.35	539	119100	27	-58	4.9	29	55.5	2	0.9	15790	5.8	6049	15	0.2					
30-47.2692-109.4319-2-12-	0-419004	35790	0.17	303	21900	44	-49	7.0	45	5.5	3	1.4	19130	12.2	9578	23	0.3					
30-47.2500-109.3969-2-15-	0-419005	59390	-0.11	653	16370	60	-111	14.8	60	5.4	4	1.7	29900	4.1	21020	29	0.4					
30-47.2972-109.3639-2-12-	0-419007	49790	-0.07	537	31160	35	182	7.6	55	3.4	3	1.1	20630	3.3	15220	17	0.2					
30-47.3025-109.3933-2-12-	0-419008	59920	-0.07	652	29540	54	-66	8.4	69	5.5	4	1.2	26850	5.4	16930	33	0.3					
30-47.3264-109.4139-2-15-	0-419010	61090	-0.07	637	19530	58	-60	8.0	61	5.2	4	1.2	25160	5.2	22450	34	0.4					
30-47.4056-109.4906-2-15-	0-419012	62350	-0.09	605	16940	69	-74	7.1	45	4.3	4	1.3	22380	6.4	14990	35	0.3					
30-47.4434-109.3653-2-15-	0-419014	49300	-0.06	804	39960	41	-78	5.5	31	3.1	3	1.0	18220	4.6	22060	23	0.3					
30-47.4989-109.4383-2-12-	0-419017	53540	-0.07	652	25930	66	113	6.2	43	3.7	5	1.2	15850	8.6	17520	34	0.4					
30-47.4917-109.4375-2-15-	0-419019	57390	-0.06	552	29330	71	133	7.9	40	4.4	4	1.4	22000	8.5	16760	32	0.4					
30-47.4900-109.3700-2-15-	0-419020	54220	-0.07	579	21890	59	-65	6.1	39	3.8	4	1.2	17060	6.4	18200	31	0.3					
30-47.4653-109.3178-2-15-	0-419020	53040	-0.06	692	21300	41	-98	7.0	49	3.1	3	1.0	18100	4.6	16060	27	0.3					
30-47.4533-109.3453-2-15-	0-419021	60010	-0.08	537	9230	62	-99	9.0	54	4.6	4	1.3	23820	7.3	17340	37	0.3					
30-47.4181-109.3208-2-12-	0-419022	58450	-0.07	502	31960	58	163	7.2	41	4.7	4	1.3	21080	5.2	22650	27	0.3					
30-47.3892-109.4063-2-15-	0-419025	53700	-0.07	749	29310	63	-83	6.3	31	3.4	4	1.3	16230	7.0	18560	33	0.4					
30-47.3942-109.4339-2-12-	0-419026	60790	-0.06	617	11820	59	-78	5.1	32	3.1	5	1.1	14930	8.1	20130	34	0.3					
30-47.3617-109.3539-2-12-	0-419027	57020	-0.07	631	16090	63	-37	6.5	48	3.6	4	1.2	19250	7.5	19710	35	0.4					
30-47.3638-109.3364-2-15-	0-419028	54460	-0.07	531	31440	53	-98	10.2	53	3.8	4	1.4	32030	5.1	17890	34	0.4					
30-47.2625-109.3275-2-15-	0-419029	62320	-0.10	726	11050	48	-66	11.4	72	5.2	4	1.3	31250	5.1	17360	24	0.4					
30-47.2981-109.2872-2-12-	0-419031	57630	-0.07	732	9215	43	-71	6.9	57	3.0	4	1.0	19940	6.6	17680	24	0.3					
30-47.2853-109.2986-2-15-	0-419032	59260	-0.09	744	12980	50	192	9.1	73	4.4	4	1.3	27820	4.5	21980	30	0.3					
30-47.2611-109.2694-2-12-	0-419034	55140	-0.07	633	6228	61	-69	6.9	56	4.7	4	1.5	23260	9.3	18860	29	0.3					
30-47.2850-109.1333-2-12-	0-419037	52800	-0.07	844	24480	44	-66	5.1	30	2.3	4	1.2	20220	5.0	17910	27	0.2					
30-47.2883-109.0906-2-12-	0-419040	57870	-0.04	1072	36130	58	-88	7.9	102	2.3	3	1.1	27930	6.5	19150	30	0.3					
30-47.3219-109.0836-2-15-	0-419042	54830	-0.06	605	7279	58	-91	7.9	49	3.5	4	1.2	20200	7.1	19050	30	0.4					
30-47.3511-109.1356-2-12-	0-419045	55090	-0.06	798	22260	39	-89	8.0	60	2.2	3	1.2	25130	4.9	17710	28	0.3					
30-47.4364-109.0881-2-15-	0-419047	67860	-0.08	769	9040	59	-64	7.7	68	4.3	4	1.1	24870	5.0	18080	28	0.3					
30-47.4156-109.1056-2-15-	0-419049	71900	-0.08	699	13130	46	-74	7.2	59	4.0	4	1.2	28460	4.0	18360	24	0.3					
30-47.3297-109.1653-2-15-	0-419050	52500	-0.05	451	43730	50	-90	4.8	26	2.1	3	1.0	17260	5.5	20230	23	0.3					
30-47.3144-109.1881-2-12-	0-419051	75220	-0.08	843	14220	46	-76	10.4	71	5.1	4	1.4	36220	4.9	20890	32	0.3					
30-47.3297-109.2186-2-11-	0-419052	62610	-0.07	790	6331	47	-79	10.5	85	3.9	5	1.4	28300	5.6	18460	23	0.3					
30-47.3236-109.2031-2-15-	0-419053	70770	-0.09	449	7013	49	-88	12.1	91	5.5	4	1.4	37340	5.9	22060	27	0.4					
30-47.3461-108.9569-2-15-	0-419057	72330	-0.08	891	7183	58	-78	13.1	83	5.7	4	1.0	36680	5.8	22040	33	0.3					
30-47.3994-108.9529-2-15-	0-419059	66400	-0.09	1302	13490	63	-87	10.2	59	4.9	4	1.7	29360	5.2	14590	32	0.3					
30-47.4039-108.9117-2-12-	0-419060	59020	-0.05	1531	12340	38	-95	4.9	35	1.9	3	1.1	13200	4.3	15660	18	0.1					
30-47.4511-108.8500-2-12-	0-419062	71040	-0.07	1020	13620	59	-87	9.7	65	3.9	4	1.4	30440	6.0	15880	34	0.4					
30-47.4300-108.8500-2-12-	0-419064	74460	-0.09	662	12560	59	-83	13.5	78	5.7	5	1.5	36720	5.3	19110	33	0.4					
30-47.3992-108.8325-2-15-	0-419065	72670	-0.08	1039	9530	61	-74	11.1	70	4.6	4	1.4	30170	5.1	20190	31	0.3					
30-47.4042-108.8129-2-12-	0-419066	65520	-0.06	1188	17950	43	-77	7.9	51	3.3	4	1.2	22320	6.0	15800	24	0.3					
30-47.4133-108.7944-2-12-	0-419067	63300	-0.06	1036	10410	54	-98	8.8	55	3.2	4	1.4	21620	5.2	18390	25	0.3					
30-47.4144-108.7906-2-12-	0-419068	64550	-0.06	936	10880	49	-92	10.2	60	3.3	4	1.3	23850	6.4	19190	29	0.4					
30-47.4269-108.7563-2-15-	0-419071	56290	-0.07	1532	3984	60	-82	7.5	59	2.5	4	1.6	18770	7.3	13570	34	0.3					
30-47.3889-108.7594-2-12-	0-419072	65590	-0.06	1149	11350	46	-85	7.9	45	3.1	4	1.0	20750	4.7	18890	22	0.3					
30-47.3489-108.8153-2-12-	0-419075	65860	-0.07	1037	9380	60	-101	13.1	65	4.2	4	1.4	30930	6.4	15560	34	0.4					
30-47.3433-108.9022-2-12-	0-419076	67290	-0.07	730	19570	55	-78	9.2	58	4.6	4	1.5	29840	6.8	19070	37	0.4					
30-47.2231-108.8028-2-15-	0-419079	79740	-0.09	790	6607	70	-49	8.5	72	5.4	5	1.2	27180	5.5	23260	38	0.3					
30-47.2669-108.8053-2-15-	0-419081	55460	-0.06	710	16980	45	-65	4.3	35	3.7	3	0.9	18080	5.3	20670	26	0.2					
30-47.2347-108.8258-2-15-	0-419082	49620	-0.07	807	9071	55	130	5.0	60	3.9	4	1.1	19700	7.4	18180	32	0.3					
30-47.2389-108.8267-2-15-	0-419083	52360	-0.06	513	18570	54	143	6.7	52	5.0	3	1.2	22310	7.0	20120	24	0.3					
30-47.2433-108.9042-2-15-	0-419085	46430	-0.07	679	18250	42	-95	5.7	38	5.5	3	1.2	20120	4.5	18910	22	0.3					
30-47.2700-108.9097-2-15-	0-419086	59440	-0.09	745	3503	39	-75	9.4	65	7.0	4	1.1	30960	4.1	22020	28	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	
30-47.2708-109.4275-2-12-	0-419003	4523	596	1122	35	55	3.4	2.1	-255	-1	-1	4.3	1690	67	-1.8	310	0.644					
30-47.2692-109.4319-2-12-	0-419004	5846	360	3551	44	10	5.3	3.5	-133	-1	-1	6.9	3435	74	2.8	129	0.465					
30-47.2500-109.3969-2-15-	0-418005	20730	2133	5119	-39	-3	9.6	5.1	-541	-1	-1	8.0	2366	107	-2.2	-47	0.436					
30-47.2972-109.3633-2-12-	0-419007	24120	591	11070	46	-2	5.5	3.0	794	-1	-1	4.9	2320	72	2.3	-79	0.502					
30-47.3025-109.3933-2-12-	0-418008	17490	365	5746	59	-2	9.2	4.9	421	-1	-1	8.6	3342	106	2.9	-75	0.341					
30-47.3264-109.4139-2-15-	0-419010	18090	437	5122	90	-2	3.8	4.9	-234	-1	-1	8.8	3522	130	3.0	137	0.373					
30-47.4056-109.4806-2-15-	0-419012	16370	417	10550	68	-2	7.6	5.4	-242	-1	-1	9.1	3647	69	2.9	59	0.320					
30-47.4494-109.3553-2-15-	0-419014	18890	608	10360	56	-1	5.1	3.5	-270	-1	-1	6.1	2234	59	1.3	65	0.541					
30-47.4889-109.4383-2-12-	0-419017	17140	360	13320	42	-2	5.9	5.1	-278	-1	-1	8.8	3224	50	3.8	77	0.347					
30-47.4817-109.4375-2-15-	0-419019	24310	552	11540	73	-2	6.9	4.9	-253	-1	-1	9.5	2789	59	2.8	104	0.342					
30-47.4803-109.3709-2-15-	0-419019	20850	259	10530	77	-2	6.0	5.0	-200	-1	-1	8.5	3278	65	3.0	-34	0.352					
30-47.4653-109.3173-2-15-	0-419020	15660	548	20430	51	-2	6.0	2.8	-284	-1	-1	6.4	3035	78	2.1	-60	0.520					
30-47.4533-109.3453-2-15-	0-419021	13990	546	13120	71	-2	9.0	5.4	-319	-1	-1	9.2	3941	82	3.9	130	0.325					
30-47.4181-109.3208-2-12-	0-419022	24250	420	12560	76	-2	7.4	4.3	-253	-1	-1	8.3	2595	69	3.6	-58	0.364					
30-47.3992-109.4069-2-15-	0-419025	20940	590	12520	64	-2	5.4	5.6	-271	-1	-1	8.3	2957	50	4.5	-27	0.298					
30-47.3942-109.4339-2-12-	0-419026	15590	415	14150	52	-1	5.3	4.3	-231	-1	-1	8.2	2784	53	2.6	-33	0.348					
30-47.3617-109.3539-2-12-	0-419027	15320	294	13410	56	-2	6.9	5.1	-252	-1	-1	9.7	3024	68	3.2	131	0.256					
30-47.3608-109.3346-2-15-	0-419028	19970	1099	10200	-30	-2	7.7	4.1	-365	-1	-1	8.5	2941	73	3.9	128	0.301					
30-47.2625-109.3275-2-15-	0-419029	17500	424	9700	76	-2	11.0	4.8	-235	-1	-1	8.0	3950	128	2.1	79	0.346					
30-47.2981-109.2972-2-12-	0-419031	7979	345	11490	42	-2	6.9	3.4	-220	-1	-1	6.8	3326	85	3.0	92	0.391					
30-47.2853-109.2986-2-15-	0-419032	15110	820	12740	57	-2	9.6	4.3	-404	-1	-1	8.1	3356	91	2.0	93	0.342					
30-47.2611-109.2594-2-12-	0-419034	9874	365	9760	47	-2	7.4	4.5	-228	-1	-1	9.6	2926	93	4.5	95	0.394					
30-47.2350-109.1333-2-17-	0-419037	11640	369	9755	72	-2	5.1	3.9	319	-1	-1	6.2	2495	82	-1.6	-46	0.381					
30-47.2983-109.0806-2-12-	0-419040	13010	578	14490	70	-1	7.6	4.5	-276	-1	-1	8.4	3823	75	2.7	69	0.294					
30-47.3219-109.0836-2-15-	0-419042	12800	374	14370	61	-2	6.5	4.7	-277	-1	-1	8.6	3188	62	2.9	-59	0.300					
30-47.3511-109.1356-2-12-	0-419045	13950	454	14410	-27	-2	7.5	3.4	-258	-1	-1	6.6	2718	72	3.6	-91	0.309					
30-47.4364-109.0881-2-15-	0-419047	14570	220	9838	62	-2	9.6	4.5	-193	-1	-1	7.9	3606	122	2.6	73	0.372					
30-47.4156-109.1056-2-15-	0-419049	20750	405	13360	69	-2	9.7	3.8	-242	-1	-1	7.6	4158	112	-1.5	-82	0.401					
30-47.3297-109.1654-2-15-	0-419050	24690	321	16750	70	-1	5.0	3.8	-254	-1	-1	7.2	2256	51	3.1	45	0.275					
30-47.3144-109.1881-2-12-	0-419051	14270	375	10490	50	-2	11.7	4.2	-237	-1	-1	8.4	3837	133	2.5	197	0.379					
30-47.3297-109.2186-2-11-	0-419052	14440	331	13230	55	-2	9.6	3.4	-233	-1	-1	6.4	4145	108	1.8	-31	0.467					
30-47.3236-109.2031-2-15-	0-419053	15040	351	11500	93	-2	12.2	4.4	-277	-1	-1	9.9	4730	131	2.9	169	0.342					
30-47.3451-108.9569-2-15-	0-419057	15320	467	9727	90	-2	11.2	4.7	-256	-1	-1	10.0	3841	149	4.4	288	0.350					
30-47.3934-108.9528-2-15-	0-419058	16690	351	17220	-31	-2	8.8	5.2	-246	-1	-1	8.8	3590	117	2.8	-29	0.363					
30-47.4089-108.9117-2-12-	0-419059	9394	322	25290	-20	-1	3.3	3.7	-236	-1	-1	4.8	2367	55	2.0	50	0.460					
30-47.4511-108.8500-2-12-	0-419062	15530	225	14140	56	-2	10.0	5.0	-247	-1	-1	8.7	3536	127	3.3	87	0.379					
30-47.4300-108.8500-2-12-	0-419064	15920	409	13700	56	-2	11.4	4.8	-250	-1	-1	9.9	3716	146	3.8	138	0.326					
30-47.3992-108.8325-2-15-	0-419065	14400	354	11250	51	-2	9.1	4.9	-231	-1	-1	9.3	3427	125	2.6	-37	0.357					
30-47.4042-108.8123-2-12-	0-419066	11490	336	15370	52	-1	6.5	3.4	275	-1	-1	7.7	3610	100	2.1	60	0.347					
30-47.4133-108.7944-2-12-	0-419067	10730	282	20590	51	-1	5.3	4.5	-265	-1	-1	7.3	2934	87	3.3	87	0.344					
30-47.4144-108.7906-2-12-	0-419068	14150	295	20360	50	-2	7.5	4.0	-235	-1	-1	7.8	3047	92	2.9	69	0.496					
30-47.4269-108.7567-2-15-	0-419071	9372	225	20150	-26	-2	4.9	4.2	235	-1	-1	6.8	3065	79	2.4	56	0.347					
30-47.3989-108.7594-2-12-	0-419072	17790	397	18540	71	-2	6.8	3.8	320	-1	-1	7.6	3008	82	2.2	87	0.343					
30-47.3489-108.9153-2-12-	0-419075	16700	438	14430	73	-2	9.0	4.8	-330	-1	-1	9.1	3785	105	3.3	130	0.370					
30-47.3433-108.9022-2-12-	0-419076	11300	323	12900	71	-2	8.7	4.4	-222	-1	-1	9.1	2821	118	2.9	96	0.345					
30-47.2291-108.8028-2-15-	0-419079	17290	105	4764	93	-2	11.2	5.0	192	-1	-1	12.5	4630	177	3.5	-45	0.503					
30-47.2569-108.9053-2-15-	0-419081	13470	270	10390	54	-1	5.6	3.8	-191	-1	-1	7.4	3164	95	1.6	82	0.335					
30-47.2347-108.8258-2-15-	0-419082	9335	139	7201	65	-2	7.4	3.8	-212	-1	-1	8.8	3311	126	3.0	-58	0.353					
30-47.2389-108.8267-2-15-	0-419083	24420	214	10980	92	-2	6.9	3.8	-200	1	-1	9.0	2919	114	3.6	68	0.289					
30-47.2433-108.9042-2-15-	0-419085	15600	209	3996	64	-2	6.6	3.4	246	-1	-1	6.6	2323	81	2.3	-62	0.308					
30-47.2700-108.9097-2-15-	0-419086	12530	250	11300	77	-2	10.3	4.0	-218	-1	-1	6.6	3951	130	-1.6	114	0.517					

[illegible]

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 LAB 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	
30-47.3155-109.2254-2-15-			0-419033				-5	-5	-5	30	-20	-15	7	-10	-15	2	54	
30-47.3014-109.2551-2-12-			0-419033				-5	-5	-5	17	-20	-15	-5	-10	-15	2	36	
30-47.2778-109.9355-2-12-			0-419031				-5	-5	-5	30	-20	-15	7	-10	-15	2	49	
30-47.2600-109.9347-2-12-			0-419033				-5	-5	-5	30	-20	-15	-5	-10	-15	2	40	
30-47.2528-109.9442-2-12-			0-419035				-5	-5	-5	29	-20	-15	10	-10	-15	3	61	
30-47.2173-109.9009-2-15-			0-419037				-5	-5	-5	30	-20	-15	-5	-10	-15	2	60	
30-47.3100-109.4492-2-12-			0-419039				-5	-5	-5	25	-20	-15	5	-10	-15	2	41	
30-47.2219-109.5183-2-12-			0-419101				-5	-5	-5	25	-20	-15	8	-10	-15	2	35	
30-47.2347-109.0031-2-12-			0-419102				-5	-5	-5	24	-20	-15	5	-10	-15	2	38	
30-47.1972-109.0011-2-12-			0-419104				-5	-5	-5	22	-20	-15	9	-10	-15	3	46	
30-47.1922-109.0131-2-15-			0-419105				-5	-5	-5	20	-20	-15	15	-10	-15	2	33	
30-47.1978-109.0300-2-12-			0-419107				-5	-5	-5	26	-20	-15	-5	-10	-15	2	40	
30-47.1931-109.0547-2-15-			0-419109				-5	-5	-5	20	-20	-15	-5	-10	-15	2	32	
30-47.2014-109.0923-2-12-			0-419109				-5	-5	-5	31	-20	-15	-5	-10	-15	1	19	
30-47.1956-109.1235-2-12-			0-419110				-5	-5	-5	27	-20	-15	15	-10	-15	2	36	
30-47.2058-109.1467-2-12-			0-419112				-5	-5	-5	43	-20	-15	119	-10	-15	2	30	
30-47.2057-109.1742-2-12-			0-419113				-5	-5	-5	41	-20	-15	76	-10	-15	3	47	
30-47.1892-109.1728-2-12-			0-419114				-5	-5	-5	47	-20	-15	214	-10	-15	2	37	
30-47.1300-109.2308-2-15-			0-419119				-5	-5	-5	35	-20	-15	9	-10	-15	2	44	
30-47.1475-109.0086-2-15-			0-419120				-5	-5	-5	25	-20	-15	6	-10	-15	2	31	
30-47.1272-109.0503-2-12-			0-419121				-5	-5	-5	36	-20	-15	-5	-10	-15	2	65	
30-47.1044-109.0517-2-15-			0-419122				-5	-5	-5	29	-20	-15	5	-10	-15	2	37	
30-47.0336-109.1102-2-11-			0-419123				-5	-5	-5	25	-20	-15	8	-10	-15	3	38	
30-47.0742-109.0554-2-12-			0-419124				-5	12	-5	19	-20	-15	6	-10	-15	2	32	
30-47.0557-109.0551-2-15-			0-419125				-5	-5	-5	46	-20	-15	13	-10	-15	2	50	
30-47.1439-109.0913-2-11-			0-419126				-5	-5	-5	32	-20	-15	71	-10	-15	2	33	
30-47.1656-109.0742-2-12-			0-419127				-5	-5	-5	26	-20	-15	13	-10	-15	2	35	
30-47.1511-109.1744-2-12-			0-419129				-5	-5	-5	25	-20	-15	23	-10	-15	2	27	
30-47.1600-109.1886-2-11-			0-419130				-5	-5	-5	32	-20	-15	37	-10	-15	2	30	
30-47.1544-109.1736-2-12-			0-419131				-5	-5	-5	15	-20	-15	23	-10	-15	1	27	
30-47.1575-109.1567-2-11-			0-419132				-5	-5	-5	29	-20	-15	41	-10	-15	1	27	
30-47.1344-109.1792-2-15-			0-419133				-5	-5	-5	25	-20	-15	24	-10	-15	2	30	
30-47.1467-109.2144-2-12-			0-419134				-5	-5	-5	33	-20	-15	41	-10	-15	2	35	
30-47.1297-109.2075-2-12-			0-419135				-5	-5	-5	10	-20	-15	11	-10	-15	-1	38	
30-47.1136-109.2153-2-12-			0-419136				-5	-5	-5	17	-20	-15	-5	-10	-15	-1	30	
30-47.1219-109.2153-2-12-			0-419137				-5	-5	-5	28	-20	-15	33	-10	-15	3	37	
30-47.0793-109.1592-2-11-			0-419137				-5	-5	-5	28	-20	-15	19	-10	-15	2	22	
30-47.1005-109.1728-2-12-			0-419140				-5	-5	-5	37	-20	-15	20	-10	-15	2	42	
30-47.0161-109.1563-2-12-			0-419142				-5	-5	-5	35	-20	-15	-5	-10	-15	2	36	
30-47.0022-109.2042-2-12-			0-419143				-5	-5	-5	42	-20	-15	17	-10	-15	1	133	
30-47.0592-109.1775-2-12-			0-419147				-5	-5	-5	17	-20	-15	9	-10	-15	1	13	
30-47.0561-109.2156-2-12-			0-419150				-5	-5	-5	25	-20	-15	6	-10	-15	2	30	
30-47.0519-109.1983-2-12-			0-419151				-5	-5	-5	28	-20	-15	-5	-10	-15	2	24	
30-47.5753-109.3456-2-15-			0-419152				-5	-5	-5	30	-20	-15	-5	-10	-15	-1	10	
30-47.6547-109.3333-2-12-			0-419155				-5	-5	-5	20	-20	-15	-5	-10	-15	3	24	
30-47.5497-109.3331-2-12-			0-419156				-5	-5	-5	40	-20	-15	9	-10	-15	3	46	
30-47.6350-109.3423-2-12-			0-419157				-5	7	-5	16	-20	-15	12	-10	-15	2	32	
30-47.1767-109.2485-2-12-			0-419158				-5	-5	-5	34	-20	-15	53	-10	-15	3	44	
30-47.1786-109.2314-2-12-			0-419159				-5	12	-5	152	-20	-15	636	-10	-15	3	71	
30-47.7331-109.3400-2-15-			0-419172				-5	-5	-5	29	-20	-15	9	-10	-15	3	55	
30-47.7575-109.3492-2-15-			0-419173				-5	-5	-5	14	-20	-15	5	-10	-15	2	13	

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	WELL/LAKE	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
30-47.3156-103.9264-2-15-	0-419098	53183	-0.07	731	14560	57	111	7.1	56	3.3	4	1.2	21930	6.1	22010	29	0.4					
30-47.3014-103.9561-2-12-	0-419090	54770	-0.07	456	30990	49	77	7.4	45	3.5	4	1.3	22480	5.2	18190	30	0.4					
30-47.2778-103.9356-2-12-	0-419091	54870	-0.09	620	10760	56	-70	9.7	68	4.9	4	1.1	29370	4.6	20510	25	0.3					
30-47.2600-108.9847-2-12-	0-419093	54070	-0.07	734	10360	46	-69	5.9	48	3.7	4	1.2	18360	6.2	19520	29	0.3					
30-47.2528-103.9842-2-12-	0-419095	55870	-0.07	760	15370	61	-68	7.2	77	3.1	4	1.4	24890	7.3	23720	38	0.4					
30-47.2103-103.9909-2-15-	0-419097	59310	-0.07	758	19350	59	-62	8.8	74	5.9	5	1.4	25710	5.8	21350	41	0.3					
30-47.3130-103.8492-2-12-	0-419099	62750	-0.08	934	7200	65	-75	10.5	62	3.6	5	1.4	27220	5.6	17630	28	0.3					
30-47.2219-109.5183-2-12-	0-419101	49310	-0.07	659	41450	40	-70	5.7	34	4.5	4	1.0	16700	6.3	17880	25	0.2					
30-47.2347-109.0031-2-12-	0-419102	54280	-0.06	618	7091	65	-77	8.3	52	5.1	4	1.1	22900	6.4	17240	31	0.3					
30-47.1972-109.0011-2-12-	0-419104	62670	1.22	759	22050	56	-70	8.5	66	6.1	4	1.3	28840	6.5	21930	36	0.4					
30-47.1922-109.0131-2-15-	0-419105	55140	-0.09	501	7133	66	-65	9.1	56	5.0	5	1.4	20000	6.0	16340	32	0.4					
30-47.1878-109.0300-2-12-	0-419107	52430	-0.07	551	15900	49	-65	4.8	53	3.8	5	1.2	15810	6.0	19300	30	0.3					
30-47.1881-109.0647-2-15-	0-419108	51830	-0.07	628	4242	65	-78	8.0	49	3.6	5	1.1	20740	7.8	15490	30	0.4					
30-47.2014-109.0928-2-12-	0-419109	41100	-0.03	405	16500	22	-61	4.0	27	2.4	3	0.6	11170	5.5	12350	14	0.2					
30-47.1956-109.1236-2-12-	0-419110	53770	-0.09	625	14700	53	-78	4.7	49	4.9	4	1.6	17230	7.3	17650	30	0.3					
30-47.2058-109.1467-2-12-	0-419112	54210	-0.08	735	11940	57	-97	8.3	41	8.7	5	1.4	27350	6.8	22370	31	0.3					
30-47.2067-109.1742-2-12-	0-419113	53010	-0.07	750	5238	75	-81	13.1	73	9.1	4	1.5	45700	9.9	22370	45	0.4					
30-47.1892-109.1728-2-12-	0-419114	55390	-0.06	1374	17490	62	-71	9.2	47	4.4	4	1.5	29950	7.8	24670	36	0.3					
30-47.1300-109.0308-2-15-	0-419117	59990	-0.08	843	11980	57	-60	7.0	60	4.4	5	1.3	22340	6.5	21330	32	0.4					
30-47.1475-109.0086-2-15-	0-419120	52110	-0.03	939	7468	58	-58	8.0	51	4.0	4	1.4	22420	7.4	18260	29	0.3					
30-47.1272-109.0603-2-12-	0-419121	59030	-0.04	650	4399	65	-46	5.8	78	4.7	4	1.1	18140	6.9	19220	32	0.3					
30-47.1344-109.0517-2-15-	0-419122	55020	-0.04	710	14840	67	-52	5.3	72	5.1	5	1.3	21740	6.1	23380	37	0.4					
30-47.0836-109.0392-2-11-	0-419123	54710	-0.03	656	7864	67	-55	12.0	48	3.6	5	1.3	17950	6.3	13360	38	0.4					
30-47.0742-109.0564-2-12-	0-419124	49490	-0.03	522	15040	58	-58	8.7	47	3.9	4	1.3	23130	8.7	16080	31	0.4					
30-47.0667-109.0561-2-15-	0-419125	59330	-0.05	458	4435	126	-51	15.0	77	5.4	10	2.4	28850	8.8	15430	56	0.7					
30-47.1489-109.0919-2-11-	0-419126	59970	-0.04	718	12150	70	-66	7.7	55	5.7	4	1.3	24180	7.1	21640	36	0.3					
30-47.1656-109.0742-2-12-	0-419127	51450	-0.03	724	9621	53	-60	6.2	52	3.6	4	1.3	20650	7.5	16980	29	0.3					
30-47.1511-109.1244-2-12-	0-419129	52790	-0.04	530	11820	57	-54	8.4	57	4.9	4	1.2	22500	6.2	15970	31	0.3					
30-47.1500-109.1886-2-11-	0-419130	51870	0.60	551	33390	50	92	6.9	46	5.7	4	1.0	17210	5.3	18320	26	0.3					
30-47.1544-109.1736-2-12-	0-419131	37740	0.78	358	58430	27	-60	-0.2	29	2.5	2	0.9	6586	6.7	19610	18	0.2					
30-47.1575-109.1667-2-11-	0-419132	40010	1.33	335	58750	41	-55	3.1	33	3.6	3	0.9	10760	5.9	19500	21	0.2					
30-47.1344-109.1792-2-15-	0-419133	54350	-0.03	636	68600	50	-64	6.7	43	3.9	4	1.4	21870	6.3	17950	27	0.3					
30-47.1467-109.2164-2-12-	0-419134	59810	-0.04	614	10200	67	-80	8.3	48	6.7	4	1.4	22470	7.5	19530	31	0.3					
30-47.1297-109.2075-2-12-	0-419135	20900	2.73	810	114600	19	-40	3.5	23	5.2	2	0.8	13490	4.6	6064	13	0.2					
30-47.1136-109.2153-2-12-	0-419136	26770	0.05	335	70270	38	59	4.2	50	3.8	3	0.8	10100	8.6	14870	18	0.2					
30-47.1219-109.2153-2-12-	0-419137	54040	-0.04	576	29220	52	-71	28.9	49	5.4	5	1.4	26940	5.0	17520	29	0.3					
30-47.0943-109.1692-2-11-	0-419139	44050	-0.04	511	5116	54	-43	7.8	55	3.2	5	1.7	18160	10.0	11380	27	0.3					
30-47.1006-109.1728-2-12-	0-419140	55330	-0.04	334	11340	69	-56	12.5	51	3.5	5	1.6	30750	7.1	13590	33	0.4					
30-47.0161-109.1569-2-12-	0-419142	55510	-0.04	338	11860	61	-36	13.0	58	5.4	5	1.5	28350	7.4	20500	30	0.4					
30-47.0022-109.2042-2-12-	0-419143	41550	-0.03	408	113700	42	-56	10.8	45	3.0	4	1.1	21660	5.0	14530	24	0.3					
30-47.0692-109.1725-2-12-	0-419149	30910	-0.03	377	45030	41	-45	4.4	38	2.2	4	1.2	12720	9.0	9264	21	0.3					
30-47.0561-109.2156-2-12-	0-419150	48770	-0.04	530	41410	52	-48	9.6	52	3.8	4	1.3	21870	8.2	13540	27	0.3					
30-47.0619-109.1987-2-12-	0-419151	40500	-0.04	430	53630	49	-47	6.4	49	3.1	4	1.2	19480	8.9	12500	23	0.3					
30-47.6753-109.3455-2-15-	0-419153	52460	-0.03	750	13060	55	130	10.1	60	3.8	5	1.2	26010	4.8	17340	30	0.3					
30-47.6547-109.3333-2-12-	0-419155	52270	-0.03	832	27700	60	-73	6.7	46	2.9	4	1.3	15330	7.4	17240	30	0.4					
30-47.6497-109.3331-2-12-	0-419156	59870	-0.04	408	17260	46	-74	10.5	62	4.5	4	1.3	27700	4.7	17280	26	0.3					
30-47.6330-109.3428-2-12-	0-419157	58650	-0.03	652	21470	54	-73	8.3	43	3.7	4	1.2	21070	4.9	17650	28	0.3					
30-47.1767-109.2486-2-12-	0-419158	53230	-0.03	735	13370	61	-95	8.7	33	6.1	4	1.8	26940	9.9	26370	33	0.4					
30-47.1786-109.2314-2-12-	0-419159	43350	0.80	569	29810	47	-61	5.6	50	10.2	4	1.3	19860	7.5	14610	23	0.3					
30-47.7531-109.3600-2-15-	0-419172	52920	-0.03	737	27390	61	-64	6.3	48	4.1	5	1.4	18080	9.0	18360	32	0.4					
30-47.7575-109.3492-2-15-	0-419173	47420	-0.03	893	26960	58	-61	5.2	54	2.5	4	1.1	15340	10.0	13980	33	0.3					

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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	REFERENCE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCHLUMMER (eU ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER C/T/78	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
30-47.7472-109.3736-2-15-	0-419174-03/11/73-20-	26-	-	-	-	0-419175-03/11/73-20-	26-	-	-	-	-	-	-	-	5-3-7-4-7-	-1-	-2-4-3-4-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.55	
30-47.7475-109.3842-2-15-	0-419175-03/11/73-20-	26-	-	-	-	0-419176-03/11/73-20-	26-	-	-	-	-	-	-	-	4-3-7-4-7-	-1-	-2-4-2-4-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.58	
30-47.7469-109.3919-2-15-	0-419176-03/11/73-20-	26-	-	-	-	0-419177-03/11/73-20-	26-	-	-	-	-	-	-	-	9-3-7-4-7-	-1-	-2-4-2-4-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.58	
30-47.7364-109.3967-2-15-	0-419177-03/11/73-20-	26-	-	-	-	0-419178-03/11/73-20-	26-	-	-	-	-	-	-	-	5-3-7-4-7-	-1-	-2-4-2-4-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.40	
30-47.7294-109.3922-2-15-	0-419179-03/11/73-20-	26-	-	-	-	0-419179-03/11/73-20-	25-	-	-	-	-	-	-	-	7-3-7-4-7-	-1-	-2-4-2-4-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.26	
30-47.7236-109.3983-2-15-	0-419179-03/11/73-20-	25-	-	-	-	0-419181-03/11/73-21-	26-	-	-	-	-	-	-	-	14-3-7-4-7-	-1-	-2-4-2-4-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.40	
30-47.7192-109.4047-2-15-	0-419181-03/11/73-21-	26-	-	-	-	0-419183-03/13/78-12-	32-	-	-	-	-	-	-	-	5-3-7-4-7-	-1-	-2-4-2-4-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.51	
30-47.6256-109.4739-2-15-	0-419183-03/13/78-12-	32-	-	-	-	0-419184-03/13/78-13-	32-	-	-	-	-	-	-	-	5-3-7-5-6-	-1-	-3-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.34	
30-47.6403-109.4567-2-15-	0-419184-03/13/78-13-	32-	-	-	-	0-419185-03/13/78-13-	32-	25.5	-	-	-	-	5.3-14000-	-	10-3-7-6-8-	-1-	-3-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.22	
30-47.6439-109.4614-2-11-	0-419185-03/13/78-13-	32-	-	-	-	0-419186-03/13/78-14-	32-	-	-	-	-	-	-	-	7-3-7-5-7-2-4-2-	-1-	-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.25	
30-47.6264-109.4305-2-15-	0-419186-03/13/78-14-	32-	-	-	-	0-419188-03/13/78-15-	32-	-	-	-	-	-	-	-	4-3-7-6-7-	-1-	-3-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.93	
30-47.6575-109.2597-2-15-	0-419188-03/13/78-15-	32-	-	-	-	0-419189-03/13/78-15-	32-	-	-	-	-	-	-	-	4-3-7-5-7-	-1-	-3-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.11	
30-47.6847-109.2633-2-15-	0-419189-03/13/78-15-	32-	-	-	-	0-418191-03/14/78-10-	32-	-	-	-	-	-	-	-	4-3-7-4-7-	-1-	-3-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.29	
30-47.7506-108.8864-2-15-	0-418191-03/14/78-10-	32-	-	-	-	0-418192-03/14/78-10-	32-	-	-	-	-	-	-	-	6-3-7-4-7-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.44	
30-47.7506-108.8922-2-15-	0-418192-03/14/78-10-	32-	-	-	-	0-419123-03/14/78-12-	32-	-	-	-	-	-	-	-	7-3-7-5-7-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.00	
30-47.7830-108.9050-2-15-	0-419123-03/14/78-12-	32-	-	-	-	0-419124-03/14/78-12-	32-	-	-	-	-	-	-	-	9-3-7-4-7-	-1-	-2-4-2-4-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.73	
30-47.7828-108.9131-2-15-	0-419124-03/14/78-12-	32-	-	-	-	0-419125-03/14/78-14-	32-	-	-	-	-	-	-	-	11-3-7-4-7-	-1-	-2-4-2-4-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.68	
30-47.8117-108.7364-2-15-	0-419125-03/14/78-14-	32-	-	-	-	0-419126-03/14/78-14-	32-	-	-	-	-	-	-	-	5-3-7-5-7-	-1-	-2-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.85	
30-47.8122-108.7305-2-15-	0-419126-03/14/78-14-	32-	-	-	-	0-419127-03/14/78-14-	32-	-	-	-	-	-	-	-	9-3-7-5-8-	-1-	-2-4-2-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.01	
30-47.8133-108.6873-2-15-	0-419127-03/14/78-14-	32-	-	-	-	0-419129-03/14/78-14-	34-	-	-	-	-	-	-	-	9-3-7-5-7-	-1-	-2-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.94	
30-47.8133-108.6747-2-15-	0-419129-03/14/78-14-	34-	-	-	-	0-419201-03/14/78-14-	34-	-	-	-	-	-	-	-	5-3-7-5-6-	-1-	-3-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.78	
30-47.7775-108.6533-2-15-	0-419201-03/14/78-14-	34-	-	-	-	0-419205-07/02/78-11-	27-	-	-	-	-	-	-	-	11-3-7-4-7-	-1-	-2-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.22	
30-47.1042-109.6097-2-12-	0-419205-07/02/78-11-	27-	-	-	-	0-419209-07/02/78-13-	26-	-	-	-	-	-	-	-	9-1-1-5-6-	-3-	-1-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.63	
30-47.0781-109.6097-2-12-	0-419209-07/02/78-13-	26-	-	-	-	0-419211-07/02/78-15-	25-	-	-	-	-	-	-	-	9-1-1-5-6-	-2-	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.15	
30-47.0536-109.5585-2-15-	0-419211-07/02/78-15-	25-	-	-	-	0-419212-07/02/78-15-	25-	7.3	-	-	-	-	450-	-	11-1-1-5-6-	-1-	-3-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.44	
30-47.0431-109.5833-2-12-	0-419212-07/02/78-15-	25-	-	-	-	0-419213-07/20/78-18-	24-	-	-	-	-	-	-	-	13-1-1-5-6-4-4-2-1-	-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.80	
30-47.9433-108.3362-2-15-	0-419213-07/20/78-18-	24-	-	-	-	0-419214-07/02/78-14-	24-	-	-	-	-	-	-	-	13-1-1-5-6-	-1-	-3-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.64	
30-47.0547-109.6783-2-15-	0-419214-07/02/78-14-	24-	-	-	-	0-419217-07/02/78-13-	25-	-	-	-	-	-	-	-	9-1-1-5-6-	-1-	-3-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.12	
30-47.0858-109.7464-2-15-	0-419217-07/02/78-13-	25-	-	-	-	0-419221-07/03/78-10-	27-	-	-	-	-	-	-	-	9-1-1-5-6-	-1-	-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.46	
30-47.0817-109.6712-2-15-	0-419221-07/03/78-10-	27-	-	-	-	0-419222-07/03/78-10-	27-	-	-	-	-	-	-	-	4-1-1-5-6-	-1-	-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.46	
30-47.0947-109.6550-2-15-	0-419222-07/03/78-10-	27-	-	-	-	0-419224-07/03/78-11-	27-	-	-	-	-	-	-	-	4-1-1-5-6-	-1-	-1-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.87	
30-47.0303-109.7142-2-15-	0-419224-07/03/78-11-	27-	-	-	-	0-419229-07/03/78-13-	27-	-	-	-	-	-	-	-	22-1-1-5-6-	-1-	-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.00	
30-47.0281-109.8103-2-12-	0-419229-07/03/78-13-	27-	-	-	-	0-419230-07/03/78-14-	27-	-	-	-	-	-	-	-	11-1-1-5-6-4-5-2-	-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.73		
30-47.0561-109.8062-2-15-	0-419230-07/03/78-14-	27-	-	-	-	0-419231-07/03/78-14-	27-	-	-	-	-	-	-	-	9-1-1-5-6-	-1-	-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.60	
30-47.0456-109.9033-2-15-	0-419231-07/03/78-14-	27-	-	-	-	0-419233-07/03/78-14-	27-	-	-	-	-	-	-	-	13-1-1-5-6-	-1-	-1-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.61	
30-47.1194-109.7775-2-15-	0-419233-07/03/78-14-	27-	-	-	-	0-419234-07/03/78-15-	27-	-	-	-	-	-	-	-	13-1-1-5-6-	-1-	-3-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.94	
30-47.1235-109.8111-2-15-	0-419234-07/03/78-15-	27-	-	-	-	0-419238-07/03/78-17-	25-	-	-	-	-	-	-	-	6-1-1-5-6-	-1-	-2-4-4-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.99	
30-47.0400-109.8473-2-15-	0-419238-07/03/78-17-	25-	-	-	-	0-419261-07/06/78-10-	27-	-	-	-	-	-	-	-	9-1-1-5-6-	-1-	-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.59	
30-47.0539-109.8828-2-15-	0-419261-07/06/78-10-	27-	-	-	-	0-419244-07/06/78-13-	23-	-	-	-	-	-	-	-	9-1-1-5-6-	-1-	-1-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.78	
30-47.0123-109.9673-2-15-	0-419244-07/06/78-13-	23-	-	-	-	0-419247-07/06/78-14-	23-	-	-	-	-	-	-	-	4-1-1-5-6-	-1-	-1-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.76	
30-47.0683-109.9642-2-15-	0-419247-07/06/78-14-	23-	-	-	-	0-419253-07/06/78-15-	23-	-	-	-	-	-	-	-	9-1-1-5-6-	-1-	-1-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.54	
30-47.0922-109.8833-2-15-	0-419253-07/06/78-15-	23-	-	-	-	0-419251-07/06/78-15-	23-	-	-	-	-	-	-	-	18-1-1-5-6-	-1-	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.22	
30-47.0853-109.8928-2-15-	0-419251-07/06/78-15-	23-	-	-	-	0-419253-07/07/78-11-	27-	25.2	-	-	-	-	7.9-29000-	-	18-1-1-5-8-	-1-	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.75	
30-47.0067-109.7592-2-12-	0-419253-07/07/78-11-	27-	-	-	-	0-419254-07/02/78-11-	23-	-																										

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	LAG 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	
30-47.7472-109.3785-2-15-						0-419174	-5	-5	-5	26	-20	-15	-5	-10	-15	3	25	
30-47.7475-109.3842-2-15-						0-419175	-5	-5	-5	12	-20	-15	-5	-10	-15	3	25	
30-47.7469-109.3919-2-15-						0-419176	-5	-5	-5	18	-20	-15	-5	-10	-15	-1	38	
30-47.7354-109.3967-2-15-						0-419177	-5	-5	-5	21	-20	-15	6	-10	-15	3	45	
30-47.7294-109.3922-2-15-						0-419178	-5	-5	-5	14	-20	-15	-5	-10	-15	2	29	
30-47.7236-109.3983-2-15-						0-419179	-5	-5	-5	17	-20	-15	5	-10	-15	3	32	
30-47.7192-109.4047-2-15-						0-419181	-5	-5	-5	-10	-20	-15	-5	-10	-15	3	37	
30-47.6256-109.4739-2-15-						0-419183	-5	-5	-5	19	-20	19	15	-10	-15	2	53	
30-47.6403-109.4567-2-15-						0-419184	-5	-5	-5	15	-20	-15	-5	-10	-15	4	52	
30-47.6439-109.4614-2-11-						0-419185	-5	-5	-5	22	-20	16	10	-10	-15	2	47	
30-47.6264-109.4306-2-15-						0-419186	-5	-5	-5	22	-20	-15	7	-10	-15	3	84	
30-47.6675-109.2597-2-15-						0-419188	-5	5	-5	19	-20	17	-5	-10	-15	3	64	
30-47.5947-109.2633-2-15-						0-419189	-5	-5	-5	20	-20	22	-5	-10	-15	3	57	
30-47.7506-109.8864-2-15-						0-419191	-5	-5	-5	31	-20	-15	-5	-10	-15	3	47	
30-47.7506-109.8922-2-15-						0-419192	-5	-5	-5	25	-20	22	7	-10	-15	3	69	
30-47.7800-109.9050-2-15-						0-419193	-5	-5	-5	25	-20	-15	8	-10	-15	3	59	
30-47.7828-109.9131-2-15-						0-419194	-5	-5	-5	28	-20	-15	7	-10	-15	3	42	
30-47.8117-109.7364-2-15-						0-419195	-5	-5	-5	41	-20	28	-5	-10	-15	4	57	
30-47.8122-109.7306-2-15-						0-419196	-5	-5	-5	43	-20	25	8	-10	-15	3	92	
30-47.8133-109.6978-2-15-						0-419197	-5	-5	-5	26	-20	21	8	-10	-15	3	77	
30-47.8133-109.6747-2-15-						0-419199	-5	-5	-5	36	-20	23	8	-10	-15	3	74	
30-47.7775-109.6639-2-15-						0-419201	-5	-5	-5	36	-20	30	11	-10	-15	3	54	
30-47.1042-109.5097-2-12-						0-419205	-5	5	-5	20	-20	-15	7	-10	-15	2	23	
30-47.0781-109.5097-2-12-						0-419208	-5	-5	-5	19	-20	-15	9	-10	-15	3	31	
30-47.0536-109.5585-2-15-						0-419211	-5	-5	-5	30	-20	19	60	-10	-15	3	21	
30-47.0431-109.5837-2-12-						0-419212	-5	-5	-5	31	-20	17	-5	-10	-15	3	42	
30-47.9433-109.3369-2-15-						0-419213	-5	-5	-5	20	-20	15	8	-10	-15	3	44	
30-47.0547-109.6783-2-15-						0-419216	-5	-5	-5	24	-20	-15	5	-10	-15	2	26	
30-47.0358-109.7454-2-15-						0-419217	-5	-5	-5	31	-20	-15	-5	-10	-15	2	30	
30-47.0817-109.6719-2-15-						0-419221	-5	-5	-5	27	21	-15	5	-10	-15	3	26	
30-47.0947-109.6650-2-15-						0-419222	-5	5	-5	24	-20	-15	-5	-10	-15	3	72	
30-47.0303-109.7142-2-15-						0-419224	-5	-5	-5	29	-20	30	8	-10	-15	3	73	
30-47.0291-109.9103-2-12-						0-419228	-5	6	-5	25	-20	20	13	-10	-15	3	37	
30-47.0561-109.8089-2-15-						0-419229	-5	-5	-5	20	-20	-15	8	-10	-15	2	31	
30-47.0456-109.8039-2-15-						0-419231	-5	-5	-5	28	-20	-15	6	-10	-15	4	34	
30-47.1194-109.7775-2-15-						0-419233	-5	-5	-5	26	-20	-15	-5	-10	-15	4	93	
30-47.1236-109.8111-2-15-						0-419234	-5	6	-5	34	-20	29	10	-10	-15	3	88	
30-47.0400-109.8478-2-15-						0-419238	-5	-5	-5	33	-20	-15	-5	-10	-15	3	144	
30-47.0539-109.8828-2-15-						0-419241	-5	5	-5	31	-20	-15	8	-10	-15	3	51	
30-47.0128-109.9678-2-15-						0-419244	-5	5	-5	28	-20	27	5	-10	-15	4	122	
30-47.0683-109.9642-2-15-						0-419247	-5	-5	-5	29	-20	18	12	-10	-15	3	36	
30-47.0922-109.8833-2-15-						0-419250	-5	-5	-5	38	-20	17	-5	-10	-15	3	118	
30-47.0858-109.9828-2-15-						0-419251	-5	5	-5	16	-20	15	5	-10	-15	3	50	
30-47.0067-109.7592-2-12-						0-419253	-5	-5	-5	37	-20	-15	-5	-10	-15	3	50	
30-47.0138-109.7553-2-15-						0-419254	-5	5	-5	29	-20	18	9	-10	-15	2	37	
30-47.0294-109.9055-2-12-						0-419257	-5	-5	-5	30	-20	22	10	-10	-15	2	25	
30-47.0025-109.9061-2-15-						0-419258	-5	5	-5	27	-20	-15	7	-10	-15	2	26	
30-47.0039-109.8614-2-15-						0-419259	-5	6	-5	29	-20	18	5	-10	-15	2	24	
30-47.0189-109.8222-2-15-						0-419261	-5	8	-5	38	-20	23	13	-10	-15	2	50	
30-47.0122-109.8094-2-12-						0-419262	-5	-5	-5	34	-20	15	12	-10	-15	2	37	
30-47.0439-109.8436-2-15-						0-419263	-5	5	-5	27	-20	24	22	-10	-15	2	45	

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

③

DCE SAMPLE NUMBER							ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS															
STATE	LATITUDE	LONGITUDE	DCE 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
30-47.7472-103.3786-2-15-	0-419174	49617	-0.03	805	28120	60	-71	4.8	39	2.3	4	1.2	14050	8.7	15110	29	0.3					
30-47.7475-103.3842-2-15-	0-419175	53900	-0.03	717	27180	53	-67	5.8	47	2.5	4	1.1	15650	7.5	16580	29	0.3					
30-47.7459-103.3919-2-15-	0-419176	50930	-0.03	805	32210	58	61	6.0	36	2.9	4	1.3	18280	7.1	16110	27	0.3					
30-47.7364-103.3957-2-15-	0-419177	47020	-0.02	643	35210	56	-63	6.1	31	3.0	4	1.3	14320	7.6	17460	30	0.3					
30-47.7294-103.3922-2-15-	0-419178	43400	-0.03	694	28380	57	-72	5.1	40	2.6	4	1.0	14080	6.3	16360	25	0.3					
30-47.7236-103.3983-2-15-	0-419179	50250	-0.03	739	31310	59	-68	5.2	31	2.5	4	1.0	14780	6.9	15440	29	0.3					
30-47.7192-103.4047-2-15-	0-419181	45050	-0.03	737	32100	65	-64	4.6	38	2.0	4	1.2	14050	10.3	15190	31	0.4					
30-47.6256-103.4739-2-15-	0-419183	59110	-0.03	723	15320	54	-68	9.0	57	3.5	4	1.2	23010	5.9	18100	26	0.3					
30-47.6403-103.4567-2-15-	0-419184	56150	-0.03	534	22490	59	-77	5.9	42	2.6	4	1.2	17120	6.1	17500	26	0.3					
30-47.6439-103.4614-2-11-	0-419185	58490	-0.03	478	22340	50	420	4.8	37	2.9	3	1.1	16070	6.3	16720	27	0.3					
30-47.6264-103.4306-2-15-	0-419186	55520	-0.03	499	36190	59	87	4.8	36	2.5	5	1.2	14230	8.4	19410	30	0.4					
30-47.6575-103.2597-2-15-	0-419188	56990	-0.06	931	21100	70	113	10.6	66	4.6	5	1.6	27030	8.5	16530	39	0.4					
30-47.6847-103.2633-2-15-	0-419189	53520	-0.05	752	12400	52	-61	7.4	52	3.4	4	1.3	18840	6.8	17460	28	0.3					
30-47.7828-103.8864-2-15-	0-419191	74500	-0.07	807	9567	62	-67	8.6	96	6.3	4	1.5	33080	5.8	18300	31	0.4					
30-47.7506-103.8922-2-15-	0-419192	55950	-0.07	805	10230	54	115	10.5	98	4.9	4	1.3	28200	6.6	15860	34	0.3					
30-47.7809-103.9050-2-15-	0-419193	57990	-0.07	643	20140	56	194	6.9	73	3.9	4	1.3	21970	6.8	16740	31	0.4					
30-47.7828-103.9131-2-15-	0-419194	56130	-0.06	643	20590	53	149	7.7	59	2.7	4	1.2	20930	6.4	16180	28	0.3					
30-47.8117-103.7364-2-15-	0-419195	70990	-0.07	302	11540	53	-73	12.0	93	5.4	4	1.5	36160	5.3	17200	30	0.3					
30-47.8122-103.7365-2-15-	0-419196	76510	-0.08	340	6195	59	-55	15.9	88	6.3	5	1.5	41470	4.3	19630	34	0.5					
30-47.8133-103.6879-2-15-	0-419197	53420	-0.06	349	21580	56	96	9.9	79	3.9	4	1.4	27170	6.8	15030	31	0.5					
30-47.8133-103.6747-2-15-	0-419199	61000	-0.07	720	13150	50	174	9.3	74	4.9	4	1.4	26060	5.1	17900	30	0.3					
30-47.7775-103.6659-2-15-	0-419201	61910	-0.04	973	16130	55	-63	15.0	73	5.3	5	1.4	40740	4.6	18460	31	0.4					
30-47.1042-103.5097-2-12-	0-419205	34620	-0.05	437	29770	47	62	5.9	54	3.0	3	1.1	14650	12.5	14820	24	0.3					
30-47.0781-103.6097-2-12-	0-419209	36590	-0.06	545	25050	49	-47	4.1	53	3.3	3	1.1	17590	8.3	12710	25	0.3					
30-47.0535-103.5566-2-15-	0-419211	38510	-0.06	490	42330	48	187	6.3	45	2.8	4	0.9	17860	5.4	13710	28	0.2					
30-47.0431-103.5839-2-12-	0-419212	53750	-0.07	620	34350	64	95	6.8	69	4.5	4	1.8	23250	7.1	22420	34	0.4					
30-47.9433-103.3369-2-15-	0-419213	54720	-0.06	516	16290	49	-57	8.8	51	4.4	4	1.2	22300	6.4	17490	31	0.5					
30-47.0547-103.6753-2-15-	0-419216	40900	-0.06	488	91870	48	-57	8.5	63	3.6	4	1.2	21060	9.1	14610	31	0.3					
30-47.0358-103.7464-2-15-	0-419217	41680	-0.07	850	51920	52	79	6.2	77	3.3	4	1.1	18360	7.7	14280	29	0.4					
30-47.0817-103.6713-2-15-	0-419221	45860	-0.06	509	43550	54	64	5.6	68	2.9	4	1.3	21220	7.3	15810	32	0.3					
30-47.0947-103.6650-2-15-	0-419222	57010	-0.07	552	31200	66	-56	9.9	81	6.2	4	1.3	27810	6.6	19490	34	0.4					
30-47.0303-103.7142-2-15-	0-419224	56050	-0.09	322	16180	72	-43	11.1	107	6.8	5	1.8	24490	5.7	21130	33	0.4					
30-47.0281-103.8103-2-12-	0-419228	52540	-0.07	341	56700	71	121	8.5	105	4.1	4	1.6	29280	10.5	17220	39	0.4					
30-47.0561-103.8059-2-15-	0-419229	39870	-0.06	820	73830	54	-70	6.4	64	2.7	3	1.4	19990	7.6	15020	30	0.2					
30-47.0453-103.8039-2-15-	0-419231	53450	-0.07	574	21860	58	-59	9.8	69	4.0	4	1.4	27390	7.2	17440	36	0.3					
30-47.1194-103.7775-2-15-	0-419233	51310	-0.08	720	41370	68	-54	6.7	68	3.5	4	1.4	22160	6.0	19780	30	0.3					
30-47.1235-103.8111-2-15-	0-419234	40310	-0.07	784	27260	61	-51	8.8	74	5.3	5	1.2	27590	7.0	19000	31	0.3					
30-47.0409-103.8478-2-15-	0-419238	50350	-0.07	641	8240	55	-66	9.2	75	4.4	3	1.4	26230	6.1	16540	32	0.3					
30-47.0539-103.8829-2-15-	0-419241	53840	-0.07	514	10450	63	-57	10.9	72	4.2	4	1.3	26680	8.0	19230	37	0.4					
30-47.0123-103.9678-2-15-	0-419244	66970	-0.07	860	13530	74	-44	10.3	90	3.2	5	1.5	31610	6.6	19650	36	0.4					
30-47.0583-103.9642-2-15-	0-419247	44410	-0.06	733	17590	55	-59	8.3	63	3.4	4	1.2	23460	5.8	13210	30	0.3					
30-47.0922-103.8833-2-15-	0-419250	70490	-0.08	1721	49530	73	-60	6.6	75	6.6	4	1.2	28820	5.0	20450	33	0.4					
30-47.0853-103.8828-2-15-	0-419251	41610	-0.06	690	50130	59	57	7.4	63	2.3	3	1.5	20340	7.2	14570	31	0.3					
30-47.0957-103.7592-2-12-	0-419253	81110	-0.09	477	5176	78	-60	13.4	68	7.1	5	1.2	39490	5.3	19330	39	0.5					
30-47.0103-103.7653-2-15-	0-419254	53710	-0.06	622	14730	62	139	8.5	62	4.5	4	1.2	30030	8.1	14700	29	0.4					
30-47.0294-103.9056-2-12-	0-419257	35340	-0.06	309	3387	53	-48	9.3	62	2.1	5	1.2	23730	11.5	9180	31	0.4					
30-47.0223-103.9061-2-15-	0-419258	41600	-0.06	350	5011	67	-46	10.3	63	3.1	5	1.5	23560	11.9	9438	35	0.5					
30-47.0033-103.8614-2-15-	0-419259	32620	-0.06	395	15300	62	-68	9.8	41	2.4	5	1.2	32010	9.7	7769	29	0.5					
30-47.0143-103.8222-2-15-	0-419261	58270	-0.07	485	74300	84	-64	12.2	64	5.6	5	1.6	32460	7.1	13360	36	0.5					
30-47.0122-103.8094-2-12-	0-419262	44030	-0.07	315	5815	63	-63	13.7	60	4.2	5	1.4	35320	9.6	10190	33	0.5					
30-47.0449-103.8436-2-15-	0-419263	46860	-0.07	471	49120	52	-55	9.9	60	3.7	4	1.1	25470	5.6	15440	26	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
30-47.7472-109.3786-2-15-	0-419174	21520	295	12170	44	-1	4.8	4.9	-207	-1	-1	8.7	2789	47	2.4	-25	0.293				
30-47.7475-109.3842-2-15-	0-419175	23760	264	13230	50	1	5.0	4.2	-130	-1	-1	7.8	3505	48	1.9		0.333				
30-47.7469-109.3919-2-15-	0-419176	25640	290	11750	44	-1	5.8	4.8	248	-1	1	8.4	2806	59	2.7	88	0.307				
30-47.7364-109.3967-2-15-	0-419177	24830	281	12940	46	1	5.0	4.4	-177	-1	-1	8.3	2968	44	2.6	63	0.289				
30-47.7294-109.3922-2-15-	0-419178	23450	251	12850	50	-1	4.9	4.6	-201	-1	-1	6.5	2892	52	2.2	42	0.348				
30-47.7236-109.3983-2-15-	0-419179	23870	310	13290	54	-1	4.9	4.3	-190	-1	1	7.9	2984	46	2.4	-25	0.304				
30-47.7192-109.4047-2-15-	0-419181	25590	267	12720	49	-1	4.7	4.8	-182	-1	-1	7.8	4262	48	3.1		0.322				
30-47.6256-109.4739-2-15-	0-419183	15380	397	12110	56	-1	7.5	4.9	-206	-1	-1	7.1	2855	74	2.7	67	0.330				
30-47.6403-109.4567-2-15-	0-419184	14950	413	11590	37	-1	5.7	4.3	-242	-1	-1	6.9	2412	51	2.0	45	0.322				
30-47.6439-109.4614-2-11-	0-419185	15980	371	13720	67	-1	5.6	3.7	-212	-1	-1	7.1	2291	57	1.8	77	0.317				
30-47.6264-109.4305-2-15-	0-419186	32920	235	13150	59	-1	5.5	5.1	186	-1	-1	9.4	3085	51	3.0		0.312				
30-47.6675-109.2597-2-15-	0-419188	19030	342	11570	71	-1	3.4	6.4	-201	-1	-1	11.0	3293	101	3.0	128	0.283				
30-47.6347-109.2633-2-15-	0-419189	12240	251	12350	53	-1	6.2	4.3	-172	-1	-1	7.8	2840	77	3.1	172	0.294				
30-47.7506-108.8864-2-15-	0-419191	17940	153	9470	104	-2	11.7	5.1	250	-1	-1	10.2	4317	153	3.4	-74	0.337				
30-47.7506-109.8922-2-15-	0-419192	14630	251	11590	72	-2	10.0	4.0	239	-1	-1	8.7	3079	129	3.5	-52	0.345				
30-47.7900-109.9050-2-15-	0-419193	20110	245	10970	62	-2	7.9	5.4	-181	-1	-1	9.0	3492	90	2.9	95	0.303				
30-47.7828-109.9131-2-15-	0-419194	20270	257	13250	63	-2	7.2	4.3	-186	-1	-1	7.8	3188	81	2.4	76	0.344				
30-47.8117-109.7364-2-15-	0-419195	16280	300	10760	90	-2	11.7	5.1	-225	-1	-1	9.5	3959	124	2.9	129	0.300				
30-47.8122-109.7306-2-15-	0-419196	16800	340	5314	99	-2	13.8	5.2	-200	-1	-1	11.8	3868	206	2.7	-75	0.340				
30-47.8133-109.6979-2-15-	0-419197	17170	331	4574	48	-2	9.3	4.5	-187	-1	-1	8.6	3281	110	3.2	-79	0.342				
30-47.8133-109.6747-2-15-	0-419199	21950	320	10110	63	-2	9.5	3.9	-194	-1	-1	8.3	3748	108	2.6		0.455				
30-47.7775-109.5539-2-15-	0-419201	15140	407	6703	82	-1	10.8	5.0	-231	-1	-1	9.9	3872	162	3.2	-56	0.325				
30-47.1042-109.5097-2-12-	0-419205	10920	211	5418	46	-1	4.9	4.1	-153	-1	-1	7.0	3000	62	2.5	77	0.376				
30-47.0781-109.6097-2-12-	0-419209	9398	352	3652	51	-1	5.4	4.3	-187	-1	-1	7.6	2914	65	-1.2	72	0.283				
30-47.0536-109.5386-2-15-	0-419211	16920	314	3203	46	-1	5.3	3.6	-177	-1	-1	8.1	2280	67	2.3	-69	0.548				
30-47.0431-109.5639-2-12-	0-419212	13490	284	5473	69	-2	7.4	5.4	-208	-1	-1	10.2	3832	121	3.7	-46	0.275				
30-47.9433-109.3369-2-15-	0-419213	19000	293	7687	76	-2	9.1	4.9	-180	-1	-1	8.4	2699	87	2.8	440	0.314				
30-47.0547-109.6783-2-15-	0-419214	14310	325	4422	40	-1	5.9	4.2	-198	-1	-1	8.1	2782	68	2.1	-91	0.262				
30-47.0858-109.7464-2-15-	0-419217	13580	335	6201	62	-2	6.2	4.1	-201	-1	-1	8.4	3020	85	2.2	-53	0.293				
30-47.0917-109.6719-2-15-	0-419221	13660	362	4977	68	-1	6.8	4.5	-223	-2	-1	9.5	2924	91	3.3	-79	0.259				
30-47.0747-109.5650-2-15-	0-419222	16390	434	4509	91	-2	9.8	5.3	-213	-1	-1	11.1	3535	134	2.1	104	0.259				
30-47.0303-109.7142-2-15-	0-419224	18210	170	3213	90	-2	12.1	5.9	207	-2	-1	10.8	4558	235	3.2	106	0.370				
30-47.0281-109.8103-2-12-	0-419228	25540	277	5139	71	-2	9.7	4.2	296	-1	-1	10.1	3663	121	3.4	143	0.369				
30-47.0561-109.8083-2-15-	0-419229	17200	413	9551	51	-1	6.2	4.1	-256	-1	-1	8.1	2245	66	-1.7	89	0.321				
30-47.0456-109.8039-2-15-	0-419231	14180	478	6007	78	-2	9.8	5.7	-224	2	-1	10.5	2860	91	2.9	113	0.249				
30-47.1194-109.7775-2-15-	0-419233	14930	411	4998	59	-2	7.1	6.4	-207	-2	-1	9.6	3398	96	2.7	139	0.306				
30-47.1236-109.8111-2-15-	0-419234	16240	292	4990	84	-2	9.4	5.6	-180	-1	-1	10.1	3707	148	3.7	105	0.296				
30-47.0400-109.8478-2-15-	0-419239	22020	400	5055	59	-2	7.9	5.0	475	-1	-1	9.1	2607	100	2.8	136	0.285				
30-47.0539-109.8828-2-15-	0-419241	12230	524	5415	65	-2	9.6	5.2	-223	-1	-1	9.8	2813	89	2.6	99	0.284				
30-47.0128-109.9679-2-15-	0-419244	17300	223	3556	124	-2	12.5	-0.6	-173	-2	-1	12.7	4293	201	3.5	-112	0.296				
30-47.0683-109.9542-2-15-	0-419247	15080	497	5525	55	-2	7.0	4.5	-218	-1	-1	9.3	2791	74	2.4	-76	0.259				
30-47.0922-109.8833-2-15-	0-419250	21120	280	3230	68	-2	9.5	6.1	-223	-2	-1	12.3	3881	164	3.8	-93	0.262				
30-47.0958-109.8828-2-15-	0-419251	17590	413	6059	51	-2	5.5	4.9	649	-1	-1	9.4	2510	71	2.9	95	0.293				
30-47.0067-109.7592-2-12-	0-419253	17250	637	4158	97	-2	12.9	5.8	-262	-1	-1	13.3	4461	120	2.7	-88	0.248				
30-47.0108-109.7653-2-15-	0-419254	12350	544	6859	60	-2	9.2	5.6	-270	-1	-1	10.5	3112	87	3.3	77	0.371				
30-47.0294-109.9056-2-12-	0-419257	7055	492	3911	42	-2	7.3	5.2	-204	-1	-1	7.5	3418	71	4.1	79	0.409				
30-47.0025-109.9061-2-15-	0-419259	7052	575	2812	42	-1	7.9	6.6	-222	-1	-1	9.2	4981	81	3.9	109	0.373				
30-47.0039-109.8614-2-15-	0-419260	7677	1422	2543	42	-1	6.2	5.1	-337	-1	-1	8.1	2947	61	2.7	-42	0.360				
30-47.0189-109.8222-2-15-	0-419261	10150	790	2696	78	-2	9.8	6.4	-316	-1	1	11.6	3414	94	3.2	118	0.321				
30-47.0122-109.8094-2-12-	0-419262	3185	1075	2632	59	-2	8.6	6.7	-325	-1	1	9.2	3462	75	5.3	111	0.379				
30-47.0439-109.8436-2-15-	0-419263	14950	739	2729	49	-2	7.3	5.4	-250	-1	-1	8.3	2905	95	3.4	-38	0.389				

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

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DOE SAMPLE NUMBER						LASE SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION								
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASE SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SOUNDOMETER (inL/ft)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER CLANK	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																										
30-47.0442-109.8529-2-15-	0-419265-07/02/79-15-	29-	-	-	-	0-419265-07/02/79-15-	29-	-	-	-	-	-	-	-	13-1-6-3-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.27	
30-47.0453-109.9111-2-12-	0-419266-07/02/79-15-	29-26.2-	-	-	-	0-419266-07/02/79-15-	29-	-	-	-	-	-	7.6-	775-	16-1-6-5-6-3-	-3-2-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.15
30-47.0767-108.9019-2-15-	0-419269-07/02/79-16-	27-	-	-	-	0-419269-07/02/79-16-	27-	-	-	-	-	-	-	-	6-1-5-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.63
30-47.0786-109.9557-2-15-	0-419270-07/02/79-16-	27-	-	-	-	0-419270-07/02/79-16-	27-	-	-	-	-	-	-	-	12-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.99
30-47.0753-109.8747-2-15-	0-419271-07/02/79-17-	26-	-	-	-	0-419271-07/02/79-17-	26-	-	-	-	-	-	-	-	11-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.12
30-47.0711-109.8551-2-15-	0-419274-07/02/79-18-	26-	-	-	-	0-419274-07/02/79-18-	26-	-	-	-	-	-	-	-	13-1-6-5-6-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.42
30-47.0628-109.9739-2-15-	0-419276-07/02/79-18-	26-	-	-	-	0-419276-07/02/79-18-	26-	-	-	-	-	-	-	-	16-1-6-5-6-	-1-	-2-4-3-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.92
30-47.1003-109.9139-2-15-	0-419279-07/03/79-12-	29-	-	-	-	0-419279-07/03/79-12-	29-	-	-	-	-	-	-	-	17-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.77
30-47.1086-108.9181-2-15-	0-419280-07/03/79-12-	29-	-	-	-	0-419280-07/03/79-12-	29-	-	-	-	-	-	-	-	9-1-6-5-6-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.02
30-47.1306-109.9250-2-12-	0-419292-07/03/79-13-	29-23.9-	-	-	-	0-419292-07/03/79-13-	29-	-	-	-	-	-	7.8-	1600-	13-1-6-5-6-3-3-1-	-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.15
30-47.1400-109.9239-2-15-	0-419293-07/03/79-14-	29-	-	-	-	0-419293-07/03/79-14-	29-	-	-	-	-	-	-	-	11-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.65
30-47.1422-109.9167-2-15-	0-419294-07/03/79-14-	28-	-	-	-	0-419294-07/03/79-14-	28-	-	-	-	-	-	-	-	13-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.70
30-47.1603-109.7558-2-12-	0-419298-07/03/79-15-	29-23.2-	-	-	-	0-419298-07/03/79-15-	29-	-	-	-	-	-	7.3-	650-	11-1-6-5-6-3-3-4-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.63
30-47.1133-109.7950-2-15-	0-419299-07/03/79-15-	29-	-	-	-	0-419299-07/03/79-15-	29-	-	-	-	-	-	-	-	4-1-6-5-6-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.60
30-47.0442-109.8264-2-12-	0-419296-07/03/79-17-	26-23.4-	-	-	-	0-419296-07/03/79-17-	26-	-	-	-	-	-	7.3-	1650-	16-1-6-5-6-3-3-2-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.34
30-47.0456-108.6403-2-15-	0-419295-07/03/79-17-	26-	-	-	-	0-419295-07/03/79-17-	26-	-	-	-	-	-	-	-	6-1-6-5-6-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.33
30-47.0719-109.6550-2-15-	0-419294-07/03/79-17-	26-	-	-	-	0-419294-07/03/79-17-	26-	-	-	-	-	-	-	-	20-1-6-5-6-	-1-	-2-4-3-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.30
30-47.0689-109.6583-2-15-	0-419277-07/03/79-17-	26-	-	-	-	0-419277-07/03/79-17-	26-	-	-	-	-	-	-	-	15-1-6-5-6-	-1-	-2-4-3-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.62
30-47.0675-108.6728-2-12-	0-419298-07/03/79-17-	26-22.8-	-	-	-	0-419298-07/03/79-17-	26-	-	-	-	-	-	6.9-	470-	13-1-6-5-6-3-3-4-2-4-3-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.72
30-47.0572-109.7331-2-15-	0-419300-07/03/79-19-	26-	-	-	-	0-419300-07/03/79-19-	26-	-	-	-	-	-	-	-	11-1-6-5-6-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.40
30-47.0419-109.4456-2-11-	0-419301-07/02/79-10-	25-15.0-	-	-	-	0-419301-07/02/79-10-	25-	-	-	-	-	-	7.5-	470-	12-1-7-5-6-2-2-1-	-4-4-2-2-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.83
30-47.0253-109.4369-2-15-	0-419303-07/02/79-11-	26-	-	-	-	0-419303-07/02/79-11-	26-	-	-	-	-	-	-	-	15-1-7-5-6-	-1-	-2-4-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.85
30-47.0047-109.4131-2-99-	0-419306-07/02/79-12-	27-	-	-	-	0-419306-07/02/79-12-	27-	-	-	-	-	-	-	-	6-1-7-5-6-	-1-	-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.72
30-47.0383-109.3561-2-12-	0-419305-07/02/79-12-	27-17.2-	-	-	-	0-419305-07/02/79-12-	27-	-	-	-	-	-	7.9-	500-	9-1-7-4-6-2-2-2-2-2-2-2-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.62	
30-47.0311-109.3417-2-11-	0-419306-07/02/79-13-	27-15.5-	-	-	-	0-419306-07/02/79-13-	27-	-	-	-	-	-	7.3-	500-	9-1-7-5-6-5-4-1-	-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.56
30-47.0261-109.2506-2-12-	0-419307-07/02/79-13-	27-17.3-	-	-	-	0-419307-07/02/79-13-	27-	-	-	-	-	-	7.6-	500-	6-1-7-5-6-2-2-2-2-2-4-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.06	
30-47.0122-109.2819-2-12-	0-419309-07/02/79-13-	27-17.9-	-	-	-	0-419309-07/02/79-13-	27-	-	-	-	-	-	8.0-	500-	9-1-7-4-6-2-2-2-2-4-4-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.51	
30-47.0350-109.2533-2-11-	0-419309-07/02/79-13-	27-17.2-	-	-	-	0-419309-07/02/79-13-	27-	-	-	-	-	-	7.2-	500-	9-1-6-6-6-3-3-1-	-4-3-3-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.90
30-47.0653-109.3756-2-12-	0-419310-07/02/79-14-	27-21.5-	-	-	-	0-419310-07/02/79-14-	27-	-	-	-	-	-	7.8-	850-	4-1-1-5-6-2-2-2-1-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.58	
30-47.0794-109.3642-2-12-	0-419311-07/02/79-14-	27-20.0-	-	-	-	0-419311-07/02/79-14-	27-	-	-	-	-	-	8.0-	700-	3-1-1-6-6-2-2-2-1-4-4-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.38	
30-47.0583-109.3383-2-12-	0-419312-07/02/79-15-	27-15.8-	-	-	-	0-419312-07/02/79-15-	27-	-	-	-	-	-	7.8-	600-	7-1-4-5-6-3-2-2-2-3-4-4-3-3-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.05	
30-47.0642-109.2864-2-12-	0-419313-07/02/79-15-	27-25.0-	-	-	-	0-419313-07/02/79-15-	27-	-	-	-	-	-	7.4-	750-	10-1-1-6-6-2-2-2-1-2-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.19	
30-47.0853-109.3136-2-12-	0-419314-07/02/79-16-	27-10.0-	-	-	-	0-419314-07/02/79-16-	27-	-	-	-	-	-	7.8-	700-	9-1-1-5-6-2-2-2-2-1-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.63	
30-47.0992-109.2956-2-12-	0-419315-07/02/79-16-	27-14.5-	-	-	-	0-419315-07/02/79-16-	27-	-	-	-	-	-	7.6-	800-	5-1-1-6-6-3-3-1-2-4-4-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.18	
30-47.1053-109.2767-2-15-	0-419316-07/02/79-16-	26-	-	-	-	0-419316-07/02/79-16-	26-	-	-	-	-	-	-	-	6-1-7-5-6-	-1-	-2-1-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.99
30-47.0975-109.2581-2-12-	0-419317-07/02/79-16-	26-17.9-	-	-	-	0-419317-07/02/79-16-	26-	-	-	-	-	-	7.6-	600-	10-1-1-6-8-3-2-1-2-1-3-4-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.11	
30-4																																		

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
30-47.0442-109.8528-2-15-						0-419265	-5	5	-5	33	-20	21	87	-10	-15	2	39
30-47.0453-109.9111-2-12-						0-419266	-5	5	-5	38	-20	19	41	-10	-15	3	58
30-47.0767-109.9919-2-15-						0-419269	-5	-5	-5	34	-20	-15	11	-10	-15	3	32
30-47.0796-109.9567-2-15-						0-419270	-5	-5	-5	17	-20	-15	-5	-10	-15	2	27
30-47.0753-109.8747-2-15-						0-419271	-5	5	-5	16	-20	-15	-5	-10	-15	2	27
30-47.0711-109.8061-2-15-						0-419274	-5	5	-5	31	-20	15	5	-10	-15	2	31
30-47.0528-109.9739-2-15-						0-419275	-5	-5	-5	28	-20	13	12	-10	-15	3	45
30-47.1003-109.9139-2-15-						0-419277	-5	5	-5	31	-20	-15	6	-10	-15	3	55
30-47.1086-109.9181-2-15-						0-419280	-5	-5	-5	29	-20	-15	-5	-10	-15	3	64
30-47.1306-109.9250-2-12-						0-419282	-5	-5	-5	30	-20	-15	7	-10	-15	2	42
30-47.1400-109.9239-2-15-						0-419283	-5	-5	-5	29	-20	23	9	-10	-15	3	56
30-47.1422-109.9157-2-15-						0-419286	-5	-5	-5	29	-20	-15	15	-10	-15	2	52
30-47.1603-109.7559-2-12-						0-419289	-5	-5	-5	31	-20	-15	29	-10	-15	3	42
30-47.1133-109.7950-2-15-						0-419290	-5	-5	-5	24	-20	-15	-5	-10	-15	3	47
30-47.0442-109.6244-2-12-						0-419294	-5	0	-5	31	-20	-15	10	-10	-15	3	32
30-47.0456-109.6403-2-15-						0-419295	-5	-5	-5	11	-20	-15	9	-10	-15	2	32
30-47.0719-109.6550-2-15-						0-419296	-5	7	-5	18	-20	-15	-5	-10	-15	2	28
30-47.0689-109.6583-2-15-						0-419297	-5	-5	-5	12	-20	-15	-5	-10	-15	2	25
30-47.0675-109.6728-2-12-						0-419299	-5	-5	-5	18	-20	-15	5	-10	-15	-1	2
30-47.0572-109.7331-2-15-						0-419300	-5	-5	-5	31	-20	-15	10	-10	-15	3	38
30-47.0419-109.4456-2-11-						0-419301	-5	-5	-5	23	-20	-15	5	-10	-15	2	23
30-47.0253-109.4059-2-15-						0-419303	-5	-5	-5	31	-20	19	9	-10	-15	2	23
30-47.0047-109.4131-2-99-						0-419304	-5	5	-5	30	-20	-15	18	-10	-15	2	18
30-47.0383-109.3961-2-12-						0-419305	-5	5	-5	25	-20	-15	-5	-10	-15	2	10
30-47.0011-109.3417-2-11-						0-419306	-5	5	-5	22	-20	-15	12	-10	-15	2	26
30-47.0261-109.2905-2-12-						0-419307	-5	-5	-5	28	-20	29	-5	-10	-15	2	23
30-47.0122-109.2819-2-12-						0-419309	-5	-5	-5	20	-20	-15	-5	-10	-15	2	25
30-47.0350-109.2933-2-11-						0-419309	-5	5	-5	22	-20	-15	6	-10	-15	2	18
30-47.0653-109.3756-2-12-						0-419310	-5	-5	-5	43	-20	-15	11	-10	-15	2	40
30-47.0794-109.3642-2-12-						0-419311	-5	-5	-5	29	-20	19	-5	-10	-15	2	33
30-47.0583-109.3383-2-12-						0-419312	-5	-5	-5	25	-20	-15	8	-10	-15	2	17
30-47.0642-109.2864-2-12-						0-419313	-5	5	-5	23	-20	21	6	-10	-15	2	34
30-47.0853-109.3136-2-12-						0-419314	-5	-5	-5	23	-20	18	7	-10	-15	2	31
30-47.0992-109.2956-2-12-						0-419315	-5	-5	-5	24	-20	-15	8	-10	-15	2	31
30-47.1053-109.2767-2-15-						0-419316	-5	-5	-5	27	-20	-15	7	-10	-15	2	34
30-47.0975-109.2581-2-12-						0-419317	-5	-5	-5	25	-20	41	-5	-10	-15	2	22
30-47.0894-109.3981-2-11-						0-419318	-5	-5	-5	30	-20	-15	-5	-10	-15	2	38
30-47.1153-109.3725-2-12-						0-419319	-5	-5	-5	34	-20	19	13	-10	-15	2	39
30-47.1272-109.3564-2-12-						0-419320	-5	-5	-5	23	-20	17	11	-10	-15	2	58
30-47.1244-109.4075-2-12-						0-419321	-5	-5	-5	19	-20	-15	8	-10	-15	2	30
30-47.1019-109.4153-2-11-						0-419322	-5	-5	-5	34	-20	-15	-5	-10	-15	2	38
30-47.0592-109.4914-2-11-						0-419323	-5	-5	-5	35	-20	-15	7	-10	-15	2	23
30-47.0383-109.4955-2-12-						0-419324	-5	-5	-5	25	-20	-15	-5	-10	-15	2	37
30-47.1197-109.4897-2-12-						0-419325	-5	-5	-5	21	-20	-15	11	-10	-15	2	45
30-47.1381-109.4431-2-12-						0-419326	-5	-5	-5	34	-20	25	6	-10	-15	2	53
30-47.1411-109.4278-2-12-						0-419327	-5	-5	-5	30	-20	24	-5	-10	-15	2	72
30-47.1539-109.4625-2-12-						0-419328	-5	-5	-5	27	-20	25	11	-10	-15	3	57
30-47.1928-109.4553-2-12-						0-419329	-5	-5	-5	34	-20	31	5	-10	-15	2	40
30-47.2064-109.4429-2-12-						0-419331	-5	-5	-5	31	-20	-15	-5	-10	-15	2	38
30-47.1864-109.4142-2-12-						0-419333	-5	-5	-5	28	-20	22	6	-10	-15	2	44
30-47.2275-109.4244-2-12-						0-419336	-5	-5	-5	20	-20	-15	5	-10	-15	2	44

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
30-47.0442-108.8528-2-15-			30-47.0442-108.8528-2-15-			51090	-0.07	463	12230	56	-53	9.8	55	4.3	5	1.3	27790	8.9	12680	33	0.4	
30-47.0453-108.9111-2-12-			30-47.0453-108.9111-2-12-			92770	-0.08	565	13840	94	-51	13.9	75	7.4	3	2.0	35420	7.1	16470	50	0.5	
30-47.0767-108.9919-2-15-			30-47.0767-108.9919-2-15-			59090	-0.08	485	7458	69	50	6.1	47	5.0	5	1.5	25190	5.4	17570	34	0.4	
30-47.0786-108.9567-2-15-			30-47.0786-108.9567-2-15-			35630	-0.05	429	11130	50	68	2.6	40	3.5	4	1.0	12460	10.1	12440	31	0.3	
30-47.0753-108.8747-2-15-			30-47.0753-108.8747-2-15-			38620	-0.05	523	4151	50	-40	2.9	45	3.2	4	1.0	13270	9.1	13990	30	0.3	
30-47.0711-108.8061-2-15-			30-47.0711-108.8061-2-15-			44740	-0.06	556	5381	61	-61	6.1	60	3.0	5	1.5	17300	11.1	17930	32	0.4	
30-47.0628-108.9739-2-15-			30-47.0628-108.9739-2-15-			53830	-0.06	504	4212	60	-56	11.9	66	4.8	4	1.1	35220	6.9	15490	29	0.4	
30-47.1003-108.9139-2-15-			30-47.1003-108.9139-2-15-			51000	-0.07	544	5310	68	71	5.2	92	6.2	4	1.5	25170	8.4	23450	38	0.4	
30-47.1086-108.9181-2-15-			30-47.1086-108.9181-2-15-			72500	-0.08	755	24670	73	-49	8.2	71	6.8	5	1.2	29150	6.3	22230	40	0.4	
30-47.1306-108.9250-2-12-			30-47.1306-108.9250-2-12-			42630	-0.05	665	3562	51	120	5.1	58	3.9	4	1.6	18760	11.3	13460	30	0.4	
30-47.1400-108.9239-2-15-			30-47.1400-108.9239-2-15-			50580	-0.08	755	9139	61	172	9.2	81	6.0	4	1.6	30570	5.6	19630	34	0.4	
30-47.1422-108.9167-2-15-			30-47.1422-108.9167-2-15-			46550	-0.06	833	6288	58	75	9.6	57	5.1	4	1.5	26700	6.5	17430	37	0.3	
30-47.1603-108.7558-2-12-			30-47.1603-108.7558-2-12-			46440	-0.06	730	6103	56	-44	5.4	66	3.9	5	1.2	23130	11.0	15160	32	0.4	
30-47.1133-108.7950-2-15-			30-47.1133-108.7950-2-15-			52920	-0.06	833	5173	60	-62	7.4	61	4.9	5	1.3	23930	8.8	18090	33	0.4	
30-47.0442-108.6264-2-12-			30-47.0442-108.6264-2-12-			42190	-0.06	653	7040	54	-49	6.1	44	3.3	4	1.3	22040	9.9	14780	31	0.5	
30-47.0454-108.6403-2-15-			30-47.0454-108.6403-2-15-			41520	-0.07	555	5808	62	-50	4.9	47	3.6	5	1.3	15980	8.6	16240	28	0.4	
30-47.0719-108.6650-2-15-			30-47.0719-108.6650-2-15-			31320	-0.05	685	4380	45	-46	1.3	26	1.6	4	0.8	8101	10.5	12040	25	0.4	
30-47.0689-108.6583-2-15-			30-47.0689-108.6583-2-15-			38870	-0.04	642	4573	44	-52	3.5	46	2.7	4	1.2	11660	10.9	15670	27	0.4	
30-47.0675-108.6728-2-12-			30-47.0675-108.6728-2-12-			44490	-0.05	614	4519	53	-52	6.1	48	3.1	4	1.3	16740	9.2	14890	31	0.4	
30-47.0572-108.7331-2-15-			30-47.0572-108.7331-2-15-			55420	-0.07	557	15560	73	-49	6.0	63	6.4	5	1.3	26450	6.0	21820	41	0.4	
30-47.0419-108.4455-2-11-			30-47.0419-108.4455-2-11-			41630	-0.06	519	45640	53	74	5.7	63	3.0	4	1.2	20090	10.9	14600	34	0.4	
30-47.0253-108.4069-2-15-			30-47.0253-108.4069-2-15-			43540	-0.07	521	27830	54	-52	7.7	63	4.4	4	1.6	19810	9.2	13500	26	0.4	
30-47.0047-108.4131-2-99-			30-47.0047-108.4131-2-99-			38860	-0.06	493	5667	53	-43	7.8	55	2.6	4	1.3	19390	8.4	11550	30	0.3	
30-47.0343-108.3961-2-12-			30-47.0343-108.3961-2-12-			21310	-0.04	558	8494	43	-31	4.3	44	1.5	3	1.0	10640	11.6	7644	24	0.3	
30-47.0011-108.3417-2-11-			30-47.0011-108.3417-2-11-			32560	-0.06	570	31720	43	-39	7.1	40	2.7	4	1.3	17200	9.6	10210	25	0.3	
30-47.0261-108.2906-2-12-			30-47.0261-108.2906-2-12-			41160	-0.06	571	10150	54	-54	22.6	45	3.4	4	1.5	22960	10.7	11920	29	0.5	
30-47.0122-108.2819-2-12-			30-47.0122-108.2819-2-12-			34500	-0.06	534	11260	49	-35	6.5	46	3.0	4	1.1	17400	11.7	10970	26	0.3	
30-47.0350-108.2933-2-11-			30-47.0350-108.2933-2-11-			40420	-0.05	487	9553	48	-38	6.3	59	3.8	4	1.1	18860	9.1	13470	27	0.3	
30-47.0553-108.3756-2-12-			30-47.0553-108.3756-2-12-			52700	-0.08	603	20660	57	-62	11.2	76	4.7	5	1.5	29490	6.3	13180	33	0.5	
30-47.0794-108.3642-2-12-			30-47.0794-108.3642-2-12-			47950	-0.07	479	41030	61	-62	11.4	58	4.6	5	1.3	26370	7.8	14730	36	0.4	
30-47.0583-108.3383-2-12-			30-47.0583-108.3383-2-12-			32750	-0.06	412	8532	45	-46	6.5	38	2.6	4	1.0	17410	10.0	10020	26	0.4	
30-47.0642-108.2864-2-12-			30-47.0642-108.2864-2-12-			45070	-0.07	453	9551	59	-41	8.6	54	3.9	5	1.8	21180	9.3	13170	27	0.5	
30-47.0853-108.3136-2-12-			30-47.0853-108.3136-2-12-			50250	-0.06	479	22140	53	-51	9.0	62	4.4	5	1.3	24400	8.0	15100	32	0.4	
30-47.0992-108.2954-2-12-			30-47.0992-108.2954-2-12-			43730	-0.05	399	26470	39	-52	5.4	38	3.3	3	1.1	16490	7.9	14900	23	0.3	
30-47.1053-108.2767-2-15-			30-47.1053-108.2767-2-15-			40910	-0.05	354	62150	51	-52	7.0	48	4.5	3	1.1	18550	4.9	17120	25	0.3	
30-47.0975-108.2591-2-12-			30-47.0975-108.2591-2-12-			33560	-0.07	353	30270	43	-46	24.4	40	2.9	3	1.0	21580	7.7	9579	23	0.3	
30-47.0894-108.3091-2-11-			30-47.0894-108.3091-2-11-			60950	-0.08	489	9740	75	-50	5.5	60	6.1	5	1.4	25900	6.5	21980	31	0.3	
30-47.1153-108.3725-2-12-			30-47.1153-108.3725-2-12-			57780	-0.08	568	17490	60	-65	9.9	61	5.3	4	1.2	23630	8.6	19250	34	0.4	
30-47.1272-108.3564-2-12-			30-47.1272-108.3564-2-12-			42830	-0.06	597	41340	69	-68	9.8	52	7.8	4	1.1	26120	8.4	28130	38	0.4	
30-47.1244-108.4075-2-12-			30-47.1244-108.4075-2-12-			52920	-0.08	638	33210	57	-58	7.5	61	4.1	4	1.2	22090	7.3	16090	33	0.3	
30-47.1319-108.4153-2-11-			30-47.1319-108.4153-2-11-			54110	-0.06	745	5912	45	74	4.9	59	3.7	4	1.5	15610	5.2	24420	20	0.3	
30-47.0592-108.4914-2-11-			30-47.0592-108.4914-2-11-			43470	-0.08	477	47020	47	-64	7.3	59	3.0	4	1.1	18580	9.4	12790	30	0.3	
30-47.0883-108.4956-2-12-			30-47.0883-108.4956-2-12-			42110	-0.06	550	36690	57	-56	6.6	46	3.3	3	1.4	19650	8.1	13350	28	0.3	
30-47.1197-108.4897-2-12-			30-47.1197-108.4897-2-12-			52650	-0.09	569	19430	65	-49	8.2	59	5.3	4	1.3	23160	6.9	18200	31	0.4	
30-47.1381-108.4431-2-12-			30-47.1381-108.4431-2-12-			63900	-0.07	609	9370	66	-73	11.6	65	5.2	5	1.5	28160	6.9	17760	37	0.5	
30-47.1411-108.4278-2-12-			30-47.1411-108.4278-2-12-			54700	-0.08	943	32390	52	-53	6.4	62	3.7	4	1.4	21410	4.9	15290	29	0.2	
30-47.1539-108.4625-2-12-			30-47.1539-108.4625-2-12-			56850	-0.09	777	19980	57	-70	11.6	61	4.5	6	1.4	30180	7.0	15610	33	0.4	
30-47.1328-108.4553-2-12-			30-47.1328-108.4553-2-12-			51950	-0.09	391	12680	54	-59	9.1	53	5.0	4	1.4	24660	8.3	14750	31	0.3	
30-47.2064-108.4428-2-12-			30-47.2064-108.4428-2-12-			49040	-0.10	630	34540	53	-75	7.5	46	3.8	4	1.2	20840	5.3	15890	27	0.4	
30-47.1854-108.4142-2-12-			30-47.1854-108.4142-2-12-			54590	-0.07	956	6752	50	-54	7.0	51	3.8	5	1.1	21100	5.9	19600	30	0.3	
30-47.2275-108.4244-2-12-			30-47.2275-108.4244-2-12-			50450	-0.06	590	15490	59	-72	4.5	38	2.2	4	1.2	16050	9.3	16590	33	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		
30-47.0442-108.8528-2-15-	0-418255	9817	650	3553	56	-2	7.8	5.3	-242	-1	-1	10.9	3515	77	3.3	179	0.300						
30-47.0453-109.9111-2-12-	0-418265	13840	372	2439	94	-2	14.3	7.5	-243	-1	-1	15.8	6252	132	4.9	-130	0.326						
30-47.0767-108.9919-2-15-	0-418269	11390	272	3176	86	-2	9.1	5.9	-188	-1	-1	14.9	2746	87	3.7	148	0.378						
30-47.0786-109.9567-2-15-	0-418270	15490	170	4077	38	-1	4.8	6.0	-146	-1	-1	9.2	2289	59	3.0	58	0.542						
30-47.0753-108.8747-2-15-	0-418271	9735	142	4200	53	-1	4.9	4.7	-137	-1	1	9.3	2748	71	2.7	50	0.443						
30-47.0711-109.8061-2-15-	0-418274	7050	423	6054	51	-2	5.5	6.0	-234	-1	-1	12.3	3627	73	4.1	49	0.359						
30-47.0628-108.9739-2-15-	0-418276	7033	644	4593	91	-2	9.0	5.1	-237	-1	-1	11.0	2679	107	3.6	106	0.356						
30-47.1003-108.9139-2-15-	0-418279	19370	158	6079	79	2	10.4	6.0	-159	-1	-1	13.7	3880	132	3.8	166	0.348						
30-47.1086-108.9181-2-15-	0-418280	13310	156	3862	75	-2	11.1	5.8	-168	-1	-1	13.0	4363	162	3.2	132	0.386						
30-47.1306-109.9250-2-12-	0-418282	10140	251	7701	-26	-1	6.1	6.2	-202	-1	-1	9.4	3065	96	2.7	63	0.335						
30-47.1400-109.9239-2-15-	0-418283	20230	327	6764	78	-2	9.8	5.1	-224	-1	-1	11.1	3514	168	3.4	150	0.329						
30-47.1422-109.9157-2-15-	0-418284	7767	137	4920	93	-2	8.6	5.7	-147	-1	-1	9.6	3618	116	3.2		0.385						
30-47.1603-109.7558-2-12-	0-418289	10470	139	4848	58	-2	7.9	4.8	-141	-1	-1	9.8	3516	115	3.6	113	0.370						
30-47.1133-109.7950-2-15-	0-418290	3356	493	5104	88	-2	7.2	5.3	-256	-1	-1	11.7	3167	87	3.7	146	0.393						
30-47.0442-109.5264-2-12-	0-418294	7432	369	4471	61	-1	5.7	4.2	-186	-1	-1	10.0	2585	76	3.4	104	0.434						
30-47.0456-108.5403-2-15-	0-418295	7953	335	4321	-29	-2	5.3	5.5	-199	-1	-1	12.0	2690	76	3.1	62	0.361						
30-47.0719-109.5650-2-15-	0-418296	5002	153	6717	28	-1	2.8	4.2	-137	-1	-1	9.6	2151	46	4.1	32	0.552						
30-47.0689-109.5533-2-15-	0-418297	7149	153	6805	49	-1	3.9	4.8	-157	-1	-1	10.8	2190	57	3.5	-30	0.520						
30-47.0675-109.6728-2-12-	0-418298	7311	299	6486	-23	-1	5.2	5.4	-177	-1	-1	10.3	2412	69	3.2	-35	0.555						
30-47.0572-109.7331-2-15-	0-418300	12290	329	3292	100	-2	9.7	5.8	-202	-1	-1	15.0	3732	102	3.6	116	0.293						
30-47.0419-109.4456-2-11-	0-418301	13650	259	4553	38	-2	6.9	4.0	-172	-1	-1	8.0	3012	56	2.6	84	0.354						
30-47.0253-109.4069-2-15-	0-418303	10460	500	1565	65	-2	6.9	5.6	-263	-1	-1	8.1	3449	85	2.8	-56	0.352						
30-47.0047-109.4131-2-39-	0-418304	4848	576	1622	-25	-2	6.5	4.3	-223	-1	1	7.5	2999	91	2.5	167	0.363						
30-47.0383-109.3961-2-12-	0-418305	4917	199	1596	-19	-1	4.0	3.7	-134	-1	-1	6.0	2364	56	1.9	37	0.437						
30-47.0011-109.3417-2-11-	0-418306	7670	395	1407	-25	-2	6.0	4.2	-193	-1	-1	6.9	2951	61	3.2	78	0.371						
30-47.0261-109.2906-2-12-	0-418307	7206	454	1247	-31	-2	7.0	4.9	-294	-1	-1	9.2	3308	65	3.6	122	0.333						
30-47.0122-109.2819-2-12-	0-418308	5380	355	1413	-21	-1	5.4	4.4	-173	-1	-1	6.5	2563	60	3.2	120	0.386						
30-47.0350-109.2933-2-11-	0-418309	8597	325	1639	55	-1	6.5	3.6	-182	-1	-1	6.3	3089	68	3.0	94	0.426						
30-47.0653-109.3756-2-12-	0-418310	12470	739	4910	-31	-2	10.6	5.4	-274	-1	-1	7.9	4507	98	3.3	121	0.453						
30-47.0794-109.3642-2-12-	0-418311	15440	700	2633	51	-2	8.5	5.7	-307	-1	-1	9.7	3692	79	3.7	79	0.348						
30-47.0683-109.3383-2-12-	0-418312	5079	550	2547	-22	-1	5.7	3.7	-215	-1	-1	6.3	2908	71	2.7	110	0.484						
30-47.0642-109.2864-2-12-	0-418313	5593	492	1551	47	-2	7.4	5.1	-233	-1	-1	8.9	3626	70	4.5	-44	0.358						
30-47.0853-109.3136-2-12-	0-418314	9713	528	2270	-30	-2	9.1	5.1	-261	-1	-1	9.1	3492	79	3.9	145	0.289						
30-47.0992-109.2956-2-12-	0-418315	11510	260	5556	54	-2	5.3	3.3	242	-1	-1	6.1	2502	60	3.1	92	0.357						
30-47.1053-109.2767-2-15-	0-418316	18750	518	3868	-25	-1	6.1	4.6	-206	-1	-1	7.4	2465	55	2.5	67	0.269						
30-47.0975-109.2581-2-12-	0-418317	8492	587	1896	-26	-2	5.3	3.5	-223	-1	-1	5.4	2854	53	2.5	124	0.391						
30-47.0994-109.3981-2-11-	0-418318	11990	337	3195	97	-2	9.9	6.1	-222	-1	-1	12.1	3888	113	2.8	80	0.296						
30-47.1153-109.3725-2-12-	0-418319	14510	578	5479	87	-2	8.1	5.1	-261	1	-1	11.7	2821	66	3.6	146	0.238						
30-47.1272-109.3554-2-12-	0-418320	20190	576	7095	108	-1	7.9	5.2	-250	-1	-1	12.6	3040	51	4.1	97	0.225						
30-47.1244-109.4075-2-12-	0-418321	12560	429	5237	62	-2	7.5	4.6	-223	-1	-1	8.4	3246	86	3.1	-66	0.305						
30-47.1019-109.4153-2-11-	0-418322	7620	134	5305	70	-1	6.6	4.6	-190	-1	-1	9.6	2727	83	1.9	-50	0.304						
30-47.0592-109.4914-2-11-	0-418323	15690	392	5359	-27	-2	6.0	3.9	-231	-1	-1	7.5	2595	62	3.2	97	0.400						
30-47.0883-109.4956-2-12-	0-418324	10550	367	4993	45	-1	6.0	4.5	-211	-1	-1	8.5	2631	64	2.4	111	0.286						
30-47.1197-109.4897-2-12-	0-418325	12410	330	3998	90	-2	7.0	5.9	-193	-1	1	11.6	4011	101	3.1	100	0.341						
30-47.1381-109.4431-2-12-	0-418326	11820	576	5618	97	-2	9.7	5.7	-307	-1	-1	11.6	4105	113	3.2	132	0.309						
30-47.1411-109.4278-2-12-	0-418327	16120	181	4342	69	-2	7.6	5.3	374	-1	-1	8.1	4121	159	2.7	115	0.502						
30-47.1539-109.4625-2-12-	0-418328	14010	799	3632	59	-2	9.7	5.2	-344	-1	-1	11.4	4034	97	4.3	1106	0.374						
30-47.1928-109.4551-2-12-	0-418329	13870	675	3201	-29	-2	8.1	4.6	-281	-1	-1	7.4	3917	86	3.2	96	0.391						
30-47.2054-109.4424-2-12-	0-418331	15840	560	5455	-36	-2	6.3	4.8	-324	-2	1	7.5	3253	91	2.9	79	0.387						
30-47.1964-109.4142-2-12-	0-418333	12770	295	4939	41	-2	7.3	5.2	-203	-1	-1	8.3	4358	131	2.6	83	0.523						
30-47.2275-109.4244-2-12-	0-418334	7860	308	9204	58	-2	5.1	5.3	230	-1	-1	7.6	2654	67	2.1	66	0.330						

DOE SAMPLE NUMBER						ASL SAMPLE LOCATION NUMBER AND FIELD DATA																				U CONCENTRATION								
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	ASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	PH	CONDUCTIVITY (umho/cm)	SONTILMETER (m/L, 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	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																										
30-47.2283-109.4347-2-12-						Q-M19335-07/03/79-14-			22-16.7-	-			7.9-	600-		9-1-1-6-7-3-3-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.69	
30-47.2231-109.3859-2-12-						Q-M19335-07/03/79-15-			25-21.1-	-			7.6-	440-		4-1-1-6-5-3-4-4-2-4-4-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.91
30-47.2394-109.3683-2-15-						Q-M19337-07/03/79-15-			25-	-			-	-		4-1-1-5-6-	-1-	-2-4-4-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.46
30-47.2444-109.3622-2-12-						Q-M19338-07/03/79-15-			25-	-			-	-		7-1-1-5-6-	-3-	-2-4-4-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.48
30-47.1725-109.3042-2-12-						Q-M19339-07/03/79-16-			24-15.0-	-			7.6-	500-		7-1-1-6-7-3-3-1-2-4-4-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.54
30-47.1547-109.2967-2-15-						Q-M19340-07/03/79-16-			24-	-			-	-		9-1-1-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.95
30-47.1714-109.3142-2-15-						Q-M19341-07/03/79-16-			22-	-			-	-		9-1-1-5-6-	-1-	-2-4-4-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.31
30-47.1364-109.3525-2-12-						Q-M19343-07/03/79-19-			24-17.8-	-			8.0-	1000-		7-1-1-5-6-3-3-2-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.68
30-47.1300-109.3817-2-11-						Q-M19344-07/03/79-19-			24-17.2-	-			7.9-	1200-		4-1-1-5-5-3-3-1-1-4-4-3-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.31
30-47.1717-109.3833-2-12-						Q-M19345-07/03/79-19-			24-16.0-	-			7.7-	700-		3-1-1-5-6-3-3-1-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.79
30-47.0275-108.5950-2-15-						Q-M19351-07/06/79-11-			24-	-			-	-		16-1-6-5-6-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-				

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	LAST 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	
30-47.2283-109.4347-2-12-						0-419335	-5	5	-5	31	-20	-15	5	-10	-15	2	39	
30-47.2231-109.3969-2-12-						0-419336	-5	7	-5	22	-20	-15	6	-10	-15	2	42	
30-47.2394-109.3583-2-15-						0-419337	-5	5	-5	18	-20	-15	-5	-10	-15	2	38	
30-47.2444-109.3522-2-12-						0-419338	-5	-5	-5	30	-20	-15	6	-10	-15	2	37	
30-47.1725-109.3042-2-12-						0-419339	-5	-5	-5	22	-20	-15	9	-10	-15	2	63	
30-47.1647-109.2967-2-15-						0-419340	-5	5	-5	27	-20	-15	9	-10	-15	2	43	
30-47.1714-109.3142-2-15-						0-419341	-5	-5	-5	31	-20	-15	9	-10	-15	2	49	
30-47.1964-109.3525-2-12-						0-419343	-5	-5	-5	30	-20	-15	-5	-10	-15	3	37	
30-47.1900-109.3817-2-11-						0-419344	-5	-5	-5	30	-20	-15	8	-10	-15	2	56	
30-47.1717-109.3933-2-12-						0-419345	-5	-5	-5	28	-20	-15	8	-10	-15	2	52	
30-47.0275-109.5950-2-15-						0-419351	-5	5	-5	36	-20	-15	9	-10	-15	2	45	
30-47.0669-109.5844-2-12-						0-419352	-5	-5	-5	25	-20	21	-5	-10	-15	2	38	
30-47.1406-109.5878-2-12-						0-419354	-5	-5	-5	31	-20	19	8	-10	-15	2	33	
30-47.1383-109.5806-2-15-						0-419355	-5	-5	-5	23	-20	-15	5	-10	-15	2	29	
30-47.1003-109.5867-2-12-						0-419356	-5	-5	-5	18	-20	16	-5	-10	-15	2	42	
30-47.0606-109.5973-2-12-						0-419357	-5	-5	-5	26	-20	-15	-5	-10	-15	2	37	
30-47.1581-109.7328-2-12-						0-419359	-5	-5	-5	33	-20	-15	5	-10	-15	2	49	
30-47.1308-109.6250-2-12-						0-419362	-5	-5	-5	29	-20	18	14	-10	-15	2	33	
30-47.1408-109.5278-2-11-						0-419363	-5	5	-5	31	-20	28	34	-10	-15	2	39	
30-47.1533-109.6036-2-12-						0-419365	-5	5	-5	33	-20	-15	7	-10	-15	2	31	
30-47.1372-109.6200-2-11-						0-419367	-5	-5	-5	24	-20	23	-5	-10	-15	2	33	
30-47.1564-109.7028-2-12-						0-419369	-5	5	-5	19	-20	25	-5	-10	-15	2	42	
30-47.1500-109.6942-2-15-						0-419369	-5	-5	-5	23	-20	-15	-5	-10	-15	2	40	
30-47.1664-109.6911-2-15-						0-419370	-5	-5	-5	37	-20	-15	7	-10	-15	2	34	
30-47.2111-109.6572-2-15-						0-419374	-5	5	-5	-10	-20	-15	-5	-10	-15	1	15	
30-47.2136-109.6185-2-15-						0-419375	-5	-5	-5	24	-20	-15	-5	-10	-15	1	22	
30-47.2189-109.6211-2-15-						0-419376	-5	-5	-5	25	-20	-15	-5	-10	-15	1	28	
30-47.2267-109.5942-2-15-						0-419377	-5	-5	-5	18	-20	-15	-5	-10	-15	1	33	
30-47.1769-109.4642-2-12-						0-419391	-5	-5	-5	19	-20	-15	-5	-10	-15	1	30	
30-47.1872-109.4661-2-15-						0-419392	-5	-5	-5	21	-20	-15	-5	-10	-15	2	39	
30-47.1831-109.4361-2-15-						0-419393	-5	-5	-5	31	-20	-15	-5	-10	-15	2	39	
30-47.1828-109.3789-2-15-						0-419394	-5	-5	-5	27	-20	-15	9	-10	-15	2	32	
30-47.1647-109.3597-2-15-						0-419395	-5	-5	-5	26	-20	16	9	-10	-15	2	35	
30-47.1794-109.3525-2-12-						0-419396	-5	-5	-5	17	-20	24	5	-10	-15	2	35	
30-47.1872-109.3669-2-15-						0-419397	-5	-5	-5	27	-20	-15	7	-10	-15	1	39	
30-47.1842-109.3509-2-15-						0-419398	-5	-5	-5	32	-20	-15	5	-10	-15	2	38	
30-47.1994-109.3525-2-15-						0-419399	-5	-5	-5	30	-20	21	9	-10	-15	2	45	
30-47.2333-109.3692-2-15-						0-419399	-5	5	-5	26	-20	20	9	-10	-15	2	37	
30-47.2531-109.3650-2-15-						0-419399	-5	-5	-5	21	-20	-15	6	-10	-15	2	38	
30-47.2608-109.3764-2-15-						0-419399	-5	-5	-5	21	-20	15	9	-10	-15	2	39	
30-47.2769-109.4236-2-15-						0-419399	-5	-5	-5	21	-20	-15	8	-10	-15	2	40	
30-47.2953-109.4206-2-15-						0-419399	-5	-5	5	44	-20	26	11	-10	-15	2	48	
30-47.1950-109.5914-2-15-						0-419399	-5	5	-5	31	-20	15	-5	-10	-15	2	26	
30-47.1722-109.5839-2-15-						0-419399	-5	5	-5	22	-20	-15	5	-10	-15	2	26	
30-47.1633-109.5886-2-12-						0-419400	-5	-5	-5	25	-20	-15	-5	-10	-15	2	41	
30-47.2256-109.5336-2-15-						0-419401	-5	-5	-5	32	-20	-15	5	-10	-15	2	36	
30-47.2422-109.5519-2-12-						0-419402	-5	7	-5	32	-20	-15	11	-10	-15	2	29	
30-47.2275-109.5864-2-12-						0-419405	-5	-5	-5	19	-20	-15	5	-10	-15	3	38	
30-47.2375-109.6347-2-11-						0-419406	-5	-5	-5	29	-20	-15	8	-10	-15	2	59	
30-47.2339-109.6839-2-12-						0-419407	-5	-5	-5	30	-20	38	-5	-10	-15	4	92	
30-47.2292-109.7239-2-12-						0-419408	-5	-5	-5	24	-20	-15	8	-10	-15	3	106	

[illegible]

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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	LASL	SAMPLE TYPE	REPLICATE	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (dL/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER ROW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)	UNITS IN ppm
							DATE	HOUR																											
30-47.2406-109.7233-2-12-	30-47.2406-109.7233-2-12-	30-47.2406-109.7233-2-12-	30-47.2406-109.7233-2-12-	30-47.2406-109.7233-2-12-	30-47.2406-109.7233-2-12-	30-47.2406-109.7233-2-12-	07/06/79	15	25-14.5	-	-	-	7.2	3300	18-1-7-5-5-2-2-1-2-4-3-2-4-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.22	
30-47.2150-109.7433-2-12-	30-47.2150-109.7433-2-12-	30-47.2150-109.7433-2-12-	30-47.2150-109.7433-2-12-	30-47.2150-109.7433-2-12-	30-47.2150-109.7433-2-12-	30-47.2150-109.7433-2-12-	07/06/79	15	25-14.0	-	-	-	7.5	2200	5-1-7-6-5-3-3-4-2-4-2-2-4-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.56	
30-47.1736-109.6942-2-12-	30-47.1736-109.6942-2-12-	30-47.1736-109.6942-2-12-	30-47.1736-109.6942-2-12-	30-47.1736-109.6942-2-12-	30-47.1736-109.6942-2-12-	30-47.1736-109.6942-2-12-	07/06/79	15	25-17.0	-	-	-	7.1	2400	4-1-7-4-6-2-2-1-2-4-3-2-4-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.57	
30-47.1344-109.6936-2-12-	30-47.1344-109.6936-2-12-	30-47.1344-109.6936-2-12-	30-47.1344-109.6936-2-12-	30-47.1344-109.6936-2-12-	30-47.1344-109.6936-2-12-	30-47.1344-109.6936-2-12-	07/06/79	15	24-19.5	-	-	-	7.4	1100	4-1-7-4-6-3-3-4-2-4-3-2-4-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.46	
30-47.1231-109.6708-2-12-	30-47.1231-109.6708-2-12-	30-47.1231-109.6708-2-12-	30-47.1231-109.6708-2-12-	30-47.1231-109.6708-2-12-	30-47.1231-109.6708-2-12-	30-47.1231-109.6708-2-12-	07/06/79	15	23-17.3	-	-	-	7.3	900	3-1-7-5-6-3-3-4-2-4-3-2-4-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.28	
30-47.1351-109.7291-2-12-	30-47.1351-109.7291-2-12-	30-47.1351-109.7291-2-12-	30-47.1351-109.7291-2-12-	30-47.1351-109.7291-2-12-	30-47.1351-109.7291-2-12-	30-47.1351-109.7291-2-12-	07/09/79	15	22-15.2	-	-	-	7.7	1000	9-1-7-5-6-2-3-1-2-4-3-2-2-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.27	
30-47.1334-109.7794-2-12-	30-47.1334-109.7794-2-12-	30-47.1334-109.7794-2-12-	30-47.1334-109.7794-2-12-	30-47.1334-109.7794-2-12-	30-47.1334-109.7794-2-12-	30-47.1334-109.7794-2-12-	07/09/79	15	23-17.1	-	-	-	7.5	1400	13-1-7-5-6-2-3-2-2-4-3-2-2-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.01	
30-47.1417-109.7903-2-12-	30-47.1417-109.7903-2-12-	30-47.1417-109.7903-2-12-	30-47.1417-109.7903-2-12-	30-47.1417-109.7903-2-12-	30-47.1417-109.7903-2-12-	30-47.1417-109.7903-2-12-	07/09/79	15	24-19.0	-	-	-	7.5	3000	4-1-7-5-6-2-3-2-2-4-3-2-2-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.10	
30-47.1574-109.7783-2-12-	30-47.1574-109.7783-2-12-	30-47.1574-109.7783-2-12-	30-47.1574-109.7783-2-12-	30-47.1574-109.7783-2-12-	30-47.1574-109.7783-2-12-	30-47.1574-109.7783-2-12-	07/09/79	15	24-21.6	-	-	-	7.7	9000	11-1-7-5-6-2-2-2-2-4-3-2-2-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.64	
30-47.1753-109.7781-2-12-	30-47.1753-109.7781-2-12-	30-47.1753-109.7781-2-12-	30-47.1753-109.7781-2-12-	30-47.1753-109.7781-2-12-	30-47.1753-109.7781-2-12-	30-47.1753-109.7781-2-12-	07/09/79	15	24-22.2	-	-	-	7.8	2700	3-1-7-5-6-2-3-1-2-4-3-2-2-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.94	
30-47.1329-109.7764-2-12-	30-47.1329-109.7764-2-12-	30-47.1329-109.7764-2-12-	30-47.1329-109.7764-2-12-	30-47.1329-109.7764-2-12-	30-47.1329-109.7764-2-12-	30-47.1329-109.7764-2-12-	07/09/79	15	24-17.2	-	-	-	7.5	1150	5-1-7-5-6-2-2-1-2-4-3-2-2-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.67	
30-47.1735-109.9362-2-12-	30-47.1735-109.9362-2-12-	30-47.1735-109.9362-2-12-	30-47.1735-109.9362-2-12-	30-47.1735-109.9362-2-12-	30-47.1735-109.9362-2-12-	30-47.1735-109.9362-2-12-	07/09/79	15	25-13.3	-	-	-	7.5	1400	6-1-7-5-6-2-2-1-2-4-3-2-2-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.24	
30-47.2451-109.7892-2-15-	30-47.2451-109.7892-2-15-	30-47.2451-109.7892-2-15-	30-47.2451-109.7892-2-15-	30-47.2451-109.7892-2-15-	30-47.2451-109.7892-2-15-	30-47.2451-109.7892-2-15-	07/09/79	15	25	-	-	-	-	-	6-1-7-5-6-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.00	
30-47.1417-109.8206-2-12-	30-47.1417-109.8206-2-12-	30-47.1417-109.8206-2-12-	30-47.1417-109.8206-2-12-	30-47.1417-109.8206-2-12-	30-47.1417-109.8206-2-12-	30-47.1417-109.8206-2-12-	07/09/79	15	25-22.4	-	-	-	7.7	3100	3-1-7-6-6-2-2-1-2-4-3-2-2-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.87	
30-47.1327-109.8206-2-12-	30-47.1327-109.8206-2-12-	30-47.1327-109.8206-2-12-	30-47.1327-109.8206-2-12-	30-47.1327-109.8206-2-12-	30-47.1327-109.8206-2-12-	30-47.1327-109.8206-2-12-	07/09/79	15	25-21.0	-	-	-	7.8	3200	4-1-7-5-6-2-2-2-2-4-3-2-2-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.16	
30-47.1475-109.6386-2-12-	30-47.1475-109.6386-2-12-	30-47.1475-109.6386-2-12-	30-47.1475-109.6386-2-12-	30-47.1475-109.6386-2-12-	30-47.1475-109.6386-2-12-	30-47.1475-109.6386-2-12-	07/09/79	15	27-12.5	-	-	-	7.5	2800	3-1-7-5-6-2-2-1-2-4-3-2-2-	3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.89	
30-47.6908-109.6447-2-15-	30-47.6908-109.6447-2-15-	30-47.6908-109.6447-2-15-	30-47.6908-109.6447-2-15-	30-47.6908-109.6447-2-15-	30-47.6908-109.6447-2-15-	30-47.6908-109.6447-2-15-	07/10/79	15	29	-	-	-	-	-	3-1-7-4-6-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.69	
30-47.6917-109.6444-2-15-	30-47.6917-109.6444-2-15-	30-47.6917-109.6444-2-15-	30-47.6917-109.6444-2-15-	30-47.6917-109.6444-2-15-	30-47.6917-109.6444-2-15-	30-47.6917-109.6444-2-15-	07/10/79	15	29	-	-	-	-	-	9-1-7-5-6-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.41	
30-47.6325-109.6332-2-15-	30-47.6325-109.6332-2-15-	30-47.6325-109.6332-2-15-	30-47.6325-109.6332-2-15-	30-47.6325-109.6332-2-15-	30-47.6325-109.6332-2-15-	30-47.6325-109.6332-2-15-	07/10/79	15	29	-	-	-	-	-	3-1-5-4-1-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.60	
30-47.6483-109.6453-2-11-	30-47.6483-109.6453-2-11-	30-47.6483-109.6453-2-11-	30-47.6483-109.6453-2-11-	30-47.6483-109.6453-2-11-	30-47.6483-109.6453-2-11-	30-47.6483-109.6453-2-11-	07/10/79	15	29-25.5	-	-	-	7.1	3900	2-1-6-5-6-2-2-2-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.21	
30-47.6522-109.6389-2-15-	30-47.6522-109.6389-2-15-	30-47.6522-109.6389-2-15-	30-47.6522-109.6389-2-15-	30-47.6522-109.6389-2-15-	30-47.6522-109.6389-2-15-	30-47.6522-109.6389-2-15-	07/10/79	15	29	-	-	-	-	-	4-1-6-5-6-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.50	
30-47.6517-109.5331-2-15-	30-47.6517-109.5331-2-15-	30-47.6517-109.5331-2-15-	30-47.6517-109.5331-2-15-	30-47.6517-109.5331-2-15-	30-47.6517-109.5331-2-15-	30-47.6517-109.5331-2-15-	07/10/79	15	29	-	-	-	-	-	4-1-5-5-6-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.51	
30-47.5731-109.7714-2-15-	30-47.5731-109.7714-2-15-	30-47.5731-109.7714-2-15-	30-47.5731-109.7714-2-15-	30-47.5731-109.7714-2-15-	30-47.5731-109.7714-2-15-	30-47.5731-109.7714-2-15-	07/11/79	13	29	-	-	-	-	-	17-1-6-5-6-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.34	
30-47.5911-109.7708-2-15-	30-47.5911-109.7708-2-15-	30-47.5911-109.7708-2-15-	30-47.5911-109.7708-2-15-	30-47.5911-109.7708-2-15-	30-47.5911-109.7708-2-15-	30-47.5911-109.7708-2-15-	07/11/79	13	29	-	-	-	-	-	3-1-6-5-6-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.16	
30-47.5222-109.7335-2-15-	30-47.5222-109.7335-2-15-	30-47.5222-109.7335-2-15-	30-47.5222-109.7335-2-15-	30-47.5222-109.7335-2-15-	30-47.5222-109.7335-2-15-	30-47.5222-109.7335-2-15-	07/11/79	14	29	-	-	-	-	-	4-1-6-5-6-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.07	
30-47.6491-109.7907-2-15-	30-47.6491-109.7907-2-15-	30-47.6491-109.7907-2-15-	30-47.6491-109.7907-2-15-	30-47.6491-109.7907-2-15-	30-47.6491-109.7907-2-15-	30-47.6491-109.7907-2-15-	07/11/79	15	29	-	-	-	-	-	3-1-6-4-6-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.06	
30-47.6492-109.7939-2-15-	30-47.6492-109.7939-2-15-	30-47.6492-109.7939-2-15-	30-47.6492-109.7939-2-15-	30-47.6492-109.7939-2-15-	30-47.6492-109.7939-2-15-	30-47.6492-109.7939-2-15-	07/11/79	15	29	-	-	-	-	-	17-1-6-4-6-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.58	
30-47.1219-109.9389-2-15-	30-47.1219-109.9389-2-15-	30-47.1219-109.9389-2-15-	30-47.1219-109.9389-2-15-	30-47.1219-109.9389-2-15-	30-47.1219-109.9389-2-15-	30-47.1219-109.9389-2-15-	07/09/79	15	23	-	-	-	-	-	6-1-1-5-6-	1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.90	
30-47.1791-109.9153-2-12-	30-47.1791-109.9153-2-12-	30-47.1791-109.9153-2-12-	3																																

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	Pt	Sn	W	Be	Li	
30-47.2406-109.7233-2-12-						0-418430	-5	-5	-5	24	-20	13	6	-10	-15	2	87	
30-47.2150-109.7033-2-12-						0-418411	-5	-5	-5	29	-20	22	13	-10	-15	2	78	
30-47.1735-109.6942-2-12-						0-418415	-5	-5	-5	33	-20	21	11	-10	-15	2	77	
30-47.1344-109.6935-2-12-						0-418417	-5	-5	-5	30	-20	26	-5	-10	-15	3	111	
30-47.1281-109.5709-2-12-						0-418418	-5	-5	-5	41	-20	19	8	-10	-15	2	66	
30-47.1351-109.7281-2-12-						0-418420	-5	-5	-5	30	-20	20	9	-10	-15	2	44	
30-47.1394-109.7794-2-12-						0-418421	-5	-5	-5	23	-20	-15	8	-10	-15	1	52	
30-47.1417-109.7903-2-12-						0-418422	-5	-5	-5	24	-20	23	6	-10	-15	2	56	
30-47.1594-109.7783-2-12-						0-418423	-5	-5	-5	20	-20	-15	9	-10	-15	2	55	
30-47.1753-109.7781-2-12-						0-418424	-5	-5	-5	25	-20	26	7	-10	-15	2	67	
30-47.1928-109.7764-2-12-						0-418425	-5	-5	-5	23	-20	-15	-5	-10	-15	2	42	
30-47.1736-109.8369-2-12-						0-418427	-5	-5	-5	37	-20	23	-5	-10	-15	1	33	
30-47.2461-109.7889-2-15-						0-418429	-5	-5	-5	34	-20	35	8	-10	-15	3	76	
30-47.1417-109.8206-2-12-						0-418430	-5	-5	-5	32	-20	21	7	-10	-15	2	54	
30-47.1397-109.8206-2-12-						0-418431	-5	-5	-5	33	-20	-15	9	-10	-15	2	45	
30-47.1475-109.6385-2-12-						0-418433	-5	-5	-5	25	-20	20	6	-10	-15	1	35	
30-47.6909-109.6457-2-15-						0-418434	-5	-5	-5	23	-20	-15	-5	-10	-15	1	43	
30-47.6817-109.6444-2-15-						0-418435	-5	-5	-5	37	-20	23	6	-10	-15	2	42	
30-47.6325-109.6339-2-15-						0-418436	-5	-5	-5	25	-20	-15	-5	-10	-15	2	34	
30-47.6483-109.6453-2-11-						0-418437	-5	-5	-5	31	-20	32	-5	-10	-15	2	54	
30-47.6322-109.6389-2-15-						0-418438	-5	-5	-5	26	-20	-15	-5	-10	-15	2	37	
30-47.6417-109.6381-2-15-						0-418439	-5	-5	-5	25	-20	-15	7	-10	-15	2	38	
30-47.5731-109.7714-2-15-						0-418441	-5	-5	-5	28	-20	24	-5	-10	-15	2	29	
30-47.5911-109.7708-2-15-						0-418444	-5	-5	-5	22	-20	-15	8	-10	-15	2	24	
30-47.5222-109.7836-2-15-						0-418447	-5	-5	-5	21	-20	-15	6	-10	-15	2	35	
30-47.6481-109.7897-2-15-						0-418449	-5	-5	-5	28	-20	-15	-5	-10	-15	2	24	
30-47.6492-109.7939-2-15-						0-418450	-5	-5	-5	24	-20	-15	5	-10	-15	2	35	
30-47.1219-109.9389-2-15-						0-418452	-5	-5	-5	32	-20	27	11	-10	-15	2	36	
30-47.1781-109.9153-2-12-						0-418455	-5	-5	-5	25	-20	19	17	-10	-15	2	35	
30-47.7114-109.4317-2-15-						0-418457	-5	-5	-5	28	-20	34	6	-10	-15	2	45	
30-47.7119-109.4357-2-12-						0-418459	-5	-5	-5	42	-20	33	15	-10	-15	3	50	
30-47.6519-109.4050-2-15-						0-418459	-5	-5	-5	33	-20	28	12	-10	-15	2	41	
30-47.6647-109.4397-2-15-						0-418460	-5	-5	-5	33	32	-15	187	-10	-15	2	40	
30-47.6631-109.4410-2-15-						0-418461	-5	-5	-5	34	-20	19	11	-10	-15	3	40	
30-47.7331-109.5964-2-15-						0-418462	-5	-5	-5	39	-20	19	14	-10	-15	2	50	
30-47.7264-109.5719-2-12-						0-418463	-5	-5	-5	43	-20	24	21	-10	-15	3	47	
30-47.7247-109.5778-2-15-						0-418464	-5	-5	-5	26	-20	29	6	-10	-15	2	59	
30-47.7239-109.5772-2-11-						0-418465	-5	-5	-5	32	-20	33	8	-10	-15	2	46	
30-47.6261-109.5325-2-12-						0-418467	-5	-5	-5	38	-20	24	10	-10	-15	2	38	
30-47.6292-109.6097-2-15-						0-418469	-5	-5	-5	32	-20	33	15	-10	-15	2	42	
30-47.6258-109.5933-2-15-						0-418469	-5	-5	-5	35	-20	20	10	-10	-15	2	44	
30-47.6433-109.6291-2-12-						0-418470	-5	-5	-5	37	-20	18	18	-10	-15	2	34	
30-47.6300-109.6392-2-12-						0-418471	-5	-5	-5	36	-20	34	7	-10	-15	2	40	
30-47.7053-109.4203-2-15-						0-418472	-5	-5	-5	37	-20	37	7	-10	-15	3	47	
30-47.5514-109.5914-2-15-						0-418474	-5	-5	-5	21	-20	-15	-5	-10	-15	2	37	
30-47.5311-109.6067-2-15-						0-418475	-5	-5	-5	26	-20	31	-5	-10	-15	2	39	
30-47.5756-109.5994-2-15-						0-418476	-5	-5	-5	19	-20	27	-5	-10	-15	2	32	
30-47.5592-109.5950-2-15-						0-418477	-5	-5	-5	24	-20	15	11	-10	-15	2	38	
30-47.5453-109.5939-2-15-						0-418478	-5	-5	-5	35	-20	-15	-5	-10	-15	2	39	
30-47.5600-109.5786-2-12-						0-418481	-5	-5	-5	32	-20	19	8	-10	-15	2	45	
30-47.5951-109.5572-2-15-						0-418482	-5	-5	-5	19	-20	-15	8	-10	-15	2	25	

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	DOE LAB 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
30-47.2406-109.7233-2-12-			0-419409				55130	-0.09	472	52030	54	159	7.2	54	4.5	3	1.2	23780	5.5	16220	27	0.3
30-47.2150-109.7033-2-12-			0-419411				54720	-0.11	1037	17500	67	68	8.5	61	4.6	5	1.3	25210	7.5	17690	37	0.3
30-47.1736-109.6942-2-12-			0-419415				46500	-0.09	778	70330	53	-59	6.9	69	4.8	4	1.4	19720	9.7	17080	37	0.4
30-47.1344-109.6936-2-12-			0-419417				56800	-0.12	983	44390	72	-62	14.1	93	6.2	5	1.4	25970	5.7	20230	39	0.4
30-47.1281-109.6708-2-12-			0-419419				51110	-0.10	614	36890	51	-59	8.4	71	4.9	4	1.2	22840	4.8	17200	31	0.3
30-47.1361-109.7281-2-12-			0-419420				49620	-0.10	769	44450	62	84	6.2	64	4.6	4	1.2	18240	5.9	16350	30	0.3
30-47.1394-109.7794-2-12-			0-419421				69040	-0.10	800	20970	48	-72	8.6	96	4.4	3	1.2	26980	4.1	16540	21	0.3
30-47.1417-109.7803-2-12-			0-419422				59690	-0.11	750	30700	60	-64	7.5	73	5.7	5	1.3	23810	5.7	19360	40	0.4
30-47.1594-109.7783-2-12-			0-419423				60280	-0.09	719	16460	71	98	8.6	68	5.0	4	1.4	25560	7.1	20510	44	0.3
30-47.1753-109.7781-2-12-			0-419424				67820	-0.10	946	22970	73	85	5.8	76	6.0	4	1.3	24140	6.1	21300	35	0.3
30-47.1828-109.7764-2-12-			0-419425				56570	-0.09	655	35260	63	-58	7.2	63	4.4	5	1.2	24410	6.9	17750	40	0.3
30-47.1736-109.8362-2-12-			0-419427				48140	-0.11	682	58190	69	195	11.5	56	3.3	4	1.3	34440	6.6	16800	48	0.4
30-47.2461-109.7889-2-15-			0-419429				77780	-0.11	910	5749	78	-45	14.0	101	7.7	5	1.6	31490	4.9	24730	47	0.4
30-47.1417-109.8206-2-12-			0-419430				62690	-0.11	819	8503	61	107	5.2	61	5.1	5	1.3	19130	4.4	20870	36	0.3
30-47.1397-109.8206-2-12-			0-419431				55770	-0.09	814	10670	64	-56	7.7	70	4.4	5	1.3	24600	6.6	21520	38	0.4
30-47.1475-109.6386-2-12-			0-419433				45430	-0.10	551	70170	47	-82	9.2	51	3.9	4	1.2	21830	5.8	13460	31	0.2
30-47.6908-109.5467-2-15-			0-419434				59610	-0.08	709	20150	46	-73	10.8	65	4.0	4	1.4	26550	5.3	14690	24	0.2
30-47.6817-109.5444-2-15-			0-419435				75810	-0.11	637	11190	44	-57	9.4	88	5.1	4	1.1	31210	4.3	17780	17	0.4
30-47.6325-109.6332-2-15-			0-419436				53920	-0.08	726	28760	55	-73	6.7	50	3.0	4	1.2	18020	7.4	13940	27	0.4
30-47.6483-109.6453-2-11-			0-419437				47550	-0.11	652	30410	61	-85	9.7	68	4.9	4	1.2	29080	4.9	20380	30	0.4
30-47.6522-109.6389-2-15-			0-419438				58770	-0.09	607	22230	50	-80	8.6	51	3.2	4	1.3	22600	6.3	14640	33	0.4
30-47.6417-109.6381-2-15-			0-419439				55560	-0.09	725	22060	52	-68	7.2	52	3.1	3	1.2	20940	5.8	17110	30	0.3
30-47.5731-109.7714-2-15-			0-419443				62580	-0.09	546	11420	50	-69	7.5	52	2.6	4	1.1	20950	5.0	16490	29	0.3
30-47.5911-109.7703-2-15-			0-419444				60170	-0.09	477	11590	54	105	8.5	42	3.0	3	1.1	17840	6.2	17980	28	0.3
30-47.6222-109.7936-2-15-			0-419447				64660	-0.09	582	9163	49	-72	9.1	55	3.8	3	1.1	23750	4.2	18690	25	0.2
30-47.6481-109.7897-2-15-			0-419449				47710	-0.07	615	19290	53	-57	4.4	34	2.8	3	1.0	12220	6.3	14610	23	0.2
30-47.6492-109.7939-2-15-			0-419450				55540	-0.08	579	24910	54	-57	5.2	40	3.3	4	1.1	18910	5.5	15540	25	0.3
30-47.1219-109.8389-2-15-			0-419452				55870	-0.09	739	4629	62	-64	10.0	74	4.5	5	1.3	24160	9.2	19810	36	0.4
30-47.1781-109.9153-2-12-			0-419455				64900	-0.08	861	19310	56	-53	9.3	58	4.8	4	1.4	23320	5.6	15500	34	0.3
30-47.7114-109.4317-2-15-			0-419457				73680	-0.11	950	11490	73	-53	12.7	82	6.2	4	1.3	36760	4.6	19310	35	0.4
30-47.7119-109.4367-2-12-			0-419458				75640	-0.11	1015	11880	71	-61	16.3	88	7.4	5	1.5	43430	6.0	20160	42	0.5
30-47.6619-109.4050-2-15-			0-419459				75080	-0.10	757	7809	57	-65	14.2	87	5.2	5	1.4	35770	5.3	20710	39	0.4
30-47.6647-109.4337-2-15-			0-419460				70430	-0.09	573	38020	50	-56	11.0	80	5.1	4	1.2	34110	3.9	16970	34	0.4
30-47.6531-109.4419-2-15-			0-419461				74510	-0.11	715	7371	70	-52	16.1	77	5.2	4	1.2	35410	5.0	19830	33	0.3
30-47.7331-109.5964-2-15-			0-419462				72540	-0.11	746	9493	57	-77	12.8	91	6.8	5	1.4	38560	5.2	18870	31	0.3
30-47.7264-109.5719-2-12-			0-419463				74560	-0.11	946	11930	52	-76	15.7	89	7.3	5	1.3	41320	5.0	20820	38	0.4
30-47.7247-109.5778-2-15-			0-419464				81050	-0.10	674	9335	59	-63	14.7	91	7.0	4	1.3	38270	3.7	21590	39	0.4
30-47.7239-109.5772-2-11-			0-419465				73630	-0.12	945	10540	66	-65	14.3	91	6.4	5	1.5	35560	4.9	22130	34	0.4
30-47.6261-109.5325-2-12-			0-419467				68970	-0.10	1206	12670	56	-63	17.6	77	5.7	5	1.5	45550	4.8	21500	35	0.4
30-47.6292-109.6097-2-15-			0-419469				79540	-0.10	923	5561	63	-85	13.4	78	6.6	5	1.3	35020	5.6	19900	36	0.4
30-47.6258-109.5933-2-15-			0-419469				65990	-0.09	1070	11350	52	-79	15.2	82	4.8	4	1.2	34850	5.9	18090	37	0.3
30-47.6433-109.6281-2-12-			0-419470				69390	-0.11	1317	7644	62	-64	13.4	78	5.3	5	1.4	35830	4.7	16360	28	0.3
30-47.6300-109.6392-2-12-			0-419471				74140	-0.10	1119	9341	53	-64	12.1	92	5.9	5	1.3	34800	4.6	17300	31	0.5
30-47.7053-109.4203-2-15-			0-419472				74530	-0.11	1074	19110	63	-67	15.3	87	7.1	5	1.2	45690	5.1	20830	34	0.5
30-47.5514-109.5914-2-15-			0-419474				57930	-0.07	586	21110	43	-73	9.0	64	2.2	3	1.1	21740	5.3	15640	26	0.2
30-47.5911-109.6057-2-15-			0-419475				66890	-0.10	754	1920	52	-72	9.9	91	3.5	3	1.2	25800	4.1	16490	-7	0.3
30-47.5756-109.5934-2-15-			0-419476				63400	-0.08	758	14230	51	-72	9.8	86	3.3	4	1.2	26520	5.9	15460	23	0.4
30-47.5642-109.5950-2-15-			0-419477				66860	-0.09	692	18970	44	-79	11.0	78	3.4	4	1.2	27710	4.3	17660	27	0.3
30-47.5653-109.5932-2-15-			0-419478				66970	-0.09	638	16750	37	-77	10.8	73	4.0	3	1.1	28490	4.4	15790	25	0.3
30-47.5600-109.5786-2-12-			0-419481				63720	-0.10	720	13300	55	-73	10.4	79	4.6	4	1.3	28570	5.1	17160	22	0.3
30-47.5961-109.5672-2-15-			0-419482				64920	-0.07	574	20990	59	-65	7.3	41	2.8	4	1.2	15470	7.1	19120	30	0.4

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[illegible]

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	
30-47.5586-109.5797-2-12-			0-419493			0-419493	-5	-5	-5	32	-20	-15	6	-10	-15	2	35	
30-47.5981-109.5647-2-15-			0-419494			0-419494	-5	-5	-5	17	-20	-15	9	-10	-15	2	25	
30-47.6225-109.5724-2-15-			0-419495			0-419495	-5	-5	-5	17	-20	-15	15	-10	-15	2	30	
30-47.9103-108.3425-2-15-			0-419497			0-419497	-5	-5	-5	35	-20	-15	12	-10	-15	2	28	
30-47.2444-107.8922-2-12-			0-419491			0-419491	-5	-5	-5	32	-20	21	14	-10	-15	2	29	
30-47.5714-109.5394-2-15-			0-419492			0-419492	-5	-5	-5	10	-20	-15	-5	-10	-15	-1	10	
30-47.1556-109.9836-2-12-			0-419490			0-419490	-5	-5	-5	16	-20	15	21	-10	-15	1	23	
30-47.9053-109.3185-2-15-			0-419500			0-419500	-5	-5	-5	35	-20	18	-5	-10	-15	2	34	
30-47.2775-108.8489-2-15-			0-419501			0-419501	-5	-5	-5	39	-20	22	11	-10	-15	2	37	
30-47.2975-108.8064-2-12-			0-419502			0-419502	-5	-5	-5	35	-20	20	10	-10	-15	2	46	
30-47.3422-103.7594-2-15-			0-419504			0-419504	-5	-5	-5	30	-20	25	15	-10	-15	2	23	
30-47.3397-103.8086-2-15-			0-419505			0-419505	-5	-5	-5	33	-20	31	17	-10	-15	2	36	
30-47.4439-103.7097-2-15-			0-419508			0-419508	-5	-5	-5	24	-20	-15	8	-10	-15	2	21	
30-47.4564-108.6822-2-15-			0-419509			0-419509	-5	-5	-5	36	-20	29	6	-10	-15	2	22	
30-47.4508-108.5906-2-15-			0-419510			0-419510	-5	-5	-5	34	-20	23	24	-10	-15	2	25	
30-47.4700-108.6429-2-15-			0-419511			0-419511	-5	-5	-5	35	-20	31	11	-10	-15	2	32	
30-47.4778-108.6069-2-15-			0-419512			0-419512	-5	-5	-5	30	-20	27	-5	-10	-15	2	27	
30-47.4972-108.5572-2-15-			0-419513			0-419513	-5	-5	-5	27	-20	32	8	-10	-15	2	30	
30-47.4775-108.6181-2-15-			0-419514			0-419514	-5	-5	-5	32	-20	24	8	-10	-15	2	25	
30-47.4869-108.4347-2-15-			0-419515			0-419515	-5	-5	-5	29	-20	-15	11	-10	-15	1	23	
30-47.4944-108.4231-2-12-			0-419516			0-419516	-5	-5	-5	36	-20	28	11	-10	-15	2	31	
30-47.4569-108.4181-2-15-			0-419517			0-419517	-5	-5	-5	37	-20	16	8	-10	-15	2	34	
30-47.4506-108.3981-2-15-			0-419518			0-419518	-5	-5	-5	38	-20	45	12	-10	-15	2	36	
30-47.4511-108.3737-2-15-			0-419519			0-419519	-5	7	-5	46	-20	25	16	-10	-15	2	29	
30-47.4722-108.3911-2-15-			0-419520			0-419520	-5	-5	-5	36	-20	36	6	-10	-15	2	37	
30-47.4750-108.3833-2-15-			0-419521			0-419521	-5	10	-5	41	-20	22	7	-10	-15	2	32	
30-47.3597-108.6900-2-15-			0-419522			0-419522	-5	-5	-5	20	-20	19	7	-10	-15	2	31	
30-47.3722-108.6764-2-12-			0-419524			0-419524	-5	-5	-5	24	-20	16	6	-10	-15	2	31	
30-47.3667-108.6356-2-15-			0-419525			0-419525	-5	-5	-5	28	-20	-15	-5	-10	-15	-1	4	
30-47.4074-108.5981-2-15-			0-419527			0-419527	-5	9	-5	38	-20	21	12	-10	-15	2	38	
30-47.4075-108.6369-2-15-			0-419528			0-419528	-5	-5	-5	45	-20	17	13	-10	-15	1	24	
30-47.4044-108.6333-2-12-			0-419529			0-419529	-5	-5	-5	34	-20	26	9	-10	-15	2	30	
30-47.4003-108.6214-2-15-			0-419530			0-419530	-5	-5	-5	44	-20	28	7	-10	-15	2	32	
30-47.3603-108.5419-2-15-			0-419534			0-419534	-5	-5	-5	22	-20	20	12	-10	-15	2	28	
30-47.3578-108.5535-2-15-			0-419537			0-419537	-5	-5	-5	16	-20	18	12	-10	-15	2	31	
30-47.3486-108.5533-2-15-			0-419538			0-419538	-5	-5	-5	29	-20	-15	8	-10	-15	2	34	
30-47.3417-108.5450-2-15-			0-419539			0-419539	-5	-5	-5	29	-20	16	-5	-10	-15	2	29	
30-47.3417-108.5181-2-15-			0-419540			0-419540	-5	-5	-5	18	-20	18	15	-10	-15	1	30	
30-47.3411-108.5628-2-15-			0-419541			0-419541	-5	-5	-5	23	-20	19	12	-10	-15	2	33	
30-47.3417-108.6119-2-15-			0-419542			0-419542	-5	-5	-5	28	-20	-15	8	-10	-15	2	42	
30-47.3472-108.6500-2-15-			0-419543			0-419543	-5	-5	-5	25	-20	-15	7	-10	-15	2	33	
30-47.3422-108.5033-2-15-			0-419544			0-419544	-5	-5	-5	25	-20	-15	16	-10	-15	2	37	
30-47.3347-108.4578-2-15-			0-419545			0-419545	-5	-5	-5	20	-20	15	13	-10	-15	2	46	
30-47.3292-108.4453-2-15-			0-419547			0-419547	-5	-5	-5	12	-20	18	8	-10	-15	2	34	
30-47.3300-108.4347-2-12-			0-419548			0-419548	-5	-5	-5	20	-20	19	8	-10	-15	2	36	
30-47.3057-108.4178-2-12-			0-419549			0-419549	-5	-5	-5	22	-20	-15	-5	-10	-15	2	40	
30-47.3983-108.4078-2-15-			0-419550			0-419550	-5	-5	-5	21	-20	-15	13	-10	-15	2	35	
30-47.3311-108.4175-2-12-			0-419551			0-419551	-5	-5	-5	22	-20	28	10	-10	-15	2	47	
30-47.3303-108.4117-2-15-			0-419552			0-419552	-5	-5	-5	28	-20	-15	10	-10	-15	2	43	
30-47.3678-108.3886-2-15-			0-419553			0-419553	-5	-5	-5	18	-20	-15	9	-10	-15	2	34	
30-47.3633-108.3847-2-15-			0-419554			0-419554	-5	-5	-5	26	-20	21	14	-10	-15	2	41	

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	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
30-47.5536-109.5737-2-12-	0-419493	63550	-0.03	784	15770	52	-85	10.9	72	3.7	3	1.1	26800	3.9	17270	24	0.3					
30-47.5981-109.5547-2-15-	0-419494	65650	-0.07	593	9331	84	-65	6.8	43	4.9	5	1.6	18010	8.5	19790	58	0.4					
30-47.6225-109.5728-2-15-	0-419495	58880	-0.09	683	24090	73	94	6.1	32	4.8	5	1.3	19500	7.4	20360	34	0.4					
30-47.9103-109.3425-2-15-	0-419497	62070	-0.10	673	19510	57	-53	8.2	67	5.0	5	1.2	26990	5.2	19560	34	0.4					
30-47.2444-109.8922-2-12-	0-419491	59950	-0.09	735	13310	58	193	8.7	73	5.1	5	1.3	25620	6.8	19220	36	0.5					
30-47.5714-109.5394-2-15-	0-419492	29650	-0.05	314	14380	51	-33	2.3	31	1.7	4	0.9	6879	13.3	7615	34	0.4					
30-47.1556-109.9336-2-12-	0-419499	43270	-0.09	710	54950	51	-53	6.7	55	3.3	4	1.0	19350	6.6	15590	40	0.3					
30-47.9053-109.3186-2-15-	0-419500	67110	-0.07	931	9431	58	-60	10.2	80	5.7	5	1.4	31420	5.5	17890	31	0.4					
30-47.2775-109.8489-2-15-	0-419501	70820	-0.08	781	5944	50	171	12.3	52	5.5	4	1.7	36710	4.5	17620	24	0.3					
30-47.2975-109.8064-2-12-	0-419502	69870	-0.07	703	11790	55	77	13.3	50	5.4	4	1.4	33390	5.5	20260	33	0.4					
30-47.3422-109.7594-2-15-	0-419504	59330	-0.07	1035	12980	52	76	8.7	54	4.5	4	1.1	27610	5.1	18860	33	0.4					
30-47.3397-109.8086-2-15-	0-419505	73520	-0.08	987	10900	57	210	12.4	65	4.7	5	1.2	34130	4.3	17750	30	0.4					
30-47.4439-109.7097-2-15-	0-419508	67100	-0.06	1103	12830	52	208	8.7	73	3.8	4	1.2	25770	7.4	15450	33	0.4					
30-47.4554-109.6822-2-15-	0-419509	51540	-0.05	549	5409	51	108	7.3	57	4.7	4	1.2	21040	8.0	17430	33	0.4					
30-47.4608-109.5906-2-15-	0-419510	52790	-0.05	1275	10760	64	-73	14.4	70	4.3	4	1.2	30670	8.9	16820	29	0.4					
30-47.4700-109.6428-2-15-	0-419511	27960	-0.07	227	5456	50	115	13.6	63	4.4	-1	1.3	32390	5.2	7834	32	0.4					
30-47.4778-109.6059-2-15-	0-419512	64930	-0.06	1405	13550	55	185	10.1	93	3.3	4	1.3	30790	12.7	12910	29	0.4					
30-47.4772-109.5572-2-15-	0-419513	65530	-0.06	832	9399	50	-75	14.1	61	4.1	4	1.4	29300	5.5	19960	26	0.3					
30-47.4775-109.6121-2-15-	0-419514	57210	-0.06	850	9821	70	-69	12.8	94	4.3	4	1.3	30470	15.1	18260	35	0.5					
30-47.4359-109.4347-2-15-	0-419515	61050	-0.06	1055	10140	47	-70	9.9	65	3.0	4	1.4	23790	7.6	17200	24	0.3					
30-47.4944-109.4231-2-12-	0-419516	71900	-0.06	780	9174	55	-84	12.9	77	5.5	4	1.6	38460	5.5	17720	27	0.4					
30-47.4569-109.4181-2-15-	0-419517	54400	-0.07	647	11660	57	-76	14.7	65	4.7	4	1.5	39960	6.7	15610	30	0.4					
30-47.4506-109.3981-2-15-	0-419518	60170	-0.08	665	6236	75	-72	19.7	79	6.1	5	1.5	46990	6.6	18360	33	0.4					
30-47.4611-109.3739-2-15-	0-419519	68960	-0.07	835	7238	69	-64	13.2	79	5.9	5	1.4	36770	5.7	18740	35	0.4					
30-47.4722-109.3911-2-15-	0-419520	79560	-0.08	714	9227	81	94	19.1	87	7.8	5	1.6	48720	5.4	21550	37	0.4					
30-47.4750-109.3833-2-15-	0-419521	53620	-0.07	714	6781	59	105	17.5	78	5.0	4	1.5	41410	8.3	16270	37	0.4					
30-47.3597-109.5800-2-15-	0-419522	59820	-0.06	1022	11910	52	-79	7.5	59	4.1	4	1.4	21560	6.2	16520	30	0.3					
30-47.3722-109.6764-2-12-	0-419524	62470	-0.06	1134	18030	49	-73	7.9	60	3.6	4	1.3	23680	5.6	15320	26	0.3					
30-47.3667-109.5356-2-15-	0-419526	63920	-0.05	934	15830	49	-80	5.8	46	3.2	3	1.3	21340	4.7	14560	27	0.3					
30-47.4078-109.5981-2-15-	0-419527	76430	-0.07	1217	10750	54	-62	12.7	78	5.9	4	0.9	36020	5.0	18270	33	0.3					
30-47.4075-109.6369-2-15-	0-419528	53960	-0.05	1072	10860	62	138	7.4	63	3.3	3	1.1	19160	8.2	13940	30	0.4					
30-47.4064-109.6333-2-12-	0-419529	69590	-0.07	1046	9322	61	-69	11.0	75	4.4	5	1.3	31040	7.9	18670	34	0.3					
30-47.4003-109.6214-2-15-	0-419530	72930	-0.08	790	9716	64	-75	14.4	78	6.2	4	1.5	38470	4.7	13820	33	0.4					
30-47.3603-109.5419-2-15-	0-419536	65330	-0.05	832	14490	51	-66	10.4	48	4.7	4	1.3	27340	4.7	19090	26	0.3					
30-47.3578-109.5536-2-15-	0-419537	67990	-0.06	1245	17000	63	-81	8.5	55	4.1	4	1.3	26900	4.4	18920	29	0.3					
30-47.3486-109.5533-2-15-	0-419539	70780	-0.06	1352	21910	63	-67	11.6	61	4.5	3	0.9	35320	4.0	15790	32	0.3					
30-47.3417-109.5450-2-15-	0-419539	61600	-0.05	1175	11140	50	-67	7.0	31	4.1	4	1.0	22300	5.1	16700	25	0.3					
30-47.3417-109.5181-2-15-	0-419540	64860	-0.05	1035	15110	55	-69	8.3	49	3.9	4	1.5	26970	5.8	17550	28	0.3					
30-47.3411-109.5528-2-15-	0-419541	60010	-0.06	984	44030	52	-78	7.9	47	3.9	3	1.2	22630	5.2	20950	24	0.3					
30-47.3417-109.6119-2-15-	0-419542	63920	-0.05	754	9033	55	-74	7.4	50	3.6	3	1.4	24950	4.6	21300	28	0.2					
30-47.3472-109.6500-2-15-	0-419543	54370	-0.05	918	15370	55	-70	9.9	62	4.0	4	1.1	25700	5.9	22780	28	0.3					
30-47.3422-109.5033-2-15-	0-419544	55310	-0.05	712	14710	55	-58	3.6	53	4.2	5	1.3	24610	5.7	19500	30	0.3					
30-47.3347-109.4578-2-15-	0-419545	56390	-0.05	890	19040	58	-85	8.6	52	3.1	4	1.4	20850	5.4	20640	23	0.3					
30-47.3292-109.4453-2-15-	0-419547	59990	-0.04	672	21930	54	-64	6.4	49	3.6	4	1.3	18190	6.2	17480	29	0.3					
30-47.3300-109.4347-2-12-	0-419549	63230	-0.05	722	19380	65	-66	8.0	49	3.8	4	1.2	23100	5.9	19540	31	0.3					
30-47.3067-109.4178-2-12-	0-419549	23690	-0.04	229	10390	49	-50	6.2	35	3.4	-1	1.1	17700	5.7	6709	25	0.3					
30-47.3083-109.4078-2-15-	0-419550	55560	-0.05	670	25190	62	-73	5.8	36	2.7	5	1.2	16480	7.2	19160	28	0.3					
30-47.3311-109.4175-2-12-	0-419551	50930	-0.04	616	30960	57	-78	5.1	30	3.2	4	1.2	15610	7.7	18700	29	0.3					
30-47.3303-109.4117-2-15-	0-419552	57170	-0.05	630	11430	62	-62	5.3	47	3.5	4	1.2	19930	6.3	19950	31	0.5					
30-47.3578-109.3865-2-15-	0-419553	51100	-0.04	557	10990	59	-60	6.0	30	2.8	4	1.1	15270	7.6	19410	29	0.3					
30-47.3633-109.3947-2-15-	0-419554	58290	-0.05	1133	14650	52	-84	7.2	39	-1.5	4	1.3	18570	4.2	16700	29	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	LAST 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	
30-47.5535-103.5797-2-12-	30-47.5535-103.5797-2-12-	30-47.5535-103.5797-2-12-	30-47.5535-103.5797-2-12-	30-47.5535-103.5797-2-12-	30-47.5535-103.5797-2-12-	30-47.5535-103.5797-2-12-	19450	240	15520	55	-2	9.1	3.8	322	-1	-1	7.1	3099	160	-2.4	112	0.311
30-47.5931-109.5547-2-15-	30-47.5931-109.5547-2-15-	30-47.5931-109.5547-2-15-	30-47.5931-109.5547-2-15-	30-47.5931-109.5547-2-15-	30-47.5931-109.5547-2-15-	30-47.5931-109.5547-2-15-	12330	127	13270	49	-2	7.8	7.9	-156	-1	1	11.6	3592	63	4.0	69	0.266
30-47.6225-109.5728-2-15-	30-47.6225-109.5728-2-15-	30-47.6225-109.5728-2-15-	30-47.6225-109.5728-2-15-	30-47.6225-109.5728-2-15-	30-47.6225-109.5728-2-15-	30-47.6225-109.5728-2-15-	22150	223	2214	63	-2	5.9	5.6	228	-1	-1	9.4	2901	65	4.8	59	0.322
30-47.9103-103.3425-2-15-	30-47.9103-103.3425-2-15-	30-47.9103-103.3425-2-15-	30-47.9103-103.3425-2-15-	30-47.9103-103.3425-2-15-	30-47.9103-103.3425-2-15-	30-47.9103-103.3425-2-15-	17220	329	4754	62	-3	10.0	4.9	-195	-1	-1	9.7	3235	122	4.0	138	0.329
30-47.2444-109.8922-2-12-	30-47.2444-109.8922-2-12-	30-47.2444-109.8922-2-12-	30-47.2444-109.8922-2-12-	30-47.2444-109.8922-2-12-	30-47.2444-109.8922-2-12-	30-47.2444-109.8922-2-12-	17510	449	6553	66	-2	9.3	5.3	-251	-1	-1	10.3	3745	137	2.5	151	0.316
30-47.5714-109.5394-2-15-	30-47.5714-109.5394-2-15-	30-47.5714-109.5394-2-15-	30-47.5714-109.5394-2-15-	30-47.5714-109.5394-2-15-	30-47.5714-109.5394-2-15-	30-47.5714-109.5394-2-15-	5441	52	2202	34	-1	3.6	4.4	-102	-1		8.9	3319	33	3.4	30	0.302
30-47.1556-109.9835-2-12-	30-47.1556-109.9835-2-12-	30-47.1556-109.9835-2-12-	30-47.1556-109.9835-2-12-	30-47.1556-109.9835-2-12-	30-47.1556-109.9835-2-12-	30-47.1556-109.9835-2-12-	10910	430	3589	71	-2	5.4	4.1	467	-1	-1	8.2	2764	98	3.5	-36	0.446
30-47.9053-108.3185-2-15-	30-47.9053-108.3185-2-15-	30-47.9053-108.3185-2-15-	30-47.9053-108.3185-2-15-	30-47.9053-108.3185-2-15-	30-47.9053-108.3185-2-15-	30-47.9053-108.3185-2-15-	17330	345	9158	80	-2	10.4	5.8	-200	-1	-1	9.1	3979	159	4.0	-56	0.324
30-47.2775-108.8489-2-15-	30-47.2775-108.8489-2-15-	30-47.2775-108.8489-2-15-	30-47.2775-108.8489-2-15-	30-47.2775-108.8489-2-15-	30-47.2775-108.8489-2-15-	30-47.2775-108.8489-2-15-	15690	414	7850	74	-2	11.4	4.6	-261	-1	-1	9.2	3794	124	2.7	-54	0.382
30-47.2775-108.9064-2-12-	30-47.2775-108.9064-2-12-	30-47.2775-108.9064-2-12-	30-47.2775-108.9064-2-12-	30-47.2775-108.9064-2-12-	30-47.2775-108.9064-2-12-	30-47.2775-108.9064-2-12-	17750	325	7992	73	-2	10.6	4.5	-203	-1	-1	9.9	3551	139	3.0	-74	0.337
30-47.3422-104.7594-2-15-	30-47.3422-104.7594-2-15-	30-47.3422-104.7594-2-15-	30-47.3422-104.7594-2-15-	30-47.3422-104.7594-2-15-	30-47.3422-104.7594-2-15-	30-47.3422-104.7594-2-15-	15920	542	9957	76	-2	3.7	5.3	-283	-1	-1	8.5	3099	82	2.1	100	0.324
30-47.3397-103.8095-2-15-	30-47.3397-103.8095-2-15-	30-47.3397-103.8095-2-15-	30-47.3397-103.8095-2-15-	30-47.3397-103.8095-2-15-	30-47.3397-103.8095-2-15-	30-47.3397-103.8095-2-15-	17620	305	8489	68	-2	12.3	4.6	-195	-1	-1	10.5	4146	129	2.2	35	0.335
30-47.4439-103.7097-2-15-	30-47.4439-103.7097-2-15-	30-47.4439-103.7097-2-15-	30-47.4439-103.7097-2-15-	30-47.4439-103.7097-2-15-	30-47.4439-103.7097-2-15-	30-47.4439-103.7097-2-15-	3351	286	15490	-28	-1	7.4	4.5	393	-1	1	9.3	2995	96	3.5	75	0.292
30-47.4554-103.5922-2-15-	30-47.4554-103.5922-2-15-	30-47.4554-103.5922-2-15-	30-47.4554-103.5922-2-15-	30-47.4554-103.5922-2-15-	30-47.4554-103.5922-2-15-	30-47.4554-103.5922-2-15-	9203	292	4995	57	-2	7.1	4.4	-178	-1	-1	10.5	2981	94	2.9	-69	0.393
30-47.4508-103.6806-2-15-	30-47.4508-103.6806-2-15-	30-47.4508-103.6806-2-15-	30-47.4508-103.6806-2-15-	30-47.4508-103.6806-2-15-	30-47.4508-103.6806-2-15-	30-47.4508-103.6806-2-15-	10950	402	14520	57	2	7.7	5.2	266	-1	-1	9.4	3191	104	3.6	-76	0.318
30-47.4700-103.6428-2-15-	30-47.4700-103.6428-2-15-	30-47.4700-103.6428-2-15-	30-47.4700-103.6428-2-15-	30-47.4700-103.6428-2-15-	30-47.4700-103.6428-2-15-	30-47.4700-103.6428-2-15-	5079	160	5184	41	-2	9.8	4.8	-133	-1	1	8.6	1121	47	2.3	-80	0.408
30-47.4774-103.5059-2-15-	30-47.4774-103.5059-2-15-	30-47.4774-103.5059-2-15-	30-47.4774-103.5059-2-15-	30-47.4774-103.5059-2-15-	30-47.4774-103.5059-2-15-	30-47.4774-103.5059-2-15-	9763	359	19310	57	-1	5.8	5.1	463	-1	-1	9.0	3716	98	3.3	111	0.346
30-47.4972-103.5572-2-15-	30-47.4972-103.5572-2-15-	30-47.4972-103.5572-2-15-	30-47.4972-103.5572-2-15-	30-47.4972-103.5572-2-15-	30-47.4972-103.5572-2-15-	30-47.4972-103.5572-2-15-	12130	357	14120	57	-2	9.4	4.1	-215	-1	-1	8.7	3434	109	2.6	129	0.353
30-47.4775-103.6181-2-15-	30-47.4775-103.6181-2-15-	30-47.4775-103.6181-2-15-	30-47.4775-103.6181-2-15-	30-47.4775-103.6181-2-15-	30-47.4775-103.6181-2-15-	30-47.4775-103.6181-2-15-	9221	354	13520	57	-1	7.6	5.8	-203	-1	-1	10.5	3747	108	3.2	-54	0.358
30-47.4369-103.4347-2-15-	30-47.4369-103.4347-2-15-	30-47.4369-103.4347-2-15-	30-47.4369-103.4347-2-15-	30-47.4369-103.4347-2-15-	30-47.4369-103.4347-2-15-	30-47.4369-103.4347-2-15-	7940	326	15050	49	-1	5.5	4.2	-196	-1	-1	7.2	3037	94	2.5	-63	0.381
30-47.4944-103.4231-2-12-	30-47.4944-103.4231-2-12-	30-47.4944-103.4231-2-12-	30-47.4944-103.4231-2-12-	30-47.4944-103.4231-2-12-	30-47.4944-103.4231-2-12-	30-47.4944-103.4231-2-12-	14310	508	10420	83	-2	11.2	5.9	-291	-1	-1	11.3	3413	140	3.2	-17	0.282
30-47.4559-103.4181-2-15-	30-47.4559-103.4181-2-15-	30-47.4559-103.4181-2-15-	30-47.4559-103.4181-2-15-	30-47.4559-103.4181-2-15-	30-47.4559-103.4181-2-15-	30-47.4559-103.4181-2-15-	13620	570	11370	62	-2	9.4	4.6	-241	-1	-1	9.8	2857	133	3.0	143	0.342
30-47.4506-103.3981-2-15-	30-47.4506-103.3981-2-15-	30-47.4506-103.3981-2-15-	30-47.4506-103.3981-2-15-	30-47.4506-103.3981-2-15-	30-47.4506-103.3981-2-15-	30-47.4506-103.3981-2-15-	11450	544	9022	75	-2	10.8	7.2	-260	-1	-1	10.8	3470	162	2.9	136	0.347
30-47.4611-103.3739-2-15-	30-47.4611-103.3739-2-15-	30-47.4611-103.3739-2-15-	30-47.4611-103.3739-2-15-	30-47.4611-103.3739-2-15-	30-47.4611-103.3739-2-15-	30-47.4611-103.3739-2-15-	15420	395	9225	80	-2	10.6	4.7	-204	-1	-1	10.2	3720	156	4.7	-95	0.350
30-47.4722-103.3911-2-15-	30-47.4722-103.3911-2-15-	30-47.4722-103.3911-2-15-	30-47.4722-103.3911-2-15-	30-47.4722-103.3911-2-15-	30-47.4722-103.3911-2-15-	30-47.4722-103.3911-2-15-	19430	547	8875	112	-2	12.5	6.5	-273	-1	-1	11.9	4185	203	3.6	138	0.323
30-47.4750-103.3833-2-15-	30-47.4750-103.3833-2-15-	30-47.4750-103.3833-2-15-	30-47.4750-103.3833-2-15-	30-47.4750-103.3833-2-15-	30-47.4750-103.3833-2-15-	30-47.4750-103.3833-2-15-	12500	451	11190	52	-2	9.4	5.4	-224	-1	-1	10.1	3557	148	3.2	130	0.379
30-47.3597-103.6900-2-15-	30-47.3597-103.6900-2-15-	30-47.3597-103.6900-2-15-	30-47.3597-103.6900-2-15-	30-47.3597-103.6900-2-15-	30-47.3597-103.6900-2-15-	30-47.3597-103.6900-2-15-	14030	329	17510	71	-1	7.1	5.2	261	-1	-1	8.7	3094	77	2.1	-39	0.293
30-47.3722-103.6754-2-12-	30-47.3722-103.6754-2-12-	30-47.3722-103.6754-2-12-	30-47.3722-103.6754-2-12-	30-47.3722-103.6754-2-12-	30-47.3722-103.6754-2-12-	30-47.3722-103.6754-2-12-	13520	352	14500	47	-2	7.6	4.9	403	-1	-1	8.1	3395	97	2.4	99	0.327
30-47.3657-103.6356-2-15-	30-47.3657-103.6356-2-15-	30-47.3657-103.6356-2-15-	30-47.3657-103.6356-2-15-	30-47.3657-103.6356-2-15-	30-47.3657-103.6356-2-15-	30-47.3657-103.6356-2-15-	2925	264	15020	55	-1	7.0	5.0	-224	-1	-1	8.1	2497	79	2.6	60	0.279
30-47.4078-103.5981-2-15-	30-47.4078-103.5981-2-15-	30-47.4078-103.5981-2-15-	30-47.4078-103.5981-2-15-	30-47.4078-103.5981-2-15-	30-47.4078-103.5981-2-15-	30-47.4078-103.5981-2-15-	19390	297	7975	64	-2	12.2	5.0	-194	-1	-1	10.1	4225	157	2.9	112	0.375
30-47.4075-103.6369-2-15-	30-47.4075-103.6369-2-15-	30-47.4075-103.6369-2-15-	30-47.4075-103.6369-2-15-	30-47.4075-103.6369-2-15-	30-47.4075-103.6369-2-15-	30-47.4075-103.6369-2-15-	14560	303	23560	60	-1	5.8	4.3	500	-1	-1	8.7	2898	71	2.3	69	0.572
30-47.4044-103.6333-2-12-	30-47.4044-103.6333-2-12-	30-47.4044-103.6333-2-12-	30-47.4044-103.6333-2-12-	30-47.4044-103.6333-2-12-	30-47.4044-103.6333-2-12-	30-47.4044-103.6333-2-12-	17520	322	12310	103	-2	9.7	4.6	407	-1	-1	9.8	4113	126	4.0	96	0.323
30-47.4033-103.6214-2-15-	30-47.4033-103.6214-2-15-	30-47.4033-103.6214-2-15-	30-47.4033-103.6214-2-15-	30-47.4033-103.6214-2-15-	30-47.4033-103.6214-2-15-	30-47.4033-103.6214-2-15-	17140	372	9620	83	-2	12.4	5.8	-253	-1	-1	11.7	3783	151	3.6	173	0.269
30-47.3503-103.5419-2-15-	30-47.3503-103.5419-2-15-	30-47.3503-103.5419-2-15-	30-47.3503-103.5419-2-15-	30-47.3503-103.5419-2-15-	30-47.3503-103.5419-2-15-	30-47.3503-103.5419-2-15-	15310	340	12240	71	-1	9.6	4.3	-196	-1	-1	8.3	3905	89	2.9	-48	0.305
30-47.3578-103.5536-2-15-	30-47.3578-103.5536-2-15-	30-47.3578-103.5536-2-15-	30-47.3578-103.5536-2-15-	30-47.3578-103.5536-2-15-	30-47.3578-103.5536-2-15-	30-47.3578-103.5536-2-15-	19050	410	12050	53	-2	8.6	4.3									

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)	SODIUM (mg/l)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER CLAR.	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)	UNITS IN ppm															
							DATE	HOUR																																										
30-47.3432-103.3535-2-15-	30-47.3459-108.3578-2-15-	30-47.3511-103.3405-2-12-	30-47.3661-108.3503-2-12-	30-47.3633-103.3205-2-15-	30-47.3603-108.3375-2-15-	30-47.3556-103.3214-2-15-	30-47.3511-103.3125-2-15-	30-47.3450-103.2944-2-15-	30-47.2786-103.2833-2-12-	30-47.2514-103.2992-2-12-	30-47.2292-103.3000-2-12-	30-47.2322-103.3035-2-15-	30-47.2244-103.2984-2-12-	30-47.2244-103.3075-2-15-	30-47.1339-103.3055-2-15-	30-47.1967-103.2039-2-15-	30-47.1908-103.1997-2-15-	30-47.2217-103.1117-2-15-	30-47.2228-103.1175-2-15-	30-47.1922-103.0105-2-15-	30-47.2081-103.1316-2-15-	30-47.2108-103.1983-2-15-	30-47.1950-103.2369-2-15-	30-47.1950-103.2447-2-15-	30-47.1911-103.2417-2-15-	30-47.2573-103.2592-2-15-	30-47.2611-103.2553-2-15-	30-47.2564-103.2435-2-15-	30-47.3185-103.2261-2-15-	30-47.3272-103.2253-2-15-	30-47.3239-103.2292-2-15-	30-47.2573-103.0361-2-15-	30-47.2535-103.0767-2-15-	30-47.2497-103.0719-2-15-	30-47.2572-103.0953-2-15-	30-47.2481-103.2953-2-15-	30-47.0856-103.1003-2-15-	30-47.0855-103.0703-2-15-	30-47.0911-103.6217-2-15-	30-47.5603-109.7503-2-11-	30-47.5572-109.7225-2-15-	30-47.5272-109.7514-2-15-	30-47.5399-109.7652-2-15-	30-47.2355-109.8061-2-15-	30-47.2747-109.8503-2-12-	30-47.2536-109.8505-2-12-	30-47.2192-109.8544-2-15-	30-47.3014-109.8039-2-12-	30-47.3303-109.7944-2-12-	30-47.3303-109.7928-2-12-
30-47.3432-103.3535-2-15-	30-47.3459-108.3578-2-15-	30-47.3511-103.3405-2-12-	30-47.3661-108.3503-2-12-	30-47.3633-103.3205-2-15-	30-47.3603-108.3375-2-15-	30-47.3556-103.3214-2-15-	30-47.3511-103.3125-2-15-	30-47.3450-103.2944-2-15-	30-47.2786-103.2833-2-12-	30-47.2514-103.2992-2-12-	30-47.2292-103.3000-2-12-	30-47.2322-103.3035-2-15-	30-47.2244-103.2984-2-12-	30-47.2244-103.3075-2-15-	30-47.1339-103.3055-2-15-	30-47.1967-103.2039-2-15-	30-47.1908-103.1997-2-15-	30-47.2217-103.1117-2-15-	30-47.2228-103.1175-2-15-	30-47.1922-103.0105-2-15-	30-47.2081-103.1316-2-15-	30-47.2108-103.1983-2-15-	30-47.1950-103.2369-2-15-	30-47.1950-103.2447-2-15-	30-47.1911-103.2417-2-15-	30-47.2573-103.2592-2-15-	30-47.2611-103.2553-2-15-	30-47.2564-103.2435-2-15-	30-47.3185-103.2261-2-15-	30-47.3272-103.2253-2-15-	30-47.3239-103.2292-2-15-	30-47.2573-103.0361-2-15-	30-47.2535-103.0767-2-15-	30-47.2497-103.0719-2-15-	30-47.2572-103.0953-2-15-	30-47.2481-103.2953-2-15-	30-47.0856-103.1003-2-15-	30-47.0855-103.0703-2-15-	30-47.0911-103.6217-2-15-	30-47.5603-109.7503-2-11-	30-47.5572-109.7225-2-15-	30-47.5272-109.7514-2-15-	30-47.5399-109.7652-2-15-	30-47.2355-109.8061-2-15-	30-47.2747-109.8503-2-12-	30-47.2536-109.8505-2-12-	30-47.2192-109.8544-2-15-	30-47.3014-109.8039-2-12-	30-47.3303-109.7944-2-12-	30-47.3303-109.7928-2-12-
30-47.3432-103.3535-2-15-	30-47.3459-108.3578-2-15-	30-47.3511-103.3405-2-12-	30-47.3661-108.3503-2-12-	30-47.3633-103.3205-2-15-	30-47.3603-108.3375-2-15-	30-47.3556-103.3214-2-15-	30-47.3511-103.3125-2-15-	30-47.3450-103.2944-2-15-	30-47.2786-103.2833-2-12-	30-47.2514-103.2992-2-12-	30-47.2292-103.3000-2-12-	30-47.2322-103.3035-2-15-	30-47.2244-103.2984-2-12-	30-47.2244-103.3075-2-15-	30-47.1339-103.3055-2-15-	30-47.1967-103.2039-2-15-	30-47.1908-103.1997-2-15-	30-47.2217-103.1117-2-15-	30-47.2228-103.11																															

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	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)									Concentrations in weight ppm	
							Ag	Bi	Cd	Cu	Nb	Ni	Pt	Sn	W	Be	Li
30-47.3492-103.3533-2-15-						0-419555	-5	5	-5	15	-20	-15	-5	-10	-15	2	48
30-47.3469-103.3573-2-15-						0-419556	-5	4	-5	14	-20	-15	8	-10	-15	2	34
30-47.3511-103.3405-2-12-						0-419557	-5	-5	-5	17	-20	-15	9	-10	-15	2	48
30-47.3661-103.3503-2-12-						0-419558	-5	-5	-5	26	-20	-15	7	-10	-15	1	32
30-47.3533-103.3208-2-15-						0-419559	-5	-5	-5	28	-20	-15	7	-10	-15	2	46
30-47.3603-103.3375-2-15-						0-419560	-5	-5	-5	29	-20	-15	5	-10	-15	2	49
30-47.3556-103.3214-2-15-						0-419561	-5	-5	-5	27	-20	-15	7	-10	-15	2	49
30-47.3611-103.3125-2-15-						0-419562	-5	-5	-5	26	-20	-15	9	-10	-15	1	50
30-47.3456-103.2944-2-15-						0-419563	-5	-5	-5	23	-20	-15	9	-10	-15	1	47
30-47.2786-103.2333-2-12-						0-419564	-5	-5	-5	-10	-20	-15	-5	-10	-15	1	37
30-47.2514-103.2992-2-12-						0-419565	-5	-5	-5	39	-20	-15	11	-10	-15	1	45
30-47.2292-103.3000-2-12-						0-419566	-5	-5	-5	30	-20	-15	13	-10	-15	2	55
30-47.2322-103.3035-2-15-						0-419567	-5	4	-5	22	-20	-15	9	-10	-15	2	39
30-47.2244-103.2985-2-12-						0-419571	-5	-5	-5	21	-20	-15	9	-10	-15	2	51
30-47.2244-103.3075-2-15-						0-419572	-5	5	-5	23	-20	-15	-5	-10	-15	-1	36
30-47.1839-103.3056-2-15-						0-419574	-5	-5	-5	31	-20	-15	12	-10	-15	2	37
30-47.1967-103.3039-2-15-						0-419575	-5	4	-5	15	-20	-15	31	-10	-15	2	34
30-47.1904-103.1997-2-15-						0-419576	-5	-5	-5	13	-20	-15	6	-10	-15	2	45
30-47.2217-103.1117-2-15-						0-419579	-5	-5	-5	27	-20	-15	5	-10	-15	1	26
30-47.2228-103.1175-2-15-						0-419570	-5	5	-5	17	-20	-15	9	-10	-15	2	33
30-47.1922-103.0106-2-15-						0-419580	-5	-5	-5	27	-20	-15	5	-10	-15	2	27
30-47.2081-103.1914-2-15-						0-419591	-5	-5	-5	12	-20	-15	-5	-10	-15	2	18
30-47.2108-103.1983-2-15-						0-419592	-5	-5	-5	14	-20	-15	-5	-10	-15	2	26
30-47.1950-103.2469-2-15-						0-419593	-5	-5	-5	21	-20	-15	9	-10	-15	2	26
30-47.1950-103.2442-2-15-						0-419594	-5	-5	-5	24	-20	-15	10	-10	-15	2	38
30-47.1911-103.2417-2-15-						0-419595	-5	5	-5	29	-20	-15	12	-10	-15	2	27
30-47.2573-103.2592-2-15-						0-419596	-5	-5	-5	21	-20	-15	-5	-10	-15	2	38
30-47.2611-103.2553-2-15-						0-419597	-5	-5	-5	12	-20	-15	6	-10	-15	1	29
30-47.2564-103.2436-2-15-						0-419598	-5	-5	-5	18	-20	-15	-5	-10	-15	1	23
30-47.3189-103.2261-2-15-						0-419599	-5	5	-5	22	-20	-15	7	-10	-15	2	46
30-47.3272-103.2253-2-15-						0-419600	-5	-5	-5	21	-20	-15	5	-10	-15	1	22
30-47.3239-103.2292-2-15-						0-419571	-5	-5	-5	17	-20	-15	-5	-10	-15	1	28
30-47.2578-103.0361-2-15-						0-419593	-5	-5	-5	23	-20	-15	7	-10	-15	2	42
30-47.2536-103.0767-2-15-						0-419604	-5	-5	-5	17	-20	-15	5	-10	-15	2	32
30-47.2497-103.0719-2-15-						0-419605	-5	-5	-5	12	-20	-15	5	-10	-15	2	33
30-47.2572-103.0953-2-15-						0-419606	-5	-5	-5	18	-20	-15	-5	-10	-15	2	46
30-47.2481-103.2953-2-15-						0-419607	-5	-5	-5	15	-20	-15	8	-10	-15	2	36
30-47.3856-103.1008-2-15-						0-419608	-5	-5	-5	16	-20	-15	9	-10	-15	2	23
30-47.3856-103.0700-2-15-						0-419609	-5	-5	-5	21	-20	-15	-5	-10	-15	2	37
30-47.0911-103.0217-2-15-						0-419600	-5	-5	-5	28	-20	-15	5	-10	-15	2	39
30-47.6603-103.7503-2-11-						0-419601	-5	9	-5	20	-20	-15	7	-10	-15	2	16
30-47.6572-103.7225-2-15-						0-419602	-5	-5	-5	19	-20	-15	-5	-10	-15	2	29
30-47.6272-103.7614-2-15-						0-419603	-5	-5	-5	20	-20	-15	-5	-10	-15	2	42
30-47.5387-103.7559-2-15-						0-419604	-5	-5	-5	31	-20	-15	7	-10	-15	2	30
30-47.2856-103.8081-2-15-						0-419605	-5	5	-5	17	-20	-15	6	-10	-15	2	40
30-47.2747-103.9503-2-12-						0-419606	-5	-5	-5	22	-20	-15	6	-10	-15	2	37
30-47.2536-103.8508-2-12-						0-419607	-5	-5	-5	29	-20	-15	-5	-10	-15	2	50
30-47.2192-103.8544-2-15-						0-419608	-5	-5	-5	35	-20	-15	10	-10	-15	2	39
30-47.3014-103.9039-2-12-						0-419611	-5	-5	-5	20	-20	-15	-5	-10	-15	2	43
30-47.3303-103.7844-2-12-						0-419614	-5	-5	-5	34	-20	-15	11	-10	-15	2	49
30-47.3300-103.7924-2-12-						0-419615	-5	-5	-5	28	-20	-15	7	-10	-15	2	36

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	REMARKS	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
30-47.3492-108.3539-2-15-	0-419555	43580	-0.04	526	32540	47	82	4.2	18	2.5	3	0.9	12710	7.9	12990	27	0.3					
30-47.3459-108.3578-2-15-	0-419556	44300	-0.04	520	39410	55	-52	5.5	25	3.0	4	1.0	15530	5.4	16560	27	0.3					
30-47.3511-108.3406-2-12-	0-419557	44900	-0.04	581	39480	52	-74	5.9	28	2.9	4	1.2	17480	5.9	15940	27	0.3					
30-47.3561-108.3503-2-12-	0-419558	57710	-0.05	734	12130	53	-89	6.6	47	3.9	4	1.5	20460	7.0	22210	27	0.3					
30-47.3633-108.3208-2-15-	0-419559	51320	-0.05	656	19440	51	-76	7.3	59	4.4	4	1.6	25180	6.0	17200	34	0.4					
30-47.3603-108.3375-2-15-	0-419560	60350	-0.05	916	20080	50	-87	10.0	67	4.3	4	1.1	26750	6.3	17670	31	0.4					
30-47.3556-108.3214-2-15-	0-419561	57330	-0.04	639	18670	59	-67	8.7	50	4.3	5	1.3	23510	7.6	20480	35	0.3					
30-47.3611-108.3125-2-15-	0-419562	57950	-0.05	759	18200	64	-85	6.6	48	4.0	5	1.4	20840	5.9	17730	32	0.3					
30-47.3456-108.2944-2-15-	0-419563	58800	-0.04	740	21320	54	-31	7.1	53	3.3	4	1.4	23480	5.9	22150	29	0.3					
30-47.2786-108.2833-2-12-	0-419564	42050	-0.04	738	33310	53	-85	4.3	34	2.2	4	1.2	13020	8.5	16140	29	0.3					
30-47.2514-108.2992-2-12-	0-419565	57720	-0.04	935	14590	58	-79	9.1	50	4.1	4	1.3	24680	6.4	17730	31	0.4					
30-47.2292-108.3000-2-12-	0-419566	59780	-0.04	872	19790	59	-90	8.8	68	4.3	5	1.4	30540	6.3	19100	28	0.4					
30-47.2322-108.3036-2-15-	0-419567	61610	-0.05	757	10090	58	-84	8.0	56	4.6	4	1.5	27580	6.4	19030	31	0.4					
30-47.2244-108.2986-2-12-	0-419568	62920	-0.05	836	15910	56	-149	9.0	54	4.1	4	1.2	27610	6.1	19040	30	0.4					
30-47.2244-108.3075-2-15-	0-419569	54620	-0.04	981	14920	54	-69	7.4	49	3.7	4	1.4	22920	9.1	19460	29	0.3					
30-47.1939-108.3056-2-15-	0-419570	55520	-0.04	623	19120	62	-81	7.8	44	3.1	4	1.3	20600	6.9	15480	28	0.3					
30-47.1967-108.3039-2-15-	0-419571	59590	-0.04	803	14200	61	-83	7.6	60	4.3	4	1.6	24560	6.5	21180	30	0.3					
30-47.1908-108.1997-2-15-	0-419572	59800	-0.05	417	42920	74	-73	3.0	45	5.7	5	1.4	27070	7.2	20440	35	0.4					
30-47.2217-108.1117-2-15-	0-419573	53850	0.25	540	19730	65	-70	7.0	35	3.7	5	1.3	20160	8.0	17830	34	0.4					
30-47.2228-108.1175-2-15-	0-419574	55110	-0.05	475	28760	55	-93	5.8	58	5.0	5	1.5	20610	7.7	18190	32	0.4					
30-47.1922-108.0104-2-15-	0-419575	49570	-0.04	517	35080	67	-82	5.8	43	3.9	4	1.4	20540	7.5	19640	29	0.4					
30-47.2091-108.1914-2-15-	0-419576	38100	0.08	519	5631	52	-55	2.5	27	2.2	3	1.0	8976	6.2	14520	29	0.3					
30-47.2103-108.1983-2-15-	0-419577	47610	-0.04	431	9647	65	-63	5.9	35	3.9	5	1.3	15820	8.8	18010	35	0.4					
30-47.1950-108.2350-2-15-	0-419578	53250	-0.04	582	26040	71	-71	5.7	37	4.0	5	1.3	18350	9.3	19410	32	0.4					
30-47.1950-108.2442-2-15-	0-419579	51620	-0.05	452	15370	70	-153	6.4	44	5.1	5	1.3	25220	6.2	19090	34	0.3					
30-47.1911-108.2417-2-15-	0-419580	57930	-0.05	637	10950	65	-92	6.4	49	5.2	4	1.1	23500	6.0	19620	29	0.4					
30-47.2573-108.2592-2-15-	0-419581	50240	-0.04	960	19400	59	-71	8.1	38	3.8	5	1.0	18690	6.8	18870	30	0.4					
30-47.2611-108.2553-2-15-	0-419582	51730	-0.04	815	22770	70	-75	6.4	44	2.6	4	1.5	17090	7.8	20490	28	0.4					
30-47.2564-108.2436-2-15-	0-419583	47270	-0.04	636	22220	58	-72	4.7	38	1.9	4	1.5	15350	8.5	20190	33	0.4					
30-47.3189-108.2261-2-15-	0-419584	57910	-0.04	639	19340	65	-71	7.0	56	4.1	4	1.4	22410	7.7	19790	31	0.4					
30-47.3272-108.2253-2-15-	0-419585	47470	-0.04	833	23990	56	-68	6.5	40	3.4	4	1.4	16380	8.1	15720	29	0.3					
30-47.3239-108.2292-2-15-	0-419586	44910	-0.04	704	18240	56	-77	5.1	32	3.1	4	1.1	13390	5.7	19460	29	0.4					
30-47.2578-108.0361-2-15-	0-419587	51730	-0.07	354	40490	62	-69	6.5	42	5.4	5	1.4	21570	7.2	24120	40	0.4					
30-47.2536-108.0767-2-15-	0-419588	54420	-0.05	534	19700	76	-62	6.1	55	3.5	4	1.4	21630	10.6	15790	40	0.5					
30-47.2497-108.0719-2-15-	0-419589	53590	-0.05	489	38700	77	-64	5.8	38	3.3	5	1.3	19620	10.5	15120	39	0.4					
30-47.2572-108.0953-2-15-	0-419590	58660	-0.05	482	20090	67	-76	6.7	46	3.4	4	1.3	21170	10.1	15510	34	0.5					
30-47.2481-108.2953-2-15-	0-419591	53720	-0.04	1010	17090	57	-69	8.3	53	3.1	3	1.4	22770	7.4	16320	33	0.3					
30-47.0856-108.1008-2-15-	0-419592	45330	-0.06	753	4385	59	-263	6.0	52	3.2	4	1.3	16830	8.8	16060	30	0.4					
30-47.0856-108.0700-2-15-	0-419593	50950	-0.07	809	15770	59	-378	8.2	54	4.3	4	1.3	23760	7.0	18190	32	0.4					
30-47.0911-108.0217-2-15-	0-419594	56180	-0.07	982	11420	72	-74	12.9	74	4.6	5	1.5	26520	7.4	18230	33	0.5					
30-47.6603-108.7503-2-15-	0-419595	49970	-0.07	440	11540	55	-51	4.3	53	3.7	5	1.2	16130	9.4	14700	34	0.4					
30-47.6572-108.7225-2-15-	0-419596	67490	-0.05	711	17700	43	-65	8.5	75	3.2	3	1.2	24590	5.4	15670	28	0.2					
30-47.6272-108.7614-2-15-	0-419597	57440	-0.07	653	21420	44	-70	8.3	79	2.6	3	1.3	25420	5.1	16310	24	0.3					
30-47.5389-108.7658-2-15-	0-419598	57660	-0.07	634	33710	53	-827	5.8	51	3.6	3	1.3	22750	5.7	15910	29	0.3					
30-47.2856-108.9081-2-15-	0-419599	55500	-0.07	468	30310	50	-290	6.0	50	4.5	3	1.2	20140	5.7	18320	30	0.3					
30-47.2747-108.8503-2-12-	0-419600	60160	-0.09	776	22270	69	-102	6.5	70	5.3	4	1.3	24240	7.2	21290	33	0.4					
30-47.2636-108.8508-2-12-	0-419601	59070	-0.09	882	24930	52	-112	10.3	73	3.8	4	1.5	27390	6.7	17630	39	0.4					
30-47.2192-108.8544-2-15-	0-419602	69320	-0.09	1374	10160	84	-56	4.6	88	5.6	6	1.5	40710	6.4	22080	40	0.4					
30-47.3014-108.9039-2-12-	0-419603	51690	-0.06	658	25050	45	-62	5.1	39	4.2	3	1.3	21420	5.7	18460	34	0.2					
30-47.3303-108.7844-2-12-	0-419604	54240	0.09	927	47430	71	-56	6.1	58	5.5	4	1.3	27100	4.5	13430	34	0.3					
30-47.3300-108.7928-2-12-	0-419605	54690	-0.09	935	28250	71	-62	7.1	73	4.9	5	1.4	25400	6.1	17140	43	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	
30-47.3492-108.3533-2-15-	0-419555	12530	295	15500	45	-1	4.2	4.5	326	-1	-1	7.2	2376	36	2.4	-19	0.339					
30-47.3469-108.3579-2-15-	0-419555	30090	138	9547	53	-1	5.0	4.3	-193	-1	-1	7.7	2515	39	2.7	76	0.319					
30-47.3511-108.3406-2-12-	0-419557	27990	355	10400	55	1	5.4	4.7	-235	-1	-1	8.1	2187	43	2.9	56	0.320					
30-47.3661-108.3503-2-12-	0-419559	13090	344	12330	-31	-1	6.5	5.8	-279	-1	-1	10.2	3301	54	2.8	60	0.269					
30-47.3533-108.3208-2-15-	0-419559	22590	305	11190	97	-1	3.3	5.2	-229	-1	-1	11.1	2981	73	3.0	41	0.277					
30-47.3603-108.3375-2-15-	0-419560	22450	452	13870	57	-1	3.5	5.4	-272	-1	-1	10.7	3351	81	3.3	110	0.305					
30-47.3556-108.3214-2-15-	0-419563	17510	301	9515	91	-1	7.8	5.3	-211	-1	-1	10.0	3258	61	3.5	-60	0.322					
30-47.3511-108.3125-2-15-	0-419564	15610	297	12850	53	-1	6.4	5.6	-258	-1	-1	9.1	3756	65	2.1		0.313					
30-47.3456-108.2944-2-15-	0-419565	17450	356	13760	58	-1	7.5	5.2	-242	-1	-1	9.9	3197	74	3.0	30	0.283					
30-47.2785-108.2833-2-12-	0-419567	24930	341	16430	51	-1	4.4	4.9	401	-1	1	7.9	2695	41	2.7	42	0.439					
30-47.2514-108.2992-2-12-	0-419569	15550	342	12930	90	-1	7.6	5.4	-230	-1	-1	9.3	3305	73	2.6	-37	0.303					
30-47.2292-108.3000-2-12-	0-419569	25420	453	9254	-35	-1	9.9	5.2	-313	-1	-1	11.3	4088	97	2.6	74	0.297					
30-47.2322-108.3035-2-15-	0-419570	20930	366	12750	54	-1	9.0	6.2	-252	-1	-1	10.5	3279	81	3.9	-50	0.320					
30-47.2244-108.2985-2-12-	0-419571	19070	367	13970	70	-1	8.8	5.9	-262	-1	-1	9.3	4347	85	2.7	-88	0.347					
30-47.2244-108.3075-2-15-	0-419572	16600	327	11360	53	1	7.3	4.9	-209	-1	-1	9.3	3318	73	2.7	87	0.302					
30-47.1333-108.3056-2-15-	0-419574	18910	358	11800	54	1	6.7	5.8	-257	-1	-1	9.4	3340	65	3.0	57	0.283					
30-47.1957-108.3039-2-15-	0-419575	16950	422	12050	46	-1	9.4	4.8	-255	-1	-1	10.2	3313	78	2.7	-33	0.279					
30-47.1908-108.1997-2-15-	0-419576	33500	313	7868	75	1	3.7	5.3	-247	-1	-1	13.2	3598	70	2.7	175	0.267					
30-47.2217-108.1117-2-15-	0-419579	20130	250	10210	38	-1	6.7	5.5	-210	-1	-1	10.3	2990	55	2.9	52	0.293					
30-47.2228-108.1175-2-15-	0-419570	26100	288	12440	-33	-1	6.5	5.2	-283	-2	-1	10.1	3030	54	3.2	48	0.318					
30-47.1922-108.0106-2-15-	0-419590	25520	500	9227	57	2	5.6	5.6	-271	-1	-1	10.0	2899	55	3.4	31	0.301					
30-47.2091-108.1914-2-15-	0-419591	7540	115	9846	47	-1	3.5	4.5	-148	-1	-1	7.3	2487	30	2.1	-25	0.290					
30-47.2108-108.1953-2-15-	0-419592	12420	123	10960	70	2	5.5	5.4	-174	-1	1	9.4	3023	47	2.7	78	0.326					
30-47.1950-108.2369-2-15-	0-419593	23610	306	9103	62	-1	6.2	5.7	-236	-1	-1	10.3	3222	52	3.3	-33	0.285					
30-47.1950-108.2442-2-15-	0-419594	20320	341	10140	64	-1	8.3	5.8	-251	-1	-1	10.4	2730	68	3.0	74	0.302					
30-47.1911-108.2417-2-15-	0-419595	17920	331	10430	71	-1	7.8	5.2	-247	-1	-1	11.3	3167	65	3.8	85	0.280					
30-47.2578-108.2592-2-15-	0-419596	20340	316	10210	53	1	6.5	4.7	-218	-1	-1	9.0	2877	55	2.3	62	0.329					
30-47.2611-108.2553-2-15-	0-419597	20420	319	10350	76	-1	5.9	5.4	-241	-1	-1	9.4	2800	54	2.8	84	0.305					
30-47.2564-108.2435-2-15-	0-419598	20470	265	10520	57	-1	5.6	4.9	-211	-1	-1	8.9	3161	47	3.4	-15	0.333					
30-47.3189-108.2251-2-15-	0-419599	22340	325	10440	62	-1	7.7	5.4	-223	-1	-1	10.3	3437	69	3.3	84	0.332					
30-47.3272-108.2253-2-15-	0-419600	22360	272	9420	54	-1	5.7	4.8	-214	-1	-1	7.9	2317	42	2.6	-29	0.357					
30-47.3239-108.2292-2-15-	0-419601	15800	262	10410	46	1	4.7	5.8	-239	-1	-1	7.6	2460	44	3.1	35	0.355					
30-47.2578-108.0361-2-15-	0-419603	35930	207	9460	97	-2	9.6	5.8	-212	-1	-1	10.8	2886	53	3.1	121	0.298					
30-47.2535-108.0767-2-15-	0-419604	21650	341	10530	93	-1	7.3	6.0	-193	-1	-1	10.9	3360	62	4.2	65	0.247					
30-47.2497-108.0717-2-15-	0-419605	25410	356	10530	88	-2	6.8	5.8	-200	-1	-1	10.1	3097	53	2.2	69	0.250					
30-47.2572-108.0953-2-15-	0-419606	23840	418	11310	74	-1	7.2	6.0	-247	-1	-1	10.8	3558	57	3.4		0.250					
30-47.2431-108.2953-2-15-	0-419607	15100	338	12520	54	-2	7.5	4.5	-203	-1	-1	8.8	2812	66	2.2	60	0.300					
30-47.2355-108.1038-2-15-	0-419608	8918	223	10320	51	-1	5.9	4.8	195	-1	-1	8.7	2906	79	2.4	-37	0.291					
30-47.0856-108.0700-2-15-	0-419609	23120	274	14210	61	-2	8.1	4.7	334	-1	-1	8.3	3164	103	3.9	-69	0.355					
30-47.0911-108.0217-2-15-	0-419600	17050	380	10070	68	-2	9.5	5.9	-241	-1	-1	9.4	3607	116	3.1	37	0.329					
30-47.5503-109.7503-2-11-	0-419601	11240	162	2834	56	-2	6.4	5.9	-151	-1	-1	10.0	2629	74	3.6	63	0.519					
30-47.6572-109.7225-2-15-	0-419602	17560	251	12470	50	-1	8.0	3.9	318	-1	-1	6.3	3286	86	1.7	94	0.310					
30-47.6272-109.7514-2-15-	0-419603	17210	264	13360	58	-2	9.2	4.2	292	-1	-1	5.5	3489	90	-1.8	84	0.354					
30-47.5399-109.7553-2-15-	0-419604	23220	491	23040	73	-2	7.1	3.6	530	-2	-1	6.1	2641	74	2.2	112	1.252					
30-47.2856-109.8081-2-15-	0-419605	24940	228	14720	67	-2	6.6	4.4	-221	-1	-1	8.2	2879	105	2.1	-97	0.363					
30-47.2747-109.8503-2-12-	0-419606	19310	326	6044	75	-2	9.4	4.5	-215	-2	-1	9.7	3547	132	2.3	136	0.357					
30-47.2636-109.8508-2-12-	0-419607	19410	431	5544	75	-2	9.9	5.1	-220	-1	-1	9.0	3972	150	4.1	-54	0.453					
30-47.2192-109.8544-2-15-	0-419608	15120	258	2738	92	-2	11.5	6.5	-224	-1	-1	13.7	4942	215	3.5	213	0.288					
30-47.3014-109.8033-2-12-	0-419609	19040	265	9300	50	-2	6.7	4.2	-132	-1	-1	7.8	2659	90	2.4	73	0.324					
30-47.3303-109.7444-2-12-	0-419610	28910	229	4542	67	-2	9.9	6.1	242	-1	-1	9.8	3831	165	3.8	106	0.406					
30-47.3300-109.7928-2-12-	0-419615	21740	300	6455	69	-2	9.1	5.3	-215	-1	-1	9.6	3540	136	3.6	-53	0.369					

[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	LAST 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
30-47.3217-109.8503-2-17-						0-419417	-5	-5	-5	33	-20	25	10	-10	-15		2	48
30-47.3569-109.8935-2-12-						0-419420	-5	-5	-5	28	-20	-15	6	-10	-15		2	31
30-47.3450-109.9075-2-15-						0-419422	-5	-5	-5	30	-20	24	3	-10	-15		2	62
30-47.3303-109.9511-2-15-						0-419425	-5	-5	-5	25	-20	21	7	-10	-15		2	54
30-47.3264-109.9797-2-15-						0-419426	-5	-5	-5	30	-20	23	9	-10	-15		2	53
30-47.3131-109.9719-2-15-						0-419427	-5	-5	-5	30	-20	-15	6	-10	-15		2	49
30-47.2931-109.9572-2-12-						0-419430	-5	-5	-5	27	-20	-15	12	-10	-15		2	45
30-47.2969-109.9931-2-15-						0-419433	-5	-5	-5	34	-20	-15	7	-10	-15		2	84
30-47.2792-109.9553-2-12-						0-419435	-5	-5	-5	37	-20	27	-5	-10	-15		3	71
30-47.5583-109.9805-2-15-						0-419437	-5	-5	-5	28	-20	-15	-5	-10	-15		2	38
30-47.6231-109.9594-2-15-						0-419439	-5	-5	-5	24	-20	-15	-5	-10	-15		2	47
30-47.6954-109.9700-2-12-						0-419445	-5	-5	-5	19	-20	-15	7	-10	-15		2	35
30-47.7142-109.9639-2-15-						0-419446	-5	-5	-5	35	-20	34	-5	-10	-15		2	62
30-47.7142-109.9475-2-15-						0-419448	-5	-5	-5	30	-20	29	6	-10	-15		2	65
30-47.5303-109.9561-2-99-						0-419449	-5	-5	-5	18	-20	-15	-5	-10	-15		2	36
30-47.5487-109.9500-2-15-						0-419450	-5	-5	-5	26	-20	20	-5	-10	-15		3	37
30-47.1504-109.5029-2-15-						0-419451	-5	-5	-5	22	21	-15	7	-10	-15		2	23
30-47.1535-108.2833-2-15-						0-419452	-5	-5	-5	25	-20	15	9	-10	-15		2	45
30-47.1475-108.3514-2-15-						0-419453	-5	-5	-5	24	-20	15	-5	-10	-15		2	45
30-47.1386-109.3509-2-15-						0-419454	-5	-5	-5	29	-20	-15	-5	-10	-15		2	39
30-47.1273-109.3514-2-15-						0-419455	-5	-5	-5	23	-20	-15	6	-10	-15		2	31
30-47.1133-109.3528-2-12-						0-419456	-5	-5	-5	19	-20	-15	-5	-10	-15		2	33
30-47.0744-109.3531-2-15-						0-419457	-5	-5	-5	25	-20	19	-5	-10	-15		2	48
30-47.0519-108.3478-2-15-						0-419459	-5	-5	-5	13	-20	-15	-5	-10	-15		2	27
30-47.0647-109.3200-2-15-						0-419461	-5	-5	-5	19	-20	-15	-5	-10	-15		2	34
30-47.0553-109.2950-2-15-						0-419462	-5	-5	-5	28	-20	-15	-5	-10	-15		2	34
30-47.0703-109.2391-2-12-						0-419465	-5	-5	-5	30	-20	19	-5	-10	-15		2	34
30-47.0569-109.2581-2-15-						0-419466	-5	-5	-5	21	-20	-15	5	-10	-15		2	24
30-47.1031-109.2728-2-15-						0-419467	-5	-5	-5	25	-20	-15	-5	-10	-15		2	30
30-47.1150-109.2742-2-15-						0-419469	-5	-5	-5	28	-20	18	5	-10	-15		2	42
30-47.1331-109.2733-2-12-						0-419469	-5	-5	-5	24	-20	-15	-5	-10	-15		2	26
30-47.0344-108.3358-2-15-						0-419470	-5	-5	-5	23	-20	-15	6	-10	-15		2	26
30-47.0325-108.3444-2-15-						0-419471	-5	-5	-5	16	-20	-15	-5	-10	-15		2	25
30-47.1181-109.6711-2-15-						0-419474	-5	-5	-5	23	-20	-15	6	-10	-15		2	24
30-47.1139-108.6542-2-15-						0-419475	-5	-5	-5	23	-20	-15	7	-10	-15		2	27
30-47.0422-109.5989-2-12-						0-419477	-5	-5	-5	29	-20	-15	9	-10	-15		2	34
30-47.0403-109.5797-2-15-						0-419478	-5	7	-5	26	-20	15	10	-10	-15		3	40
30-47.0392-109.5581-2-12-						0-419479	-5	6	-5	19	-20	21	8	-10	-15		2	21
30-47.0356-109.5472-2-15-						0-419480	-5	7	-5	31	-20	-15	11	-10	-15		2	24
30-47.0364-108.5569-2-15-						0-419491	-5	5	-5	40	-20	19	6	-10	-15		2	27
30-47.0317-109.5339-2-12-						0-419492	-5	6	-5	25	-20	-15	9	-10	-15		2	34
30-47.0322-109.5225-2-12-						0-419493	-5	5	-5	24	-20	19	5	-10	-15		2	35
30-47.0281-108.5103-2-12-						0-419494	-5	-5	-5	37	-20	15	3	-10	-15		2	28
30-47.0275-108.5028-2-15-						0-419495	-5	7	-5	30	-20	-15	12	-10	-15		2	29
30-47.0128-109.4635-2-15-						0-419497	-5	-5	-5	22	-20	15	11	-10	-15		2	42
30-47.0111-109.4335-2-12-						0-419498	-5	-5	-5	35	-20	24	8	-10	-15		2	35
30-47.0114-109.4173-2-15-						0-419499	-5	-5	-5	41	-20	22	13	-10	-15		2	38
30-47.0111-109.4005-2-15-						0-419500	-5	-5	-5	29	-20	27	30	-10	-15		2	35
30-47.0111-108.3478-2-15-						0-419501	-5	-5	-5	34	-20	-15	9	-10	-15		2	36
30-47.0509-109.3958-2-15-						0-419502	-5	-5	-5	39	-20	25	20	-10	-15		2	45
30-47.0947-108.5111-2-15-						0-419506	-5	-5	-5	27	-20	-15	-5	-10	-15		2	38

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	REMARKS	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
30-47.3217-109.8508-2-12-	7-418417	50590	-0.05	777	40550	53	-74	8.3	79	5.7	5	1.6	25400	7.0	19670	39	0.3					
30-47.3669-109.8936-2-12-	7-418420	52900	-0.07	527	12390	56	88	7.3	49	4.1	4	1.4	20710	7.7	17480	34	0.3					
30-47.3450-109.9075-2-15-	7-418422	57370	-0.07	731	42580	56	-64	6.9	55	4.5	4	1.7	22440	7.6	15900	36	0.4					
30-47.3303-109.9511-2-15-	7-418425	61880	-0.08	695	27920	56	175	5.7	58	5.7	4	1.1	23860	5.3	19920	35	0.3					
30-47.3264-109.9797-2-15-	7-418426	60940	-0.08	776	20190	56	426	5.9	68	5.5	4	1.5	21970	7.1	18290	34	0.3					
30-47.3131-109.9719-2-15-	7-418427	49080	-0.07	645	14270	54	74	8.1	58	3.2	4	1.3	19610	8.1	16890	33	0.3					
30-47.2331-109.9572-2-12-	7-418430	46140	-0.07	527	50740	58	-65	8.1	52	3.5	3	1.1	22330	6.4	14590	34	0.3					
30-47.2969-109.8931-2-15-	7-418433	59130	-0.08	769	16770	53	644	6.3	76	4.9	5	1.4	24110	6.9	20320	34	0.3					
30-47.2792-109.7653-2-12-	7-418435	70630	-0.07	1055	33750	54	-67	5.8	70	6.2	4	1.6	29370	5.5	19190	41	0.4					
30-47.5683-109.9806-2-15-	7-418437	55580	-0.07	577	9804	55	-63	9.3	56	4.0	3	1.2	25380	6.1	16350	30	0.3					
30-47.6231-109.9594-2-15-	7-418439	54270	-0.07	758	24340	66	-71	7.9	53	4.2	4	1.4	21920	7.0	15210	32	0.4					
30-47.5854-109.9700-2-12-	7-418445	54370	-0.06	909	10730	63	35	6.7	20	2.4	4	1.5	13830	9.1	13180	36	0.3					
30-47.7142-109.9537-2-15-	7-418445	73910	-0.07	807	17660	54	-79	14.6	96	5.3	4	1.4	37380	5.4	16820	24	0.4					
30-47.7142-109.9475-2-15-	7-418449	61060	-0.08	597	13200	39	136	12.1	68	4.8	3	1.2	30230	3.5	16500	26	0.3					
30-47.6303-109.9661-2-39-	7-418449	50130	-0.06	527	35940	61	-72	4.0	41	3.4	3	1.5	20670	5.7	12170	31	0.2					
30-47.5489-109.9500-2-15-	7-418450	55340	-0.07	642	11950	49	-62	6.9	48	3.3	4	1.6	23010	6.4	18250	29	0.2					
30-47.1606-108.5028-2-15-	7-418451	54040	-0.06	545	2700	52	-55	6.6	64	4.2	5	1.2	23790	9.0	16400	30	0.4					
30-47.1536-108.2933-2-15-	7-418452	56140	-0.07	702	9676	52	-60	9.9	59	5.4	4	1.2	27540	4.3	19820	34	0.3					
30-47.1475-108.3514-2-15-	7-418453	42070	-0.04	630	22070	65	-56	9.1	72	4.0	4	1.5	27430	6.4	17130	32	0.4					
30-47.1386-108.3508-2-15-	7-418454	63200	-0.07	633	13200	59	-59	8.4	61	4.2	4	1.2	28000	5.3	18290	29	0.3					
30-47.1278-108.3514-2-15-	7-418455	46260	-0.07	755	5399	48	306	5.3	70	4.0	4	1.4	17560	9.1	17330	24	0.3					
30-47.1133-108.3528-2-12-	7-418454	40560	-0.05	521	3493	42	-49	5.5	51	3.0	4	1.1	15460	9.0	15250	29	0.4					
30-47.0744-108.3531-2-15-	7-418455	55330	-0.06	873	10920	59	64	10.2	71	5.0	5	1.5	27790	6.2	17810	36	0.4					
30-47.0519-108.3478-2-15-	7-418455	42910	-0.05	612	10530	45	-69	3.6	32	2.2	3	1.2	15510	5.1	13310	23	0.2					
30-47.0647-108.3200-2-15-	7-418461	51130	-0.06	469	25490	53	-53	3.7	57	3.3	4	1.2	21560	5.3	17020	29	0.3					
30-47.0553-108.2950-2-15-	7-418462	47010	-0.05	572	10050	51	-45	5.7	46	3.2	3	1.1	19000	7.1	15950	25	0.3					
30-47.0703-108.2381-2-12-	7-418465	47570	-0.07	555	11170	57	-43	5.2	58	4.0	4	1.3	17020	7.0	16140	28	0.3					
30-47.0569-108.2681-2-15-	7-418464	43920	-0.05	745	12470	43	-45	4.1	34	2.9	3	1.2	15750	5.9	13550	23	0.2					
30-47.1031-108.2728-2-15-	7-418467	39820	-0.06	631	1844	45	-42	4.6	60	2.6	4	1.3	13900	8.7	13830	25	0.4					
30-47.1150-108.2742-2-15-	7-418469	53200	-0.06	572	2324	46	-35	5.7	67	4.6	4	1.1	17760	6.4	17530	28	0.3					
30-47.1331-108.2733-2-12-	7-418469	45020	-0.06	639	4824	53	-49	3.7	63	2.9	4	1.3	17390	9.1	15900	29	0.4					
30-47.0344-108.3358-2-15-	7-418470	43940	-0.07	772	22980	54	-55	5.4	38	2.8	3	1.2	18620	7.9	13510	29	0.2					
30-47.0325-108.3444-2-15-	7-418471	47650	-0.07	456	18460	54	-53	5.3	39	2.6	4	1.2	18180	7.6	14320	28	0.3					
30-47.1181-109.6711-2-15-	7-418476	47180	-0.07	525	3418	43	-43	4.2	40	2.2	3	0.8	13190	6.0	14800	25	0.3					
30-47.1139-109.6542-2-15-	7-418476	45980	-0.08	489	3011	50	-51	8.0	47	3.1	4	1.3	16490	8.8	17050	28	0.5					
30-47.0422-108.5989-2-12-	7-418477	50420	-0.09	749	9343	52	-48	6.8	65	3.9	5	1.2	21540	6.4	17870	41	0.4					
30-47.0403-108.5797-2-15-	7-418478	57210	-0.11	576	6445	68	-54	7.9	63	6.4	5	1.2	23740	5.2	21840	37	0.3					
30-47.0392-108.5581-2-12-	7-418479	54320	-0.08	501	4894	54	-51	7.2	54	3.9	5	1.2	20150	9.1	18630	35	0.3					
30-47.0356-108.5472-2-15-	7-418480	53170	-0.09	550	9792	68	-51	7.1	56	4.8	5	1.3	20990	8.7	16320	28	0.4					
30-47.0364-109.5569-2-15-	7-418481	55420	-0.10	616	7129	72	-46	6.6	52	5.5	5	1.2	25570	6.4	20160	41	0.4					
30-47.0317-109.5339-2-12-	7-418482	59100	-0.09	657	5624	66	-59	9.8	63	4.9	5	1.2	23810	6.7	17260	34	0.4					
30-47.0322-108.5225-2-12-	7-418483	50130	-0.08	619	5331	65	-52	8.2	67	3.5	5	1.3	22640	11.6	16390	34	0.4					
30-47.0281-108.5109-2-12-	7-418484	50940	-0.09	542	5898	72	-51	9.0	59	3.8	4	1.2	23170	8.1	16940	28	0.4					
30-47.0275-108.5029-2-15-	7-418485	55530	-0.09	713	5451	59	-45	9.1	65	4.4	5	1.4	26350	7.8	17980	41	0.4					
30-47.0123-108.4535-2-15-	7-418487	45560	-0.05	525	13630	50	203	5.7	45	2.8	4	1.1	16130	6.5	15150	27	0.4					
30-47.0111-108.4436-2-12-	7-418488	47580	-0.04	583	10000	52	-41	7.3	59	3.5	4	1.3	21670	9.0	17790	27	0.4					
30-47.0114-108.4178-2-15-	7-418489	55050	-0.06	816	21200	57	-45	6.0	69	4.9	4	1.4	20880	6.8	17070	27	0.3					
30-47.0111-108.4005-2-15-	7-418490	44120	-0.05	873	25870	54	-54	7.7	47	2.9	4	1.3	22590	7.2	13810	29	0.3					
30-47.0111-108.3578-2-15-	7-418491	53500	-0.05	808	15450	55	-55	6.9	54	3.4	4	1.3	20360	7.7	15860	32	0.3					
30-47.0508-108.3958-2-15-	7-418492	67950	-0.05	769	35230	65	-52	7.8	72	5.6	4	1.4	26140	5.1	18950	37	0.3					
30-47.0347-108.5111-2-15-	7-418494	44820	-0.05	482	3927	55	-36	4.7	61	3.3	4	1.0	15810	7.8	17800	27	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	
30-47.3217-109.3503-2-12-	0-418417	22497	335	6529	59	-2	9.3	5.8	-259	-1	-1	11.0	4011	102	4.1	103	0.294					
30-47.3559-109.8936-2-12-	0-418420	9732	333	9191	62	-2	7.2	4.4	-201	-1	-1	8.9	3153	85	3.1	-38	0.324					
30-47.3450-109.9075-2-15-	0-418422	24090	270	9979	58	-2	7.3	5.0	404	-1	-1	10.2	3098	84	3.0	79	0.304					
30-47.3333-109.9511-2-15-	0-418425	20190	315	7213	75	-2	9.5	4.8	415	-1	-1	9.8	3649	115	3.1	113	0.385					
30-47.3254-109.9737-2-15-	0-418426	23570	277	11740	59	-2	7.6	5.0	-256	-2	-1	10.6	3406	130	3.2	-127	0.640					
30-47.3131-109.9719-2-15-	0-418427	13950	340	6353	52	-2	6.8	4.1	-205	-1	-1	9.9	2867	67	2.5	89	0.289					
30-47.2331-109.9572-2-12-	0-418430	14980	470	6040	-32	-2	6.7	5.7	-249	-1	-1	10.3	2600	81	1.5	110	0.330					
30-47.2959-109.8931-2-15-	0-418433	34410	235	15550	45	-2	8.9	5.1	-216	-1	-1	11.1	3137	131	3.1	-16	0.439					
30-47.2772-109.7553-2-12-	0-418435	30250	231	5729	109	2	9.5	5.3	475	-1	-1	10.1	3719	155	2.9	139	0.377					
30-47.5633-109.9805-2-15-	0-418437	13110	291	9243	59	-2	9.0	4.9	-191	-1	-1	7.9	3285	91	2.5	74	0.289					
30-47.6231-109.9504-2-15-	0-418443	18120	505	9430	57	-2	7.4	5.1	-239	-1	-1	8.7	3122	74	2.7	-49	0.292					
30-47.6864-109.9700-2-12-	0-418445	5377	157	11540	35	-1	5.3	4.6	421	-1	-1	7.0	4037	55	2.6		0.296					
30-47.7142-109.9639-2-15-	0-418446	15550	260	12100	57	-2	12.9	5.1	-232	-2	-1	7.6	3988	128	2.7	138	0.336					
30-47.7142-109.9475-2-15-	0-418449	22910	302	26320	-27	-2	10.7	4.0	-256	-1	-1	6.4	2753	108	-2.0	138	0.363					
30-47.6803-109.9561-2-99-	0-418449	24070	448	11530	55	-1	5.8	5.2	399	-1	-1	6.2	2379	56	2.1	61	0.237					
30-47.5489-109.9500-2-15-	0-418450	14420	257	2660	61	-2	8.5	4.5	306	-1	-1	7.4	3440	94	2.7	83	0.299					
30-47.1606-108.5024-2-15-	0-418451	5105	187	4738	55	-2	7.9	5.5	-175	-1	-1	11.9	4686	84	3.2	-43	0.339					
30-47.1535-108.2833-2-15-	0-418452	14480	271	8705	92	-2	9.9	4.4	-180	-1	-1	8.5	2604	128	2.4	115	0.359					
30-47.1475-108.3514-2-15-	0-418453	13330	275	12510	-28	-2	8.9	5.1	271	-1	-1	9.9	3381	90	3.1	139	0.290					
30-47.1386-108.3503-2-15-	0-418454	15840	253	9376	51	-2	7.9	4.3	-177	-1	-1	7.6	3656	110	3.4	-51	0.354					
30-47.1278-108.3514-2-15-	0-418455	14160	147	12120	-31	-2	5.6	4.5	-132	-2	-1	9.4	3105	100	2.5	-27	0.291					
30-47.1133-108.3523-2-12-	0-418456	7073	156	5249	56	-1	5.9	4.5	-145	-1	-1	7.9	2890	82	3.5	-46	0.423					
30-47.0744-108.3531-2-15-	0-418457	13720	329	4753	95	-2	9.5	5.2	-185	-1	-1	10.0	4035	132	2.9	-113	0.432					
30-47.0519-108.3478-2-15-	0-418459	7980	155	7344	45	-1	4.7	3.5	-148	-1	-1	6.0	2159	73	2.0	59	0.312					
30-47.0547-108.3200-2-15-	0-418461	24150	165	5676	44	-1	7.0	4.3	-173	-1	-1	8.5	2721	103	3.2	39	0.280					
30-47.0553-108.2950-2-15-	0-418462	11260	212	4546	38	-2	5.2	4.7	-156	-1	-1	7.7	2374	93	2.4	-86	0.301					
30-47.0703-108.2381-2-12-	0-418465	17090	172	5012	-30	-2	6.7	4.3	-144	-2	-1	9.6	3059	113	3.1	90	0.331					
30-47.0559-108.2581-2-15-	0-418466	13030	158	6095	44	-1	5.1	3.7	-140	-1	-1	6.5	2501	80	2.3	49	0.297					
30-47.1031-108.2723-2-15-	0-418467	4072	94	4647	50	-1	5.8	3.9	-133	-1	-1	7.9	3405	92	3.0	-73	0.389					
30-47.1150-108.2742-2-15-	0-418469	9112	75	3976	94	-2	9.5	4.0	-117	-1	-1	8.1	3197	139	2.8	87	0.436					
30-47.1331-108.2733-2-12-	0-418469	9036	170	7434	45	-1	6.7	3.5	-149	-1	-1	8.6	2979	85	2.9	59	0.360					
30-47.0344-108.3353-2-15-	0-418470	17670	545	5521	34	-2	5.5	4.4	-218	-1	-1	8.0	2374	87	3.0	72	0.329					
30-47.0325-108.3446-2-15-	0-418471	19570	197	5759	43	-2	5.5	4.0	-132	-1	-1	7.1	2817	92	2.7	81	0.320					
30-47.1191-108.5711-2-15-	0-418474	5451	143	4230	55	-2	5.3	3.3	-140	-1	-1	9.2	2387	77	4.1	-20	0.566					
30-47.1139-108.6542-2-15-	0-418475	3363	352	5139	51	-2	4.9	4.1	-139	-1	-1	10.4	2332	73	3.1	50	0.466					
30-47.0422-108.5889-2-12-	0-418477	11130	311	4812	78	-2	9.2	5.0	-132	-1	-1	11.7	3353	102	4.3	-69	0.393					
30-47.0403-108.5797-2-15-	0-418478	14140	349	3623	95	-3	9.3	4.6	-242	-1	-1	12.1	3949	116	2.7	145	0.306					
30-47.0392-108.5681-2-12-	0-418479	7821	302	5138	57	-2	6.7	4.6	-179	-1	-1	10.8	2789	85	3.1	116	0.411					
30-47.0356-108.5472-2-15-	0-418480	7056	407	4371	72	-2	7.3	4.4	-209	-1	-1	10.8	3528	98	4.6	66	0.331					
30-47.0364-108.5569-2-15-	0-418481	12090	333	3989	93	-2	9.7	5.5	-196	-1	-1	11.7	4001	122	3.8	85	0.351					
30-47.0317-108.5339-2-12-	0-418482	12070	525	4461	53	-2	7.8	5.4	-260	-1	1	12.3	3564	102	3.4	100	0.354					
30-47.0322-108.5225-2-12-	0-418483	7811	467	5005	45	-2	6.9	4.2	-208	-1	-1	11.2	2732	88	4.1	69	0.390					
30-47.0231-108.5103-2-12-	0-418484	10000	591	4428	72	-2	5.9	5.6	-219	-1	-1	10.5	3889	95	5.1	-58	0.404					
30-47.0275-108.5024-2-15-	0-418485	12060	455	3222	77	-2	3.8	5.3	-138	-1	-1	12.0	3394	117	3.4	99	0.378					
30-47.0129-108.4635-2-15-	0-418487	12330	360	9322	50	-1	5.2	4.8	-244	-1	-1	8.5	2866	84	2.6	78	0.454					
30-47.0111-108.4335-2-12-	0-418488	10040	175	4036	54	-1	7.4	4.5	-140	-1	-1	9.7	3127	119	2.9	57	0.387					
30-47.0114-108.4173-2-15-	0-418489	13450	272	3223	70	-1	7.9	4.8	-175	-1	-1	10.4	3152	118	2.6	54	0.326					
30-47.0111-108.4006-2-15-	0-418490	12350	478	5023	59	-1	6.3	4.1	-209	-1	-1	8.1	2832	106	2.6	-81	0.474					
30-47.0111-108.3578-2-15-	0-418491	12250	312	5210	56	-1	7.0	5.6	-212	-1	-1	9.2	3023	119	2.5	139	0.324					
30-47.0508-108.3958-2-15-	0-418492	23830	120	5345	78	-1	9.7	4.5	-162	-1	-1	9.3	3596	193	2.6	117	0.448					
30-47.0847-108.5111-2-15-	0-418494	2132	101	4232	50	-1	5.9	4.3	-118	-1	-1	9.5	3908	121	2.9	69	0.355					

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	REMARKS	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (dL/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER CIP/TIP	LULLUM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
30-47.0356-103.5000-2-15-	0-419635-07/13/73-17-	24-	-C-	-	-	20-1-6-5-5-	-1-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.67	
30-47.0378-103.4569-2-15-	0-419637-07/13/73-18-	23-	-C-	-	-	23-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.32	
30-47.0164-103.3456-2-12-	0-419639-07/13/73-19-	23-24.4-0-	-	-	-	8-1-5-6-9-3-1-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.88	
30-47.7592-109.7031-2-15-	0-419701-08/17/73-17-	24-	-	-	-	9-3-7-5-7-	-1-	-2-4-4-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.34	
30-47.7300-109.7128-2-15-	0-419703-08/17/73-17-	24-	-	-	-	9-3-7-3-7-	-1-	-2-4-4-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.35	
30-47.7792-109.7203-2-15-	0-419704-08/17/73-17-	24-	-	-	-	11-3-7-4-7-	-1-	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.12	
30-47.7767-109.6575-2-15-	0-419705-08/17/73-17-	24-	-	-	-	5-3-7-4-6-	-1-	-3-4-5-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.49	
30-47.7764-109.6708-2-15-	0-419706-08/17/73-17-	24-	-	-	-	7-3-7-5-7-	-1-	-3-4-5-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.03	
30-47.7659-109.6254-2-15-	0-419707-08/17/73-18-	24-	-	-	-	9-3-7-5-7-	-1-	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.83	
30-47.7519-109.5858-2-15-	0-419709-08/17/73-18-	24-	-	-	-	11-3-7-4-7-	-1-	-3-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.41	
30-47.7335-109.5675-2-15-	0-419710-08/17/73-19-	24-	-	-	-	13-3-7-5-6-	-1-	-3-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.32	
30-47.8044-109.6639-2-15-	0-419711-08/17/73-19-	24-	-	-	-	7-3-7-4-7-	-1-	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.11	
30-47.7358-109.7856-2-15-	0-419712-08/17/73-19-	24-	-	-	-	11-3-7-4-7-	-1-	-3-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.09	
30-47.7361-109.7886-2-11-	0-419714-08/18/73-19-	24-17.3-	-	-	-	9-3-7-5-7-3-4-1-	-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.25	
30-47.7778-109.7528-2-15-	0-419718-08/18/73-19-	26-	-	-	-	12-3-7-5-6-	-1-	-2-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.00	
30-47.7739-109.7872-2-11-	0-419719-08/18/73-19-	26-15.2-	-	-	-	5-3-7-5-7-1-4-2-	-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.41	
30-47.8311-109.8739-2-15-	0-419720-08/18/73-10-	26-	-C-	-	-	11-3-7-5-6-	-1-	-3-4-4-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.09	
30-47.8264-109.7731-2-11-	0-419721-08/18/73-11-	26-15.5-	-	-	-	4-3-7-4-7-3-4-1-	-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.77	
30-47.8253-109.7281-2-99-	0-419722-08/18/73-11-	24-	-C-	-	-	11-3-7-4-7-	-1-	-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.54	
30-47.8494-109.6933-2-15-	0-419725-08/18/73-12-	26-	-	-	-	5-3-7-4-7-	-1-	-2-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.42	
30-47.8406-109.7050-2-15-	0-419726-08/18/73-12-	26-	-	-	-	6-3-7-5-7-	-1-	-2-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.87	
30-47.8114-109.6531-2-15-	0-419727-08/19/73-14-	28-	-	-	-	3-7-4-7-	-1-	-2-4-3-3-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.92	
30-47.8111-109.6506-2-15-	0-419728-08/19/73-14-	28-	-	-	-	9-3-7-5-7-	-1-	-2-4-2-3-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.69	
30-47.8354-109.5803-2-15-	0-419730-08/19/73-15-	28-	-	-	-	6-3-7-4-7-	-1-	-2-4-2-4-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.89	
30-47.8275-109.5992-2-15-	0-419731-08/19/73-15-	30-	-	-	-	3-3-7-4-7-	-1-	-2-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.42	
30-47.8506-109.8386-2-15-	0-419732-08/19/73-16-	23-	-	-	-	7-3-7-4-7-	-1-	-2-4-4-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.76	
30-47.8547-109.8350-2-15-	0-419734-08/19/73-16-	24-	-	-	-	6-3-7-5-6-	-1-	-2-4-4-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.18	
30-47.8714-109.7064-2-15-	0-419740-08/19/73-19-	24-	-	-	-	9-3-7-5-7-	-1-	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.67	
30-47.8719-109.9397-2-15-	0-419745-08/19/73-20-	22-	-	-	-	7-3-7-5-6-	-1-	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.87	
30-47.9778-109.9306-2-15-	0-419748-08/11/73-13-	26-	-	-	-	7-1-6-5-7-	-1-	-2-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.22	
30-47.9425-109.9611-2-15-	0-419750-08/11/73-13-	30-	-	-	-	4-1-6-5-7-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.97	
30-47.8775-109.9200-2-15-	0-419755-08/11/73-15-	30-	-	-	-	11-1-6-5-7-	-1-	-2-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.34	
30-47.9199-109.8653-2-15-	0-419757-08/11/73-15-	30-	-	-	-	9-1-6-5-6-	-1-	-2-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.22	
30-47.9431-109.8603-2-15-	0-419759-08/11/73-16-	30-	-	-	-	7-1-7-5-7-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.56	
30-47.9467-109.8731-2-15-	0-419761-08/11/73-16-	30-	-	-	-	9-1-5-5-7-	-1-	-2-4-3-3-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.60	
30-47.9589-109.8694-2-15-	0-419762-08/11/73-17-	26-	-	-	-	3-1-7-5-7-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.30	
30-47.9917-109.9094-2-15-	0-419765-08/11/73-17-	26-	-	-	-	1-1-7-5-7-	-1-	-2-4-4-3-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.24	
30-47.9356-109.9367-2-15-	0-419766-08/11/73-17-	26-	-	-	-	5-1-6-5-7-	-1-	-3-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.26	
30-47.9383-109.9272-2-15-	0-419769-08/11/73-18-	26-	-	-	-	5-1-7-5-7-	-1-	-3-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.08	
30-47.9375-109.9067-2-15-	0-419769-08/11/73-18-	24-	-	-	-	7-1-6-5-7-	-1-	-2-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.15	
30-47.8772-109.9389-2-15-	0-419770-08/11/73-18-	26-	-	-	-	11-1-6-5-7-	-1-	-2-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.93	
30-47.8767-109.9906-2-15-	0-419771-08/11/73-19-	26-	-	-	-	7-1-5-5-7-	-1-	-2-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.30	
30-47.8939-109.9214-2-15-	0-419772-08/11/73-19-	26-	-	-	-	11-1-7-5-7-	-1-	-2-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.16	
30-47.8856-109.8744-2-15-	0-419773-08/11/73-19-	26-	-	-	-	7-1-6-5-7-	-1-	-2-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.07	
30-47.9519-109.5292-2-15-	0-419775-08/11/73-13-	23-	-	-	-	10-1-6-5-6-	-1-	-2-3-2-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.55	
30-47.9236-109.4986-2-15-	0-419776-08/11/73-13-	23-	-	-	-	13-1-6-5-6-	-1-	-2-4-2-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.46	
30-47.9047-109.4972-2-15-	0-419777-08/11/73-14-	29-	-	-	-	9-1-6-5-6-	-1-	-2-3-2-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.29	
30-47.9428-109.4613-2-15-	0-419778-08/11/73-14-	23-	-	-	-																													

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

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STATE	DOE SAMPLE NUMBER					DOE SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY X-RAY FLUORESCENCE										ELEMENTAL CONCENTRATIONS DETERMINED BY ARC-SOURCE EMISSION SPECTROGRAPHY		
	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	
30-47.0956-109.5060-2-15-						0-419695	-5	-5	-5	23	-20	15	13	-10	-15		2	41	
30-47.0978-109.4552-2-15-						0-419697	-5	7	-5	17	-20	24	-5	-10	-15		1	25	
30-47.0154-109.3456-2-12-						0-419699	-5	-5	-5	22	-20	16	10	-10	-15		2	28	
30-47.7592-109.7031-2-15-						0-419701	-5	9	-5	12	-20	15	8	-10	-15		1	23	
30-47.7300-109.7123-2-15-						0-419703	-5	-5	-5	33	-20	-15	-5	-10	-15		2	36	
30-47.7792-109.7203-2-15-						0-419704	-5	-5	-5	37	-20	19	7	-10	-15		2	34	
30-47.7767-109.6575-2-15-						0-419705	-5	7	-5	28	-20	18	9	-10	-15		2	55	
30-47.7764-109.5708-2-15-						0-419706	-5	-5	-5	34	-20	20	10	-10	-15		1	27	
30-47.7658-109.5264-2-15-						0-419707	-5	-5	-5	33	-20	37	17	-10	-15		2	33	
30-47.7519-109.5859-2-15-						0-419709	-5	-5	-5	24	-20	23	7	-10	-15		2	32	
30-47.7935-109.6575-2-15-						0-419710	-5	-5	-5	19	-20	22	11	-10	-15		1	30	
30-47.9344-109.6639-2-15-						0-419711	-5	6	-5	13	-20	-15	7	-10	-15		1	23	
30-47.7358-109.7856-2-15-						0-419713	-5	-5	-5	27	-20	21	6	-10	-15		2	29	
30-47.7361-109.7885-2-11-						0-419714	-5	-5	-5	24	-20	-15	5	-10	-15		2	29	
30-47.7778-109.7528-2-15-						0-419719	-5	-5	-5	24	-20	15	5	-10	-15		2	32	
30-47.7739-109.7872-2-11-						0-419710	-5	-5	-5	17	-20	20	10	-10	-15		1	31	
30-47.9311-109.8039-2-15-						0-419720	-5	-5	-5	24	-20	-15	13	-10	-15		2	27	
30-47.9254-109.7731-2-11-						0-419721	-5	-5	-5	23	-20	-15	-5	-10	-15		2	24	
30-47.9253-109.7281-2-09-						0-419723	-5	-5	-5	13	-20	-15	-5	-10	-15		1	35	
30-47.8494-109.6733-2-15-						0-419725	-5	-5	-5	30	-20	17	5	-10	-15		2	29	
30-47.8405-109.7050-2-15-						0-419726	-5	-5	-5	16	-20	-15	-5	-10	-15		2	33	
30-47.8114-109.6581-2-15-						0-419727	-5	-5	-5	22	33	-15	-5	-10	-15		1	25	
30-47.8111-109.6506-2-15-						0-419728	-5	-5	-5	20	-20	-15	-5	-10	-15		2	34	
30-47.8364-109.5308-2-15-						0-419730	-5	-5	-5	23	-20	-15	-5	-10	-15		2	31	
30-47.9275-109.5992-2-15-						0-419731	-5	-5	-5	15	-20	-15	-5	-10	-15		2	22	
30-47.8506-109.8385-2-15-						0-419733	-5	7	-5	19	-20	-15	-5	-10	-15		1	14	
30-47.8547-109.8350-2-15-						0-419734	-5	-5	-5	25	-20	20	6	-10	-15		2	31	
30-47.8714-109.9064-2-15-						0-419740	-5	5	-5	12	-20	-15	9	-10	-15		1	12	
30-47.8719-109.9397-2-15-						0-419746	-5	-5	-5	22	-20	22	-5	-10	-15		1	22	
30-47.9778-109.9306-2-15-						0-419748	-5	-5	-5	25	-20	19	-5	-10	-15		2	38	
30-47.9425-109.9511-2-15-						0-419750	-5	5	-5	26	-20	-15	12	-10	-15		-1	17	
30-47.8775-109.9200-2-15-						0-419755	-5	5	-5	20	-20	16	-5	-10	-15		2	22	
30-47.9189-109.8553-2-15-						0-419757	-5	-5	-5	25	-20	17	-5	-10	-15		2	39	
30-47.9431-109.8603-2-15-						0-419759	-5	-5	-5	33	-20	-15	8	-10	-15		2	24	
30-47.9467-109.8731-2-15-						0-419761	-5	-5	-5	10	-20	-15	-5	-10	-15		1	10	
30-47.9589-109.8694-2-15-						0-419763	-5	-5	-5	33	-20	-15	6	-10	-15		2	25	
30-47.9917-109.9094-2-15-						0-419765	-5	-5	-5	25	-20	17	11	-10	-15		2	20	
30-47.9856-109.9367-2-15-						0-419766	-5	5	-5	28	-20	27	12	-10	-15		2	23	
30-47.9383-109.9272-2-15-						0-419769	-5	-5	-5	22	-20	-15	7	-10	-15		1	17	
30-47.9375-109.9067-2-15-						0-419760	-5	-5	-5	19	-20	-15	6	-10	-15		2	24	
30-47.8772-109.9389-2-15-						0-419770	-5	-5	-5	17	-20	-15	-5	-10	-15		2	17	
30-47.8767-109.9806-2-15-						0-419771	-5	-5	-5	26	-20	-15	8	-10	-15		2	24	
30-47.8939-109.9214-2-15-						0-419772	-5	5	-5	29	-20	22	8	-10	-15		2	23	
30-47.8356-109.8744-2-15-						0-419773	-5	-5	-5	25	-20	-15	-5	-10	-15		1	21	
30-47.9619-109.5292-2-15-						0-419775	-5	-5	-5	33	-20	36	6	-10	-15		2	28	
30-47.9236-109.6985-2-15-						0-419776	-5	-5	-5	26	-20	22	-5	-10	-15		2	32	
30-47.9047-109.4972-2-15-						0-419777	-5	-5	-5	20	-20	29	10	-10	-15		2	32	
30-47.9428-109.4619-2-15-						0-419778	-5	-5	-5	33	-20	66	-5	-10	-15		3	38	
30-47.9439-109.4389-2-12-						0-419780	-5	5	-5	36	-20	159	11	-10	-15		2	30	
30-47.9569-109.3983-2-15-						0-419781	-5	-5	-5	49	-20	156	-5	-10	-15		2	37	
30-47.9611-109.4011-2-15-						0-419782	-5	-5	-5	34	-20	67	8	-10	-15		2	26	

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
30-47.0856-109.5000-2-15-	0-413425	54973	-0.05	594	4404	60	-40	4.5	72	4.1	5	1.3	20510	9.0	18470	31	0.3					
30-47.0973-109.4569-2-15-	0-413497	35713	-0.03	314	5378	38	74	5.1	79	1.3	4	1.1	10280	9.3	12330	22	0.4					
30-47.0164-109.3456-2-12-	0-413490	46730	-0.05	444	22280	51	-53	6.5	44	3.5	3	1.3	17980	7.4	15690	27	0.3					
30-47.7592-109.7031-2-15-	0-413701	51750	-0.05	624	28440	47	160	6.4	54	2.0	3	1.2	19590	6.9	12500	24	0.3					
30-47.7900-109.7128-2-15-	0-413703	55840	-0.06	708	24130	51	-75	11.7	67	3.8	4	1.3	33080	4.7	13930	26	0.3					
30-47.7792-109.7203-2-15-	0-413704	64200	-0.05	458	21610	45	132	8.5	48	3.3	4	1.2	22550	5.2	15080	24	0.2					
30-47.7757-109.6675-2-15-	0-413705	52740	-0.05	523	26210	42	429	13.5	72	3.8	3	1.2	31050	3.9	14730	25	0.3					
30-47.7764-109.6708-2-15-	0-413706	56550	-0.05	673	18510	49	207	8.4	57	2.5	3	1.2	20570	5.5	16470	24	0.3					
30-47.7658-109.6264-2-15-	0-413707	72580	-0.06	610	20700	57	-62	9.2	52	5.6	5	1.3	30900	4.5	17630	32	0.3					
30-47.7519-109.5859-2-15-	0-413709	59170	-0.05	642	24920	53	-78	7.5	50	3.6	4	1.3	19900	7.0	15770	32	0.3					
30-47.7936-109.6675-2-15-	0-413710	63260	-0.04	708	21660	56	-64	9.0	52	3.3	4	1.2	23090	5.8	18190	27	0.2					
30-47.8044-109.6639-2-15-	0-413711	47030	-0.05	460	21130	53	83	5.5	52	2.1	4	1.3	16740	9.9	14590	31	0.3					
30-47.7358-109.7856-2-15-	0-413712	56530	-0.04	595	18970	47	99	5.2	36	3.4	4	1.1	15970	6.4	20080	26	0.3					
30-47.7361-109.7886-2-11-	0-413714	62550	-0.05	705	15710	56	-76	7.1	49	3.4	4	1.2	19950	5.9	16760	29	0.3					
30-47.7778-109.7528-2-15-	0-413718	62240	-0.04	554	23380	45	-69	7.7	42	3.0	3	1.1	21450	4.2	16740	24	0.3					
30-47.7739-109.7872-2-11-	0-413719	59140	-0.05	451	21040	49	-70	7.5	50	3.3	3	1.3	20840	5.4	13180	25	0.3					
30-47.8311-109.4039-2-15-	0-413720	50470	-0.04	624	15260	47	-61	6.0	48	2.6	4	1.1	17390	5.8	16650	26	0.3					
30-47.8264-109.7731-2-11-	0-413721	50350	-0.04	515	48250	41	123	3.9	30	1.9	3	1.1	13530	4.6	10980	23	0.2					
30-47.8253-109.7281-2-09-	0-413723	53140	-0.04	671	34400	39	-73	5.4	28	2.1	2	1.0	14140	3.5	14850	19	0.2					
30-47.8494-109.4933-2-15-	0-413725	59810	-0.06	494	20370	70	404	9.2	76	3.5	4	1.4	22640	8.5	22470	30	0.4					
30-47.8406-109.7050-2-15-	0-413726	46430	-0.04	572	39070	64	110	3.9	28	2.3	5	1.3	14110	11.4	16720	30	0.4					
30-47.8114-109.6581-2-15-	0-413727	55750	-0.04	675	20560	47	-70	6.4	53	2.4	3	1.2	18220	5.6	11560	23	0.3					
30-47.8111-109.6506-2-15-	0-413728	57350	-0.05	778	21640	71	-74	9.9	38	2.5	4	1.4	26990	11.7	14810	38	0.4					
30-47.8364-109.5808-2-15-	0-413730	55150	-0.06	720	32500	64	-70	6.0	38	3.7	5	1.6	16850	6.8	16800	32	0.4					
30-47.8275-109.5922-2-15-	0-413731	46930	-0.04	676	32160	65	-66	3.9	36	2.2	5	1.3	13460	9.1	15900	35	0.4					
30-47.8606-109.8386-2-15-	0-413733	41810	-0.04	576	17490	47	229	5.3	51	1.5	3	1.0	13830	6.7	13500	24	0.3					
30-47.8547-109.8350-2-15-	0-413734	51220	-0.04	540	13680	51	200	6.8	50	2.1	3	1.2	18000	7.1	17490	26	0.3					
30-47.8714-109.9064-2-15-	0-413740	41630	-0.05	539	11240	53	-55	5.5	43	2.1	3	0.9	12570	6.1	13350	22	0.3					
30-47.8719-109.9397-2-15-	0-413744	44950	-0.05	622	17790	52	-64	6.1	51	2.5	3	1.1	16370	6.7	13810	28	0.3					
30-47.9778-109.9306-2-15-	0-413748	49390	-0.05	595	29370	54	191	6.9	50	2.6	3	1.0	17210	6.3	17140	25	0.3					
30-47.9425-109.9611-2-15-	0-413750	42020	-0.05	574	20250	47	310	4.6	41	1.6	3	1.1	12130	6.5	13470	22	0.3					
30-47.8775-109.9200-2-15-	0-413755	51280	-0.05	623	18550	52	-63	6.3	55	3.2	4	1.2	17360	8.1	16760	30	0.3					
30-47.9189-109.9653-2-15-	0-413757	57220	-0.06	531	21000	57	-64	8.7	65	3.6	4	1.2	21910	6.5	17350	30	0.3					
30-47.9431-109.8603-2-15-	0-413759	54400	-0.05	585	11510	54	78	8.7	61	3.2	4	1.3	20900	6.1	19220	23	0.3					
30-47.9467-109.9731-2-15-	0-413761	35110	-0.05	505	25980	39	-59	3.0	43	2.3	3	1.0	10750	4.4	10870	19	0.2					
30-47.9589-109.8494-2-15-	0-413762	53320	-0.05	725	16290	58	171	7.7	83	3.0	4	1.3	22430	8.0	19320	29	0.3					
30-47.9917-109.3094-2-15-	0-413765	55470	-0.05	422	10200	61	-70	6.0	53	2.6	4	1.3	19740	7.6	15640	27	0.3					
30-47.9856-109.9367-2-15-	0-413766	50050	-0.06	911	15660	59	-71	9.6	62	3.5	4	1.3	24980	7.0	15840	32	0.3					
30-47.9383-109.9272-2-15-	0-413769	48120	-0.06	585	6190	53	-63	5.6	46	2.4	4	1.2	14640	7.1	17540	29	0.3					
30-47.9375-109.9067-2-15-	0-413769	50430	-0.06	587	30770	43	-78	4.2	54	3.8	4	1.1	17340	6.2	17810	24	0.3					
30-47.8772-109.9389-2-15-	0-413770	46180	-0.05	422	11720	49	-60	5.6	53	2.3	3	1.0	16340	9.4	14260	27	0.3					
30-47.8767-109.9806-2-15-	0-413771	53880	-0.06	615	4400	59	-60	6.9	51	3.8	4	1.3	21200	6.2	16760	30	0.3					
30-47.8939-109.9214-2-15-	0-413772	57500	-0.07	574	10840	63	-64	9.1	58	3.2	4	1.4	21870	7.1	18260	31	0.3					
30-47.8856-109.8744-2-15-	0-413773	54910	-0.06	420	7014	52	-74	6.8	51	3.2	4	1.3	19340	6.7	13590	30	0.4					
30-47.9519-109.5292-2-15-	0-413775	42510	-0.06	745	19380	59	-67	9.8	95	3.9	4	1.3	23360	7.0	18150	23	0.3					
30-47.9236-109.4986-2-15-	0-413776	46510	-0.06	445	17194	56	-62	13.2	72	3.5	4	1.3	24940	6.3	15970	29	0.3					
30-47.9047-109.4972-2-15-	0-413777	52290	-0.06	421	12170	50	-70	8.6	57	2.9	3	1.4	21400	5.7	13140	27	0.3					
30-47.9424-109.4619-2-15-	0-413778	70020	-0.07	1056	15720	64	-65	18.0	227	5.7	4	1.2	37150	4.5	21360	32	0.4					
30-47.9439-109.4389-2-12-	0-413779	59990	-0.08	1066	36100	56	98	24.8	542	5.2	4	1.5	40430	4.9	19900	31	0.4					
30-47.9569-109.3983-2-15-	0-413781	55890	-0.07	1073	28340	65	-71	26.0	291	5.8	4	1.4	37910	4.2	18000	32	0.3					
30-47.9611-109.4011-2-15-	0-413782	54920	-0.07	1089	15500	55	-70	13.8	203	3.5	3	1.4	24360	6.0	18500	25	0.3					

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	RENCATE	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	
30-47.0956-104.5000-2-15-						0-419405	2445	106	4752	54	-1	9.1	4.5	-124	-1	-1	10.3	3911	117	2.9	56	0.355
30-47.0979-108.4569-2-15-						0-419407	5970	251	10190	-16	-1	3.4	3.8	-192	-1	1	6.5	2534	51	2.8	90	0.511
30-47.0164-108.3454-2-12-						0-419409	22290	237	5775	46	-1	5.0	3.9	-170	-1	-1	7.2	2572	93	2.3	101	0.400
30-47.7592-109.7031-2-15-						0-419701	19010	389	20760	-23	-1	5.9	4.2	355	-1	-1	6.4	2929	62	2.5	-23	0.366
30-47.7900-108.7123-2-15-						0-419703	18210	551	12390	53	-1	10.6	4.6	-241	-1	-1	6.9	3726	104	2.5	-36	0.341
30-47.7732-108.7203-2-15-						0-419704	20230	343	14520	50	-1	7.7	4.0	-245	-1	-1	7.0	3347	77	2.7	440	0.303
30-47.7767-108.6675-2-15-						0-419705	20500	761	21210	67	-1	10.0	4.3	-237	-1	-1	6.1	3035	99	2.3	79	0.408
30-47.7764-108.6708-2-15-						0-419706	20640	340	16790	-23	-1	5.8	4.8	-215	-1	-1	5.8	3127	78	2.9	-59	0.350
30-47.7658-109.6264-2-15-						0-419707	22420	309	9567	75	-1	10.7	5.1	312	-1	-1	9.5	3575	103	3.1	92	0.298
30-47.7519-109.5858-2-15-						0-419709	20130	251	14110	54	-1	7.1	4.3	-219	-1	1	8.1	3418	68	2.7		0.298
30-47.7936-109.6675-2-15-						0-419710	23610	245	11220	51	-1	7.9	4.1	-178	-1	-1	7.3	3379	96	2.2	92	0.318
30-47.8044-109.6639-2-15-						0-419711	14890	263	14190	40	-1	5.1	5.2	382	-1	-1	7.3	3921	60	2.5	27	0.289
30-47.7358-109.7856-2-15-						0-419713	15020	234	11550	46	-1	5.7	4.3	-171	-1	-1	7.6	2337	61	3.2	87	0.275
30-47.7361-109.7885-2-11-						0-419714	15720	404	10530	57	-1	5.8	5.0	-249	-1	-1	9.5	2662	72	3.0		0.237
30-47.7779-109.7529-2-15-						0-419719	19010	276	13190	49	-1	7.1	3.8	-192	-1	-1	7.1	2522	69	2.7	58	0.282
30-47.7739-109.7872-2-11-						0-419719	22310	301	14190	45	-1	5.8	4.5	317	-1	-1	6.2	3075	82	2.2	-47	0.389
30-47.8311-109.8033-2-15-						0-419720	13690	324	11020	48	-1	6.4	3.9	-185	-1	-1	6.7	3030	64	2.2	46	0.312
30-47.8264-109.7731-2-11-						0-419721	19320	177	13010	35	-1	3.7	3.7	448	-1	-1	6.2	1794	41	1.8	-26	0.285
30-47.8253-109.7291-2-39-						0-419722	22690	243	18520	39	-1	4.3	3.0	-201	-1		4.6	2075	44	1.7	49	0.335
30-47.8494-109.6933-2-15-						0-419725	20030	502	10090	47	-2	9.3	4.9	-246	-1	-1	9.4	3736	78	2.1	-52	0.257
30-47.8406-109.7050-2-15-						0-419726	34110	314	12510	43	-1	4.8	5.5	-201	-1	-1	9.0	2639	49	3.3	84	0.319
30-47.8114-109.6581-2-15-						0-419727	19050	202	12900	45	-1	5.7	3.7	236	-1	1	5.8	3025	74	2.0	52	0.331
30-47.8111-109.5505-2-15-						0-419728	20780	331	12990	55	-1	9.5	5.4	-208	-1	-1	9.1	4453	91	2.4	69	0.295
30-47.8364-109.5809-2-15-						0-419730	39100	331	12140	55	-1	5.1	5.2	271	-1	-1	9.3	3010	58	3.1	-24	0.311
30-47.8275-109.5992-2-15-						0-419731	24350	284	13330	47	-1	4.7	4.5	-134	-1	-1	7.9	3169	41	2.7	-23	0.306
30-47.8606-109.8385-2-15-						0-419733	11330	295	12590	40	-1	4.5	3.7	-213	-1	-1	6.5	2424	43	2.0		0.271
30-47.8547-109.8350-2-15-						0-419734	13240	343	11660	40	-1	5.5	3.8	-209	-1	-1	7.9	2972	64	2.5	57	0.276
30-47.8714-109.9064-2-15-						0-419740	12090	283	9571	36	-1	4.9	4.0	-156	-1	-1	6.0	2455	50	2.4	67	0.278
30-47.8719-109.9397-2-15-						0-419744	15530	302	9579	51	-1	5.0	3.8	-203	-1	-1	6.8	2977	57	3.1	61	0.275
30-47.9778-109.9305-2-15-						0-419749	19990	393	11220	-20	-1	5.1	4.2	-201	-1	-1	7.1	2383	67	2.2	51	0.313
30-47.9425-109.9611-2-15-						0-419753	15160	290	12240	-19	-1	4.3	4.3	-174	-1	-1	6.6	2511	51	2.7		0.298
30-47.8775-109.9200-2-15-						0-419755	15340	305	10010	51	-1	6.4	4.1	-214	-1	-1	7.8	3167	60	2.2	66	0.300
30-47.9199-109.8653-2-15-						0-419757	19130	376	9360	53	-1	7.9	4.8	-206	-1	-1	9.1	3308	89	2.2	175	0.274
30-47.9431-109.9603-2-15-						0-419759	12350	379	10230	38	-1	7.6	4.6	-216	-1	-1	7.9	3581	74	3.0	133	0.324
30-47.9467-109.8731-2-15-						0-419761	14160	202	9037	-23	-1	3.9	3.1	230	-1	-1	4.8	1775	44	1.9	-29	0.333
30-47.9589-109.8694-2-15-						0-419763	19840	409	12860	67	-1	7.6	4.9	-252	-1	-1	7.9	4074	69	2.5	116	0.291
30-47.9917-109.9094-2-15-						0-419765	12660	376	10290	67	-1	7.0	4.3	-210	-1	-1	7.7	2845	65	2.5	52	0.291
30-47.9356-109.9367-2-15-						0-419766	14220	529	9774	55	-1	9.0	4.0	-259	-1	-1	8.0	3975	76	2.6	136	0.282
30-47.9383-109.9272-2-15-						0-419768	7255	411	9564	57	-1	5.5	4.4	-204	-1	-1	7.5	3436	62	2.8	-76	0.277
30-47.9375-109.9067-2-15-						0-419769	13250	376	10570	59	-1	5.5	4.5	-250	-1	-1	7.0	2843	53	2.2	-48	0.307
30-47.8772-109.9389-2-15-						0-419770	12450	302	9899	45	-1	5.7	3.9	-173	-1	-1	7.9	2517	59	2.5		0.244
30-47.8767-109.9806-2-15-						0-419771	12190	307	8920	42	-1	7.6	4.3	-201	-1	-1	8.7	3258	84	1.9	133	0.264
30-47.8939-109.9216-2-15-						0-419772	13240	491	9357	53	-2	9.0	5.2	-221	-1	-1	9.7	3514	81	3.0	71	0.223
30-47.8956-109.9744-2-15-						0-419773	3334	430	9344	42	-1	7.2	4.4	-254	-1	-1	8.5	3789	71	2.0	137	0.244
30-47.9619-109.5292-2-15-						0-419775	19710	322	10470	67	-1	9.8	5.1	-192	-1	-1	9.7	3005	82	2.6	-31	0.263
30-47.9236-109.4986-2-15-						0-419776	10200	347	10530	40	-1	7.8	4.2	230	-1	-1	8.3	3567	112	2.5	74	0.296
30-47.9047-109.4972-2-15-						0-419777	11360	495	12410	-23	-1	6.7	3.9	-221	-1	-1	7.0	3215	96	1.9	48	0.327
30-47.9424-109.4619-2-15-						0-419778	31920	471	6245	92	-2	14.6	4.7	-242	-1	-1	9.3	4441	192	3.9	-66	0.319
30-47.9439-109.4389-2-12-						0-419780	70230	612	10170	93	-2	17.0	5.0	293	-1	-1	10.2	3472	144	2.7	80	0.275
30-47.9569-109.1993-2-15-						0-419781	50990	545	8594	97	-2	14.9	4.7	301	-1	-1	8.4	3525	128	3.2	112	0.280
30-47.9611-109.4911-2-15-						0-419782	34740	331	12500	78	-2	9.0	4.9	333	-1	-1	6.3	3567	106	2.5	73	0.407

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

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DOE SAMPLE NUMBER					IASL SAMPLE LOCATION NUMBER AND FIELD DATA															U CONCENTRATION														
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	IASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMBUST	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLATOR (eu ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER ROW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
30-47.9253	-109.4129	-2-15-	0-419794	03/11/79	-15-	22-	-	-	-	-	-	-	-	-	7-1-5-5-5-	-1-	-2-3-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.72	
30-47.9333	-109.3397	-2-15-	0-419794	03/11/79	-16-	22-	-	-	-	-	-	-	-	-	6-1-6-5-5-	-1-	-2-4-2-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.29	
30-47.9411	-109.3053	-2-15-	0-419797	03/11/79	-16-	22-	-	-	-	-	-	-	-	-	7-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.66	
30-47.9375	-109.3131	-2-15-	0-419798	03/11/79	-16-	22-	-	-	-	-	-	-	-	-	9-1-6-5-5-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.58	
30-47.9503	-109.2661	-2-15-	0-419791	03/11/79	-17-	24-	-	-	-	-	-	-	-	-	14-1-6-5-5-	-1-	-2-3-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.74	
30-47.9528	-109.2731	-2-15-	0-419792	03/11/79	-17-	26-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-3-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.36	
30-47.9456	-109.2778	-2-15-	0-419793	03/11/79	-17-	25-	-	-	-	-	-	-	-	-	14-1-6-5-5-	-1-	-2-3-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.96	
30-47.8742	-109.3300	-2-15-	0-419796	03/11/79	-18-	25-	-	-	-	-	-	-	-	-	9-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.80	
30-47.8939	-109.3547	-2-15-	0-419798	03/11/79	-19-	24-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.56	
30-47.8833	-109.3944	-2-15-	0-419799	03/11/79	-19-	24-	-	-	-	-	-	-	-	-	6-1-5-5-5-	-1-	-2-1-2-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.58	
30-47.9747	-109.4033	-2-15-	0-419800	03/11/79	-20-	24-	-	-	-	-	-	-	-	-	12-1-6-5-5-	-1-	-2-3-2-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.84	
30-47.1106	-108.0244	-2-15-	0-419801	07/14/79	-13-	29-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-1-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.86	
30-47.0847	-103.1900	-2-15-	0-419802	07/14/79	-14-	29-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.97	
30-47.0844	-108.2111	-2-15-	0-419803	07/14/79	-16-	31-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.84	
30-47.0881	-108.1461	-2-15-	0-419804	07/14/79	-14-	32-	-	-	-	-	-	-	-	-	7-1-6-5-5-	-1-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.25	
30-47.0958	-108.1453	-2-15-	0-419805	07/14/79	-14-	32-	-	-	-	-	-	-	-	-	14-1-6-5-5-	-1-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.54	
30-47.1025	-108.1456	-2-15-	0-419806	07/14/79	-15-	32-23.6-	-	-	-	8.4-	3500-	-	-	-	5-1-6-5-5-3-	3-1-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.04	
30-47.1122	-108.1556	-2-15-	0-419807	07/14/79	-15-	32-	-	-	-	-	-	-	-	-	22-1-6-5-5-	-1-	-2-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.86	
30-47.1500	-108.1432	-2-15-	0-419808	07/14/79	-16-	33-	-	-	-	-	-	-	-	-	7-1-6-5-5-	-1-	-2-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.73	
30-47.1636	-108.2047	-2-15-	0-419812	07/14/79	-16-	32-	-	-	-	-	-	-	-	-	7-1-6-5-5-	-1-	-1-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.61	
30-47.1544	-108.2067	-2-15-	0-419813	07/14/79	-16-	32-	-	-	-	-	-	-	-	-	7-1-6-5-5-	-1-	-1-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.94	
30-47.2422	-108.1705	-2-15-	0-419814	07/14/79	-17-	30-	-	-	-	-	-	-	-	-	7-1-6-5-5-	-1-	-1-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.09	
30-47.2522	-108.1800	-2-15-	0-419815	07/14/79	-13-	32-	-	-	-	-	-	-	-	-	11-1-5-5-5-	-1-	-1-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.66	
30-47.2864	-108.2081	-2-15-	0-419817	07/14/79	-13-	30-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.61	
30-47.3569	-108.2251	-2-15-	0-419820	07/14/79	-20-	26-	-	-	-	-	-	-	-	-	3-1-6-5-5-	-1-	-1-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.27	
30-47.3569	-108.2328	-2-12-	0-419821	07/14/79	-20-	26-24.6-	-	-	-	8.2-	5500-	-	-	-	7-1-5-5-6-3-	3-1-	-1-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.10	
30-47.3292	-108.0147	-2-15-	0-419822	07/14/79	-21-	24-	-	-	-	-	-	-	-	-	14-1-6-5-5-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.80	
30-47.2994	-108.0381	-2-15-	0-419823	07/14/79	-21-	24-	-	-	-	-	-	-	-	-	7-1-6-5-5-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.70	
30-47.3379	-108.1419	-2-15-	0-419824	07/14/79	-21-	22-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.75	
30-47.4052	-108.1822	-2-15-	0-419825	07/15/79	-6-	21-	-	-	-	-	-	-	-	-	22-1-6-5-5-	-1-	-2-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.25	
30-47.4456	-108.2037	-2-15-	0-419826	07/15/79	-6-	20-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-1-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.10	
30-47.4539	-108.2244	-2-15-	0-419827	07/15/79	-6-	20-	-	-	-	-	-	-	-	-	14-1-6-5-5-	-1-	-1-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.49	
30-47.4619	-108.2364	-2-12-	0-419828	07/15/79	-7-	20-15.4-	-	-	-	7.9-	6500-	-	-	-	7-1-6-5-5-6-3-	3-1-	-1-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.98	
30-47.4678	-108.2375	-2-12-	0-419829	07/15/79	-7-	21-15.6-	-	-	-	7.8-	13000-	-	-	-	7-1-6-5-5-6-3-	3-1-	-2-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.45	
30-47.4733	-108.1586	-2-12-	0-419832	07/15/79	-8-	21-17.4-	-	-	-	7.9-	1100-	-	-	-	11-1-6-5-5-6-3-	3-3-	-1-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.62	
30-47.4675	-108.1900	-2-12-	0-419833	07/15/79	-8-	24-17.4-	-	-	-	7.7-	14000-	-	-	-	14-1-6-5-5-6-3-	3-3-	-1-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.42	
30-47.4747	-108.0717	-2-12-	0-419834	07/15/79	-15-	27-19.4-	-	-	-	7.7-	13000-	-	-	-	9-1-5-5-5-6-3-	3-1-	-1-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.35	
30-47.4744	-108.0769	-2-12-	0-419835	07/15/79	-16-	28-23.4-	-	-	-	7.5-	9000-	-	-	-	13-1-6-5-5-6-3-	3-3-	-1-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.51	
30-47.4708	-108.0867	-2-15-	0-419836	07/15/79	-16-	32-	-	-	-	-	-	-	-	-	13-1-6-5-5-	-1-	-2-4-3-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.81	
30-47.4681	-108.0933	-2-15-	0-419837	07/15/79	-16-	33-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.58	
30-47.4653	-108.0919	-2-15-	0-419838	07/15/79	-16-	34-	-	-	-	-	-	-	-	-	14-1-6-5-5-	-1-	-1-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.57	
30-47.4572	-108.0242	-2-15-	0-419839	07/15/79	-16-	33-	-	-	-	-	-	-	-	-	18-1-5-5-5-	-1-	-1-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.53	
30-47.4614	-108.0362	-2-15-	0-419841	07/15/79	-16-	34-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.49	
30-47.3944	-108.0423	-2-15-	0-419842	07/15/79	-17-	33-	-	-	-	-	-	-	-	-	14-1-6-5-5-	-1-	-2-1-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.36	
30-47.3908	-108.1303	-2-15-	0-419843	07/15/79	-18-	31-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.72	
30-47.3908	-108.1385	-2-15-	0-419844	07/15/79	-18-	33-	-	-	-	-	-	-	-	-	14-1-6-5-5-	-1-	-1-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.79	
30-47.3891	-108.2161	-2-15-	0-419846	07/15/79	-19-	31-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.43	
30-47.3808	-108.2467	-2-12-	0-419847	07/15/79	-19-	31-23.9-	-	-	-	7.4-	1300-	-	-	-	14-1-6-5-5-6																			

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	
30-47.9253-109.4123-2-15-						0-419794	-5	-5	-5	25	-20	72	8	-10	-15	3	54	
30-47.9333-109.3397-2-15-						0-419795	-5	-5	-5	44	-20	55	-5	-10	-15	3	43	
30-47.9411-109.3053-2-15-						0-419797	-5	-5	-5	38	-20	162	-5	-10	-15	2	27	
30-47.9375-109.3131-2-15-						0-419798	-5	-5	-5	45	-20	123	13	-10	-15	2	32	
30-47.9603-109.2661-2-15-						0-419791	-5	-5	-5	40	-20	124	7	-10	-15	3	39	
30-47.9528-109.2731-2-15-						0-419792	-5	-5	-5	45	-20	107	7	-10	-15	3	39	
30-47.9456-109.2778-2-15-						0-419793	-5	-5	-5	39	-20	325	-5	-10	-15	3	36	
30-47.9742-109.3300-2-15-						0-419796	-5	-5	-5	24	-20	98	6	-10	-15	2	39	
30-47.8939-109.3647-2-15-						0-419799	-5	-5	-5	45	-20	16	5	-10	-15	3	46	
30-47.8833-109.3944-2-15-						0-419793	-5	-5	-5	40	-20	25	6	-10	-15	3	58	
30-47.9747-109.4033-2-15-						0-419800	-5	-5	-5	48	-20	252	13	-10	-15	2	21	
30-47.1106-108.0244-2-15-						0-419801	-5	-5	-5	31	-20	51	11	-10	-15	2	45	
30-47.0847-108.1900-2-15-						0-419802	-5	-5	-5	17	-20	20	-5	-10	-15	1	26	
30-47.0844-108.2111-2-15-						0-419803	-5	-5	-5	28	-20	-15	10	-10	-15	1	23	
30-47.0891-108.1461-2-15-						0-419804	-5	-5	-5	15	-20	-15	-5	-10	-15	2	23	
30-47.0958-108.1453-2-15-						0-419805	-5	-5	-5	19	-20	-15	-5	-10	-15	2	21	
30-47.1025-108.1456-2-12-						0-419806	-5	-5	-5	24	-20	-15	-5	-10	-15	2	36	
30-47.1122-108.1556-2-15-						0-419807	-5	-5	-5	28	-20	-15	5	-10	-15	2	50	
30-47.1500-108.1433-2-15-						0-419810	-5	-5	-5	21	-20	17	6	-10	-15	2	29	
30-47.1636-108.2047-2-15-						0-419811	-5	-5	-5	27	-20	18	-5	-10	-15	2	28	
30-47.1544-108.2069-2-15-						0-419813	-5	-5	-5	29	-20	15	7	-10	-15	1	21	
30-47.2422-108.1704-2-15-						0-419814	-5	-5	-5	24	-20	23	9	-10	-15	2	34	
30-47.2522-108.1800-2-15-						0-419815	-5	-5	-5	32	-20	-15	7	-10	-15	1	32	
30-47.2354-108.2081-2-15-						0-419817	-5	-5	-5	28	-20	-15	5	-10	-15	2	24	
30-47.3569-108.2253-2-15-						0-419820	-5	-5	-5	-10	-20	-15	-5	-10	-15	1	24	
30-47.3569-108.2328-2-12-						0-419821	-5	-5	-5	24	-20	-15	-5	-10	-15	2	55	
30-47.3272-108.0147-2-15-						0-419822	-5	-5	-5	30	-20	20	-5	-10	-15	2	32	
30-47.2994-108.0381-2-15-						0-419823	-5	-5	-5	24	-20	-15	-5	-10	-15	2	34	
30-47.3378-108.1419-2-15-						0-419824	-5	-5	-5	20	-20	-15	-5	-10	-15	1	19	
30-47.4053-108.1822-2-15-						0-419825	-5	-5	-5	20	-20	-15	5	-10	-15	1	27	
30-47.4456-108.2032-2-15-						0-419826	-5	-5	-5	38	-20	21	7	-10	-15	2	49	
30-47.4639-108.2244-2-15-						0-419827	-5	-5	-5	29	-20	30	6	-10	-15	2	41	
30-47.4619-108.2354-2-12-						0-419828	-5	-5	-5	21	-20	15	7	-10	-15	2	35	
30-47.4678-108.2378-2-12-						0-419829	-5	-5	-5	36	-20	32	11	-10	-15	2	46	
30-47.4733-108.1584-2-12-						0-419830	-5	-5	-5	29	-20	31	-5	-10	-15	2	48	
30-47.4675-108.1900-2-12-						0-419833	-5	-5	-5	41	-20	32	14	-10	-15	2	56	
30-47.4747-108.0717-2-12-						0-419834	-5	-5	-5	40	-20	47	8	-10	-15	2	38	
30-47.4744-108.0769-2-12-						0-419835	-5	-5	-5	33	-20	-15	-5	-10	-15	2	42	
30-47.4708-108.0867-2-15-						0-419836	-5	-5	-5	46	-20	43	13	-10	-15	2	50	
30-47.4681-108.0933-2-15-						0-419837	-5	-5	-5	31	-20	27	7	-10	-15	2	35	
30-47.4653-108.0819-2-15-						0-419839	-5	-5	-5	32	-20	33	10	-10	-15	2	46	
30-47.4672-108.0242-2-15-						0-419840	-5	-5	-5	37	-20	25	10	-10	-15	2	49	
30-47.4614-108.0342-2-15-						0-419841	-5	-5	-5	43	-20	31	5	-10	-15	2	42	
30-47.3944-108.0425-2-15-						0-419842	-5	-5	-5	21	-20	-15	7	-10	-15	1	32	
30-47.3908-108.1308-2-15-						0-419843	-5	-5	-5	33	-20	17	5	-10	-15	1	30	
30-47.3908-108.1386-2-15-						0-419844	-5	-5	-5	34	-20	27	-5	-10	-15	1	38	
30-47.3881-108.2161-2-15-						0-419846	-5	-5	-5	27	-20	-15	-5	-10	-15	2	24	
30-47.3808-108.2467-2-12-						0-419847	-5	-5	-5	18	-20	-15	-5	-10	-15	1	19	
30-47.3303-108.2519-2-15-						0-419848	-5	-5	-5	18	-20	16	8	-10	-15	2	32	
30-47.3694-108.2753-2-15-						0-419850	-5	-5	-5	26	-20	-15	6	-10	-15	1	31	
30-47.3944-108.9506-2-15-						0-419851	-5	-5	-5	22	-20	-15	-5	-10	-15	2	26	

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
30-47.9253-109.4128-2-15-						7-419784	67860	-0.07	1150	22770	54	-76	15.4	246	6.0	5	1.4	34480	6.2	18290	41	0.4
30-47.9333-109.3397-2-15-						8-419784	67390	-0.07	939	27050	54	-68	15.5	216	6.2	4	1.5	34890	4.4	23680	31	0.4
30-47.9411-109.3053-2-15-						8-419787	47780	-0.07	1300	39100	55	174	25.3	548	4.3	3	1.6	38940	5.2	25580	31	0.2
30-47.9375-109.3131-2-15-						1-419788	55820	-0.07	1124	25340	53	-68	15.3	321	4.4	4	1.3	30730	4.4	23080	23	0.3
30-47.9603-109.2561-2-15-						7-419791	52310	-0.09	1150	37060	63	-93	27.2	496	4.7	3	1.7	39230	4.5	22570	32	0.3
30-47.9528-109.2731-2-15-						7-419792	55830	-0.08	1190	31190	59	66	22.0	387	6.5	4	1.5	39700	4.6	25050	34	0.3
30-47.9456-109.2778-2-15-						7-419793	56320	-0.07	1517	18580	46	203	38.6	423	4.9	3	0.9	49100	3.2	29100	28	0.2
30-47.8742-109.3300-2-15-						7-419794	50410	-0.09	984	40080	80	-70	21.2	656	3.8	4	1.8	39980	11.6	20010	33	0.3
30-47.9939-109.3647-2-15-						7-419799	79850	-0.08	926	7026	69	-61	14.3	136	7.0	5	1.5	38250	4.8	21860	33	0.4
30-47.8833-109.3944-2-15-						7-419799	91430	-0.07	354	10020	64	-53	14.9	106	6.9	5	1.3	42280	4.4	23060	35	0.4
30-47.9747-109.4033-2-15-						7-419800	40240	-0.08	1372	64440	51	186	37.8	883	2.9	3	1.7	51280	3.4	21430	29	0.2
30-47.1106-109.0244-2-15-						7-419801	74430	-0.08	1742	16190	59	-76	10.9	77	4.5	4	1.2	31280	4.3	16240	32	0.4
30-47.0847-108.1900-2-15-						7-419802	40360	-0.05	522	14500	48	-41	5.1	45	3.0	3	1.0	16920	6.3	13300	22	0.2
30-47.0844-108.2111-2-15-						7-419803	54170	-0.06	593	7190	54	-56	8.0	59	4.1	4	1.4	25370	6.0	18190	33	0.3
30-47.0881-108.1461-2-15-						7-419804	44720	-0.05	605	10510	52	-45	5.3	45	3.3	3	1.1	18330	7.1	17830	32	0.3
30-47.0958-108.1453-2-15-						7-419805	44280	-0.05	685	4130	59	-49	5.2	45	2.7	4	1.2	14470	9.6	16480	26	0.3
30-47.1025-108.1456-2-15-						7-419806	52500	-0.06	622	14880	50	-57	6.4	57	4.5	4	1.2	20100	6.3	16480	32	0.3
30-47.1122-108.1556-2-15-						7-419807	65530	-0.06	625	27900	59	-67	7.7	46	4.2	4	1.2	23300	5.5	20950	34	0.4
30-47.1600-108.1433-2-15-						7-419810	51220	-0.05	549	30870	66	48	7.2	39	3.9	5	1.3	18560	8.5	17610	33	0.3
30-47.1636-108.2047-2-15-						7-419812	54410	-0.06	525	29490	67	-59	6.0	37	3.6	5	1.3	16840	8.4	17560	32	0.4
30-47.1544-108.2069-2-15-						7-419813	63320	-0.07	475	9598	59	-71	4.6	43	4.0	5	1.3	19700	6.1	19660	33	0.4
30-47.2422-108.1708-2-15-						7-419814	76050	-0.08	520	21520	59	-75	9.3	55	4.8	4	1.4	29050	5.0	19720	31	0.4
30-47.2522-108.1800-2-15-						7-419815	52110	-0.06	1005	15150	52	-77	11.0	58	3.1	4	1.2	23940	4.8	18850	25	0.2
30-47.2864-108.2081-2-15-						7-419817	56900	-0.07	670	9199	64	-60	5.5	36	3.4	5	1.4	17910	7.7	18010	33	0.4
30-47.3569-108.2253-2-15-						7-419820	46540	-0.04	947	22620	47	78	3.8	32	1.9	4	1.5	10040	7.1	16420	27	0.3
30-47.3569-108.2323-2-15-						7-419821	53970	-0.05	534	24670	53	-88	5.8	39	3.1	5	1.2	16850	7.8	20020	31	0.4
30-47.3292-108.0147-2-15-						7-419822	61840	-0.05	733	25040	71	-66	7.8	44	5.4	4	1.4	23320	8.3	18240	33	0.4
30-47.2994-108.0381-2-15-						7-419823	57060	-0.06	775	29370	69	-63	6.8	51	3.9	5	1.2	21440	8.0	17380	29	0.5
30-47.3378-108.1419-2-15-						7-419824	52990	-0.04	629	5217	65	-62	5.3	37	3.2	5	1.4	16110	10.7	18570	33	0.4
30-47.4053-108.1822-2-15-						7-419825	49910	-0.04	1129	16410	51	-78	5.4	33	2.8	4	0.7	16520	6.2	18140	30	0.3
30-47.4456-108.2039-2-15-						7-419826	73020	-0.05	745	9371	60	-91	13.6	79	6.5	4	1.4	38280	5.0	18920	30	0.3
30-47.4639-108.2244-2-15-						7-419827	70830	-0.07	731	11720	55	-67	11.6	75	6.1	4	1.3	33630	6.3	19320	37	0.3
30-47.4619-108.2364-2-15-						7-419828	64020	-0.05	1141	15020	62	-69	10.0	56	4.1	4	1.6	28980	5.8	17130	29	0.4
30-47.4678-108.2373-2-15-						7-419829	74230	-0.06	933	9969	59	-74	16.0	79	5.7	5	1.7	39790	5.9	17430	34	0.4
30-47.4733-108.1585-2-15-						7-419832	78020	-0.06	750	7466	64	-65	17.7	76	6.2	4	1.3	44540	5.3	20090	33	0.4
30-47.4675-108.1900-2-15-						7-419833	73410	-0.07	745	17790	67	-57	17.6	94	7.1	4	1.1	38940	4.7	22460	29	0.4
30-47.4747-108.0717-2-15-						7-419834	74740	-0.05	913	5901	56	178	16.1	82	6.0	5	1.2	41530	4.0	18220	30	0.3
30-47.4744-108.0769-2-15-						7-419835	74850	-0.06	1112	10600	50	106	16.8	89	5.6	5	1.6	39640	5.6	18220	34	0.4
30-47.4708-108.0867-2-15-						7-419836	76260	-0.06	743	7954	63	-61	18.2	89	7.9	6	1.4	48520	4.6	23550	37	0.5
30-47.4681-108.0933-2-15-						7-419837	62910	-0.06	1073	7230	74	-82	10.6	76	4.1	5	1.7	29680	10.4	17100	37	0.4
30-47.4653-108.0819-2-15-						7-419838	74340	-0.05	733	9428	62	-66	14.6	78	7.0	5	1.6	38660	5.7	19860	33	0.3
30-47.4572-108.0242-2-15-						7-419839	73070	-0.07	945	9114	73	-62	11.2	90	5.2	5	1.5	35290	6.2	19280	35	0.3
30-47.4614-108.0342-2-15-						7-419841	74590	-0.06	445	6447	62	-75	15.7	72	7.8	5	1.4	47550	4.5	19730	30	0.5
30-47.3944-108.0425-2-15-						7-419842	61310	-0.05	540	16120	73	-64	6.1	40	3.7	5	1.3	16870	9.3	19990	38	0.5
30-47.3908-108.1308-2-15-						7-419843	67730	-0.05	1430	15320	59	-80	14.9	66	3.4	3	0.8	29760	6.2	17860	30	0.3
30-47.3908-108.1386-2-15-						7-419844	65990	-0.06	1174	11980	59	-75	11.1	70	4.1	4	1.3	28520	4.9	17520	29	0.3
30-47.3831-108.2161-2-15-						7-419846	51000	-0.04	450	18430	60	-63	4.0	32	3.3	4	1.3	14630	8.8	15880	32	0.4
30-47.3908-108.2457-2-15-						7-419847	50140	-0.04	574	32330	51	-63	5.8	36	2.9	5	1.2	15960	9.0	16520	34	0.4
30-47.3303-108.2519-2-15-						7-419849	61140	-0.05	715	21840	61	149	10.3	45	4.4	4	1.3	25490	7.7	15740	30	0.3
30-47.3634-108.2753-2-15-						7-419850	48910	-0.06	1334	29810	59	118	6.2	34	2.5	4	1.3	17070	5.3	22830	28	0.3
30-47.3944-108.8505-2-15-						7-419851	58510	-0.05	709	11520	57	65	5.1	38	3.2	4	1.3	20360	6.3	17420	29	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	
30-47.9253-109.4129-2-15-	0-419796	32940	397	9156	97	-2	14.0	5.4	-254	-1	-1	9.6	3546	154	2.7	107	0.388					
30-47.9333-109.3397-2-15-	0-419796	32050	433	9110	102	-2	13.9	5.8	183	-1	-1	10.1	3600	181	2.8	113	0.425					
30-47.9411-109.3053-2-15-	0-419797	55710	737	13130	113	-2	17.7	4.7	-292	-1	-1	7.0	3866	113	-1.5	93	0.380					
30-47.9375-109.3131-2-15-	0-419799	46090	446	10150	68	-2	10.7	5.0	361	-1	-1	7.7	2987	119	2.8	-56	0.335					
30-47.9603-109.2661-2-15-	0-419701	53870	241	7525	97	-2	13.0	4.7	-384	-2	-1	6.8	3769	169	2.5	105	0.403					
30-47.9528-109.2731-2-15-	0-419702	52190	543	9399	93	-2	15.0	4.9	-256	-1	-1	10.9	3490	159	2.4	145	0.308					
30-47.9456-109.2778-2-15-	0-419703	92890	723	14590	117	-2	15.7	4.3	501	-1	-1	8.3	4019	128	-1.9	122	0.465					
30-47.9742-109.3300-2-15-	0-419704	54040	756	7951	65	-2	12.5	6.2	496	-1	-1	10.4	4093	158	4.2	-44	0.269					
30-47.9939-109.3647-2-15-	0-419709	19420	277	4922	103	-2	15.2	5.7	-233	-1	-1	10.9	4524	219	3.1	-52	0.327					
30-47.8833-109.3944-2-15-	0-419709	16840	279	5255	93	-2	14.3	5.5	-191	-1	-1	11.1	4740	238	3.3	270	0.323					
30-47.9747-109.4033-2-15-	0-419900	114300	1019	12330	86	-2	30.5	5.0	433	-1	-1	5.7	2986	142	2.0	-44	0.323					
30-47.1106-109.0244-2-15-	0-419901	25720	475	12110	71	-2	11.6	4.6	340	-1	-1	9.5	4071	133	3.9	109	0.301					
30-47.0847-108.1900-2-15-	0-419902	14930	125	3459	49	-1	5.8	3.8	-143	-1	-1	6.4	2343	101	1.8	54	0.308					
30-47.0944-108.2111-2-15-	0-419903	15450	266	6565	70	-2	9.2	4.6	-189	-1	-1	9.2	3214	109	2.9	114	0.309					
30-47.0991-108.1461-2-15-	0-419904	12530	199	5499	60	-1	6.4	4.3	-157	-1	-1	7.9	2885	96	3.1	76	0.285					
30-47.0959-108.1453-2-15-	0-419905	6530	232	6700	42	-1	5.6	4.6	-156	-1	-1	7.9	3586	90	2.8	-27	0.326					
30-47.1325-108.1456-2-12-	0-419906	20610	197	5469	51	-2	3.1	4.4	-191	-1	-1	7.5	3106	117	2.8	-70	0.405					
30-47.1122-108.1556-2-15-	0-419907	23590	279	9279	71	-2	9.6	5.4	-202	-1	-1	9.9	3352	83	3.7	42	0.289					
30-47.1500-108.1433-2-15-	0-419910	24900	323	9521	69	-1	5.7	4.8	-192	-1	-1	10.4	2859	53	4.1	68	0.263					
30-47.1636-108.2347-2-15-	0-419912	25210	303	9201	78	-2	5.3	5.1	-186	-1	-1	10.0	3203	49	3.9	-19	0.261					
30-47.1544-108.2069-2-15-	0-419913	12590	267	6391	92	-2	7.7	6.5	-249	-1	-1	9.7	3591	63	3.1	-55	0.509					
30-47.2422-108.1704-2-15-	0-419914	27760	297	9727	60	-2	10.4	5.1	-230	-1	-1	10.0	3520	95	3.3	-40	0.309					
30-47.2522-108.1800-2-15-	0-419916	15070	334	15260	69	3	9.0	4.2	-223	-1	-1	9.6	3233	82	3.4	-88	0.277					
30-47.2364-108.2031-2-15-	0-419917	17070	253	9224	66	-2	6.8	5.9	-184	-1	-1	10.0	3164	59	3.0	57	0.241					
30-47.3563-108.2253-2-15-	0-419920	15110	267	17370	53	-1	4.0	4.5	-232	-1	-1	6.4	2726	42	3.1	-22	0.355					
30-47.3559-108.2325-2-12-	0-419921	16750	333	16360	57	-1	6.2	5.1	-252	-1	-1	9.3	3333	54	3.3	-30	0.333					
30-47.3292-108.0147-2-15-	0-419922	20150	277	9269	69	-1	7.7	5.5	-198	-1	-1	10.6	2951	65	3.4	155	0.264					
30-47.2394-108.0381-2-15-	0-419923	24400	292	9791	75	-1	6.9	5.1	-202	-1	-1	10.0	3162	66	3.6	-25	0.270					
30-47.3378-109.1419-2-15-	0-419924	9511	349	10760	62	-1	6.0	4.8	-193	-1	-1	10.0	2394	54	3.2	40	0.275					
30-47.4053-109.1922-2-15-	0-419925	16230	349	13620	57	-1	5.7	4.7	-234	-1	-1	7.7	2878	51	2.6	67	0.292					
30-47.4456-109.2033-2-15-	0-419926	17400	369	10990	85	-2	12.1	4.3	-245	-1	-1	10.8	3334	147	2.7	90	0.380					
30-47.4639-109.2244-2-15-	0-419927	17800	385	9276	59	-2	10.1	6.3	-222	-1	-1	9.9	3733	150	3.6	-12	0.353					
30-47.4619-108.2364-2-12-	0-419928	17570	383	12360	76	-1	9.2	5.0	-213	-1	-1	10.1	3391	103	2.8	102	0.295					
30-47.4679-108.2374-2-12-	0-419929	17770	463	9207	76	2	11.4	5.3	-256	-1	1	11.3	3930	170	2.9	209	0.292					
30-47.4733-109.1686-2-12-	0-419930	16490	417	9334	74	-2	12.4	5.1	-221	-1	-1	12.0	3955	184	2.8	127	0.302					
30-47.4675-108.1900-2-12-	0-419933	17950	409	5977	95	-2	12.0	5.7	-209	-1	-1	10.0	4224	198	2.4	116	0.342					
30-47.4747-108.0717-2-12-	0-419934	19640	397	17210	103	-2	11.9	5.0	-245	-1	-1	9.9	3767	170	2.9	-12	0.338					
30-47.4744-108.0763-2-12-	0-419935	16350	433	9209	80	-2	11.0	6.3	435	-1	-1	11.1	3681	167	3.4	113	0.316					
30-47.4703-108.0957-2-15-	0-419936	19510	470	7411	91	-2	13.2	5.1	-222	-1	-1	11.6	3775	197	3.6	177	0.328					
30-47.4581-108.0933-2-15-	0-419937	11160	377	12710	62	-2	7.4	6.0	232	-1	-1	9.3	5109	111	3.4	76	0.385					
30-47.4653-108.0919-2-15-	0-419939	16780	342	9252	93	-2	11.9	5.5	-210	-1	-1	10.1	4836	181	3.4	-107	0.353					
30-47.4672-108.0242-2-15-	0-419939	16490	346	9126	65	-2	10.5	5.6	-208	-1	-1	11.3	3763	166	3.2	82	0.312					
30-47.4614-108.0342-2-15-	0-419941	21170	473	12700	79	-2	13.4	5.7	-235	-1	-1	10.5	3931	199	4.0	115	0.332					
30-47.3944-109.0425-2-15-	0-419942	16350	297	8232	64	1	7.1	6.0	-206	-1	-1	11.5	3799	59	2.6		0.249					
30-47.3909-109.1308-2-15-	0-419943	19570	417	13720	66	-1	9.3	4.3	392	-1	-1	9.9	3418	99	3.4	92	0.278					
30-47.3908-109.1346-2-15-	0-419944	17230	356	13800	51	-2	9.3	4.4	238	-1	-1	9.6	3535	103	1.9	-39	0.291					
30-47.3881-109.2161-2-15-	0-419946	12550	269	13540	62	-1	5.0	4.9	-192	-1	-1	7.3	2970	44	3.1	-21	0.333					
30-47.3808-109.2467-2-12-	0-419947	25060	293	9392	57	-1	5.4	5.3	-230	-1	-1	9.9	2607	41	3.0	91	0.270					
30-47.3303-108.2512-2-15-	0-419949	12340	457	11960	70	-1	7.8	4.7	-236	-1	-1	8.9	2951	79	3.4	87	0.344					
30-47.3594-108.2753-2-15-	0-419950	16160	493	19590	51	-1	5.4	4.7	-252	-1	-1	8.2	2782	51	2.2	-33	0.326					
30-47.3944-109.9506-2-15-	0-419951	11900	333	9673	70	-1	6.5	4.1	-193	-1	-1	7.8	2301	76	2.2	-61	0.328					

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

[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	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)										Be	Li
							Ag	Bi	Cd	Cu	Nb	Ni	Pb	Sn	W			
30-47.4214-109.8856-2-15-						0-413892	-5	-5	-5	26	-20	-15	12	-10	-15	2	25	
30-47.3979-109.8083-2-15-						0-413893	-5	-5	-5	29	-20	15	3	-10	-15	2	38	
30-47.3917-109.8042-2-15-						0-413894	-5	-5	-5	23	-20	15	-5	-10	-15	2	25	
30-47.3881-109.8208-2-15-						0-413895	-5	-5	-5	24	-20	29	7	-10	-15	2	31	
30-47.4014-109.9592-2-15-						0-413896	-5	-5	-5	26	-20	-15	-5	-10	-15	2	36	
30-47.4033-109.9614-2-15-						0-413897	-5	-5	-5	25	-20	-15	-5	-10	-15	2	29	
30-47.4106-109.9572-2-15-						0-413898	-5	-5	-5	15	-20	-15	6	-10	-15	2	27	
30-47.4308-109.8928-2-15-						0-413899	-5	-5	-5	29	-20	-15	10	-10	-15	2	25	
30-47.4364-109.8950-2-15-						0-413900	-5	-5	-5	19	-20	-15	-5	-10	-15	2	20	
30-47.4411-109.9042-2-15-						0-413901	-5	-5	-5	20	-20	-15	7	-10	-15	2	41	
30-47.4342-109.9354-2-12-						0-413902	-5	-5	-5	27	-20	-15	-5	-10	-15	2	37	
30-47.9275-109.3533-2-15-						0-413903	-5	7	-5	29	-20	-15	33	-10	-15	2	47	
30-47.7456-108.6303-2-15-						0-413904	-5	-5	-5	39	-20	40	9	-10	-15	2	48	
30-47.7267-109.6493-2-15-						0-413905	-5	6	-5	32	-20	-15	10	-10	-15	2	45	
30-47.7269-108.6455-2-15-						0-413906	-5	-5	-5	38	-20	30	6	-10	-15	2	44	
30-47.7186-108.6836-2-15-						0-413907	-5	-5	-5	20	-20	41	16	-10	-15	2	62	
30-47.7486-109.7031-2-15-						0-413908	-5	-5	-5	34	-20	27	10	-10	-15	2	57	
30-47.7139-109.7019-2-15-						0-413909	-5	-5	-5	47	-20	33	11	-10	-15	3	63	
30-47.7075-108.6994-2-15-						0-413910	-5	-5	-5	36	-20	33	18	-10	-15	2	54	
30-47.6400-109.7017-2-15-						0-413911	-5	-5	-5	36	-20	19	8	-10	-15	2	61	
30-47.7281-109.5408-2-15-						0-413912	-5	-5	-5	38	-20	31	5	-10	-15	3	63	
30-47.7289-108.5447-2-15-						0-413913	-5	-5	-5	49	-20	26	9	-10	-15	3	57	
30-47.7264-109.5400-2-15-						0-413914	-5	-5	-5	37	-20	37	7	-10	-15	3	75	
30-47.7153-109.4429-2-15-						0-413915	-5	-5	-5	47	-20	50	7	-10	-15	2	59	
30-47.7175-109.4406-2-15-						0-413916	-5	-5	-5	36	-20	-15	3	-10	-15	2	60	
30-47.7358-109.3861-2-15-						0-413917	-5	-5	-5	39	-20	46	12	-10	-15	3	51	
30-47.7411-109.3950-2-15-						0-413918	-5	-5	-5	39	-20	34	11	-10	-15	2	59	
30-47.7417-108.3878-2-15-						0-413919	-5	-5	-5	41	-20	36	-5	-10	-15	3	76	
30-47.7422-108.3947-2-12-						0-413920	-5	-5	-5	36	-20	27	9	-10	-15	2	57	
30-47.7056-108.3961-2-15-						0-413921	-5	5	-5	39	-20	35	-5	-10	-15	2	96	
30-47.1136-109.0292-2-15-						0-413922	-5	-5	-5	36	-20	33	11	-10	-15	2	49	
30-47.3628-109.2744-2-15-						0-413923	-5	-5	-5	19	-20	23	5	-10	-15	1	34	
30-47.6336-109.1717-2-15-						0-413924	-5	-5	-5	26	-20	-15	11	-10	-15	2	41	
30-47.6475-109.1709-2-15-						0-413925	-5	-5	-5	35	-20	-15	14	-10	-15	2	41	
30-47.6592-109.1719-2-12-						0-413926	-5	-5	-5	26	-20	31	-5	-10	-15	2	83	
30-47.6911-109.2411-2-15-						0-413927	-5	5	-5	30	-20	-15	6	-10	-15	1	39	
30-47.6914-109.2209-2-15-						0-413928	-5	-5	-5	26	-20	-15	-5	-10	-15	2	37	
30-47.7028-109.2000-2-15-						0-413929	-5	-5	-5	31	-20	-15	8	-10	-15	2	42	
30-47.7292-109.2008-2-15-						0-413930	-5	5	-5	29	-20	17	8	-10	-15	2	58	
30-47.7244-109.2003-2-12-						0-413931	-5	-5	-5	26	-20	-15	-5	-10	-15	2	50	
30-47.7014-109.1611-2-12-						0-413932	-5	-5	-5	27	-20	-15	-5	-10	-15	2	29	
30-47.7064-109.1531-2-12-						0-413933	-5	-5	-5	15	-20	-15	5	-10	-15	2	31	
30-47.7086-109.0906-2-15-						0-413934	-5	-5	-5	20	-20	-15	-5	-10	-15	2	37	
30-47.7539-109.0278-2-12-						0-413935	-5	-5	-5	34	-20	18	-5	-10	-15	2	36	
30-47.7564-109.0311-2-15-						0-413936	-5	-5	-5	27	-20	-15	-5	-10	-15	2	36	
30-47.7497-109.0267-2-12-						0-413937	-5	6	-5	18	-20	17	5	-10	-15	2	31	
30-47.7181-109.0222-2-15-						0-413938	-5	5	-5	18	-20	-15	5	-10	-15	2	43	
30-47.7081-109.0709-2-15-						0-413939	-5	-5	-5	30	-20	22	11	-10	-15	2	48	
30-47.6911-109.1692-2-15-						0-413940	-5	-5	-5	30	-20	37	7	-10	-15	2	69	
30-47.6789-109.1675-2-15-						0-413941	-5	-5	-5	33	-20	23	9	-10	-15	2	43	
30-47.6731-109.1683-2-15-						0-413942	-5	-5	5	37	-20	-15	11	-10	-15	2	44	

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	Bc	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
30-47.4214-109.8956-2-15-	0-419952	51773	-0.05	733	14993	49	-67	7.4	47	3.9	3	1.2	22230	4.5	12650	25	0.3					
30-47.3978-109.8083-2-15-	0-419940	50050	-0.04	772	24770	57	-60	7.9	43	3.8	3	1.3	21550	7.1	19100	31	0.3					
30-47.3817-109.8042-2-15-	0-419941	53223	-0.05	555	11730	65	-56	6.0	37	2.6	4	1.4	17350	8.3	14100	35	0.3					
30-47.3981-109.8208-2-15-	0-419942	53600	-0.05	735	8379	54	-59	6.9	40	3.5	4	1.3	21720	7.4	15590	33	0.3					
30-47.4014-109.9592-2-15-	0-419945	55303	-0.04	434	43350	58	158	6.5	43	4.9	4	1.1	23430	5.7	17450	28	0.3					
30-47.4033-109.9614-2-15-	0-419947	53047	-0.03	700	38640	49	103	5.3	39	3.2	3	1.3	17360	6.5	20020	25	0.2					
30-47.4106-109.9572-2-15-	0-419949	52073	-0.03	709	47800	49	105	5.6	32	2.9	3	1.5	17920	7.4	19430	27	0.3					
30-47.4303-109.9928-2-15-	0-419940	57450	-0.03	943	16040	51	-70	5.8	33	2.9	3	1.2	18120	6.7	17770	25	0.2					
30-47.4364-109.8950-2-15-	0-419971	49840	-0.02	558	13710	49	-58	2.6	21	1.2	2	1.2	12370	10.3	12590	27	0.2					
30-47.4411-109.9042-2-15-	0-419972	55000	-0.03	634	34930	55	142	5.2	38	3.6	3	1.4	18200	9.8	17080	29	0.3					
30-47.4342-109.9364-2-12-	0-419974	58940	-0.03	632	53100	49	112	7.5	40	3.3	3	1.3	20680	5.0	14970	26	0.2					
30-47.9275-108.3533-2-15-	0-419990	53320	-0.04	719	32770	67	-57	8.4	62	5.2	5	1.5	26990	6.6	16550	29	0.3					
30-47.7456-108.5303-2-15-	0-419992	73630	-0.04	777	11450	62	-64	13.7	76	6.2	5	1.4	39790	4.5	22080	31	0.4					
30-47.7267-108.5483-2-15-	0-419994	67130	-0.03	905	15860	56	-62	11.4	81	5.3	5	1.3	33840	5.9	22680	32	0.3					
30-47.7269-108.5456-2-15-	0-419995	55290	-0.03	782	7172	66	143	13.3	79	5.5	5	1.2	35590	5.3	18890	32	0.4					
30-47.7186-108.5836-2-15-	0-419996	77310	-0.05	953	9927	71	-59	14.9	91	7.1	5	1.4	38610	5.5	22890	35	0.4					
30-47.7486-108.7031-2-15-	0-419997	71920	-0.04	1337	15120	57	187	15.3	83	6.8	6	1.4	44300	4.2	22680	33	0.4					
30-47.7139-108.7019-2-15-	0-419998	76840	-0.04	902	15380	57	-66	14.8	104	7.0	4	1.2	39240	3.9	24500	33	0.4					
30-47.7075-108.5994-2-15-	0-419999	75670	-0.04	1051	9900	76	-55	19.8	92	6.8	5	1.5	47020	4.8	18690	34	0.4					
30-47.6400-108.7017-2-15-	0-419990	70930	-0.04	1469	13830	70	-73	12.9	81	5.0	6	2.3	36000	4.9	20040	33	0.4					
30-47.7281-108.5408-2-15-	0-419991	91820	-0.04	889	5986	54	-57	14.0	90	6.8	5	1.2	40730	3.9	23520	30	0.4					
30-47.7289-108.5447-2-15-	0-419992	72280	0.51	828	9316	59	-56	16.8	98	6.4	5	1.5	45440	5.6	21550	34	0.4					
30-47.7264-108.5400-2-15-	0-419993	74570	-0.04	989	9831	64	-57	13.4	89	7.7	5	1.3	47500	5.0	22280	32	0.4					
30-47.7153-108.4428-2-15-	0-419994	90520	-0.05	929	10740	68	-55	14.3	104	6.4	5	1.4	39570	4.2	25250	31	0.3					
30-47.7175-108.4406-2-15-	0-419995	76710	-0.04	813	9157	66	-69	12.3	78	5.6	5	1.4	36290	4.5	20380	30	0.3					
30-47.7358-108.3861-2-15-	0-419996	90090	-0.05	719	10350	64	-58	17.1	98	8.1	5	1.7	48840	4.5	20930	34	0.5					
30-47.7411-108.3950-2-15-	0-419997	75210	-0.04	948	9738	59	-58	16.7	96	6.4	5	1.2	43290	5.1	20930	35	0.3					
30-47.7417-108.3878-2-15-	0-419998	75920	-0.05	1016	9718	72	-63	15.2	92	7.0	5	1.6	45300	5.0	21940	33	0.3					
30-47.7422-108.3947-2-12-	0-419999	79630	-0.04	1123	9529	62	-73	13.7	91	7.5	5	1.7	47490	4.6	23330	31	0.3					
30-47.7056-108.3961-2-15-	0-419990	69440	-0.04	905	15460	57	-75	14.3	81	6.1	4	1.4	42030	5.0	18160	34	0.4					
30-47.1136-108.0292-2-15-	0-419991	69940	-0.03	1092	12950	51	-68	17.3	78	5.3	4	1.4	35690	4.3	19630	30	0.3					
30-47.3628-108.2744-2-15-	0-419992	52190	-0.03	930	14880	51	-69	7.7	45	3.4	4	1.3	19640	6.9	17490	26	0.4					
30-47.6336-109.1717-2-15-	0-419993	53990	-0.03	831	17030	59	-76	7.5	57	4.6	5	1.4	24470	6.7	21020	33	0.4					
30-47.6475-109.1708-2-15-	0-419994	53530	-0.04	963	11860	68	-87	9.2	74	4.9	4	1.2	29650	5.8	19170	32	0.4					
30-47.6592-109.1719-2-12-	0-419995	57430	-0.03	733	27580	52	124	13.0	60	4.2	4	1.2	28990	5.0	17720	31	0.4					
30-47.6911-109.2411-2-15-	0-419996	50840	-0.04	779	11070	53	-66	7.8	58	3.5	4	1.1	21570	5.6	17330	26	0.3					
30-47.6914-109.2208-2-15-	0-419990	50540	-0.03	722	26480	53	-76	7.2	44	4.2	4	1.3	20250	6.4	18500	32	0.4					
30-47.7028-109.2000-2-15-	0-419991	47300	-0.03	538	9538	59	-70	7.7	59	4.3	4	1.5	22990	8.4	19680	33	0.4					
30-47.7292-109.2008-2-15-	0-419992	95570	-0.04	910	9599	52	-61	10.7	69	5.9	4	1.4	32440	5.7	20710	30	0.3					
30-47.7244-109.2003-2-12-	0-419993	44100	-0.04	908	13420	68	-65	11.2	72	5.4	5	1.2	29230	6.1	18440	29	0.3					
30-47.7014-109.1511-2-12-	0-419994	54710	-0.03	617	41440	49	-84	6.0	24	3.0	4	1.1	17160	4.1	18580	27	0.3					
30-47.7064-109.1531-2-12-	0-419995	52040	-0.03	615	13820	49	-73	7.3	65	3.8	3	1.3	19460	6.5	18460	24	0.3					
30-47.7086-109.0906-2-15-	0-419996	51220	-0.03	613	26370	50	-52	6.4	34	2.8	4	1.1	17510	5.6	15970	28	0.3					
30-47.7539-109.0278-2-12-	0-419997	53430	-0.04	945	13700	54	-71	6.6	65	4.1	4	1.2	21770	5.8	15930	26	0.3					
30-47.7554-109.0311-2-15-	0-419998	55510	-0.03	1287	14700	50	-76	9.1	63	3.6	4	1.2	24450	6.1	14900	28	0.3					
30-47.7497-109.0267-2-12-	0-419999	54510	-0.03	767	11790	44	-71	8.2	64	2.7	3	0.4	17900	4.7	15600	23	0.2					
30-47.7131-109.0222-2-15-	0-419990	53500	-0.03	797	7277	52	-58	10.4	80	4.6	4	1.3	30210	6.4	20840	30	0.3					
30-47.7031-109.0708-2-15-	0-419991	75780	-0.05	751	10810	49	-63	8.9	74	5.8	4	1.2	32340	4.0	19890	24	0.3					
30-47.6911-109.1592-2-15-	0-419992	78430	-0.04	712	7973	61	-79	15.2	70	5.6	5	1.5	30940	5.6	20130	33	0.4					
30-47.6799-109.1675-2-15-	0-419993	59040	-0.04	637	6724	63	-73	8.5	58	5.8	5	1.5	25280	6.2	22520	32	0.4					
30-47.6731-109.1683-2-15-	0-419994	74580	-0.03	679	12710	62	-62	3.1	41	6.6	4	1.3	27620	5.0	21960	29	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	
30-47.4214-109.8855-2-15-						0-418852	15050	271	8367	50	-1	7.5	4.3	-214	-1	-1	7.3	3087	84	2.1	91	0.375
30-47.3978-109.8083-2-15-						0-418843	14700	308	8700	50	-1	5.7	4.1	-135	-1	-1	7.9	3080	86	2.2	87	0.284
30-47.3317-109.8042-2-15-						0-418841	8575	253	8320	47	-1	5.0	5.0	-174	-1	-1	7.5	3400	74	2.9	35	0.301
30-47.3381-109.8208-2-15-						0-418842	8823	324	9342	65	-1	7.0	4.6	-185	-1	-1	8.0	3463	79	2.9	91	0.316
30-47.4014-109.9592-2-15-						0-418844	32020	275	9402	66	1	7.1	4.7	-218	-2	-1	9.2	3616	90	2.5	90	0.314
30-47.4033-109.9614-2-15-						0-418847	20490	268	9704	40	-1	5.5	4.2	363	-1	-1	7.5	2790	67	1.8	-36	0.311
30-47.4106-109.9572-2-15-						0-418858	29250	327	10300	-21	-1	4.9	4.9	356	-1	-1	6.7	2435	61	2.0		0.357
30-47.4308-109.8928-2-15-						0-418843	8883	308	10340	45	-1	5.4	4.0	-214	-1	-1	7.7	2845	75	2.1	39	0.292
30-47.4364-109.8950-2-15-						0-418871	9412	165	11320	41	-1	3.5	3.5	428	-1	-1	5.5	2670	45	1.8	-24	0.316
30-47.4411-109.9042-2-15-						0-418877	31350	258	10370	-21	-1	5.4	4.9	342	-1	-1	8.5	3065	73	2.0	85	0.336
30-47.4342-109.9364-2-12-						0-418874	22920	393	8725	82	-1	5.1	4.0	-213	-1	-1	7.3	2769	76	2.3	-39	0.329
30-47.9275-108.3533-2-15-						0-418890	12740	472	4984	50	-1	8.5	5.9	-218	-1	-1	8.7	3575	120	3.8	-105	0.340
30-47.7456-108.6303-2-15-						0-418892	16350	334	5243	77	-1	11.8	4.9	-232	-1	-1	8.9	4082	211	3.1	111	0.418
30-47.7267-108.6483-2-15-						0-418894	19720	444	7788	74	-1	10.4	5.3	-211	-1	-1	9.7	3756	158	3.1	137	0.274
30-47.7269-108.6456-2-15-						0-418895	12350	412	7254	70	-1	10.8	5.4	-207	-1	-1	9.8	3951	167	3.1	127	0.283
30-47.7186-108.6836-2-15-						0-418896	17490	364	6915	83	-1	12.3	6.0	-204	-1	-1	10.3	4095	218	2.8	-121	0.332
30-47.7486-108.7031-2-15-						0-418897	19490	561	8448	112	1	12.4	5.2	-278	-1	-1	10.9	4197	209	2.9	115	0.344
30-47.7139-108.7019-2-15-						0-418898	16880	290	10490	-28	-1	13.4	4.7	-198	-1	-1	11.2	4159	224	2.6	191	0.319
30-47.7075-108.6994-2-15-						0-418890	17040	437	5768	91	-1	13.0	5.9	-214	-1	-1	11.7	4618	206	3.5	181	0.324
30-47.6400-108.7017-2-15-						0-418890	14140	338	13070	61	-1	10.5	5.3	455	-1	-1	10.4	3831	154	3.5	-18	0.361
30-47.7231-108.5403-2-15-						0-418891	16300	316	5041	84	-1	13.4	5.3	-218	-1	-1	9.8	4593	244	2.6	121	0.376
30-47.7289-108.5447-2-15-						0-418892	17280	437	5803	81	?	13.1	5.7	-208	-1	-1	12.9	3582	226	2.8	164	0.293
30-47.7264-108.5400-2-15-						0-418893	17280	431	6914	97	-1	13.2	5.7	-212	-1	-1	10.7	4204	219	3.0	-69	0.337
30-47.7153-108.4428-2-15-						0-418894	20130	355	5787	77	1	13.3	5.5	-200	-1	-1	10.7	4474	228	3.0	103	0.310
30-47.7175-108.4406-2-15-						0-418895	20270	403	7972	76	1	12.0	5.0	-245	-1	-1	9.3	4006	197	3.1	102	0.381
30-47.7358-108.3861-2-15-						0-418896	17250	478	4320	96	1	14.4	6.4	-234	-1	-1	10.5	3762	259	3.6		0.362
30-47.7411-108.3950-2-15-						0-418897	20390	413	6404	104	-1	13.6	5.0	-212	-1	-1	11.2	4335	216	3.4	121	0.310
30-47.7417-108.3978-2-15-						0-418898	18510	465	7802	91	-1	13.0	5.8	-221	-1	-1	11.4	4625	239	3.3		0.304
30-47.7422-108.2744-2-12-						0-418890	12250	502	7957	100	-1	13.6	5.6	-266	-1	-1	10.2	4179	233	3.0	129	0.323
30-47.7056-108.3961-2-15-						0-418890	21240	495	10870	-28	-1	11.6	5.4	-242	-1	-1	11.6	2992	176	3.2		0.323
30-47.1136-108.0292-2-15-						0-418891	19500	414	11030	69	1	11.6	4.6	-220	-1	-1	9.1	3977	121	2.7	-42	0.304
30-47.3628-108.2744-2-15-						0-418892	15820	353	12830	37	-1	5.9	4.8	-202	-1	-1	7.5	3097	70	2.4	61	0.309
30-47.6336-109.1717-2-15-						0-418893	16730	357	10550	73	-1	7.8	4.9	-245	-1	-1	8.6	3389	105	2.8	152	0.315
30-47.6475-109.1708-2-15-						0-418894	15920	301	16030	83	-1	8.8	5.3	-232	-1	-1	10.1	3675	126	2.9	-38	0.332
30-47.6592-109.1719-2-12-						0-418895	19260	481	13540	67	-1	8.7	4.9	353	-1	-1	9.1	3548	127	2.9	150	0.315
30-47.6911-109.2411-2-15-						0-418898	15070	315	12190	58	-1	7.0	5.1	-201	-1	-1	8.5	3259	89	2.8	-81	0.299
30-47.6914-109.2209-2-15-						0-4188910	23850	320	10510	62	-1	5.8	5.1	-232	-1	-1	8.5	3234	76	2.8	74	0.315
30-47.7028-109.2000-2-15-						0-4188911	13100	308	11200	-23	-1	8.3	4.4	-206	-1	-1	9.8	3785	99	2.8	174	0.302
30-47.7292-109.2008-2-15-						0-4188913	18490	277	7841	104	-1	11.5	4.8	-199	-1	-1	10.5	3919	160	2.9	-34	0.290
30-47.7244-109.2003-2-12-						0-4188914	18350	348	10700	54	-1	9.3	5.0	-207	-1	-1	9.2	3690	144	3.1	-72	0.338
30-47.7014-109.1511-2-12-						0-4188915	33200	471	12840	58	-1	5.6	4.0	-266	-1	-1	7.7	2276	49	2.0	54	0.321
30-47.7064-109.1531-2-12-						0-4188916	11970	225	14350	53	-1	5.7	4.3	-139	-1	-1	7.2	2999	87	2.4	115	0.281
30-47.7096-109.0906-2-15-						0-4188917	23950	280	11720	67	-1	5.7	4.8	190	-1	-1	8.4	2769	59	2.6	49	0.288
30-47.7539-109.0278-2-12-						0-4188921	17720	244	13550	40	-1	7.3	5.2	353	-1	-1	8.5	3539	104	2.3	52	0.358
30-47.7564-109.0311-2-15-						0-4188922	14160	252	12840	48	-1	7.9	4.2	-218	-1	-1	8.4	3492	105	2.7	69	0.376
30-47.7497-109.0267-2-12-						0-4188923	11030	231	15430	48	-1	5.4	4.0	273	-1	-1	7.1	2771	75	1.8	105	0.321
30-47.7181-109.0222-2-15-						0-4188924	12120	297	9155	75	-1	9.5	4.7	-187	-1	-1	8.3	3815	144	2.6	92	0.318
30-47.7081-109.0708-2-15-						0-4188925	21670	332	9496	57	-1	12.0	4.5	-190	-1	-1	8.0	4205	131	2.1	-66	0.381
30-47.6911-109.1592-2-15-						0-4188926	17120	351	9447	68	-1	10.6	6.2	-252	-1	-1	11.1	3736	164	3.0	130	0.374
30-47.6789-109.1575-2-15-						0-4188927	13790	287	10540	51	-1	9.5	5.7	-212	-1	-1	9.7	3329	100	3.2	112	0.329
30-47.6731-109.1583-2-15-						0-4188928	27320	231	8682	89	-1	9.5	5.0	-199	-1	-1	11.5	3497	81	3.2	132	0.230

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

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DOE SAMPLE NUMBER						LASQ SAMPLE LOCATION NUMBER AND FIELD DATA																		U CONCENTRATION										
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REPLICATE	LASQ SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SCINTILLOMETER (dL/ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)	UNITS IN ppm
							DATE	HOUR																										
30-47.5994-109.1772-2-15-	0-419031	07/18/78-14	22-	-	-	-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-2-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.47	
30-47.5997-109.1939-2-15-	0-419032	07/18/78-17	20-	-	-	-	-	-	-	-	-	-	-	-	7-1-6-5-5-	-1-	-2-4-3-2-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.69	
30-47.3519-109.3041-2-12-	0-419035	07/20/78-13	21-19.6-	-	-	-	-	-	-	-	-	-	7.5-	1300-	5-1-6-5-5-3-4-	-1-	-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.93	
30-47.4058-109.2973-2-12-	0-419036	07/20/78-13	23-19.6-	-	-	-	-	-	-	-	-	-	7.2-	1300-	7-1-6-5-5-3-4-	-1-	-2-4-3-3-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.58	
30-47.4906-109.3464-2-15-	0-419037	07/20/78-14	24-	-	-	-	-	-	-	-	-	-	-	-	14-1-6-5-5-	-1-	-1-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.40	
30-47.5025-109.3466-2-15-	0-419038	07/20/78-14	25-	-	-	-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-1-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.54	
30-47.5086-109.2951-2-15-	0-419039	07/20/78-14	26-	-	-	-	-	-	-	-	-	-	-	-	22-1-6-5-5-	-1-	-1-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.01	
30-47.5046-109.2817-2-15-	0-419040	07/20/78-14	25-	-	-	-	-	-	-	-	-	-	-	-	7-1-6-5-5-	-1-	-1-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.24	
30-47.5133-109.2152-2-15-	0-419043	07/20/78-15	27-	-	-	-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-1-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.50	
30-47.5156-109.1566-2-15-	0-419045	07/20/78-15	27-	-	-	-	-	-	-	-	-	-	-	-	14-1-6-5-5-	-1-	-1-1-3-3-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.91	
30-47.5139-109.1544-2-15-	0-419046	07/20/78-15	27-	-	-	-	-	-	-	-	-	-	-	-	14-1-6-5-5-	-1-	-1-1-3-3-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.16	
30-47.5103-109.0667-2-12-	0-419049	07/20/78-17	27-24.5-	-	-	-	-	-	-	-	-	-	5.7-	7500-	18-1-6-5-5-3-3-	-1-	-2-1-3-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.65	
30-47.5117-109.0694-2-15-	0-419049	07/20/78-17	27-	-	-	-	-	-	-	-	-	-	-	-	9-1-6-5-5-	-1-	-2-1-3-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.36	
30-47.5230-109.0556-2-15-	0-419050	07/20/78-19	23-	-	-	-	-	-	-	-	-	-	-	-	7-1-6-5-5-	-1-	-2-1-3-2-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.03	
30-47.0103-109.3139-2-15-	0-419051	07/14/78-12	25-	-	-	-	-	-	-	-	-	-	-	-	6-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.53	
30-47.0050-109.2922-2-15-	0-419052	07/14/78-13	25-	-	-	-	-	-	-	-	-	-	-	-	5-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.72	
30-47.0303-109.1828-2-15-	0-419055	07/14/78-14	26-	-	-	-	-	-	-	-	-	-	-	-	13-1-6-5-5-	-1-	-2-3-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.68	
30-47.0083-109.1500-2-15-	0-419057	07/14/78-14	26-	-	-	-	-	-	-	-	-	-	-	-	6-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.61	
30-47.0322-109.1261-2-15-	0-419058	07/14/78-14	26-	-	-	-	-	-	-	-	-	-	-	-	8-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.02	
30-47.0356-109.1225-2-15-	0-419059	07/14/78-14	26-	-	-	-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.06	
30-47.0522-109.1256-2-15-	0-419060	07/14/78-14	26-	-	-	-	-	-	-	-	-	-	-	-	6-1-6-5-5-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.46	
30-47.0433-109.0136-2-15-	0-419063	07/14/78-15	26-	-	-	-	-	-	-	-	-	-	-	-	9-1-6-4-6-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.95	
30-47.0386-109.0150-2-15-	0-419064	07/14/78-15	26-	-	-	-	-	-	-	-	-	-	-	-	12-1-6-5-5-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.00	
30-47.0408-109.0208-2-15-	0-419065	07/14/78-15	26-	-	-	-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.91	
30-47.0469-109.0134-2-15-	0-419066	07/14/78-15	26-	-	-	-	-	-	-	-	-	-	-	-	8-1-6-5-5-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.71	
30-47.0125-109.0172-2-15-	0-419067	07/14/78-16	26-	-	-	-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.94	
30-47.0097-109.0292-2-15-	0-419068	07/14/78-16	26-	-	-	-	-	-	-	-	-	-	-	-	16-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.68	
30-47.0119-109.0533-2-15-	0-419069	07/14/78-17	25-	-	-	-	-	-	-	-	-	-	-	-	13-1-6-5-5-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.73	
30-47.0039-109.0533-2-15-	0-419070	07/14/78-17	25-	-	-	-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.85	
30-47.0314-109.2564-2-15-	0-419072	07/14/78-19	25-	-	-	-	-	-	-	-	-	-	-	-	13-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.43	
30-47.0036-109.2835-2-15-	0-419073	07/14/78-19	24-	-	-	-	-	-	-	-	-	-	-	-	5-1-5-5-5-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.81	
30-47.2742-109.7086-2-12-	0-419075	07/15/78-11	30-20.7-	-	-	-	-	-	-	-	-	-	7.7-	3100-	9-1-7-5-5-3-3-4-	-2-3-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.33	
30-47.2319-109.7322-2-12-	0-419076	07/15/78-12	30-27.4-C	-	-	-	-	-	-	-	-	-	7.9-	5000-	16-1-7-5-5-2-2-2-	-2-3-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.77	
30-47.3411-109.7161-2-12-	0-419079	07/15/78-13	30-20.8-	-	-	-	-	-	-	-	-	-	6.9-	9000-	6-1-6-5-5-2-2-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.44	
30-47.3536-109.6528-2-12-	0-419082	07/15/78-14	31-32.0-	-	-	-	-	-	-	-	-	-	8.0-	1000-	6-1-7-4-6-2-2-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.87	
30-47.3333-109.6297-2-12-	0-419085	07/15/78-15	33-33.0-	-	-	-	-	-	-	-	-	-	8.0-	5000-	16-1-6-5-5-2-2-1-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.05	
30-47.3075-109.6175-2-12-	0-419088	07/15/78-16	33-24.8-	-	-	-	-	-	-	-	-	-	7.5-	700-	9-1-5-5-5-2-2-1-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.35	
30-47.3314-109.5600-2-12-	0-419093	07/15/78-17	33-23.2-	-	-	-	-	-	-	-	-	-	7.7-	850-	5-1-5-5-5-2-2-2-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.58	
30-47.3425-109.5561-2-15-	0-419094	07/15/78-17	32-	-	-	-	-	-	-	-	-	-	-	-	9-1-5-5-5-	-1-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.39	
30-47.3453-109.5530-2-12-	0-419095	07/15/78-17	32-17.6-	-	-	-	-	-	-	-	-	-	8.1-	1700-	7-1-5-5-5-3-3-4-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.62	
30-47.3650-109.6117-2-12-	0-419096	07/15/78-18	31-29.0-	-	-	-	-	-	-	-	-	-	9.2-	1700-	4-1-5-5-5-2-2-1-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.35	
30-47.3451-109.5722-2-15-	0-419098	07/15/78-19	31-	-	-	-	-	-	-	-	-	-	-	-	13-1-5-5-5-	-1-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.62	
30-47.3696-109.5551-2-12-	0-419099	07/15/78-19	31-22.5-	-	-	-	-	-	-	-	-	-	8.0-	900-	4-1-6-5-5-2-2-1-	-2-4-3-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.21	
30-47.2553-109.5635-2-12-	0-419101	07/15/78-19	30-20.5-	-	-	-	-	-	-	-	-	-	7.9-	1300-	4-1-6-5-5-2-2-1-	-2-4-4-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.64	
30-47.4061-109.6117-2-12-	0-419103	07/1																																

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 LAB 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	
30-47.5994-109.1772-2-15-						30-47.5994-109.1772-2-15-	-5	5	-5	32	-20	29	12	-10	-15	2	40	
30-47.5997-109.1935-2-15-						30-47.5997-109.1935-2-15-	-5	-5	-5	20	-20	-15	5	-10	-15	2	31	
30-47.3619-109.3061-2-12-						30-47.3619-109.3061-2-12-	-5	5	-5	25	-20	-15	-5	-10	-15	1	24	
30-47.4058-109.2933-2-12-						30-47.4058-109.2933-2-12-	-5	-5	-5	15	24	-15	-5	-10	-15	1	17	
30-47.4906-109.3454-2-15-						30-47.4906-109.3454-2-15-	-5	-5	-5	25	-20	22	-5	-10	-15	1	32	
30-47.5025-109.3456-2-15-						30-47.5025-109.3456-2-15-	-5	7	-5	32	-20	-15	9	-10	-15	2	38	
30-47.5086-109.2941-2-15-						30-47.5086-109.2941-2-15-	-5	5	-5	28	-20	-15	10	-10	-15	2	25	
30-47.5086-109.2917-2-15-						30-47.5086-109.2917-2-15-	-5	5	-5	20	31	15	-5	-10	-15	1	25	
30-47.5133-109.2192-2-15-						30-47.5133-109.2192-2-15-	-5	-5	-5	27	21	23	7	-10	-15	2	28	
30-47.5156-109.1586-2-15-						30-47.5156-109.1586-2-15-	-5	5	-5	30	-20	21	-5	-10	-15	2	46	
30-47.5139-109.1544-2-15-						30-47.5139-109.1544-2-15-	-5	-5	-5	24	-20	27	6	-10	-15	2	52	
30-47.5103-109.0657-2-12-						30-47.5103-109.0657-2-12-	-5	-5	-5	23	-20	27	5	-10	-15	2	31	
30-47.5117-109.0594-2-15-						30-47.5117-109.0594-2-15-	-5	-5	-5	21	-20	20	-5	-10	-15	2	32	
30-47.5200-109.0556-2-15-						30-47.5200-109.0556-2-15-	-5	-5	-5	24	-20	-15	-5	-10	-15	2	34	
30-47.0103-109.3139-2-15-						30-47.0103-109.3139-2-15-	-5	-5	-5	22	-20	-15	-5	-10	-15	2	35	
30-47.0050-109.2922-2-15-						30-47.0050-109.2922-2-15-	-5	-5	-5	21	-20	15	-5	-10	-15	2	35	
30-47.0303-109.1929-2-15-						30-47.0303-109.1929-2-15-	-5	-5	-5	23	-20	-15	7	-10	-15	2	47	
30-47.0033-109.1500-2-15-						30-47.0033-109.1500-2-15-	-5	-5	-5	22	-20	15	7	-10	-15	2	44	
30-47.0322-109.1261-2-15-						30-47.0322-109.1261-2-15-	-5	-5	-5	20	-20	-15	-5	-10	-15	2	60	
30-47.0356-109.1225-2-15-						30-47.0356-109.1225-2-15-	-5	-5	-5	19	-20	-15	-5	-10	-15	2	29	
30-47.0522-109.1256-2-15-						30-47.0522-109.1256-2-15-	-5	-5	-5	16	-20	15	-5	-10	-15	2	42	
30-47.0433-109.0136-2-15-						30-47.0433-109.0136-2-15-	-5	5	-5	14	-20	-15	-5	-10	-15	2	27	
30-47.0386-109.0150-2-15-						30-47.0386-109.0150-2-15-	-5	-5	-5	27	-20	17	8	-10	-15	2	36	
30-47.0408-109.0209-2-15-						30-47.0408-109.0209-2-15-	-5	-5	-5	23	-20	-15	6	-10	-15	2	36	
30-47.0469-109.0194-2-15-						30-47.0469-109.0194-2-15-	-5	-5	-5	-10	-20	-15	5	-10	-15	2	36	
30-47.0125-109.0172-2-15-						30-47.0125-109.0172-2-15-	-5	-5	-5	29	29	-15	9	-10	-15	2	37	
30-47.0097-109.0292-2-15-						30-47.0097-109.0292-2-15-	-5	5	-5	24	-20	-15	-5	-10	-15	2	38	
30-47.0119-109.0933-2-15-						30-47.0119-109.0933-2-15-	-5	-5	-5	24	21	21	6	-10	-15	2	41	
30-47.0089-109.0983-2-15-						30-47.0089-109.0983-2-15-	-5	-5	-5	21	-20	19	-5	-10	-15	2	47	
30-47.0314-109.2564-2-15-						30-47.0314-109.2564-2-15-	-5	7	-5	34	-20	-15	-5	-10	-15	1	38	
30-47.0036-109.2836-2-15-						30-47.0036-109.2836-2-15-	-5	-5	-5	19	-20	-15	-5	-10	-15	2	24	
30-47.2742-109.7085-2-12-						30-47.2742-109.7085-2-12-	-5	7	-5	28	-20	25	8	-10	-15	2	69	
30-47.2319-109.7322-2-12-						30-47.2319-109.7322-2-12-	-5	-5	-5	34	-20	-15	11	-10	-15	2	72	
30-47.3411-109.7161-2-12-						30-47.3411-109.7161-2-12-	-5	-5	-5	11	-20	-15	-5	-10	-15	2	46	
30-47.3586-109.6929-2-12-						30-47.3586-109.6929-2-12-	-5	-5	-5	10	-20	-15	-5	-10	-15	2	29	
30-47.3033-109.6897-2-12-						30-47.3033-109.6897-2-12-	-5	-5	-5	22	22	-15	-5	-10	-15	2	63	
30-47.3075-109.6175-2-12-						30-47.3075-109.6175-2-12-	-5	-5	-5	21	-20	-15	9	-10	-15	1	31	
30-47.3314-109.5500-2-12-						30-47.3314-109.5500-2-12-	-5	-5	-5	24	-20	-15	3	-10	-15	2	30	
30-47.3425-109.5951-2-15-						30-47.3425-109.5951-2-15-	-5	7	-5	36	-20	24	10	-10	-15	2	32	
30-47.3453-109.5950-2-12-						30-47.3453-109.5950-2-12-	-5	-5	-5	21	-20	-15	-5	-10	-15	2	36	
30-47.3650-109.6017-2-12-						30-47.3650-109.6017-2-12-	-5	-5	-5	30	-20	17	5	-10	-15	2	39	
30-47.3451-109.5372-2-15-						30-47.3451-109.5372-2-15-	-5	5	-5	31	-20	-15	15	-10	-15	2	39	
30-47.3586-109.5551-2-12-						30-47.3586-109.5551-2-12-	-5	-5	-5	26	-20	15	6	-10	-15	2	34	
30-47.2553-109.5636-2-12-						30-47.2553-109.5636-2-12-	-5	-5	-5	34	-20	-15	-5	-10	-15	2	25	
30-47.4061-109.6117-2-12-						30-47.4061-109.6117-2-12-	-5	-5	-5	27	-20	-15	10	-10	-15	2	35	
30-47.4467-109.5833-2-15-						30-47.4467-109.5833-2-15-	-5	-5	-5	30	22	19	9	-10	-15	2	38	
30-47.4194-109.5503-2-15-						30-47.4194-109.5503-2-15-	-5	-5	-5	28	-20	23	-5	-10	-15	2	52	
30-47.4183-109.5589-2-15-						30-47.4183-109.5589-2-15-	-5	-5	-5	43	-20	25	-5	-10	-15	2	53	
30-47.4172-109.5503-2-12-						30-47.4172-109.5503-2-12-	-5	5	-5	40	-20	25	-5	-10	-15	2	52	
30-47.4911-109.5233-2-12-						30-47.4911-109.5233-2-12-	-5	-5	-5	14	-20	-15	5	-10	-15	1	45	
30-47.4659-109.5755-2-12-						30-47.4659-109.5755-2-12-	-5	-5	-5	35	-20	45	9	-10	-15	2	71	

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	REMARKS	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
30-47.5994-109.1772-2-15-	0-418031	55530	-0.04	772	12430	65	-64	9.1	59	4.7	5	1.5	26410	5.9	19030	28	0.4					
30-47.5997-109.1939-2-15-	0-418032	51750	-0.05	733	9354	52	-73	9.9	51	5.1	4	1.4	24570	7.3	18290	35	0.4					
30-47.3519-109.3061-2-12-	0-418033	52500	-0.06	509	24350	58	-72	6.3	45	4.2	4	1.4	23070	7.8	17130	30	0.4					
30-47.4058-109.2933-2-12-	0-418034	50950	-0.03	974	83590	56	-100	8.3	41	4.1	3	1.7	20330	6.1	10720	29	0.3					
30-47.4906-109.3464-2-15-	0-418035	55050	-0.05	429	23020	57	-83	6.3	51	3.5	4	1.5	24840	7.3	18920	28	0.3					
30-47.5025-109.3454-2-15-	0-418036	58640	-0.07	651	16440	65	149	8.8	61	5.7	5	1.7	31790	5.2	22960	33	0.5					
30-47.5086-109.2981-2-15-	0-418037	54350	-0.05	885	9745	51	-71	7.3	68	4.4	4	1.4	26050	6.8	13400	28	0.3					
30-47.5086-109.2817-2-15-	0-418047	53540	-0.05	974	6109	50	-74	6.2	75	3.4	4	1.6	21450	7.8	14720	23	0.4					
30-47.5133-109.2192-2-15-	0-418043	56550	-0.05	749	7540	59	-72	7.5	70	4.5	4	1.9	25330	7.3	16780	33	0.4					
30-47.5156-109.1585-2-15-	0-418045	61010	-0.07	754	7817	57	-85	12.9	69	6.0	4	1.5	35530	4.5	19690	29	0.3					
30-47.5139-109.1544-2-15-	0-418046	45400	-0.07	753	9439	63	-83	9.8	77	5.2	5	1.3	34740	4.7	17740	35	0.4					
30-47.5103-109.0567-2-12-	0-418049	59850	-0.07	1137	6142	56	-77	9.8	74	3.4	4	1.3	31190	5.7	18240	28	0.3					
30-47.5117-109.0594-2-15-	0-418049	57520	-0.05	935	6735	50	-73	9.5	78	4.5	3	1.1	30930	5.5	17940	29	0.4					
30-47.5200-109.0556-2-15-	0-418050	73510	-0.07	824	3954	61	-64	10.4	93	6.6	4	1.4	36040	5.2	18310	28	0.3					
30-47.0103-109.3139-2-15-	0-418051	44950	-0.05	644	17320	51	-54	6.6	53	3.5	4	1.4	22550	5.9	15260	27	0.3					
30-47.0050-109.2922-2-15-	0-418052	47340	-0.05	674	17970	62	-61	6.0	53	3.1	4	1.3	20290	7.6	17360	29	0.3					
30-47.0303-108.1928-2-15-	0-418055	49700	-0.06	555	7519	59	740	6.5	59	3.9	4	1.2	18330	9.2	18770	29	0.3					
30-47.0083-109.1500-2-15-	0-418057	51400	-0.05	640	15270	55	-49	6.6	56	4.3	4	1.2	21910	7.2	17710	29	0.3					
30-47.0322-108.1251-2-15-	0-418058	53400	-0.05	733	24700	60	-58	7.7	59	4.7	5	1.2	26440	6.3	19030	32	0.3					
30-47.0354-108.1225-2-15-	0-418059	35310	-0.04	512	12710	38	-38	4.6	49	2.6	3	1.0	14290	6.4	13710	23	0.2					
30-47.0522-108.1256-2-15-	0-418060	44810	-0.05	499	18150	58	49	6.2	60	3.2	4	1.1	16930	9.0	14470	25	0.4					
30-47.0433-109.0136-2-15-	0-418063	33880	-0.03	593	30250	42	89	3.3	32	2.3	3	0.9	11540	5.1	13190	24	0.2					
30-47.0386-109.0150-2-15-	0-418064	50890	-0.05	787	28530	50	-54	6.6	53	3.6	4	1.3	18180	6.7	15760	28	0.3					
30-47.0403-109.0208-2-15-	0-418065	57310	-0.05	623	34460	51	-50	6.2	62	4.9	3	1.2	21590	7.7	16730	32	0.3					
30-47.0459-109.0194-2-15-	0-418066	44050	-0.05	659	30150	57	93	4.8	52	3.4	3	1.2	15350	9.0	19300	26	0.3					
30-47.0125-108.0172-2-15-	0-418067	58610	-0.05	715	12500	56	-54	8.4	58	4.5	4	1.2	25910	6.5	15350	29	0.3					
30-47.0097-108.0292-2-15-	0-418069	44410	-0.05	674	15240	51	-43	4.7	51	3.5	4	1.2	18690	6.8	18430	25	0.3					
30-47.0119-109.0933-2-15-	0-418070	50390	-0.05	551	19250	54	-42	7.6	60	4.5	4	1.3	21800	7.6	19400	28	0.3					
30-47.0089-108.0983-2-15-	0-418070	54150	-0.05	612	19490	64	-39	7.5	76	5.3	4	1.3	21540	8.1	17350	27	0.4					
30-47.0314-109.2564-2-15-	0-418072	53510	-0.05	573	11520	91	-54	9.2	77	4.3	6	1.5	30800	21.7	15200	46	0.5					
30-47.0036-109.2834-2-15-	0-418073	37940	-0.04	573	14790	39	-48	3.6	38	2.2	3	1.1	14910	6.2	12540	24	0.2					
30-47.2742-109.7085-2-15-	0-418075	65890	-0.05	533	17590	64	-54	9.8	78	6.0	5	1.5	34510	5.7	21730	34	0.3					
30-47.2919-109.7322-2-12-	0-418076	60340	-0.04	1027	32170	63	-56	7.5	55	4.9	5	1.6	27180	6.3	20660	34	0.4					
30-47.3411-109.7161-2-12-	0-418079	52970	-0.04	654	35950	49	-61	3.7	36	2.6	3	1.1	16740	6.4	17950	26	0.3					
30-47.3586-109.6928-2-12-	0-418082	43900	-0.03	470	24550	45	-57	3.5	27	2.6	2	0.9	12070	5.4	16430	24	0.2					
30-47.3033-109.6997-2-12-	0-418085	41250	-0.03	571	35060	56	-53	6.9	51	6.2	4	1.2	22470	5.4	21680	31	0.3					
30-47.3075-109.6175-2-12-	0-418089	49310	-0.05	734	11190	54	-56	4.4	44	3.6	3	1.3	15560	7.8	16350	26	0.3					
30-47.3314-109.5503-2-12-	0-418090	54910	-0.05	537	8963	58	-64	6.5	52	4.0	5	1.3	20230	7.0	17800	30	0.3					
30-47.3425-109.5961-2-15-	0-418094	70250	-0.05	844	10500	55	-72	11.4	54	4.9	4	1.3	28010	6.0	16080	35	0.4					
30-47.3453-109.5950-2-12-	0-418095	57900	-0.05	1235	20490	57	-63	8.0	48	4.1	3	0.6	24050	7.3	15500	27	0.4					
30-47.3550-109.6017-2-12-	0-418096	74540	-0.07	570	23330	60	-62	8.6	56	4.8	4	1.4	31030	5.6	15110	33	0.4					
30-47.3461-109.5372-2-15-	0-418098	44370	-0.09	730	12450	65	-66	8.3	57	4.1	4	1.5	24520	5.9	19780	22	0.3					
30-47.3686-109.5561-2-12-	0-418099	57540	-0.07	707	16240	54	-73	6.2	62	3.5	4	1.5	23740	7.8	17370	31	0.3					
30-47.2553-109.5635-2-12-	0-418101	52450	-0.07	731	22530	52	-69	8.0	44	3.5	4	1.4	19300	7.5	19690	29	0.3					
30-47.4061-109.5117-2-12-	0-418103	50650	-0.05	537	20330	49	-62	7.4	49	3.3	4	1.2	22650	5.4	16420	28	0.3					
30-47.4467-109.5833-2-15-	0-418104	57570	-0.09	490	24280	51	-54	7.3	52	3.9	4	1.3	19700	6.5	16530	25	0.3					
30-47.4194-109.5503-2-15-	0-418105	63170	-0.07	734	15220	42	-71	10.0	90	3.0	3	1.5	29460	4.2	14920	21	0.3					
30-47.4183-109.5589-2-15-	0-418105	76580	-0.09	535	7461	51	-74	14.6	96	5.7	4	1.6	37990	4.6	18740	25	0.3					
30-47.4172-109.5508-2-12-	0-418107	73380	-0.07	572	9362	45	-68	14.7	90	4.2	4	1.3	38080	4.1	21680	13	0.3					
30-47.4911-109.5233-2-12-	0-418108	60500	-0.07	555	19210	45	-76	7.2	59	2.1	3	1.1	19390	6.4	14350	24	0.3					
30-47.4669-109.5756-2-12-	0-418110	75340	-0.05	873	11590	46	-76	12.4	84	4.5	4	1.5	33750	5.1	18160	26	0.3					

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	
30-47.5994-109.1772-2-15-						0-419931	17970	332	8206	77	-1	3.8	5.5	-209	-1	-1	11.2	3638	125	3.0	-41	0.221
30-47.5997-109.1939-2-15-						0-419932	12420	297	10530	93	-1	7.5	5.0	-226	-1	-1	9.2	3400	98	3.2	112	0.292
30-47.3619-109.3551-2-12-						0-419935	16500	412	10210	99	-1	5.7	4.8	-228	-1	-1	9.0	3263	64	2.8	-39	0.326
30-47.4058-109.2933-2-12-						0-419936	10940	1020	7901	-37	-2	7.2	5.9	-398	-2	-1	7.6	3467	72	3.4	-58	0.339
30-47.4906-109.3464-2-15-						0-419937	21060	474	13640	79	-1	7.0	5.0	-243	-1	-1	9.4	2987	71	3.2	-64	0.362
30-47.5025-109.3455-2-15-						0-419938	22130	107	8722	99	-2	10.9	5.8	-230	-1	-1	11.8	4211	113	2.8	127	0.385
30-47.5086-109.2981-2-15-						0-419939	11350	269	9687	66	-2	7.9	4.7	-212	-1	-1	8.9	3526	96	2.9	-42	0.338
30-47.5086-109.2817-2-15-						0-419940	7142	191	10990	-30	-2	5.1	4.9	-214	-1	-1	8.3	3443	90	3.4		0.390
30-47.5133-109.2192-2-15-						0-419943	6919	269	11590	77	-1	7.4	4.9	-210	-1	-1	11.1	3284	90	3.1	71	0.315
30-47.5156-109.1586-2-15-						0-419945	16270	317	14650	93	-2	10.0	5.3	-255	-1	-1	10.8	4296	144	2.8	145	0.362
30-47.5139-109.1544-2-15-						0-419946	21560	235	15290	93	-2	10.9	5.6	-230	-1	-1	11.0	3306	142	2.9	116	0.378
30-47.5103-109.0567-2-12-						0-419949	10240	259	10270	51	-2	7.8	5.9	-235	-1	-1	9.8	3420	125	3.3	72	0.372
30-47.5117-109.0694-2-15-						0-419949	10750	221	11930	77	-2	9.6	5.2	-203	-1	-1	9.2	3003	127	3.0	100	0.365
30-47.5200-109.0556-2-15-						0-419950	10870	206	8142	90	-2	13.0	5.4	-204	-1	-1	12.3	4213	165	4.2	135	0.315
30-47.5103-109.3139-2-15-						0-419951	20230	222	5231	64	-1	5.6	4.7	-180	-1	-1	7.7	2849	94	-1.4	-84	0.329
30-47.0050-108.2922-2-15-						0-419952	18440	213	4379	67	-2	5.1	4.6	-205	-1	-1	9.1	2460	97	2.6	-64	0.299
30-47.0303-108.1828-2-15-						0-419955	11180	217	9214	75	-1	5.3	4.4	-189	-1	-1	8.2	3170	93	3.1	60	0.327
30-47.0083-108.1500-2-15-						0-419957	22030	190	5599	44	-1	7.9	4.8	-159	-1	-1	9.0	3147	109	2.5	102	0.290
30-47.0322-108.1261-2-15-						0-419959	24770	175	5603	73	-1	3.4	5.1	-203	-1	-1	8.7	3452	131	3.1		0.347
30-47.2356-108.1225-2-15-						0-419960	13670	102	7922	44	-1	5.0	3.0	-126	-1	-1	6.5	2168	94	2.1	-31	0.312
30-47.0522-109.1256-2-15-						0-419960	20340	130	4779	59	-1	6.3	4.5	-133	-1	-1	8.0	2972	108	2.6	-43	0.309
30-47.0433-109.0135-2-15-						0-419963	46690	94	5119	44	-1	4.1	3.7	-123	-1	-1	6.1	2394	75	1.7	-42	0.320
30-47.0336-108.0150-2-15-						0-419964	23250	155	5749	52	-1	6.5	5.0	-178	1	-1	8.1	3003	118	2.4	129	0.370
30-47.0408-109.0208-2-15-						0-419965	10000	209	6722	53	-1	7.6	5.0	-151	-1	-1	8.2	2984	147	-1.4	113	0.343
30-47.0459-109.0194-2-15-						0-419966	43750	129	5823	59	-1	5.9	4.8	-147	-1	-1	8.0	3162	104	2.7	92	0.339
30-47.0125-109.0172-2-15-						0-419967	15410	225	7937	71	-1	3.1	5.0	-172	-1	-1	7.3	3723	119	3.1	-88	0.377
30-47.0097-109.0292-2-15-						0-419969	20030	120	3391	60	-1	6.7	4.3	-155	-1	-1	7.6	2554	120	1.9	127	0.353
30-47.0119-109.0933-2-15-						0-419969	24490	99	4456	64	-1	9.2	4.1	-133	-1	-1	8.6	3303	140	2.7	186	0.317
30-47.0389-108.0983-2-15-						0-419970	2632	122	4408	78	-1	9.3	4.9	-130	-1	-1	9.1	3855	145	2.4	100	0.313
30-47.0314-109.2564-2-15-						0-419972	14010	375	4213	70	-1	9.9	5.7	-197	-1	-1	12.5	6994	121	4.2	102	0.274
30-47.0335-109.2836-2-15-						0-419973	13130	143	5255	41	-1	4.5	3.2	-159	-1	-1	5.3	2278	79	2.4		0.312
30-47.2742-109.7086-2-12-						0-419975	21860	199	5363	74	-2	10.3	5.3	-131	-1	-1	11.1	3789	207	3.4	-59	0.345
30-47.2319-109.7322-2-12-						0-419976	23490	244	6334	72	-2	3.3	5.9	371	-1	-1	10.4	3723	151	3.0		0.363
30-47.3411-109.7151-2-12-						0-419979	20070	215	10580	60	-1	5.2	3.9	-174	-1	-1	6.3	2532	68	2.2	-63	0.359
30-47.3586-109.6929-2-12-						0-419982	21760	162	9194	47	-1	3.7	3.1	-167	-1	-1	6.3	2143	53	1.9	77	0.297
30-47.3333-109.6397-2-12-						0-419985	35340	244	7555	62	-1	7.6	4.3	275	-1	-1	9.1	3199	118	-1.1	150	0.335
30-47.3375-109.6175-2-12-						0-419988	11520	299	5730	59	-1	5.5	4.8	-189	-1	-1	8.0	3222	74	2.9	54	0.294
30-47.3314-109.5600-2-12-						0-419993	10970	434	8149	50	-1	7.0	4.7	-222	-1	-1	8.5	3117	80	2.1	93	0.304
30-47.3425-109.5961-2-15-						0-419994	17440	355	9758	59	-2	10.2	5.6	-247	-1	-1	8.6	3985	109	3.7	209	0.394
30-47.3453-109.5950-2-12-						0-419995	18290	321	9439	44	-1	7.6	4.7	-201	-1	-1	9.5	3181	83	2.3	113	0.308
30-47.3550-109.4017-2-12-						0-419996	21860	353	6474	-40	-2	10.9	4.4	-219	-2	-1	10.1	3265	106	-1.6	103	0.332
30-47.3461-109.5372-2-15-						0-419999	12750	431	9470	-47	-2	9.4	5.5	-243	-2	-1	10.1	3496	99	3.6	-112	0.259
30-47.3586-109.5561-2-12-						0-419999	12070	362	13100	44	-2	7.4	3.8	-217	-2	-1	6.5	3140	85	2.6	-20	0.340
30-47.2553-109.5635-2-12-						0-419999	12070	451	5293	-43	-2	5.2	5.7	-288	-2	-1	10.3	2551	84	3.6	144	0.353
30-47.4061-109.6117-2-12-						0-419999	24590	260	9293	60	-2	7.8	4.1	-192	-2	-1	6.9	3340	90	1.9	58	0.357
30-47.4467-109.5333-2-15-						0-419999	28010	214	7091	-40	-2	7.5	4.6	-171	-2	-1	7.9	3314	97	2.3	81	0.304
30-47.4174-109.5503-2-15-						0-419999	16660	234	14940	-41	-2	9.7	3.8	-196	-2	-1	5.7	3656	99	2.2	-62	0.372
30-47.4183-109.5599-2-15-						0-419999	14540	329	9295	79	-2	13.0	4.3	-240	-2	-1	8.3	4049	133	3.2	-33	0.327
30-47.4172-109.5508-2-12-						0-419999	16260	301	10730	54	-2	12.8	4.2	-201	-2	-1	7.0	4832	129	-1.5	121	0.376
30-47.4911-109.5233-2-12-						0-419999	12440	269	17190	-39	-2	5.1	3.8	277	-2	-1	5.8	3320	78	2.0	-34	0.338
30-47.4559-109.5756-2-12-						0-419999	17290	293	11420	73	-2	11.7	4.4	269	-1	-1	8.5	4121	124	2.7	149	0.338

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)	SOUTH (METERS (ft.))	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)	UNITS IN ppm
							DATE	HOUR																											
30-47.4439-109.5006-2-15-						0-410012-07/19/79-19-	22-		-0-	-	-	-	-	-	19-1-6-5-5-	-1-	-2-4-3-2-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.34	
30-47.4236-109.5008-2-12-						0-410014-07/19/79-19-	22-		-0-	-	-	-	-	-	22-1-6-5-5-	-	-2-4-3-2-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.53	
30-47.3942-109.7464-2-12-						0-410015-07/20/79-13-	23-19.2-		-0-	-	7.6-	2525-	-	-	9-1-6-5-5-2-3-2-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.35	
30-47.3903-109.7344-2-12-						0-410016-07/20/79-13-	23-19.4-		-0-	-	6.5-	2675-	-	-	9-1-6-5-5-2-2-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.35	
30-47.4142-109.7153-2-15-						0-410017-07/20/79-14-	24-		-0-	-	-	-	-	-	5-1-6-4-6-	-1-	-2-4-3-3-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.51	
30-47.4397-109.5442-2-15-						0-410018-07/20/79-14-	24-		-0-	-	-	-	-	-	11-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.95	
30-47.4536-109.6389-2-15-						0-410020-07/20/79-15-	24-		-0-	-	-	-	-	-	5-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.55	
30-47.5508-109.3493-2-15-						0-410021-07/20/79-15-	24-		-0-	-	-	-	-	-	6-1-6-5-5-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.45	
30-47.5444-109.9172-2-15-						0-410023-07/20/79-15-	25-		-0-	-	-	-	-	-	2-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.56	
30-47.6408-109.9014-2-11-						0-410024-07/20/79-15-	25-		-0-	-	-	-	-	-	4-1-6-5-6-	-2-	-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.47	
30-47.6397-109.8914-2-15-						0-410025-07/20/79-15-	26-		-0-	-	-	-	-	-	2-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.38	
30-47.6889-109.9453-2-15-						0-410026-07/20/79-16-	26-		-0-	-	-	-	-	-	6-1-6-5-5-	-1-	-2-4-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.36	
30-47.7008-109.9564-2-15-						0-410027-07/20/79-16-	27-		-0-	-	-	-	-	-	2-1-6-5-5-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.20	
30-47.7023-109.8594-2-15-						0-410028-07/20/79-16-	27-		-0-	-	-	-	-	-	4-1-6-4-6-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.88	
30-47.6511-109.9564-2-15-						0-410029-07/20/79-17-	26-		-0-	-	-	-	-	-	3-1-6-4-6-	-1-	-2-3-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.41	
30-47.6603-109.8536-2-15-						0-410030-07/20/79-17-	25-		-0-	-	-	-	-	-	4-1-6-4-6-	-1-	-2-3-2-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.82	
30-47.5575-109.4356-2-12-						0-410031-07/21/79-12-	27-20.5-		-0-	-	7.6-	1000-	-	-	2-1-5-5-6-2-2-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.69	
30-47.6289-109.4794-2-15-						0-410032-07/21/79-13-	27-		-0-	-	-	-	-	-	4-1-6-5-6-	-1-	-2-4-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.83	
30-47.6022-109.4611-2-15-						0-410034-07/21/79-13-	27-		-0-	-	-	-	-	-	5-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.66	
30-47.7989-109.4219-2-15-						0-410035-07/21/79-13-	26-		-0-	-	-	-	-	-	2-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.54	
30-47.7975-109.4311-2-11-						0-410036-07/21/79-14-	25-11.3-		-0-	-	7.2-	2000-	-	-	3-1-6-5-6-2-2-1-	-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.69	
30-47.7844-109.4347-2-15-						0-410037-07/21/79-14-	26-		-0-	-	-	-	-	-	6-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.08	
30-47.6122-109.4105-2-15-						0-410038-07/21/79-14-	27-		-0-	-	-	-	-	-	4-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.50	
30-47.7664-109.4211-2-11-						0-410039-07/21/79-15-	26-20.5-		-0-	-	7.4-	4200-	-	-	2-1-6-5-7-2-2-1-	-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.19	
30-47.7636-109.4131-2-15-						0-410040-07/21/79-15-	27-		-0-	-	-	-	-	-	2-1-6-5-6-	-1-	-2-3-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.71	
30-47.8011-109.3781-2-15-						0-410041-07/21/79-15-	27-		-0-	-	-	-	-	-	2-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.54	
30-47.7794-109.4808-2-15-						0-410042-07/21/79-16-	27-		-0-	-	-	-	-	-	1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.65	
30-47.8367-109.4275-2-15-						0-410043-07/21/79-16-	24-		-0-	-	-	-	-	-	4-1-6-4-6-	-1-	-2-4-3-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.71	
30-47.9669-109.5431-2-15-						0-410044-03/11/79-13-	32-		-0-	-	-	-	-	-	9-1-6-5-6-	-1-	-2-3-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.90	
30-47.9733-109.5550-2-12-						0-410045-09/11/79-13-	32-22.9-		-0-	-	8.3-	2200-	-	-	11-1-6-5-6-3-3-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.29	
30-47.9439-109.5736-2-15-						0-410046-09/11/79-13-	33-		-0-	-	-	-	-	-	10-1-6-4-6-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.93	
30-47.9817-109.5675-2-15-						0-410047-03/11/79-13-	32-		-0-	-	-	-	-	-	9-1-6-4-5-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.70	
30-47.9500-109.5875-2-12-						0-410048-09/11/79-14-	31-24.6-		-0-	-	8.3-	2300-	-	-	15-1-6-5-6-2-3-1-	-2-3-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.33	
30-47.9775-109.5850-2-15-						0-410049-09/11/79-14-	33-		-0-	-	-	-	-	-	18-1-6-5-5-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.60	
30-47.9839-109.6386-2-12-						0-410051-09/11/79-14-	33-21.2-		-0-	-	8.6-	600-	-	-	9-1-6-5-6-3-3-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.08	
30-47.9933-109.6750-2-15-						0-410052-09/11/79-15-	33-		-0-	-	-	-	-	-	5-1-6-5-5-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.43	
30-47.9954-109.6794-2-15-						0-410053-09/11/79-15-	33-		-0-	-	-	-	-	-	11-1-6-5-6-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.53	
30-47.9942-109.6924-2-12-						0-410054-09/11/79-15-	34-23.4-		-0-	-	8.5-	900-	-	-	15-1-6-5-5-3-3-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.61	
30-47.9933-109.7125-2-15-						0-410055-09/11/79-15-	34-		-0-	-	-	-	-	-	9-1-6-4-6-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.60	
30-47.9653-109.7700-2-15-						0-410056-09/11/79-15-	33-		-0-	-	-	-	-	-	9-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.86	
30-47.9603-109.7581-2-15-						0-410059-09/11/79-15-	33-		-0-	-	-	-	-	-	16-1-6-5-6-	-1-	-2-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.18	
30-47.9069-109.7786-2-15-						0-410061-09/11/79-17-	32-		-0-	-	-	-	-	-	4-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.38	
30-47.9028-109.7789-2-15-						0-410062-09/11/79-17-	32-		-0-	-	-	-	-	-	10-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.08	
30-47.9423-109.8042-2-15-						0-410063-09/11/79-17-	32-		-0-	-	-	-	-	-	8-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.14	
30-47.9442-109.6928-2-12-						0-410064-09																													

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	
30-47.4439-109.5006-2-15-						0-410013	-5	-5	-5	24	-20	-15	-5	-10	-15	1	46	
30-47.4236-109.5008-2-12-						0-410014	-5	-5	-5	12	-20	-15	-5	-10	-15	2	41	
30-47.3942-109.7464-2-12-						0-410015	-5	-5	-5	17	-20	20	-5	-10	-15	2	40	
30-47.3708-109.7344-2-12-						0-410016	-5	-5	-5	15	-20	-15	-5	-10	-15	1	49	
30-47.4142-109.7153-2-15-						0-410017	-5	-5	-5	13	-20	-15	-5	-10	-15	2	26	
30-47.4397-109.6442-2-15-						0-410019	-5	-5	-5	24	-20	-15	9	-10	-15	2	35	
30-47.4536-109.6389-2-15-						0-410020	-5	-5	-5	45	-20	29	9	-10	-15	2	42	
30-47.5308-109.9493-2-15-						0-410021	-5	-5	-5	38	-20	24	13	13	-15	2	36	
30-47.6444-109.9172-2-15-						0-410023	-5	-5	-5	40	-20	24	8	-10	-15	-1	126	
30-47.6408-109.9014-2-11-						0-410024	-5	-5	-5	22	-20	-15	6	-10	-15	-1	35	
30-47.6397-109.8914-2-15-						0-410025	-5	-5	-5	27	-20	39	5	-10	-15	2	44	
30-47.6889-109.8458-2-15-						0-410026	-5	-5	-5	36	-20	16	-5	-10	-15	2	35	
30-47.7008-109.8544-2-15-						0-410027	-5	-5	-5	26	-20	-15	12	-10	-15	2	42	
30-47.7028-109.8594-2-15-						0-410028	-5	-5	-5	11	-20	16	-5	-10	-15	-1	29	
30-47.6511-109.8564-2-15-						0-410029	-5	-5	-5	21	-20	23	-5	-10	-15	2	40	
30-47.6603-109.8536-2-15-						0-410030	-5	-5	-5	13	-20	-15	-5	-10	-15	2	25	
30-47.8575-108.4356-2-12-						0-410031	-5	-5	-5	31	-20	19	10	-10	-15	-1	39	
30-47.8289-104.4794-2-15-						0-410032	-5	7	-5	26	-20	20	16	-10	-15	1	44	
30-47.8022-108.4511-2-15-						0-410034	-5	-5	-5	43	-20	25	12	-10	-15	2	43	
30-47.7989-108.4219-2-15-						0-410035	-5	-5	-5	34	-20	33	13	-10	-15	2	69	
30-47.7375-108.4311-2-11-						0-410036	-5	-5	-5	33	-20	19	12	-10	-15	2	47	
30-47.7844-108.4347-2-15-						0-410037	-5	-5	-5	31	-20	28	16	-10	-15	2	44	
30-47.8122-109.4108-2-15-						0-410038	-5	-5	-5	42	-20	34	13	-10	-15	2	47	
30-47.7664-109.4211-2-11-						0-410039	-5	-5	-5	32	-20	-15	14	-10	-15	2	64	
30-47.7636-109.4131-2-15-						0-410040	-5	6	-5	30	-20	27	13	-10	-15	2	56	
30-47.8011-109.3781-2-15-						0-410041	-5	-5	-5	19	-20	19	17	-10	-15	2	35	
30-47.7794-109.4908-2-15-						0-410042	-5	-5	-5	36	-20	22	13	-10	-15	2	59	
30-47.8367-108.4278-2-15-						0-410043	-5	-5	-5	34	-20	13	7	-10	-15	2	47	
30-47.9669-109.5431-2-15-						0-410044	-5	-5	-5	45	-20	263	16	-10	-15	2	35	
30-47.9733-109.5550-2-12-						0-410045	-5	-5	-5	47	-20	263	-5	-10	-15	3	35	
30-47.9339-109.5736-2-15-						0-410046	-5	6	-5	37	-20	277	-5	-10	15	2	31	
30-47.9817-109.5675-2-15-						0-410047	-5	-5	-5	48	-20	217	-5	-10	-15	2	29	
30-47.9500-109.5875-2-12-						0-410049	-5	-5	-5	47	-20	134	15	-10	-15	3	56	
30-47.9775-109.5950-2-15-						0-410049	-5	-5	-5	28	-20	-15	10	-10	-15	2	55	
30-47.9839-109.6386-2-12-						0-410051	-5	-5	-5	40	-20	151	32	-10	-15	3	28	
30-47.9933-109.6750-2-15-						0-410052	-5	-5	-5	29	-20	117	-5	-10	-15	2	30	
30-47.9954-109.6794-2-15-						0-410053	-5	-5	-5	33	-20	164	9	-10	-15	2	36	
30-47.9942-109.6928-2-12-						0-410054	-5	-5	-5	44	-20	123	19	-10	-15	2	43	
30-47.9933-109.7125-2-15-						0-410055	-5	6	-5	52	-20	399	18	-10	-15	3	19	
30-47.9653-109.7700-2-15-						0-410059	-5	-5	-5	20	-20	15	5	-10	-15	1	30	
30-47.9608-109.7691-2-15-						0-410059	-5	-5	-5	31	-20	30	-5	-10	-15	2	26	
30-47.9069-109.7786-2-15-						0-410061	-5	-5	-5	38	-20	64	24	-10	-15	2	24	
30-47.9028-109.7789-2-15-						0-410062	-5	-5	-5	28	-20	35	13	-10	-15	2	29	
30-47.9428-109.8042-2-15-						0-410063	-5	-5	-5	26	-20	23	6	-10	-15	2	20	
30-47.9442-109.6928-2-12-						0-410064	-5	-5	-5	15	-20	20	7	-10	-15	2	23	
30-47.9403-109.7294-2-15-						0-410066	-5	6	-5	21	-20	19	9	-10	-15	2	23	
30-47.9453-109.7300-2-12-						0-410067	-5	-5	-5	24	-20	-15	14	-10	-15	2	23	
30-47.1500-109.5713-2-15-						0-410070	-5	6	-5	42	-20	75	-5	-10	-15	2	50	
30-47.9644-109.2425-2-15-						0-410071	-5	-5	-5	27	-20	20	16	-10	-15	2	27	
30-47.9611-109.2375-2-15-						0-410072	-5	-5	-5	29	-20	35	-5	-10	-15	2	40	
30-47.9489-109.2128-2-15-						0-410073	-5	-5	-5	30	-20	44	9	-10	-15	3	71	

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	REMARKS	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
30-47.4439-109.5006-2-15-	0-419012	44312	-0.05	-124	33000	44	-72	7.3	65	3.7	3	1.3	25870	5.4	16380	23	0.3					
30-47.4236-109.5008-2-12-	0-419014	42743	-0.05	227	91140	42	-65	6.6	53	1.9	2	1.3	19410	6.0	13930	23	0.2					
30-47.3942-109.7464-2-12-	0-419015	50077	-0.04	744	24750	55	-53	5.0	34	3.0	3	1.2	18690	7.9	17250	27	0.3					
30-47.3908-109.7344-2-12-	0-419016	62473	-0.05	427	19340	53	116	4.7	39	3.9	4	1.3	20090	4.9	17760	29	0.3					
30-47.4142-109.7153-2-15-	0-419017	45016	-0.03	475	24960	37	60	3.1	20	1.5	2	0.9	9089	4.5	13190	23	0.2					
30-47.4397-109.6442-2-15-	0-419018	53432	-0.05	615	9144	52	-62	7.2	41	2.8	3	1.2	16860	6.0	17800	25	0.3					
30-47.4536-109.6389-2-15-	0-419019	44160	-0.05	994	41730	58	-62	9.6	70	3.8	4	1.7	27970	6.5	16870	30	0.3					
30-47.5508-109.9483-2-15-	0-419021	58164	-0.05	723	12980	50	-71	8.1	52	4.3	4	1.0	25590	5.2	19140	26	0.3					
30-47.6444-109.9172-2-15-	0-419023	67323	-0.05	725	15490	49	-74	11.3	73	5.0	4	1.4	30830	5.3	17730	29	0.3					
30-47.6408-109.9014-2-11-	0-419024	47555	0.25	707	11110	61	759	5.6	47	2.9	4	1.4	17040	9.8	15890	25	0.4					
30-47.6397-109.8914-2-15-	0-419025	52193	-0.05	747	20920	52	-63	9.2	64	4.4	4	1.4	27490	5.9	16630	31	0.4					
30-47.6889-109.8458-2-15-	0-419026	45550	-0.05	683	9381	46	-63	11.4	68	4.2	4	1.1	28890	4.1	18850	22	0.3					
30-47.7008-109.8564-2-15-	0-419027	90300	-0.05	585	10380	65	-53	8.3	36	2.6	3	1.5	18640	7.0	15900	35	0.3					
30-47.7028-109.8594-2-15-	0-419028	42973	-0.04	799	25410	49	181	3.2	28	1.3	3	1.1	11830	5.3	12050	24	0.2					
30-47.6511-109.8554-2-15-	0-419029	58933	-0.03	943	20810	44	-82	7.9	44	3.4	3	1.4	22240	4.2	16360	25	0.2					
30-47.6503-109.8536-2-15-	0-419030	50993	-0.03	443	33510	44	-71	4.7	29	2.5	2	1.2	14740	3.9	14090	23	0.2					
30-47.8575-109.4356-2-12-	0-419031	47229	-0.04	744	42850	57	-58	3.8	55	3.4	4	1.4	21580	8.5	14700	29	0.4					
30-47.8289-109.4794-2-15-	0-419032	52150	-0.04	540	11020	55	-55	10.2	59	4.1	4	1.6	25860	5.9	18270	29	0.3					
30-47.8022-109.4611-2-15-	0-419034	55009	-0.04	1152	7506	58	-76	12.6	75	4.8	5	1.5	33980	6.8	18450	30	0.4					
30-47.7989-109.4219-2-15-	0-419035	79750	-0.05	724	13730	60	-61	14.6	85	6.5	4	1.4	43730	4.7	21810	30	0.3					
30-47.7875-109.4311-2-11-	0-419036	54400	-0.04	755	12520	54	-63	9.7	57	4.1	4	1.3	27810	6.2	18390	27	0.3					
30-47.7844-109.4347-2-15-	0-419037	51053	-0.04	1116	9264	59	-64	13.3	68	3.7	5	1.3	37780	5.9	17860	26	0.4					
30-47.8122-109.4108-2-15-	0-419038	69450	-0.05	777	6115	65	-77	17.0	76	5.1	5	1.4	43240	5.8	20730	29	0.4					
30-47.7654-109.4211-2-11-	0-419039	91299	-0.05	732	4772	55	-55	12.1	101	9.3	4	1.1	44630	4.8	23170	32	0.3					
30-47.7636-109.4131-2-15-	0-419040	71250	-0.05	732	7955	60	-62	12.5	71	5.4	4	1.5	30170	4.7	19540	30	0.4					
30-47.8011-109.3781-2-15-	0-419041	50250	-0.04	575	4935	47	-62	6.6	63	3.9	5	1.1	25430	5.7	21440	29	0.3					
30-47.7794-109.4808-2-15-	0-419042	54130	-0.04	1137	17750	56	-77	13.0	82	5.0	5	1.4	35060	6.0	18840	33	0.4					
30-47.8357-109.4278-2-15-	0-419043	53390	-0.03	535	34940	52	-59	8.4	49	4.3	4	1.1	25210	5.5	17220	27	0.3					
30-47.9669-109.5431-2-15-	0-419044	47510	-0.04	1101	41210	58	-66	29.2	683	4.1	3	1.1	41630	5.5	21480	27	0.3					
30-47.9733-109.5550-2-15-	0-419045	52070	-0.04	1218	45820	57	-73	32.0	768	5.6	3	1.5	48280	4.0	25160	27	0.2					
30-47.9839-109.5736-2-15-	0-419046	40777	-0.05	1152	59520	50	247	31.4	906	3.3	3	1.6	43050	4.2	20800	26	0.2					
30-47.9817-109.5575-2-15-	0-419047	45690	-0.04	1184	96810	44	-25	29.4	704	3.5	3	1.4	42930	4.5	25480	24	0.2					
30-47.9600-109.5875-2-12-	0-419048	45777	-0.04	1053	21440	53	-64	25.0	298	6.6	4	1.3	42440	4.7	24630	31	0.2					
30-47.9775-109.5950-2-15-	0-419049	58030	-0.03	514	25550	66	-63	11.8	95	4.5	4	1.4	26940	7.0	22180	32	0.4					
30-47.9839-109.6386-2-12-	0-419050	50457	-0.04	1154	55120	59	-78	23.5	684	3.5	4	1.3	36340	4.7	26080	26	0.2					
30-47.9933-109.6750-2-15-	0-419052	52570	-0.04	592	34800	52	-55	20.9	448	3.9	4	1.6	36330	5.5	18020	29	0.3					
30-47.9964-109.6794-2-15-	0-419053	53290	-0.04	1252	36040	61	-54	27.7	630	3.9	4	1.6	44380	5.4	17840	29	0.3					
30-47.9942-109.5928-2-12-	0-419054	53750	-0.05	1205	33920	71	-78	23.3	500	3.6	5	1.7	39990	6.2	23100	32	0.4					
30-47.9933-109.7125-2-15-	0-419055	42750	-0.05	1173	57530	36	-77	45.5	1022	3.3	2	1.4	52400	2.4	21530	22	0.2					
30-47.9653-109.7700-2-15-	0-419058	45170	-0.03	490	22840	41	150	5.0	61	1.8	3	1.4	12730	4.3	14160	21	0.2					
30-47.9608-109.7581-2-15-	0-419059	57050	-0.03	741	18710	58	-53	9.2	82	3.8	4	1.3	22550	7.0	15900	28	0.3					
30-47.9069-109.7786-2-15-	0-419061	52153	-0.04	451	30300	61	-78	13.3	122	5.7	4	1.1	28760	5.0	17910	28	0.3					
30-47.9028-109.7789-2-15-	0-419062	54600	-0.03	520	32650	51	-58	7.0	72	3.0	4	1.1	18440	5.5	17480	25	0.3					
30-47.9428-109.9042-2-15-	0-419063	54420	-0.03	524	10450	54	-66	7.5	57	2.9	4	1.4	18920	6.8	16960	27	0.3					
30-47.9442-109.6928-2-12-	0-419064	62360	-0.03	314	20000	45	-67	3.9	87	2.3	4	1.2	25760	5.2	17740	22	0.2					
30-47.9403-109.7294-2-15-	0-419065	51300	-0.04	795	13650	62	-76	8.5	96	4.5	5	1.4	21820	7.4	20180	26	0.3					
30-47.9453-109.7300-2-12-	0-419067	55340	-0.03	695	8456	60	-69	5.0	75	3.2	4	1.2	17630	8.1	21650	26	0.3					
30-47.1600-109.5719-2-15-	0-419070	51277	-0.03	704	26370	59	-58	7.3	63	4.2	4	1.3	22720	7.0	17900	30	0.3					
30-47.9544-109.2425-2-15-	0-419071	54233	-0.04	1599	25170	75	-64	24.4	343	6.5	5	1.2	47500	5.2	19510	33	0.3					
30-47.9611-109.2375-2-15-	0-419072	54550	-0.04	972	12330	67	-73	10.6	125	6.1	5	1.4	26150	5.7	17570	33	0.3					
30-47.9499-109.2128-2-15-	0-419073	58090	-0.04	1355	29410	55	-68	15.4	92	5.8	5	1.3	40310	4.2	19730	30	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	
30-47.4439-109.5005-2-15-						7-410017	33493	189	13510	45	-1	3.0	3.9	-139	-1	-1	7.9	3308	96	2.6	69	0.296
30-47.4236-109.5003-2-12-						7-410014	19060	184	9319	-24	-1	5.4	3.0	433	-1	-1	5.7	2240	64	2.0		0.453
30-47.3342-109.7444-2-12-						7-410015	23930	214	7706	56	-1	5.7	3.4	-166	-1	-1	7.3	2955	73	3.0	115	0.323
30-47.3908-109.7344-2-12-						7-410016	21070	244	9464	55	-1	5.5	4.6	-214	-1	-1	7.5	2773	75	2.2	139	0.315
30-47.4142-109.7153-2-15-						7-410017	19100	134	11030	26	-1	3.3	2.9	-149	-1		4.9	1680	40	1.6	29	0.308
30-47.4397-109.6442-2-15-						7-410018	20932	297	11010	40	-1	5.8	4.2	417	-1	-1	6.0	2558	65	2.1	93	0.325
30-47.4536-109.5389-2-15-						7-410019	24070	347	9259	52	-1	9.7	4.5	-198	-1	-1	7.4	3286	97	2.7	64	0.345
30-47.5508-109.9483-2-15-						7-410021	19010	330	8617	-26	-1	3.8	3.8	-241	-1	-1	9.0	3395	98	2.0	135	0.272
30-47.6444-109.9172-2-15-						7-410022	20230	306	12690	71	-1	10.5	4.4	-214	-1	-1	8.2	3482	109	3.4	109	0.312
30-47.6408-109.9014-2-11-						7-410024	2799	267	26630	44	-1	5.2	4.4	-226	-1	-1	6.1	3219	60	2.6	-14	0.405
30-47.6397-109.8914-2-15-						7-410025	15540	354	9503	49	-1	9.1	4.4	-201	-1	-1	7.7	3537	101	2.8	45	0.309
30-47.6389-109.8458-2-15-						7-410026	12180	234	9209	45	-1	9.8	3.9	-206	-1	-1	7.0	3454	108	2.4	127	0.337
30-47.7008-109.8564-2-15-						7-410027	11130	181	8594	45	-1	7.0	4.6	293	-1	-1	7.9	3170	78	3.0	67	0.278
30-47.7028-109.8594-2-15-						7-410028	21580	170	12240	37	-1	3.6	3.9	469	-1	-1	5.5	2130	47	1.8	58	0.342
30-47.6511-109.8554-2-15-						7-410029	21870	247	14370	-21	1	7.3	3.7	493	-1	-1	6.8	2479	74	1.7	-31	0.354
30-47.6603-109.8536-2-15-						7-410030	27350	265	13660	36	-1	4.7	3.7	420	-1	-1	5.3	2054	58	1.7	41	0.343
30-47.8575-109.4355-2-12-						7-410031	13010	454	5238	68	-1	7.2	4.8	-225	-1	-1	6.7	3390	84	2.8	117	0.309
30-47.8239-109.4794-2-15-						7-410032	14800	457	7782	71	-1	8.9	4.5	-219	-1	-1	9.1	3382	106	2.4	-41	0.311
30-47.8022-109.4511-2-15-						7-410034	12910	611	9752	-26	1	9.3	5.2	-250	-1	-1	9.9	3631	140	3.0	73	0.370
30-47.7939-109.4219-2-15-						7-410035	15600	349	6672	93	-1	14.1	4.7	-214	-1	-1	10.0	4176	206	2.7	128	0.354
30-47.7875-109.4311-2-11-						7-410036	16360	320	8812	-27	-1	3.1	4.4	-218	-1	-1	8.3	3497	120	3.2	-83	0.324
30-47.7844-109.4347-2-15-						7-410037	11520	552	9023	59	-1	3.5	5.5	-228	-1	-1	9.4	3514	133	2.8	91	0.328
30-47.8122-109.4108-2-15-						7-410038	14220	574	7173	96	-1	10.9	6.0	-295	-1	-1	10.3	3880	164	3.0	162	0.340
30-47.7664-109.4211-2-11-						7-410039	22940	335	5157	107	-1	17.3	4.3	-207	-1	-1	10.9	4279	247	2.2	136	0.293
30-47.7636-109.4131-2-15-						7-410040	15850	409	7283	61	-1	10.9	5.1	-214	-1	-1	9.6	4288	142	3.1		0.282
30-47.8011-109.3781-2-15-						7-410041	10370	277	7317	64	-1	9.0	4.8	-205	-1	-1	8.6	3618	116	3.1	156	0.295
30-47.7794-109.4808-2-15-						7-410042	15890	544	8281	77	-1	10.1	5.7	-292	-1	-1	9.5	3881	133	3.0	62	0.276
30-47.8167-109.4278-2-15-						7-410044	12930	440	5528	52	-1	9.2	4.7	-215	-1	-1	7.8	3497	94	2.2	-75	0.347
30-47.7669-109.5431-2-15-						7-410046	78600	757	7337	75	-1	18.5	4.5	353	-1	1	7.3	3490	121	2.3		0.244
30-47.9733-109.5550-2-12-						7-410045	92830	747	9483	103	-1	23.2	4.7	-267	-1	-1	7.3	3577	161	2.1	-44	0.314
30-47.9839-109.5736-2-15-						7-410046	95030	843	11190	52	-1	25.8	5.1	-327	-1	-1	6.2	2803	135	2.1	-45	0.311
30-47.9817-109.5675-2-15-						7-410047	93130	934	9155	79	-1	24.7	4.4	447	-1	-1	6.1	2636	149	-1.3	82	0.279
30-47.9600-109.5875-2-12-						7-410048	58200	429	6522	112	-1	15.0	3.9	375	-1	-1	9.7	3611	171	2.3	107	0.240
30-47.9775-109.5850-2-15-						7-410049	27650	352	7797	76	-1	9.7	4.8	-210	-1	-1	8.9	3472	116	2.9	116	0.292
30-47.9339-109.6386-2-12-						7-410051	76120	723	10220	90	-1	20.2	4.7	315	-1	-1	5.9	3222	128	2.4	-49	0.353
30-47.9933-109.6750-2-15-						7-410052	54830	568	9547	-25	-1	15.1	5.3	327	-1	-1	6.0	3436	127	2.1	380	0.304
30-47.9264-109.6794-2-15-						7-410053	62510	639	9246	57	-1	15.9	5.5	-236	-1	-1	7.8	3702	142	2.8	106	0.324
30-47.9942-109.6928-2-12-						7-410054	52450	526	9335	65	-1	17.1	7.1	548	-1	-1	3.3	3471	166	2.9	94	0.314
30-47.9933-109.7125-2-15-						7-410055	133300	907	7884	94	-1	24.1	4.0	356	-1	-1	4.5	3428	149	1.8	-43	0.355
30-47.9553-109.7700-2-15-						7-410056	17290	255	22140	48	-1	4.5	3.1	-213	-1	-1	5.0	2389	47	1.7	70	0.572
30-47.9608-109.7481-2-15-						7-410057	14490	352	11200	56	-1	9.1	4.3	-193	-1	1	7.4	3292	78	2.3	93	0.295
30-47.9369-109.7786-2-15-						7-410061	26700	607	9120	47	-1	9.4	5.3	-280	-1	-1	8.4	3413	92	2.5	125	0.283
30-47.9028-109.7789-2-15-						7-410062	22650	352	11810	58	-1	5.7	3.9	-203	-1	-1	6.4	2639	67	2.3	34	0.325
30-47.9428-109.8042-2-15-						7-410064	17450	445	11580	45	1	5.5	4.7	-208	-1	-1	7.4	3413	66	2.6	27	0.289
30-47.9442-109.6928-2-12-						7-410066	17700	317	14320	56	-1	9.5	3.9	-193	-1	-1	6.0	3511	82	2.0	68	0.340
30-47.9403-109.7294-2-15-						7-410066	13350	422	10620	76	-1	3.0	4.9	-245	-1	-1	9.5	3081	78	2.4	-34	0.251
30-47.9453-109.7300-2-12-						7-410067	7969	363	11690	64	-1	5.4	4.2	-204	-1	-1	7.6	2785	62	2.5	160	0.305
30-47.1500-109.6719-2-15-						7-410077	13010	483	6467	62	1	7.3	4.8	-219	-1	-1	9.0	3109	89	2.5	104	0.283
30-47.9644-109.2425-2-15-						7-410077	35930	561	7619	29	-1	18.4	5.6	358	-1	-1	10.9	4179	212	3.1	198	0.306
30-47.9511-109.2375-2-15-						7-410077	24030	322	2449	74	-1	9.5	5.6	-236	-1	-1	10.1	3471	137	3.0	39	0.318
30-47.9499-109.2123-2-15-						7-410077	16110	523	8378	89	-1	11.2	5.3	343	-1	-1	8.9	3737	188	2.3	70	0.372

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)	SOLITOMETER (tel ppm)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER COLOR	STREAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	RELIEF	WEATHER	OWNERSHIP	CONTAMINANTS	WELL TYPE	WELL DOW-WATER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)	UNITS IN ppm
							DATE	HOUR																										
30-47.9472-109.2194-2-15	0-419974-09/11/79-14	30-	-	-	-	14-1-6-5-3	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.46			
30-47.9778-109.2283-2-15	0-419975-09/11/79-14	30-	-	-	-	7-1-6-5-6	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.38			
30-47.9356-109.2336-2-15	0-419976-07/21/79-13	24-	-	-	-	4-1-1-5-5	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.55			
30-47.9400-109.2281-2-15	0-419977-07/21/79-10	24-	-	-	-	4-1-1-5-6	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.18			
30-47.9905-109.1953-2-15	0-419978-07/21/79-18	24-	-	-	-	9-1-1-5-6	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.13			
30-47.9914-109.1983-2-15	0-419980-07/21/79-18	24-	-	-	-	9-1-1-5-6	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.18			
30-47.9369-109.1997-2-15	0-419981-07/21/79-17	25-	-	-	-	9-1-1-5-6	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.64			
30-47.8842-109.2119-2-12	0-419982-07/21/79-16	25-21.0-	-	-	-	9-1-1-5-6-3-3-1	-3-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.76			
30-47.9042-109.1619-2-12	0-419984-07/21/79-16	25-20.0-	-	-	-	9-1-1-5-5-3-3-1	-3-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.86			
30-47.9514-109.1809-2-15	0-419987-07/21/79-13	25-	-	-	-	13-1-1-5-5	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.70			
30-47.9431-109.1850-2-15	0-419988-07/21/79-13	25-	-	-	-	13-1-1-5-5	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.13			
30-47.9950-109.1581-2-12	0-419989-07/21/79-17	24-20.0-	-	-	-	9-1-1-5-5-3-3-1	-3-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.47			
30-47.9439-109.2550-2-15	0-419991-07/20/79-10	25-	-	-	-	14-1-1-5-5	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.06			
30-47.9953-109.2500-2-15	0-419993-07/20/79-13	24-	-	-	-	9-1-1-5-5	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.03			
30-47.9892-109.3142-2-12	0-419994-07/20/79-18	24-19.0-	-	-	-	9-1-1-5-6-3-3-3	-3-4-3-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.46			
30-47.9856-109.2572-2-15	0-419995-07/20/79-14	24-	-	-	-	22-1-1-5-5																												

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	LAST 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	
30-47.9472-109.2194-2-15-			0-413374				-5	7	-5	32	-20	53	9	-10	-15	2	56	
30-47.9778-109.2083-2-15-			0-413375				-5	-5	-5	41	-20	16	12	-10	-15	3	50	
30-47.9356-109.2334-2-15-			0-413376				-5	5	-5	28	-20	23	-5	-10	-15	1	22	
30-47.9400-109.2291-2-15-			0-413377				-5	-5	-5	35	-20	-15	-5	-10	-15	2	29	
30-47.8906-109.1953-2-15-			0-413378				-5	-5	-5	29	-20	-15	5	-10	-15	2	50	
30-47.8914-109.1983-2-15-			0-413379				-5	-5	-5	33	-20	29	9	-10	-15	2	50	
30-47.8969-109.1997-2-15-			0-413380				-5	-5	-5	28	-20	15	6	-10	-15	2	37	
30-47.8842-109.2312-2-12-			0-413381				-5	-5	-5	27	-20	24	8	-10	-15	2	37	
30-47.9042-109.1612-2-12-			0-413382				-5	-5	-5	26	-20	25	9	-10	-15	2	38	
30-47.9514-109.1800-2-15-			0-413383				-5	-5	-5	23	-20	20	14	-10	-15	2	37	
30-47.9491-109.1600-2-15-			0-413384				-5	-5	-5	23	-20	-15	5	-10	-15	2	25	
30-47.9950-109.1881-2-12-			0-413385				-5	-5	-5	29	-20	-15	9	-10	-15	3	69	
30-47.9439-109.2550-2-15-			0-413386				-5	-5	-5	35	-20	19	-5	-10	-15	2	49	
30-47.9953-109.3200-2-15-			0-413387				-5	-5	-5	41	-20	26	10	-10	-15	3	48	
30-47.9922-109.3142-2-12-			0-413388				-5	-5	-5	35	-20	-15	-5	-10	-15	2	45	
30-47.8856-109.2572-2-15-			0-413389				-5	5	5	43	-20	34	-5	-10	-15	3	76	
30-47.9089-109.2564-2-12-			0-413390				-5	-5	-5	29	-20	23	-5	-10	-15	2	53	
30-47.9194-109.2784-2-15-			0-413391				-5	-5	-5	36	-20	39	16	-10	-15	3	59	
30-47.9078-109.2944-2-15-			0-413392				-5	-5	-5	37	-20	-15	10	-10	-15	2	38	
30-47.8914-109.3133-2-15-			0-413393				-5	-5	-5	40	-20	38	10	-10	-15	3	49	
30-47.9911-109.2039-2-15-			0-413394				-5	-5	-5	47	-20	106	11	-10	-15	4	53	
30-47.5394-109.6508-2-15-			0-413395				-5	-5	-5	29	-20	-15	7	-10	-15	2	39	
30-47.5350-109.6719-2-12-			0-413396				-5	-5	-5	31	-20	21	6	-10	-15	2	45	
30-47.5339-109.6575-2-12-			0-413397				-5	-5	-5	32	-20	17	-5	-10	-15	2	55	
30-47.4408-109.7159-2-12-			0-413398				-5	-5	-5	19	-20	-15	-5	-10	-15	2	37	
30-47.4425-109.7183-2-12-			0-413399				-5	-5	-5	23	-20	-15	5	-10	-15	2	39	
30-47.9203-109.1889-2-15-			0-413400				-5	-5	-5	44	-20	43	7	-10	-15	3	48	
30-47.9225-109.1856-2-11-			0-413401				-5	7	-5	44	-20	32	17	-10	-15	4	45	
30-47.9293-109.1714-2-15-			0-413402				-5	-5	-5	40	-20	43	11	-10	-15	3	40	
30-47.9267-109.1764-2-12-			0-413403				-5	5	-5	38	-20	45	5	-10	-15	3	53	
30-47.9639-109.1861-2-15-			0-413404				-5	-5	-5	51	-20	73	9	-10	-15	3	46	
30-47.9653-109.1833-2-15-			0-413405				-5	5	-5	28	-20	32	3	-10	-15	3	65	
30-47.3733-109.0453-2-15-			0-413406				-5	-5	-5	43	-20	34	4	-10	-15	3	64	
30-47.3750-109.0639-2-11-			0-413407				-5	5	-5	29	-20	44	7	-10	-15	4	65	
30-47.8361-109.1778-2-15-			0-413408				-5	-5	-5	39	-20	15	8	-10	-15	3	40	
30-47.8889-109.1754-2-12-			0-413409				-5	-5	-5	38	-20	24	8	-10	-15	2	36	
30-47.8889-109.1694-2-15-			0-413410				-5	-5	-5	40	-20	38	9	-10	-15	3	40	
30-47.8956-109.1028-2-15-			0-413411				-5	-5	5	48	-20	33	14	-10	-15	3	39	
30-47.9161-109.1403-2-15-			0-413412				-5	-5	-5	33	-20	32	9	-10	-15	3	59	
30-47.9542-109.1222-2-15-			0-413413				-5	-5	-5	31	-20	20	12	-10	-15	2	43	
30-47.9511-109.0472-2-15-			0-413414				-5	-5	-5	32	-20	39	-5	-10	-15	3	58	
30-47.9628-109.0486-2-15-			0-413415				-5	5	-5	22	-20	23	-5	-10	-15	3	39	
30-47.9622-109.0450-2-12-			0-413416				-5	-5	-5	16	-20	21	5	-10	-15	2	28	
30-47.9844-109.0194-2-15-			0-413417				-5	-5	-5	20	-20	-15	-5	-10	-15	2	30	
30-47.9944-109.0194-2-15-			0-413418				-5	5	-5	21	-20	24	-5	-10	-15	2	25	
30-47.8054-109.4797-2-15-			0-413419				-5	-5	-5	20	-20	16	25	-10	-15	3	51	
30-47.7775-109.3706-2-15-			0-413420				-5	-5	-5	28	-20	18	12	-10	-15	2	44	
30-47.7919-109.3414-2-15-			0-413421				-5	-5	-5	35	-20	13	9	-10	-15	2	73	
30-47.7578-109.3225-2-15-			0-413422				-5	-5	-5	27	-20	-15	7	-10	-15	2	49	
30-47.7725-109.2853-2-15-			0-413423				-5	-5	-5	35	-20	24	19	-10	-15	3	53	
30-47.7593-109.2947-2-15-			0-413424				-5	5	-5	26	-20	17	15	-10	-15	2	44	

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
30-47.9472-109.2194-2-15-	0-413075	57180	-0.04	1470	17910	62	120	18.6	262	5.1	5	1.2	45840	4.8	22770	32	0.4					
30-47.9778-109.2083-2-15-	0-419075	74120	-0.04	1091	11930	64	226	24.3	99	7.8	5	1.4	45480	4.4	19450	36	0.4					
30-47.9356-109.2335-2-15-	0-410075	46750	-0.04	1415	45970	100	-91	10.5	137	3.2	4	1.7	37480	14.0	21500	46	0.4					
30-47.7400-109.2291-2-15-	0-410077	57030	-0.03	653	10180	53	-64	7.5	72	2.9	4	1.5	20250	7.3	16380	26	0.3					
30-47.9306-109.1958-2-15-	0-410077	65430	-0.04	751	16700	55	84	10.3	76	5.3	5	1.3	31240	5.8	18620	31	0.4					
30-47.8714-109.1993-2-15-	0-410080	55540	-0.04	755	16150	65	-61	11.3	79	5.9	5	1.3	31950	5.6	21040	31	0.3					
30-47.8969-109.1997-2-15-	0-410081	55090	-0.03	757	22600	51	-71	8.7	60	3.9	4	1.0	20160	5.2	16050	27	0.3					
30-47.9842-109.2319-2-12-	0-410082	50490	-0.03	1184	23490	51	-66	6.9	68	3.1	4	1.6	27750	9.5	15070	30	0.3					
30-47.9342-109.1619-2-12-	0-410084	52990	-0.03	787	14960	54	86	9.1	68	4.5	4	1.3	24100	7.4	16580	30	0.3					
30-47.9514-109.1800-2-15-	0-410087	60000	-0.04	859	4050	54	-54	11.6	66	6.1	5	1.4	35870	4.3	22500	32	0.3					
30-47.9491-109.1600-2-15-	0-410089	47310	-0.03	589	5253	53	-68	7.7	59	2.8	4	1.0	16870	8.1	16530	25	0.3					
30-47.9950-109.1881-2-12-	0-410089	65680	-0.04	659	33150	54	147	9.6	69	5.2	4	1.2	28400	4.3	19700	29	0.4					
30-47.9439-109.2350-2-15-	0-410091	55100	-0.04	735	25580	48	-66	8.4	61	3.7	4	1.2	26200	3.9	18770	26	0.3					
30-47.9953-109.3200-2-15-	0-410093	71000	-0.04	924	8979	66	-60	15.0	87	6.2	5	1.7	36240	5.1	22700	33	0.4					
30-47.9992-109.3142-2-12-	0-410094	67720	-0.04	710	20140	70	166	9.2	66	5.1	4	1.4	27100	6.3	16810	30	0.3					
30-47.8956-109.2572-2-15-	0-410095	84380	-0.04	925	9056	64	-67	11.9	84	6.9	4	1.4	41610	4.0	21180	30	0.4					
30-47.9089-109.2564-2-12-	0-410096	62590	-0.04	859	18760	54	-73	10.1	81	4.5	4	1.6	32150	6.0	19070	32	0.4					
30-47.9194-109.2786-2-15-	0-410097	70460	-0.04	1119	6105	65	-63	21.7	94	9.0	7	1.7	49020	6.0	20060	40	0.4					
30-47.9078-109.2944-2-15-	0-410098	54940	-0.04	871	12100	62	104	9.2	62	4.3	4	1.1	22920	6.3	19350	28	0.3					
30-47.8914-109.3133-2-15-	0-410099	63920	-0.03	932	2046	66	-64	17.1	72	5.7	4	1.4	39650	5.0	17470	30	0.4					
30-47.9811-109.2039-2-15-	0-410100	54500	-0.04	1012	37410	55	-64	23.2	776	4.5	4	1.4	43400	6.5	18680	31	0.4					
30-47.5394-109.6608-2-15-	0-410104	50760	-0.03	740	10170	42	-68	7.7	67	2.9	3	1.2	19450	5.3	16600	22	0.2					
30-47.5350-109.6719-2-12-	0-410105	59320	-0.04	737	46820	54	-72	8.4	65	3.2	3	1.1	21410	6.3	14700	24	0.3					
30-47.5339-109.5675-2-12-	0-410106	56400	-0.03	718	35180	40	-65	6.7	67	4.2	3	1.2	26240	5.0	16740	22	0.3					
30-47.4408-109.7158-2-12-	0-410108	46510	-0.02	1023	29310	55	59	3.8	31	2.2	3	1.2	13690	9.2	16030	27	0.2					
30-47.4425-109.7183-2-12-	0-410109	52320	-0.03	707	20920	45	-55	5.3	33	3.0	3	1.1	19760	4.8	15780	23	0.2					
30-47.9203-109.1899-2-15-	0-410110	73460	-0.04	1577	13550	73	-66	19.2	192	6.1	5	1.8	45370	5.5	20520	32	0.4					
30-47.9225-109.1856-2-11-	0-410111	85460	-0.04	781	4700	49	-45	17.2	96	8.4	4	1.2	41710	4.6	25470	34	0.3					
30-47.9283-109.1714-2-15-	0-410112	82150	-0.04	1312	10480	72	-55	17.9	83	7.2	5	1.7	42000	4.6	20820	36	0.4					
30-47.9267-109.1764-2-12-	0-410113	57750	-0.03	1252	24180	68	143	13.3	237	4.3	5	1.7	43320	5.8	18470	31	0.3					
30-47.9639-109.1861-2-15-	0-410114	65170	-0.05	1445	25680	74	-69	21.7	400	6.0	5	1.5	48530	5.5	20610	31	0.3					
30-47.9653-109.1833-2-15-	0-410115	74820	-0.04	782	31470	59	-70	12.1	80	6.1	4	1.2	36210	3.1	19070	31	0.3					
30-47.8733-109.0453-2-15-	0-410116	62120	-0.04	829	34410	57	-67	14.4	82	5.5	5	1.4	36710	4.8	18470	30	0.3					
30-47.8750-109.0639-2-11-	0-410117	70490	-0.04	745	12350	63	-74	17.5	92	7.2	4	1.3	44590	5.1	23790	35	0.4					
30-47.8451-109.1778-2-15-	0-410119	70170	-0.04	1175	7982	64	-69	11.7	90	4.4	4	1.3	31370	6.1	18500	28	0.3					
30-47.8389-109.1764-2-12-	0-410120	55400	-0.03	1370	27440	57	-67	11.7	131	3.0	4	1.5	29450	10.2	15140	31	0.4					
30-47.8389-109.1594-2-15-	0-410121	73220	-0.04	1024	11640	51	-70	10.9	98	5.1	4	1.1	33320	4.7	15560	29	0.4					
30-47.8956-109.1028-2-15-	0-410122	74060	-0.03	1011	9472	72	-60	23.2	95	7.1	6	1.7	51360	5.6	20420	36	0.4					
30-47.9151-109.1403-2-15-	0-410123	72890	-0.04	971	14500	75	-54	12.9	82	6.7	5	1.9	38560	4.3	24050	29	0.4					
30-47.9542-109.1222-2-15-	0-410124	58230	-0.03	723	16990	50	-66	8.1	47	2.9	3	1.1	22370	4.8	16110	24	0.3					
30-47.9511-109.0472-2-15-	0-410125	64210	-0.03	1083	15990	68	-76	18.7	77	5.0	5	1.7	39000	4.0	16700	34	0.4					
30-47.9528-109.0486-2-15-	0-410126	61950	-0.03	922	16130	59	179	10.9	68	4.0	4	1.4	26990	6.0	16480	28	0.4					
30-47.9622-109.0450-2-12-	0-410127	48520	-0.03	1132	28940	69	-71	7.0	147	2.5	4	1.4	19360	9.7	16650	31	0.4					
30-47.9344-109.0194-2-15-	0-410129	43870	-0.02	558	29870	62	-53	3.8	27	2.0	4	1.1	11700	10.2	18130	34	0.4					
30-47.9344-109.0194-2-15-	0-410130	45650	-0.03	633	33310	87	72	-1.0	78	2.3	5	1.6	16370	16.4	17510	45	0.5					
30-47.8054-109.4797-2-15-	0-410131	65690	-0.04	759	7270	61	-62	12.4	77	4.5	5	1.3	32960	5.8	21170	32	0.4					
30-47.7775-109.3706-2-15-	0-410132	65300	-0.04	1136	11760	53	-82	10.1	61	3.7	4	1.4	27830	5.4	17370	27	0.3					
30-47.7919-109.3414-2-15-	0-410133	63710	-0.04	569	28100	48	228	7.1	62	4.5	3	1.2	28900	4.3	17060	25	0.3					
30-47.7578-109.3225-2-15-	0-410135	61470	-0.03	955	7033	56	-62	9.6	55	4.8	5	1.8	29110	6.4	20200	30	0.4					
30-47.7725-109.2858-2-15-	0-410136	75440	-0.04	917	16000	50	-51	12.3	90	6.5	5	1.2	39260	4.4	19560	34	0.3					
30-47.7683-109.2947-2-15-	0-410137	54010	-0.03	781	21860	65	-85	10.1	62	3.5	4	1.3	23930	8.1	14130	26	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	
30-47.9472-109.2194-2-15-	0-411074	33659	530	12470	-28	1	14.7	5.9	-251	-1	-1	10.4	3802	195	2.8	74	0.333					
30-47.9778-109.2083-2-15-	0-411075	15990	483	5155	93	-1	14.0	5.3	-211	-1	-1	11.3	4773	254	3.3	148	0.299					
30-47.9356-109.2335-2-15-	0-411076	19777	382	8545	42	-1	8.1	8.1	-355	-1	-1	17.9	5084	113	3.4	269	0.198					
30-47.9400-108.2281-2-15-	0-411077	15090	359	10670	52	-1	5.9	4.1	-197	-1	-1	8.2	3268	93	2.3	370	0.266					
30-47.8905-108.1959-2-15-	0-411078	10477	447	4559	73	-1	10.7	5.9	-226	-1	-1	9.6	3992	162	2.6	-38	0.326					
30-47.8914-108.1983-2-15-	0-411079	20140	467	4606	95	1	11.3	4.7	-228	-1	-1	10.1	3545	165	3.4	-84	0.315					
30-47.8969-108.1997-2-15-	0-411080	19630	359	9807	49	-1	6.9	4.9	-232	2	-1	8.1	3017	101	2.3	66	0.326					
30-47.8842-109.2319-2-12-	0-411081	16540	475	9529	34	-1	5.9	5.5	-216	-1	-1	9.4	3278	107	2.4	76	0.294					
30-47.9042-108.1619-2-12-	0-411082	14230	413	8949	58	1	7.5	4.7	-214	-1	-1	9.3	3292	106	2.2	-34	0.308					
30-47.9514-108.1900-2-15-	0-411083	15140	241	5701	79	-1	11.7	4.6	218	-1	-1	9.7	4367	178	3.3	97	0.278					
30-47.9481-109.1600-2-15-	0-411084	4403	415	8537	43	-1	5.1	4.4	-239	-1	-1	8.0	3636	74	2.8	-57	0.266					
30-47.9950-109.1981-2-12-	0-411085	22530	465	5947	86	-1	10.2	4.8	375	-1	-1	9.0	3397	167	2.3	-73	0.274					
30-47.9439-108.2550-2-15-	0-411086	15630	595	5442	73	-1	9.0	3.9	-274	-2	-1	9.2	3478	143	2.7	195	0.333					
30-47.9953-109.3200-2-15-	0-411087	19220	359	6503	95	-1	12.2	5.5	-214	-1	-1	10.4	4213	212	3.3	210	0.291					
30-47.9892-108.3142-2-12-	0-411088	13240	477	5222	91	-1	7.4	5.1	351	-1	-1	9.2	3374	140	3.9	118	0.267					
30-47.8856-108.2572-2-15-	0-411089	20850	501	7371	103	1	13.5	4.5	-236	-1	-1	10.0	4201	255	3.2	-72	0.402					
30-47.9089-109.2564-2-12-	0-411090	19850	487	10150	75	-1	7.7	5.2	-255	-1	-1	10.0	3958	154	3.4	56	0.328					
30-47.9194-108.2786-2-15-	0-411091	15040	582	6475	76	-1	12.0	6.2	-246	-1	-1	13.0	4262	219	3.2	207	0.309					
30-47.9078-108.2944-2-15-	0-411092	15690	285	9294	52	-1	7.3	5.4	-221	-1	-1	7.8	3584	117	2.6	81	0.515					
30-47.8914-109.3133-2-15-	0-411093	19240	494	7724	61	1	10.3	4.9	-221	-1	-1	10.2	3263	188	2.9	131	0.334					
30-47.9811-109.2039-2-15-	0-411094	51530	444	7384	75	-1	20.0	5.9	-244	-1	-1	9.8	4402	183	2.9	-37	0.286					
30-47.5394-109.6608-2-15-	0-411095	11170	245	14750	51	1	5.7	3.7	-184	-1	-1	5.1	2365	72	1.8		0.386					
30-47.5350-109.6719-2-12-	0-411096	21260	261	9493	45	-1	7.4	4.2	-230	-1	-1	6.8	3420	89	2.2	65	0.331					
30-47.5339-109.6675-2-12-	0-411097	22690	294	10200	52	-1	9.5	4.0	286	-1	-1	7.3	3590	108	2.1	414	0.332					
30-47.4408-109.7159-2-12-	0-411098	13340	185	7224	42	-1	3.9	4.0	419	-1	-1	6.1	2711	56	1.9	86	0.361					
30-47.4425-109.7183-2-12-	0-411099	13330	215	2274	52	-1	5.3	3.4	210	-1	-1	6.8	2669	67	1.9	87	0.318					
30-47.9203-109.1889-2-15-	0-411100	21260	494	6457	78	-1	13.9	5.5	-261	-1	-1	10.4	4182	216	3.0	-45	0.352					
30-47.9225-109.1856-2-11-	0-411101	17970	231	4111	27	-1	14.1	5.3	-168	-1	-1	10.1	4791	269	2.8	130	0.340					
30-47.9283-109.1714-2-15-	0-411102	17700	353	5755	77	-1	12.2	6.5	-224	-1	-1	13.1	4214	202	3.3	129	0.311					
30-47.9267-109.1764-2-12-	0-411103	24740	490	13240	77	1	13.2	6.0	-236	-1	-1	9.1	3614	153	3.3	-40	0.360					
30-47.9639-109.1851-2-15-	0-411104	22690	583	6139	98	-1	16.0	7.1	-276	-1	-1	9.6	4192	209	2.7	104	0.361					
30-47.9653-109.1833-2-15-	0-411105	19150	247	9352	91	-1	11.3	5.2	-213	-1	1	9.5	3852	213	2.6	-98	0.367					
30-47.8733-109.0453-2-15-	0-411106	14910	421	9272	75	-1	10.5	5.6	-227	-1	-1	9.7	3807	183	3.1	-42	0.447					
30-47.8750-109.0639-2-11-	0-411107	21320	942	4799	102	-1	13.4	5.4	-320	-1	-1	10.8	3776	210	3.0	136	0.319					
30-47.8861-109.1779-2-15-	0-411108	15240	233	9436	77	-1	10.1	4.5	-214	-1	-1	9.3	4673	148	2.7	-88	0.356					
30-47.8889-109.1764-2-12-	0-411109	22410	377	11240	55	-1	9.3	5.4	-198	-1	-1	8.8	3608	110	3.1	-12	0.360					
30-47.8839-109.1694-2-15-	0-411110	16910	235	11290	81	-1	11.5	5.2	-208	-1	-1	10.0	4120	173	3.0	77	0.343					
30-47.8956-109.1028-2-15-	0-411111	17230	564	6521	84	1	12.2	5.6	-228	-1	-1	10.1	4073	225	3.1	114	0.357					
30-47.9161-109.1403-2-15-	0-411112	14490	324	4515	87	-1	13.4	5.8	-221	-1	-1	11.3	4144	215	2.7	71	0.294					
30-47.9542-109.1222-2-15-	0-411113	15640	255	13240	59	-1	5.4	4.4	-130	-1	-1	6.7	2508	102	1.6	71	0.354					
30-47.9511-109.0472-2-15-	0-411114	13910	417	13980	106	-1	10.1	5.7	360	-1	-1	10.2	3619	164	3.3		0.337					
30-47.9628-109.0486-2-15-	0-411115	14210	285	14300	86	-1	3.4	4.5	-205	-1	-1	7.9	3289	114	2.9	98	0.389					
30-47.9622-109.0450-2-12-	0-411116	25350	235	11290	39	-1	7.8	5.0	-216	-1	-1	8.5	3919	78	2.7	49	0.327					
30-47.9844-109.0194-2-15-	0-411117	24610	250	13200	45	1	3.9	5.2	246	-1	-1	7.9	3165	35	3.4	27	0.348					
30-47.9944-109.0194-2-15-	0-411118	31010	353	13420	-19	1	5.0	7.1	-198	-1	-1	10.7	5359	52	3.2	49	0.293					
30-47.8064-108.4797-2-15-	0-411119	13510	454	7074	77	-1	10.7	4.9	-230	-1	-1	9.3	3724	133	3.3	141	0.297					
30-47.7775-108.3705-2-15-	0-411120	14170	465	17910	54	-1	9.3	4.9	-258	-1	-1	9.1	3560	108	2.7	-58	0.297					
30-47.7919-109.3414-2-15-	0-411121	27910	360	22450	78	1	9.2	4.2	-259	-1	-1	8.1	3385	123	2.0	117	0.360					
30-47.7578-108.3225-2-15-	0-411122	12170	330	8327	67	-1	9.4	5.2	-208	-1	-1	9.5	4241	134	2.7	130	0.300					
30-47.7725-108.2858-2-15-	0-411123	20030	251	5479	76	1	13.0	5.0	-133	-1	-1	10.6	3964	205	2.9	-59	0.294					
30-47.7683-108.2947-2-15-	0-411124	13400	484	13000	51	-1	5.9	4.9	-272	-1	-1	8.5	2978	97	2.4	72	0.282					

[illegible]

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	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
30-47.9239-108.3485-2-15-			0-410139			0-410139	-5	-5	-5	46	-20	35	10	-10	-15		3	50
30-47.9250-108.3422-2-15-			0-410139			0-410139	-5	-5	-5	40	-20	35	15	-10	-15		3	69
30-47.8147-108.3031-2-15-			0-410140			0-410140	-5	-5	-5	31	-20	25	17	-10	-15		3	40
30-47.8075-108.3000-2-15-			0-410141			0-410141	-5	-5	-5	40	-20	-15	9	-10	-15		2	43
30-47.8132-108.3106-2-15-			0-410142			0-410142	-5	-5	-5	28	-20	23	14	-10	-15		3	44
30-47.8014-108.2758-2-15-			0-410143			0-410143	-5	-5	-5	46	-20	27	7	-10	-15		3	47
30-47.7908-108.2378-2-15-			0-410144			0-410144	-5	-5	-5	28	-20	-15	12	-10	-15		2	41
30-47.8485-108.2956-2-15-			0-410145			0-410145	-5	-5	-5	35	-20	29	9	-10	-15		3	93
30-47.8358-108.2233-2-15-			0-410146			0-410146	-5	-5	-5	42	-20	24	15	-10	-15		3	46
30-47.8422-108.2214-2-15-			0-410147			0-410147	-5	-5	-5	29	-20	35	14	-10	-15		3	51
30-47.8586-108.2333-2-15-			0-410148			0-410148	-5	-5	-5	37	-20	19	10	-10	-15		2	45
30-47.7753-108.2189-2-15-			0-410149			0-410149	-5	-5	-5	32	-20	45	13	-10	-15		3	49
30-47.7553-108.1892-2-15-			0-410150			0-410150	-5	-5	-5	33	-20	51	15	-10	-15		4	66
30-47.5139-108.1953-2-15-			0-410151			0-410151	-5	-5	-5	26	-20	-15	12	-10	-15		2	31
30-47.5053-108.4125-2-12-			0-410152			0-410152	-5	-5	-5	25	-20	-15	5	-10	-15		2	44
30-47.5986-108.1583-2-15-			0-410153			0-410153	-5	-5	-5	18	-20	-15	5	-10	-15		2	51
30-47.5981-108.1094-2-15-			0-410154			0-410154	-5	-5	-5	32	-20	-15	5	-10	-15		2	64
30-47.6106-108.0030-2-15-			0-410155			0-410155	-5	-5	-5	16	-20	-15	-5	-10	-15		2	28
30-47.6100-108.0092-2-11-			0-410156			0-410156	-5	-5	-5	11	-20	-15	-5	-10	-15		2	36
30-47.9735-108.3550-2-12-			0-410157			0-410157	-5	-5	-5	29	-20	25	12	-10	-15		1	43
30-47.9367-108.3878-2-12-			0-410158			0-410158	-5	-5	-5	32	-20	-15	12	-10	-15		2	88
30-47.9325-108.3872-2-15-			0-410159			0-410159	-5	-5	-5	29	-20	-15	10	-10	-15		2	39
30-47.9972-108.4494-2-12-			0-410160			0-410160	-5	-5	-5	30	-20	23	-5	-10	-15		2	45
30-47.9611-108.4403-2-12-			0-410161			0-410161	-5	-5	-5	20	-20	-15	7	-10	-15		2	33
30-47.9089-108.3883-2-15-			0-410162			0-410162	-5	-5	-5	25	-20	-15	8	-10	-15		2	60
30-47.9039-108.4417-2-11-			0-410163			0-410163	-5	-5	-5	27	-20	19	16	-10	-15		3	48
30-47.9035-108.4581-2-12-			0-410164			0-410164	-5	-5	-5	30	-20	-15	11	-10	-15		2	54
30-47.9033-108.4922-2-15-			0-410165			0-410165	-5	-5	-5	30	-20	26	23	-10	-15		3	70
30-47.9092-108.5094-2-15-			0-410166			0-410166	-5	-5	-5	27	-20	-15	-5	-10	-15		2	37
30-47.9192-108.5442-2-12-			0-410167			0-410167	-5	-5	-5	71	-20	45	121	-10	-15		5	24
30-47.9217-108.5297-2-15-			0-410168			0-410168	-5	-5	-5	30	-20	15	42	-10	-15		3	34
30-47.9455-108.5614-2-11-			0-410169			0-410169	-5	-5	-5	21	-20	-15	-5	-10	-15		1	25
30-47.9536-108.5014-2-15-			0-410170			0-410170	-5	-5	-5	18	-20	-15	16	-10	-15		3	45
30-47.8756-108.5581-2-15-			0-410171			0-410171	-5	-5	-5	28	-20	25	10	-10	-15		2	46
30-47.8775-108.4156-2-15-			0-410172			0-410172	-5	-5	-5	33	-20	-15	-5	-10	-15		2	47
30-47.8985-108.6147-2-15-			0-410173			0-410173	-5	-5	-5	30	-20	31	32	-10	-15		4	50
30-47.8967-108.6242-2-15-			0-410174			0-410174	-5	-5	-5	31	-20	-15	3	-10	-15		2	32
30-47.9209-108.4175-2-15-			0-410175			0-410175	-5	-5	-5	39	-20	29	10	-10	-15		3	57
30-47.6892-108.7042-2-15-			0-410176			0-410176	-5	-5	-5	35	-20	20	-5	-10	-15		3	72
30-47.6258-108.5636-2-15-			0-410177			0-410177	-5	-5	-5	27	-20	-15	5	-10	-15		2	45
30-47.5314-108.6314-2-15-			0-410178			0-410178	-5	-5	-5	32	-20	22	11	-10	-15		2	58
30-47.7239-108.0325-2-15-			0-410179			0-410179	-5	-5	-5	34	-20	15	9	-10	-15		2	49
30-47.7194-108.0649-2-15-			0-410180			0-410180	-5	-5	-5	30	-20	-15	13	-10	-15		2	37
30-47.7214-108.0529-2-15-			0-410181			0-410181	-5	-5	-5	35	-20	20	9	-10	-15		2	42
30-47.7135-108.0128-2-15-			0-410182			0-410182	-5	-5	-5	31	-20	27	11	-10	-15		2	48
30-47.6297-108.0008-2-15-			0-410183			0-410183	-5	-5	-5	35	-20	35	5	-10	-15		3	60
30-47.6342-108.0264-2-15-			0-410184			0-410184	-5	-5	-5	44	-20	23	7	-10	-15		2	72
30-47.9997-108.6689-2-15-			0-410185			0-410185	-5	-5	-5	19	-20	-15	6	-10	-15		2	28
30-47.9914-108.7028-2-15-			0-410186			0-410186	-5	-5	-5	26	-20	19	10	-10	-15		2	45
30-47.9906-108.7044-2-15-			0-410187			0-410187	-5	-5	-5	30	-20	25	8	-10	-15		3	81
30-47.9928-108.6360-2-12-			0-410188			0-410188	-5	-5	-5	21	-20	22	14	-10	-15		2	29

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 IRADIATION NUMBER	Concentrations reported in weight parts per million (ppm)															
							Al	Au	Bc	Ca	Ce	Cl	Cc	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
30-47.9239-109.3436-2-15-	0-410139	52130	-0.03	373	13310	62	-64	13.5	71	4.4	4	1.5	37670	5.9	17150	30	0.3					
30-47.9250-109.3422-2-15-	0-410139	74020	-0.04	343	15340	56	-65	14.5	98	6.5	5	1.4	42970	4.2	19830	34	0.5					
30-47.9147-109.3031-2-15-	0-410140	74970	-0.04	1112	14000	57	-58	13.2	83	7.0	4	1.5	42790	4.7	21090	31	0.3					
30-47.8075-109.3000-2-15-	0-410141	50840	-0.04	830	13870	62	-69	12.8	78	4.0	4	1.3	32960	5.3	19550	27	0.4					
30-47.8192-109.3106-2-15-	0-410142	59940	-0.04	752	11750	43	-60	7.7	72	5.4	4	1.5	33140	4.2	19200	27	0.3					
30-47.8014-109.2758-2-15-	0-410143	55860	-0.03	888	16940	54	341	10.5	66	4.2	5	1.7	31930	5.8	15730	29	0.4					
30-47.7908-109.2378-2-15-	0-410144	57640	-0.03	1066	17770	63	-63	10.7	66	3.6	4	1.4	30020	7.7	16970	29	0.3					
30-47.8486-109.2856-2-15-	0-410145	56400	-0.04	801	10220	65	-111	12.7	56	4.1	4	1.4	36650	3.4	14000	27	0.4					
30-47.8359-109.2233-2-15-	0-410146	89170	-0.04	731	5430	62	-61	10.6	85	7.7	4	1.3	42430	4.6	21840	33	0.3					
30-47.8422-109.2214-2-15-	0-410147	840	-0.04	9263	63	-64	19.5	83	5.5	5	1.5	40450	6.0	19610	33	0.5						
30-47.8586-109.2333-2-15-	0-410148	63690	-0.03	726	9659	61	-68	15.3	73	4.5	5	1.5	37120	6.4	17570	30	0.4					
30-47.7753-109.2189-2-15-	0-410149	56930	-0.04	1022	14180	65	-68	13.0	77	4.9	5	1.5	36630	6.2	17220	30	0.4					
30-47.7553-109.1892-2-15-	0-410150	72610	-0.03	881	14520	66	-60	15.8	75	5.5	5	1.4	39980	5.0	22210	30	0.4					
30-47.5139-109.1953-2-15-	0-410152	50040	-0.03	718	7399	55	216	7.0	52	2.6	4	1.5	16060	10.1	16180	30	0.3					
30-47.5053-109.4125-2-12-	0-410155	57080	-0.03	805	8833	49	122	7.9	53	2.4	4	1.2	19730	6.7	15370	27	0.3					
30-47.5986-109.1583-2-15-	0-410156	50750	-0.03	659	14950	58	-87	5.9	35	2.6	5	1.2	16040	6.7	18450	29	0.4					
30-47.5981-109.1094-2-15-	0-410157	57210	-0.03	542	10190	62	98	6.8	46	3.8	4	1.3	24000	6.3	19770	29	0.4					
30-47.6106-109.0039-2-15-	0-410158	42800	-0.02	722	14310	42	847	4.2	29	2.1	3	1.1	12370	4.2	15070	21	0.3					
30-47.6100-109.0092-2-11-	0-410159	45670	-0.02	757	19000	45	647	3.5	27	2.2	3	1.1	13800	5.2	16090	23	0.2					
30-47.9736-109.3550-2-12-	0-410160	42930	-0.04	954	62570	49	482	9.7	43	6.1	4	1.1	23770	5.4	13750	24	0.3					
30-47.9367-109.3878-2-12-	0-410162	47890	-0.03	624	73950	47	89	7.2	58	4.1	4	1.1	20420	5.9	18310	27	0.3					
30-47.9925-109.3872-2-15-	0-410163	50420	-0.03	547	50040	56	-54	3.6	58	6.3	5	1.1	22520	6.2	15970	27	0.3					
30-47.9972-109.4494-2-12-	0-410165	49310	-0.03	510	20990	73	88	11.2	56	4.0	5	1.3	27570	7.1	15940	32	0.4					
30-47.9611-109.4403-2-12-	0-410167	43530	-0.03	453	104100	47	142	7.3	44	6.9	3	1.0	20980	4.6	23160	23	0.2					
30-47.9089-109.3883-2-15-	0-410168	58130	-0.03	1013	20550	57	-56	12.4	50	5.6	5	1.4	29830	6.7	17800	31	0.4					
30-47.9039-109.4417-2-11-	0-410169	59540	-0.04	950	18130	76	-58	9.8	73	5.3	5	1.5	28500	9.7	17670	31	0.5					
30-47.9096-109.4581-2-12-	0-410170	53020	-0.03	406	30230	57	48	10.3	50	4.1	5	1.4	26850	6.3	14820	31	0.4					
30-47.9083-109.4922-2-15-	0-410171	55940	-0.04	545	61130	69	-63	12.1	67	7.6	5	1.7	29990	4.3	23590	40	0.4					
30-47.9092-109.5094-2-15-	0-410172	42460	-0.04	722	72250	41	182	7.7	50	4.4	3	1.1	32230	3.9	15220	21	0.2					
30-47.9192-109.5442-2-12-	0-410175	70170	0.34	901	5213	57	-141	15.2	75	10.1	2	1.4	42250	5.4	35950	29	0.3					
30-47.9217-109.5297-2-15-	0-410177	71010	0.05	484	13270	33	-97	5.5	35	5.9	2	0.9	17750	4.2	37560	19	0.2					
30-47.9456-109.5514-2-11-	0-410178	41810	-0.03	326	162700	46	-57	7.8	40	2.8	3	1.0	16660	2.6	31940	24	0.2					
30-47.9536-109.5014-2-15-	0-410179	58230	-0.03	824	13160	61	-93	5.3	44	8.8	3	1.1	22790	6.8	28090	34	0.2					
30-47.8756-109.5581-2-15-	0-410181	55940	-0.04	785	38620	61	126	9.6	57	4.0	4	1.4	24390	6.0	15860	29	0.3					
30-47.8775-109.4155-2-15-	0-410182	55910	-0.03	539	17010	58	-53	9.0	54	3.8	4	1.2	25770	6.3	16420	29	0.3					
30-47.8986-109.5147-2-15-	0-410184	54930	0.13	478	44980	72	-114	17.2	63	9.4	4	1.4	38530	6.6	28860	41	0.4					
30-47.8957-109.5242-2-15-	0-410185	48760	-0.04	372	33070	47	-60	9.2	56	9.0	3	1.1	22370	3.4	18860	25	0.3					
30-47.9208-109.4175-2-15-	0-410187	61210	-0.04	835	8396	65	-53	10.0	78	5.5	5	1.3	22680	6.0	19260	35	0.5					
30-47.6892-109.7042-2-15-	0-410188	72280	-0.04	787	11990	61	-55	13.3	34	6.1	4	1.4	37550	4.1	22640	32	0.4					
30-47.6258-109.5636-2-15-	0-410189	63930	-0.04	754	5299	53	-79	10.4	75	4.8	4	1.4	29280	4.9	17200	29	0.4					
30-47.6314-109.4814-2-15-	0-410191	56730	-0.03	514	15930	52	-96	10.2	73	4.7	4	1.2	28710	4.8	20520	28	0.3					
30-47.7239-109.0325-2-15-	0-410194	55840	-0.04	804	9143	68	-72	10.9	72	4.1	5	1.3	27880	6.4	20260	31	0.4					
30-47.7194-109.0689-2-15-	0-410195	62790	-0.03	700	7000	48	-63	5.1	66	4.1	4	1.2	23000	5.5	20140	27	0.3					
30-47.7214-109.0524-2-15-	0-410196	53390	-0.03	706	9097	58	-63	10.6	73	4.1	5	1.3	28540	6.7	16810	33	0.4					
30-47.7136-109.0128-2-15-	0-410197	61400	-0.03	755	14440	57	-63	11.6	74	5.1	5	1.3	29280	6.2	19300	32	0.3					
30-47.5297-109.0008-2-15-	0-410198	71470	-0.04	697	15940	63	-74	15.9	75	6.1	5	1.3	42240	4.8	21150	30	0.4					
30-47.6342-109.0254-2-15-	0-410199	64560	-0.04	611	19860	68	-75	12.2	85	4.9	4	1.1	34480	6.3	18830	30	0.3					
30-47.9997-109.4589-2-15-	0-410201	40160	-0.03	553	72710	45	-56	7.1	53	3.0	3	1.0	16320	6.4	17000	21	0.2					
30-47.9914-109.7028-2-15-	0-410202	46320	-0.03	632	24660	67	77	6.2	62	3.5	5	1.3	19050	10.5	15560	29	0.4					
30-47.9906-109.7044-2-15-	0-410203	72020	-0.04	577	5337	72	-46	12.4	42	5.4	7	1.9	22050	5.5	22290	40	0.5					
30-47.9428-109.5859-2-12-	0-410204	45410	-0.03	425	51900	53	78	5.5	57	3.7	4	1.2	16680	6.5	15010	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	REF/CATE	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	
30-47.8239-109.3486-2-15-	7-4113139	17690	520	7577	53	-1	9.3	4.7	-225	-1	-1	9.4	3161	148	3.7	-62	0.319					
30-47.8250-109.3472-2-15-	7-4113130	17700	461	7514	84	1	12.7	5.4	-238	-2	-1	10.9	4150	206	3.0	-27	0.306					
30-47.8147-109.3031-2-15-	7-4113140	17720	322	6552	87	-1	13.1	5.4	-200	-1	-1	11.2	4111	209	2.8	-90	0.312					
30-47.3075-109.3000-2-15-	7-4113141	16830	420	9169	55	-1	9.0	5.8	-241	-1	-1	9.0	4211	150	3.5	110	0.354					
30-47.8192-109.3106-2-15-	7-4113142	16920	194	6719	91	-1	10.4	4.3	-193	-1	-1	9.2	3429	165	2.5	105	0.370					
30-47.8014-109.2753-2-15-	7-4113143	14950	420	9531	-74	-1	3.1	5.3	-213	-1	-1	8.9	3352	126	2.6	31	0.349					
30-47.7908-109.2378-2-15-	7-4113144	12300	371	10760	59	-1	8.5	5.7	-194	-1	-1	9.2	3225	123	2.8	107	0.292					
30-47.8486-109.2456-2-15-	7-4113145	12580	713	19430	59	-1	8.2	4.6	-348	-1	-1	8.6	2745	108	1.9	84	0.351					
30-47.9358-109.2233-2-15-	7-4113146	25050	262	6585	82	-1	14.5	4.6	-200	-1	-1	10.3	4388	240	2.6	119	0.356					
30-47.8422-109.2214-2-15-	7-4113147	15990	520	7354	86	1	11.0	5.4	-237	-1	-1	11.3	4104	180	3.5		0.324					
30-47.8586-109.2333-2-15-	7-4113148	15130	504	10150	71	1	9.8	5.4	-233	-1	-1	9.9	4062	150	3.1	122	0.374					
30-47.7753-109.2189-2-15-	7-4113149	14450	370	8456	46	1	9.5	5.3	-238	-1	-1	10.3	3954	160	2.6	-38	0.311					
30-47.7553-109.1992-2-15-	7-4113150	16770	438	7422	73	2	11.4	4.9	-207	-1	-1	10.1	3772	197	2.6	111	0.341					
30-47.5139-109.1953-2-15-	7-4113151	7614	314	16140	42	-1	5.3	3.9	323	-1	-1	7.5	3388	72	2.7	-29	0.443					
30-47.5053-109.4125-2-12-	7-4113156	13940	230	17660	50	-1	6.1	4.6	252	-1	-1	7.3	2979	69	2.7	87	0.310					
30-47.5986-109.1583-2-15-	7-4113155	21270	307	17600	62	-1	5.3	5.9	-241	-1	-1	7.9	2788	59	2.8	48	0.362					
30-47.5981-109.1094-2-15-	7-4113157	25730	336	18200	56	-1	7.1	5.1	-224	-1	-1	8.7	3053	96	2.5	65	0.526					
30-47.5106-109.0039-2-15-	7-4113159	11570	149	11270	40	-1	3.6	3.5	348	-1	-1	5.8	1690	60	1.4	-25	0.283					
30-47.6100-109.0092-2-11-	7-4113160	11170	147	11180	30	-1	4.0	3.8	-165	-1	-1	6.0	2444	57	1.8	45	0.278					
30-47.9736-109.3550-2-12-	7-4113160	12710	345	3535	48	-1	6.5	4.8	579	-1	-1	7.3	2300	89	1.9	-60	0.353					
30-47.9367-109.3378-2-12-	7-4113162	27580	407	5350	63	1	6.9	4.4	-213	-1	-1	7.9	2692	95	2.6	-33	0.361					
30-47.9325-109.3372-2-15-	7-4113163	12420	357	4478	55	-1	3.1	4.2	-190	-1	-1	7.6	3588	82	2.3	160	0.313					
30-47.9972-109.4494-2-12-	7-4113165	15420	721	4614	61	-1	7.3	6.5	-291	-1	-1	10.2	3271	95	2.7	-67	0.355					
30-47.9511-109.4403-2-12-	7-4113167	52650	410	7004	58	3	5.0	3.6	-203	-1	-1	7.2	1875	45	1.7	73	0.364					
30-47.9039-109.3883-2-15-	7-4113168	17490	534	5211	60	-1	9.4	5.3	-221	-1	-1	9.8	3321	113	3.1	100	0.327					
30-47.9039-109.4417-2-11-	7-4113169	14340	491	3276	59	1	9.1	6.6	-248	-1	-1	11.1	3356	129	3.2	-71	0.341					
30-47.9086-109.4581-2-12-	7-4113170	11910	558	2781	61	-1	9.5	5.3	-237	-1	-1	9.6	3480	96	2.8	-69	0.395					
30-47.9093-109.4922-2-15-	7-4113171	19230	434	3223	97	-1	10.8	6.5	-275	-1	-1	11.9	3795	103	3.5	-10	0.291					
30-47.9092-109.5094-2-15-	7-4113172	15760	1093	4047	-30	-1	6.4	3.6	-369	-1	-1	6.1	2319	123	2.0	171	0.582					
30-47.9192-109.5442-2-12-	7-4113176	9034	1560	20260	140	2	5.5	4.4	-484	-1	-1	10.3	-1343	53	2.4	309	0.561					
30-47.9217-109.5297-2-15-	7-4113177	6253	542	23440	116	2	4.5	3.0	575	-1	-1	9.3	2009	76	1.5	81	0.434					
30-47.9455-109.5614-2-11-	7-4113178	20830	288	1380	88	-1	5.6	3.5	-207	-1	-1	7.3	2251	36	1.7	-37	0.237					
30-47.9536-109.5014-2-15-	7-4113179	2530	562	23090	80	-1	5.2	4.8	688	-1	-1	12.3	2176	48	2.2	87	0.324					
30-47.8756-109.5531-2-15-	7-4113181	14660	498	3223	69	-1	7.9	4.8	-262	-1	-1	9.0	3303	83	2.9	-91	0.320					
30-47.8775-109.4155-2-15-	7-4113182	19460	397	5013	92	-1	8.4	4.9	-194	-1	-1	9.1	3052	104	1.9	67	0.408					
30-47.8986-109.6147-2-15-	7-4113184	15600	2020	7292	101	2	7.8	5.5	-447	-1	-1	12.9	3696	86	2.6	417	0.288					
30-47.8967-109.6242-2-15-	7-4113185	2505	474	3676	46	-1	9.1	3.6	-278	-1	-1	7.2	2879	68	2.5	105	0.254					
30-47.9208-109.4175-2-15-	7-4113197	13440	244	4223	-26	-1	9.3	7.1	-204	-1	-1	10.2	3460	147	2.9	97	0.350					
30-47.6392-109.7042-2-15-	7-4113198	21040	360	5757	75	-1	12.7	4.7	-201	-1	-1	10.3	4410	218	2.4	150	0.315					
30-47.6258-109.5635-2-15-	7-4113199	14140	232	16500	72	-1	9.6	4.8	-213	-1	-1	9.3	4142	139	2.5	99	0.382					
30-47.6314-109.5814-2-15-	7-4113199	24590	258	25820	62	-1	10.2	4.6	-241	-1	-1	8.3	3592	114	2.9	84	0.370					
30-47.7239-109.3325-2-15-	7-4113194	15260	411	8500	50	-1	9.3	5.5	-248	-1	-1	9.6	3921	140	2.6	-52	0.333					
30-47.7194-109.0689-2-15-	7-4113195	9422	238	9178	60	-1	9.4	4.0	-186	-1	-1	8.2	3442	115	2.4	-75	0.291					
30-47.7214-109.0528-2-15-	7-4113196	14570	428	3714	78	-1	9.4	5.3	-216	-1	-1	9.5	3673	131	3.6	97	0.257					
30-47.7136-109.0128-2-15-	7-4113197	15930	304	9163	70	-1	9.2	4.6	-198	-1	-1	9.5	3705	122	2.7	142	0.298					
30-47.6297-109.0008-2-15-	7-4113198	16970	478	8851	82	-1	11.1	6.3	-257	-1	-1	10.7	3689	189	2.6	107	0.325					
30-47.6342-109.0254-2-15-	7-4113199	21110	351	13530	78	-1	10.3	5.3	-218	-1	-1	10.3	3578	165	2.7	109	0.325					
30-47.9997-109.6582-2-15-	7-4113201	23630	359	7020	44	-1	5.2	3.4	-183	-1	-1	6.2	2553	52	2.1	92	0.300					
30-47.9914-109.7023-2-15-	7-4113202	12180	393	5120	-74	-1	5.6	5.3	-230	-1	-1	8.9	3363	94	4.1	89	0.311					
30-47.9906-109.7044-2-15-	7-4113203	10560	190	3356	79	-1	11.1	7.4	-175	-1	-1	10.7	4512	171	4.6	145	0.450					
30-47.9828-109.6869-2-12-	7-4113204	18940	182	4559	65	-1	5.3	4.3	-179	-1	-1	6.7	2978	67	2.2	76	0.418					

[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	
30-47.9581-103.5572-2-12-	0-410207	10	5	-5	36	-20	34	197	-10	-15	5	35						
30-47.9586-103.5381-2-11-	0-410207	-5	-5	-5	23	-20	-15	-5	-10	-15	2	36						
30-47.9767-103.7283-2-11-	0-410209	-5	-5	-5	33	-20	35	9	-10	-15	2	44						
30-47.9555-103.7486-2-15-	0-410209	-5	5	-5	32	-20	25	11	-10	-15	3	54						
30-47.9150-103.7217-2-15-	0-410210	-5	-5	-5	22	-20	-15	6	-10	-15	2	33						
30-47.8981-103.6711-2-11-	0-410212	-5	-5	-5	30	-20	26	7	-10	-15	2	35						
30-47.9764-103.6572-2-11-	0-410213	-5	-5	-5	26	-20	16	17	-10	-15	2	30						
30-47.8947-103.6308-2-12-	0-410214	12	5	-5	81	-20	81	93	-10	-15	9	36						
30-47.8756-103.7353-2-12-	0-410215	-5	-5	-5	28	-20	20	9	-10	-15	2	51						
30-47.8536-103.7075-2-15-	0-410217	-5	-5	-5	24	-20	16	-5	-10	-15	2	49						
30-47.8550-103.7481-2-12-	0-410218	-5	3	-5	45	-20	-15	-5	-10	-15	3	73						
30-47.8542-103.7492-2-99-	0-410219	-5	-5	-5	30	-20	22	-5	-10	-15	2	48						
30-47.7506-103.6392-2-15-	0-410221	-5	5	-5	20	-20	27	11	-10	-15	2	46						
30-47.7556-103.6561-2-15-	0-410222	-5	5	-5	23	-20	49	10	-10	-15	3	64						
30-47.7706-103.6900-2-15-	0-410223	-5	-5	7	41	-20	32	9	-10	-15	3	74						
30-47.7558-103.7064-2-15-	0-410224	-5	-5	-5	39	-20	55	7	-10	21	3	85						
30-47.7678-103.5009-2-15-	0-410227	-5	5	-5	33	-20	33	13	-10	-15	2	50						
30-47.7672-103.5525-2-15-	0-410228	-5	-5	5	36	-20	29	16	-10	-15	3	57						
30-47.7703-103.5908-2-12-	0-410229	-5	5	-5	39	-20	45	-5	-10	-15	3	81						
30-47.7522-103.5419-2-15-	0-410230	-5	-5	-5	33	-20	23	8	-10	-15	2	42						
30-47.8211-103.5228-2-15-	0-410231	-5	7	-5	35	-20	19	19	-10	-15	2	47						
30-47.8147-103.5633-2-15-	0-410232	-5	-5	-5	27	-20	-15	-5	-10	-15	2	44						
30-47.8233-103.5003-2-15-	0-410233	5	6	-5	57	-20	29	45	-10	-15	3	43						
30-47.9456-103.5181-2-15-	0-410234	-5	-5	-5	34	-20	-15	13	-10	-15	2	43						
30-47.8519-103.5247-2-15-	0-410235	-5	5	-5	40	-20	-15	11	-10	-15	2	46						
30-47.8514-103.5450-2-15-	0-410237	-5	5	-5	34	-20	28	9	-10	-15	2	47						
30-47.8489-103.5922-2-11-	0-410238	-5	-5	-5	30	-20	-15	-5	-10	-15	2	39						
30-47.8283-103.5883-2-12-	0-410239	-5	5	-5	23	-20	-15	-5	-10	-15	2	43						
30-47.8261-103.5892-2-12-	0-410240	-5	-5	-5	30	-20	16	10	-10	-15	2	61						
30-47.8333-103.6206-2-12-	0-410241	-5	-5	-5	37	-20	-15	13	-10	-15	2	30						
30-47.8497-103.5785-2-15-	0-410243	-5	-5	-5	40	-20	15	8	-10	-15	2	50						
30-47.8286-103.6342-2-15-	0-410244	-5	-5	-5	34	-20	21	9	-10	-15	2	43						
30-47.8839-103.6622-2-15-	0-410245	-5	-5	-5	29	-20	59	10	-10	-15	2	44						
30-47.9058-103.6875-2-15-	0-410246	-5	5	-5	32	-20	32	5	-10	-15	2	49						
30-47.9203-103.7814-2-15-	0-410247	-5	5	-5	18	-20	-15	-5	-10	-15	1	40						
30-47.9222-103.7911-2-15-	0-410248	-5	-5	-5	24	-20	-15	-5	-10	-15	2	33						
30-47.9167-103.8289-2-12-	0-410250	-5	-5	-5	32	-20	26	11	-10	-15	3	65						
30-47.5828-103.3447-2-12-	0-410251	-5	-5	-5	36	-20	35	11	-10	-15	3	50						
30-47.5917-103.3209-2-12-	0-410253	-5	-5	-5	37	-20	20	-5	-10	-15	3	59						
30-47.5944-103.2972-2-15-	0-410255	-5	-5	-5	53	-20	31	8	-10	-15	3	59						
30-47.5944-103.3000-2-12-	0-410256	-5	7	-5	47	-20	32	16	-10	-15	3	47						
30-47.5992-103.2686-2-15-	0-410257	-5	-5	-5	44	-20	47	17	-10	-15	2	52						
30-47.5794-103.2535-2-15-	0-410259	-5	-5	-5	43	-20	45	-5	-10	-15	3	64						
30-47.5756-103.3000-2-15-	0-410259	-5	7	-5	31	-20	26	12	-10	-15	2	42						
30-47.5733-103.3136-2-15-	0-410260	-5	5	-5	45	-20	23	14	-10	-15	3	40						
30-47.5685-103.3586-2-15-	0-410262	-5	-5	-5	42	-20	32	10	-10	-15	3	62						
30-47.5919-103.2322-2-12-	0-410263	-5	-5	-5	42	-20	20	5	-10	-15	2	63						
30-47.5906-103.2292-2-15-	0-410264	-5	8	-5	46	-20	43	11	-10	-15	3	45						
30-47.5906-103.2225-2-15-	0-410265	-5	-5	-5	34	-20	41	7	-10	-15	3	56						
30-47.5917-103.2097-2-15-	0-410266	-5	-5	-5	37	-20	28	-5	-10	-15	3	55						
30-47.5914-103.2028-2-15-	0-410267	-5	-5	-5	30	-20	18	5	-10	-15	2	71						

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	REPLICATES	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
30-47.9681-108.6672-2-12-						0-419205	47970	3.27	575	93370	46	-82	10.6	59	6.7	3	1.1	24060	6.1	31370	28	0.2
30-47.9586-108.6381-2-11-						0-419207	42590	-1.74	492	105600	51	-75	6.5	52	33.7	4	1.2	17300	6.4	14310	21	0.3
30-47.9767-108.7293-2-11-						0-419208	45060	-0.04	554	29380	59	-67	10.1	120	4.3	4	1.4	29330	5.7	17560	30	0.3
30-47.9656-108.7486-2-15-						0-419209	49820	-0.03	826	11100	56	76	7.6	52	4.9	4	1.5	22120	7.9	16800	32	0.4
30-47.9150-108.7217-2-15-						0-419210	45720	-0.03	629	25870	54	-50	6.8	56	3.2	4	1.2	21300	6.0	15300	26	0.3
30-47.8981-108.6711-2-11-						0-419212	57130	-0.04	566	11570	49	-88	5.5	56	4.9	3	1.0	14880	7.2	16200	27	0.3
30-47.8764-108.6572-2-11-						0-419213	34810	-0.03	575	126300	36	91	2.6	45	6.5	3	1.2	14960	5.3	11390	20	0.3
30-47.8847-108.6308-2-12-						0-419214	53220	0.40	455	39460	55	-80	14.6	53	10.7	4	1.4	36410	4.7	32270	30	0.3
30-47.8756-108.7353-2-12-						0-419215	49120	-0.03	861	10910	57	112	7.6	51	4.3	5	1.5	23340	8.0	16020	29	0.4
30-47.8536-108.7075-2-15-						0-419217	41930	-0.03	711	17000	59	49	6.8	47	3.1	4	1.3	19330	5.9	13700	27	0.3
30-47.8550-108.7481-2-12-						0-419218	57230	-0.04	448	7548	59	-51	6.2	76	5.9	4	1.4	22980	5.8	21490	32	0.4
30-47.8542-108.7492-2-97-						0-419219	49040	-0.03	890	13110	57	99	9.4	54	4.5	4	1.4	25020	6.5	14940	23	0.3
30-47.7506-108.6392-2-15-						0-419221	59120	-0.03	919	8134	74	-69	17.2	74	4.2	5	1.5	36360	8.2	15890	31	0.4
30-47.7556-108.6451-2-15-						0-419222	72140	-0.05	1118	18030	70	-61	15.2	36	6.6	5	1.5	42310	4.7	18760	34	0.4
30-47.7706-108.6800-2-15-						0-419223	75600	-0.04	1219	12830	67	-59	21.0	33	6.6	5	1.3	52820	3.9	22560	33	0.4
30-47.7558-108.7054-2-15-						0-419224	59150	-0.04	1224	21840	73	-73	21.4	102	6.4	6	1.8	54010	5.2	22470	38	0.5
30-47.7578-108.5003-2-15-						0-419227	51760	-0.03	1049	12930	58	-62	11.0	58	4.2	5	1.3	30980	6.3	17290	28	0.3
30-47.7672-108.5528-2-15-						0-419228	69690	-0.04	793	11670	67	-72	15.9	30	5.5	5	1.4	38200	5.5	16930	31	0.3
30-47.7703-108.5908-2-12-						0-419229	94210	-0.04	1357	9337	64	51	15.3	95	8.2	5	1.7	39000	4.2	25760	37	0.4
30-47.7522-108.5419-2-15-						0-419230	69750	-0.04	1015	11310	52	-64	12.0	73	5.2	4	1.5	33960	5.9	19100	28	0.3
30-47.8211-108.5224-2-15-						0-419231	62730	-0.04	559	18500	52	-60	8.3	55	5.0	4	1.4	27530	6.0	17950	28	0.3
30-47.8147-108.5533-2-15-						0-419232	63150	-0.04	824	12340	58	-72	9.7	57	4.1	4	1.3	22230	5.2	18040	25	0.3
30-47.8233-108.5003-2-15-						0-419233	62650	0.18	551	4892	65	-65	12.1	75	8.6	4	1.5	32570	4.5	17600	35	0.4
30-47.8456-108.5181-2-15-						0-419234	47700	-0.03	598	25760	51	71	8.6	59	4.5	4	1.2	23650	6.6	17840	28	0.3
30-47.8519-108.5247-2-15-						0-419235	56590	-0.03	599	11410	52	-65	10.5	66	4.0	5	1.3	25330	6.5	17320	30	0.3
30-47.8514-108.5450-2-15-						0-419237	55290	-0.04	691	37080	56	128	9.4	57	4.0	4	1.1	23760	5.9	16030	25	0.4
30-47.8489-108.5822-2-11-						0-419238	40540	-0.04	1122	90720	51	-69	3.7	41	3.1	3	1.2	20560	6.1	13380	24	0.3
30-47.8283-108.5883-2-12-						0-419239	45960	0.31	544	41030	48	-64	7.3	54	6.7	4	1.1	19680	7.0	14340	26	0.3
30-47.8261-108.5892-2-12-						0-419240	59300	-0.04	844	33870	62	-58	11.3	71	7.5	4	1.3	32200	4.9	20180	32	0.3
30-47.8333-108.6206-2-12-						0-419241	51250	-0.04	556	32120	55	-78	5.4	54	3.5	3	1.1	17400	5.5	15770	22	0.3
30-47.8497-108.5786-2-15-						0-419243	53010	-0.03	808	25490	41	-58	7.6	54	3.8	3	1.3	24510	4.8	15190	23	0.3
30-47.8286-108.6342-2-15-						0-419244	59670	-0.03	673	13760	54	-65	8.4	59	3.3	4	1.4	24450	7.5	17690	30	0.4
30-47.8839-108.5622-2-15-						0-419245	59080	-0.03	892	11450	80	-58	20.4	70	5.1	6	1.6	35290	7.9	15820	36	0.5
30-47.9058-108.6875-2-15-						0-419246	73820	-0.04	500	13560	85	-58	13.4	89	5.2	5	1.3	33170	5.7	16050	37	0.4
30-47.9203-108.7814-2-15-						0-419247	37430	-0.03	419	55150	37	130	5.0	41	2.7	3	1.0	17040	4.6	13990	21	0.2
30-47.9222-108.7811-2-15-						0-419248	45100	-0.03	755	17010	40	129	6.8	61	3.8	4	1.3	23310	4.9	15790	29	0.2
30-47.9167-108.8289-2-12-						0-419250	55060	-0.04	1241	48030	53	133	13.6	99	6.2	4	1.1	39990	4.4	18940	31	0.3
30-47.5828-108.3447-2-12-						0-419251	77530	-0.04	956	9982	77	-66	17.7	90	7.4	5	1.8	44310	5.5	18400	32	0.5
30-47.5917-108.3208-2-12-						0-419253	81240	-0.04	686	11400	62	-57	14.3	86	6.5	4	1.4	41760	4.4	23140	31	0.3
30-47.5944-108.2972-2-15-						0-419255	71100	-0.04	1339	11520	64	-67	20.6	96	5.8	5	1.4	51350	6.4	18180	34	0.4
30-47.5944-108.3000-2-12-						0-419256	59210	-0.04	926	14160	60	-76	19.6	77	6.6	6	1.4	49430	5.0	20740	34	0.3
30-47.5392-108.2686-2-15-						0-419257	54500	-0.04	860	13460	74	126	18.2	83	4.5	5	1.7	45770	5.5	17380	33	0.4
30-47.5794-108.2536-2-15-						0-419258	72850	-0.04	413	14950	60	-83	16.0	84	5.5	5	1.2	39050	4.2	20920	30	0.4
30-47.5756-108.3000-2-15-						0-419259	71300	-0.04	914	9063	65	137	17.2	82	5.8	5	1.4	42210	5.1	22810	31	0.4
30-47.5333-108.3136-2-15-						0-419260	71970	-0.03	792	7750	62	-64	15.6	71	5.1	5	1.4	39040	6.3	21090	32	0.4
30-47.5686-108.3686-2-15-						0-419262	67330	-0.05	655	31040	73	120	11.1	76	5.8	5	1.2	31480	4.2	20340	30	0.4
30-47.5919-108.2322-2-12-						0-419263	77700	-0.04	841	13150	73	-79	14.4	99	6.8	4	1.4	43430	4.5	22590	34	0.4
30-47.5306-108.2292-2-15-						0-419264	77920	-0.04	823	10830	63	-63	12.5	86	6.4	5	1.4	40310	4.6	19940	32	0.4
30-47.5806-108.2225-2-15-						0-419265	81120	-0.04	782	10490	59	-66	15.6	88	7.6	5	1.4	44600	4.2	21080	37	0.4
30-47.5917-108.2097-2-15-						0-419266	74950	-0.04	546	11960	78	-93	12.2	97	5.7	6	1.9	35270	3.6	18110	34	0.4
30-47.5914-108.2028-2-15-						0-419267	55510	-0.04	443	15030	53	-143	11.6	87	5.4	4	1.1	30950	3.6	17340	29	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	
30-47.9581-108.6572-2-12-						2-419225	12330	1050	9503	129	10	5.1	4.0	-296	-1	-1	10.7	1437	212	1.7	233	0.457
30-47.9586-108.6381-2-11-						2-419227	2591	419	5509	41		5.7	3.7	-264	-1	-1	6.5	3114	63	2.3	-39	0.358
30-47.9767-108.7283-2-11-						2-419229	26470	471	8054	76	-1	10.9	4.6	-230	-1	-1	9.9	3048	107	2.4	150	0.253
30-47.9656-108.7486-2-15-						2-419229	17070	223	5549	53	-1	8.1	5.2	-165	-1	-1	9.4	3904	128	2.6	162	0.377
30-47.9150-108.7217-2-15-						2-419210	17500	292	4971	59	-1	7.1	4.1	-184	-1	-1	7.7	2300	104	2.6	-72	0.308
30-47.8981-108.6711-2-11-						2-419212	7012	211	14250	70	-1	5.0	3.9	508	-1	-1	6.6	2696	56	2.1	84	0.658
30-47.8764-108.6572-2-11-						2-419213	11760	129	3985	36	2	5.2	3.6	298	-1	-1	5.5	2211	77	2.1	114	0.607
30-47.8347-108.6303-2-12-						2-419214	15900	511	4925	109	12	6.1	5.5	-242	-2	-1	11.3	2171	375	2.5	1131	0.387
30-47.8756-108.7353-2-12-						2-419215	14270	213	5626	53	-1	8.4	5.0	-156	-1	-1	9.2	3638	131	3.1	-16	0.382
30-47.8536-108.7075-2-15-						2-419217	15190	318	2585	51	-1	5.2	6.0	-193	-1	-1	8.4	3024	102	2.2	-10	0.342
30-47.9550-108.7481-2-12-						2-419218	15790	157	5725	102	-1	10.8	5.2	-153	-1	-1	10.1	4300	187	3.5	94	0.426
30-47.8542-108.7492-2-29-						2-419219	15730	382	6725	-24	-1	7.9	5.2	-209	-1	-1	9.9	3762	114	2.6	120	0.348
30-47.7506-108.6392-2-15-						2-419221	10840	543	10130	64	-1	8.9	6.0	-231	-1	-1	9.3	3403	145	3.3	107	0.343
30-47.7556-108.6561-2-15-						2-419222	17790	493	5508	76	-1	12.0	5.8	-256	-1	-1	10.8	3863	213	3.1	108	0.321
30-47.7706-108.6300-2-15-						2-419223	15750	592	5614	107	-1	13.1	5.9	-232	-1	-1	10.4	4024	234	3.0	174	0.384
30-47.7558-108.7064-2-15-						2-419224	19730	795	7809	74	2	12.6	7.8	-282	-1	-1	11.0	4187	218	3.8	90	0.376
30-47.7678-108.5008-2-15-						2-419227	13510	452	9203	60	-1	8.8	4.3	-208	-1	-1	8.9	2991	115	2.7	-99	0.255
30-47.7672-108.5525-2-15-						2-419229	13220	593	7563	90	-1	10.4	5.7	-273	-1	-1	10.3	3433	157	3.3		0.368
30-47.7703-108.5908-2-12-						2-419229	17220	237	4609	119	-1	14.3	4.9	-179	-1	-1	10.6	4623	293	3.0	122	0.323
30-47.7522-108.5410-2-15-						2-419230	15410	419	8324	80	-1	10.7	5.4	-217	-1	-1	9.5	3500	135	2.4	183	0.317
30-47.8211-108.5228-2-15-						2-419231	19910	306	6590	60	-1	9.9	4.4	-209	-1	-1	8.8	3246	100	2.1	2725	0.318
30-47.8147-108.5633-2-15-						2-419232	19090	323	10930	62	-1	7.8	4.5	-230	-1	-1	7.9	3010	96	2.5	-36	0.361
30-47.8233-108.5003-2-15-						2-419233	16340	976	4504	98	4	12.0	6.1	-291	-1	-1	9.7	-812	252	3.3	356	0.381
30-47.8456-108.5181-2-15-						2-419234	20040	477	4897	52	2	7.6	4.6	-221	-1	-1	8.2	2996	124	2.3	-35	0.399
30-47.8519-108.5247-2-15-						2-419235	10910	572	7499	68	-1	8.4	4.5	-244	-1	-1	9.4	3617	96	2.4	124	0.289
30-47.8516-108.5450-2-15-						2-419237	17170	463	8445	41	-1	7.7	4.3	-257	-1	-1	8.9	2794	78	2.2	170	0.312
30-47.8489-108.5822-2-11-						2-419239	13050	314	5543	-25	-1	6.0	3.3	-226	-2	-1	5.9	2084	76	2.1	106	0.754
30-47.8233-108.5883-2-12-						2-419239	11780	160	4440	51	-1	6.9	4.7	399	-1	-1	7.7	3595	83	2.6	123	0.374
30-47.8261-108.5892-2-12-						2-419240	17930	353	6046	105	-1	11.0	4.5	363	-2	-1	9.5	3823	165	2.5	-32	0.383
30-47.8333-108.6206-2-12-						2-419241	14760	146	10160	-32	-1	5.8	4.3	-238	-2	-1	6.9	2555	64	1.8	163	0.461
30-47.8497-108.5786-2-15-						2-419243	23310	322	7211	56	-1	7.8	3.9	305	-1	-1	6.5	2492	106	2.2	-55	0.431
30-47.8286-108.6342-2-15-						2-419244	14160	343	10240	65	1	7.5	4.9	271	-1	-1	8.8	3236	86	2.6	103	0.272
30-47.8839-108.6622-2-15-						2-419245	11560	834	3995	56	-1	9.7	7.6	-270	-1	-1	11.5	3449	117	3.6	231	0.424
30-47.9058-108.6975-2-15-						2-419246	15660	517	3434	90	-1	12.0	6.9	-272	-1	-1	12.9	4396	147	3.3	126	0.281
30-47.9203-108.7814-2-15-						2-419247	34320	501	6335	46	-1	4.6	3.5	559	-1	-1	5.4	2406	73	1.9	63	0.476
30-47.9222-108.7811-2-15-						2-419248	19770	156	7818	51	-1	7.0	3.9	204	-1	-1	6.6	3206	90	1.6	84	0.617
30-47.9167-108.8287-2-12-						2-419250	29060	424	7049	105	-1	12.1	4.6	-230	-1	-1	9.2	3794	190	3.2	134	0.278
30-47.5928-108.3447-2-12-						2-419251	15760	452	5845	33	-1	11.4	6.2	-248	-1	-1	10.4	4554	193	2.4	119	0.391
30-47.5917-108.3208-2-12-						2-419253	17510	353	8774	67	-1	13.3	5.3	-220	-1	-1	9.9	3975	214	2.9	-86	0.382
30-47.5944-108.2972-2-15-						2-419255	17140	571	8790	79	2	11.1	6.2	-243	-1	-1	10.7	3540	182	3.2	227	0.377
30-47.5944-108.3000-2-12-						2-419256	17580	587	11560	63	-1	12.0	5.3	-251	-1	-1	11.9	3902	178	2.6	160	0.339
30-47.5892-108.2686-2-15-						2-419257	17440	554	16410	65	1	9.5	5.6	-297	-1	-1	9.9	3333	155	3.0	-108	0.389
30-47.5794-108.2536-2-15-						2-419259	18430	428	14250	64	-1	11.8	5.9	-241	-1	-1	10.2	3831	194	2.9	-34	0.356
30-47.5756-108.3000-2-15-						2-419259	15490	425	12970	92	1	10.8	5.9	387	-1	-1	11.0	4266	173	2.5	136	0.343
30-47.5733-108.3136-2-15-						2-419260	17000	334	9540	98	1	10.5	6.1	307	-1	-1	9.4	4060	166	3.0	132	0.411
30-47.5686-108.3696-2-15-						2-419262	15800	305	12310	72	-1	10.4	6.3	-275	-2	-1	9.6	4125	168	3.6	102	0.340
30-47.5919-108.2322-2-12-						2-419263	16310	412	11540	92	-1	12.4	5.7	-249	-1	-1	10.0	4198	198	2.9	117	0.372
30-47.5806-108.2292-2-15-						2-419264	19290	351	7344	115	-1	12.4	5.8	254	-1	-1	10.6	3955	201	3.3	62	0.371
30-47.5806-108.2225-2-15-						2-419265	21470	398	6352	96	2	13.6	5.6	326	-1	-1	10.4	3933	210	2.8	197	0.358
30-47.5917-108.2097-2-15-						2-419266	19430	270	15290	105	-1	11.6	6.7	-253	-1	-1	10.2	4018	184	3.2	-25	0.364
30-47.5914-108.2028-2-15-						2-419267	22020	234	44570	74	-1	10.5	4.2	-328	-1	-1	8.8	2642	153	2.6	-87	0.391

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

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DOE SAMPLE NUMBER						LAS. 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 (umhos/cm)	SCINTILLATOR (dU, 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	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC) UNITS IN ppm
							DATE	HOUR																										
30-47.5803-103.2008-2-15-						0-419249-09/15/79-11-	24-									14-1-6-5-6-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.86	
30-47.5722-103.1794-2-12-						0-419260-09/15/79-11-	25-27.6-					8.0-20000-				14-1-6-5-6-2-	-2-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.85	
30-47.5728-103.1589-2-12-						0-419271-09/15/79-12-	25-29.0-					8.5-22000-				11-1-6-5-6-2-3-2-	-2-1-	-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.78	
30-47.5975-103.1397-2-15-						0-419271-09/15/79-13-	26-									14-1-6-5-6-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.82	
30-47.5969-103.1164-2-15-						0-419272-03/15/79-13-	26-									14-1-6-	-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	3.84	
30-47.6017-103.1197-2-15-						0-419273-07/15/79-13-	26-									14-1-6-5-6-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.93	
30-47.5103-103.1111-2-15-						0-419274-07/15/79-14-	26-									11-1-6-5-6-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.44	
30-47.6219-103.0894-2-15-						0-419275-09/15/79-14-	26-									18-1-6-5-6-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.45	
30-47.6228-103.0800-2-12-						0-419276-09/15/79-14-	26-24.6-					8.1-18000-				9-1-6-3-1-3-3-1-	-2-1-	-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.00	
30-47.5939-103.0861-2-12-						0-419277-09/15/79-14-	27-29.2-					8.2-26000-				14-1-6-5-6-2-2-1-	-2-1-	-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.03	
30-47.5853-103.0735-2-15-						0-419278-09/15/79-14-	27-									7-1-6-	-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.54
30-47.6117-103.0500-2-15-						0-419279-09/15/79-15-	28-									14-1-6-5-6-	-1-	-2-4-3-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.38	
30-47.5794-103.0253-2-15-						0-419281-09/15/79-14-	27-									14-1-6-	-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.66
30-47.5783-103.0106-2-15-						0-419282-09/15/79-17-	27-									7-1-6-5-6-	-1-	-2-1-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.54	
30-47.6244-103.5311-2-15-						0-419283-09/23/79-11-	22-									-1-6-5-6-	-1-	-2-3-2-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.61	
30-47.5081-103.5013-2-12-						0-419284-09/23/79-11-	23-24.9-C					8.0-21000-				-1-6-4-6-	-2-	-2-3-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.64	
30-47.5131-103.4747-2-12-						0-419285-09/23/79-12-	23-19.5-C					8.0-3000-				-1-6-5-6-2-2-1-	-2-4-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.52	
30-47.5117-103.4256-2-15-						0-419287-09/23/79-13-	24-									-1-6-5-6-	-1-	-2-3-2-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.04	
30-47.5142-103.4319-2-15-						0-419288-09/23/79-13-	24-									-1-6-4-6-	-1-	-2-3-2-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.71	
30-47.5378-103.4194-2-15-						0-419289-09/23/79-13-	24-									-1-6-5-6-	-1-	-2-1-2-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.47	
30-47.5917-103.4444-2-15-						0-419290-09/23/79-13-	24-									-1-6-4-6-	-1-	-2-4-2-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.69	
30-47.5386-103.3561-2-15-						0-419292-09/23/79-14-	24-									-1-6-5-6-	-1-	-2-4-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.33	
30-47.5967-103.3997-2-15-						0-419293-09/23/79-15-	25-									-1-6-4-6-	-1-	-2-1-2-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.58	
30-47.5175-103.4550-2-15-						0-419294-09/23/79-16-	23-									-1-6-5-6-	-1-	-2-1-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.70	
30-47.5178-103.6553-2-15-						0-419295-09/23/79-17-	23-									-1-6-5-6-	-1-	-2-3-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.82	
30-47.5103-103.5278-2-15-						0-419297-09/23/79-17-	23-									-1-6-5-6-	-1-	-2-3-2-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.52	
30-47.5097-103.5172-2-15-						0-419298-09/23/79-18-	23-									-1-6-5-6-	-1-	-2-3-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.74	
30-47.5953-103.5144-2-15-						0-419299-09/23/79-19-	23-									-1-6-5-6-	-1-	-2-3-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.68	
30-47.5956-103.5128-2-15-						0-419300-09/23/79-19-	23-									-1-6-4-6-	-1-	-2-3-2-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.64	
30-47.7817-103.1875-2-15-						0-419301-09/14/79-19-	24-									7-1-6-5-6-	-1-	-2-3-2-2-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.23	
30-47.7906-103.2508-2-15-						0-419302-09/15/79-11-	22-									5-1-6-4-6-	-1-	-2-4-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.54	
30-47.3033-103.1525-2-15-						0-419303-09/15/79-12-	24-									10-1-6-5-6-	-1-	-2-3-2-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.57	
30-47.3172-103.1474-2-15-						0-419304-09/15/79-12-	25-									6-1-5-5-6-	-1-	-2-3-2-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.36	
30-47.3192-103.1422-2-15-						0-419305-09/15/79-12-	25-									4-1-6-4-6-	-1-	-2-3-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.77	
30-47.8164-103.1281-2-15-						0-419306-09/15/79-12-	25-									12-1-6-5-6-	-1-	-2-3-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.57	
30-47.8183-103.1100-2-15-						0-419309-09/15/79-13-	24-									4-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.16	
30-47.7897-103.1075-2-15-						0-419311-09/15/79-14-	24-									6-1-6-5-6-	-1-	-2-3-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.82	
30-47.7832-103.1042-2-15-						0-419312-09/15/79-14-	24-									9-1-6-5-6-	-1-	-2-3-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.78	
30-47.3247-103.1253-2-15-						0-419314-09/15/79-14-	25-									12-1-6-4-6-	-1-	-2-4-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.84	
30-47.8200-103.0694-2-15-						0-419315-09/15/79-15-	25-									5-1-5-5-6-	-1-	-2-4-2-1-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.29	
30-47.7922-103.0561-2-15-						0-419317-09/15/79-15-	25-									10-1-6-4-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.99	
30-47.7600-103.0433-2-15-						0-419318-09/15/79-16-	24-									7-1-6-4-6-	-1-	-2-4-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.78	
30-47.7581-103.0408-2-15-						0-419319-09/15/79-16-	25-									4-1-6-5-6-	-1-	-2-4-2-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.79	
30-47.7797-103.0019-2-15-						0-419320-09/15/79-16-	25-									4-1-6-4-6-	-1-	-2-4-3-1-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.70	
30-47.8042-103.0036-2-15-						0-419321-09/15/79-16-	25-									6-1-6-4-6-	-1-	-2-4-4-1-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.60	
30-47.8458-103.0034-2-15-						0-419322-09/15/79-17-	25-									6-1-5-5-6-	-1-	-2-4-4-1-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.64	
30-47.8708-103.0072-2-15-						0-419325-09/16/79-12-	20-									14-1-6-5-6-	-1-	-2-4-3-1-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.01	
30-47.8708-103.0319-2-15-																																		

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	Pt	Sn	W				
30-47.5833-108.2008-2-15-	0-419249	-5	-5	-5	21	-20	21	10	-10	-15						3	42		
30-47.5722-108.1794-2-12-	0-419260	-5	-5	-5	37	-20	41	-5	-10	-15						2	49		
30-47.5728-108.1589-2-12-	0-419270	-5	-5	-5	44	-20	19	11	-10	-15						3	48		
30-47.5975-108.1397-2-15-	0-419271	-5	-5	-5	36	-20	27	10	-10	-15						2	51		
30-47.5869-108.1164-2-15-	0-419272	-5	-5	-5	39	-20	49	7	-10	-15						3	53		
30-47.6017-108.1197-2-15-	0-419273	-5	-5	-5	36	-20	40	11	-10	-15						3	48		
30-47.6103-108.1111-2-15-	0-419274	-5	-5	-5	39	-20	34	13	-10	-15						2	52		
30-47.6219-108.0994-2-15-	0-419275	-5	-5	-5	40	-20	42	9	-10	-15						3	49		
30-47.6228-108.0800-2-12-	0-419276	-5	-5	-5	27	-20	22	6	-10	-15						3	41		
30-47.5839-108.0861-2-12-	0-419277	-5	-5	-5	43	-20	29	10	-10	-15						3	50		
30-47.5853-108.0735-2-15-	0-419278	-5	-5	-5	32	-20	19	9	-10	-15						2	40		
30-47.6117-108.0500-2-15-	0-419279	-5	-5	-5	42	-20	31	13	-10	-15						2	54		
30-47.5794-108.0253-2-15-	0-419281	-5	-5	-5	37	-20	40	7	-10	-15						3	49		
30-47.5783-108.0106-2-15-	0-419282	-5	-5	-5	43	-20	19	9	-10	-15						2	52		
30-47.6244-108.5311-2-15-	0-419283	-5	-5	-5	29	-20	29	16	-10	-15						2	42		
30-47.6381-108.5019-2-12-	0-419284	-5	-5	-5	50	-20	44	17	-10	-15						2	40		
30-47.6131-108.4747-2-12-	0-419285	-5	-5	-5	37	-20	36	10	-10	-15						3	38		
30-47.6117-108.4256-2-15-	0-419287	-5	-5	-5	39	-20	41	15	-10	-15						2	44		
30-47.6142-108.4319-2-15-	0-419288	-5	-5	-5	54	-20	46	16	-10	-15						3	45		
30-47.6378-108.4194-2-15-	0-419289	-5	-5	-5	39	-20	34	11	-10	-15						3	49		
30-47.5917-108.4444-2-15-	0-419290	-5	-5	-5	42	-20	36	13	-10	-15						3	56		
30-47.6386-108.3561-2-15-	0-419292	-5	-5	-5	38	-20	32	10	-10	-15						2	67		
30-47.5967-108.3997-2-15-	0-419293	-5	-5	-5	30	-20	15	8	-10	-15						2	45		
30-47.6175-108.4550-2-15-	0-419294	-5	-5	-5	41	-20	41	8	-10	-15						3	48		
30-47.6178-108.6653-2-15-	0-419295	-5	-5	-5	37	-20	41	9	-10	-15						2	54		
30-47.6103-108.5278-2-15-	0-419297	-5	-5	-5	36	-20	40	10	-10	-15						2	40		
30-47.6097-108.5172-2-15-	0-419298	-5	-5	-5	43	-20	39	8	-10	-15						3	68		
30-47.5953-108.5144-2-15-	0-419299	-5	-5	-5	38	-20	32	10	-10	-15						3	46		
30-47.5956-108.5128-2-15-	0-419300	-5	-5	-5	40	-20	31	5	-10	-15						3	72		
30-47.7817-108.1875-2-15-	0-419301	-5	-5	-5	42	-20	29	13	-10	-15						2	64		
30-47.7906-108.2508-2-15-	0-419302	-5	-5	-5	38	-20	17	11	-10	-15						2	68		
30-47.8033-108.1525-2-15-	0-419303	-5	-5	-5	33	-20	40	10	-10	-15						3	78		
30-47.8172-108.1478-2-15-	0-419304	-5	-5	-5	45	-20	40	9	-10	-15						3	53		
30-47.8172-108.1422-2-15-	0-419305	-5	-5	-5	44	-20	35	9	-10	-15						2	45		
30-47.8164-108.1281-2-15-	0-419306	-5	-5	-5	34	-20	20	6	-10	-15						3	58		
30-47.8183-108.1100-2-15-	0-419308	-5	-5	-5	33	-20	26	9	-10	-15						2	56		
30-47.7897-108.1075-2-15-	0-419311	-5	-5	-5	37	-20	43	8	-10	-15						3	62		
30-47.7892-108.1042-2-15-	0-419312	-5	-5	-5	49	-20	21	8	-10	-15						3	54		
30-47.8247-108.1253-2-15-	0-419314	-5	-5	-5	26	-20	-15	5	-10	-15						3	46		
30-47.8200-108.0694-2-15-	0-419316	-5	-5	-5	33	-20	28	7	-10	-15						2	44		
30-47.7922-108.0561-2-15-	0-419317	-5	-5	-5	29	-20	-15	-5	-10	-15						2	28		
30-47.7600-108.0433-2-15-	0-419318	-5	-5	-5	30	-20	15	12	-10	-15						2	46		
30-47.7581-108.0408-2-15-	0-419319	-5	-5	-5	34	-20	25	7	-10	-15						2	48		
30-47.7797-108.0019-2-15-	0-419320	-5	-5	-5	34	-20	22	-5	-10	-15						2	49		
30-47.8042-108.0036-2-15-	0-419321	-5	-5	-5	27	-20	17	7	-10	-15						2	42		
30-47.8458-108.0039-2-15-	0-419322	-5	-5	-5	29	-20	22	15	-10	-15						2	40		
30-47.8708-108.0072-2-15-	0-419325	-5	-5	-5	22	-20	-15	-5	-10	-15						1	30		
30-47.8708-108.0319-2-15-	0-419326	-5	-5	-5	26	-20	15	7	-10	-15						2	39		
30-47.9231-108.1039-2-15-	0-419327	-5	-5	-5	22	-20	20	5	-10	-15						2	29		
30-47.9306-108.1114-2-15-	0-419328	-5	-5	-5	26	-20	20	-5	-10	-15						2	26		
30-47.9508-108.0792-2-15-	0-419329	-5	-5	-5	42	-20	-15	10	-10	-15						2	38		

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

③

DOE SAMPLE NUMBER						LAS SAMPLE LOCATION NUMBER	ELEMENTAL CONCENTRATIONS DETERMINED BY NEUTRON ACTIVATION ANALYSIS																
STATE	LATITUDE	LONGITUDE	DOE LAB	SAMPLE TYPE	REMARKS		Concentrations reported in weight parts per million (ppm)																
							Al	Au	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
30-47.5803-108.2008-2-15-	0-419259	75150	-0.04	650	10980	60	-71	15.6	85	6.1	5	1.4	37570	4.6	19310	34	0.5						
30-47.5722-108.1794-2-12-	0-419259	74930	-0.04	804	8521	56	-93	16.2	81	7.3	5	1.6	46240	4.5	19400	33	0.4						
30-47.5728-108.1589-2-12-	0-419270	75030	-0.04	826	10190	75	-75	19.0	88	5.9	5	1.7	44190	5.6	19760	32	0.4						
30-47.5975-108.1397-2-15-	0-419271	75410	-0.04	672	13700	56	-87	12.1	87	6.3	4	1.4	37010	4.2	18470	30	0.3						
30-47.5869-108.1164-2-15-	0-419272	79360	-0.04	792	9140	62	-64	13.5	96	6.5	6	1.4	39100	4.7	19930	34	0.4						
30-47.6017-108.1197-2-15-	0-419273	74850	-0.04	749	11930	61	187	17.7	83	6.7	5	1.4	42200	4.6	20660	34	0.3						
30-47.6103-108.1111-2-15-	0-419274	54420	-0.05	938	9077	53	-153	14.5	82	4.8	4	1.4	34640	4.4	19040	27	0.3						
30-47.6219-108.0894-2-15-	0-419275	71130	-0.04	552	11630	54	-106	18.1	74	5.4	4	1.4	47040	3.8	17790	31	0.3						
30-47.6228-108.0800-2-12-	0-419276	74040	-0.04	938	13560	63	-76	17.6	85	7.2	5	1.7	43660	5.2	16310	31	0.4						
30-47.5839-108.0861-2-12-	0-419277	79810	-0.04	771	13340	72	-71	17.4	90	7.1	5	1.3	42070	5.4	20070	33	0.4						
30-47.5853-108.0736-2-15-	0-419278	75220	-0.05	620	16450	56	-100	11.3	84	6.0	4	1.4	35120	3.4	22740	27	0.4						
30-47.6117-108.0500-2-15-	0-419279	55020	-0.03	715	18720	64	-97	14.1	68	5.3	4	1.4	38030	3.8	14620	28	0.3						
30-47.5794-108.0253-2-15-	0-419291	77110	-0.04	746	12880	63	-69	18.5	91	6.8	5	1.5	46590	4.1	20860	35	0.4						
30-47.5783-108.0105-2-15-	0-419292	70560	-0.04	762	20730	70	-78	14.4	88	6.2	5	1.3	38500	4.2	22380	29	0.4						
30-47.6244-108.5311-2-15-	0-419293	71220	-0.04	722	9330	61	-83	14.8	72	5.3	4	1.4	36120	5.7	17410	30	0.4						
30-47.6081-108.5019-2-12-	0-419294	63730	-0.04	1702	29280	60	-73	19.8	95	5.3	5	1.2	56320	8.2	16390	35	0.4						
30-47.6131-108.4747-2-12-	0-419295	55440	-0.03	1475	18400	46	-72	18.6	76	5.1	5	1.2	49160	5.6	18450	31	0.3						
30-47.6117-108.4256-2-15-	0-419296	49620	-0.04	1293	13870	77	-77	20.4	80	5.5	5	1.7	49140	5.5	17160	31	0.4						
30-47.6142-108.4319-2-15-	0-419298	72360	-0.04	973	22560	64	-76	24.4	73	6.0	5	1.7	55210	4.7	20290	33	0.4						
30-47.6378-108.4194-2-15-	0-419299	73460	-0.04	933	15250	57	-63	16.2	92	7.4	4	1.9	45230	4.1	23650	33	0.4						
30-47.6917-108.4550-2-15-	0-419290	73690	-0.04	845	18570	55	-66	17.0	84	7.0	5	1.3	42440	4.3	19340	34	0.3						
30-47.6386-108.3561-2-15-	0-419292	71330	-0.05	812	24040	60	181	11.2	81	6.4	4	1.5	35030	3.8	18030	32	0.3						
30-47.5967-108.3997-2-15-	0-419293	72240	-0.04	677	30480	59	-80	13.8	68	5.4	4	1.5	35150	3.9	18370	30	0.4						
30-47.6175-108.4550-2-15-	0-419294	73270	-0.04	942	11780	54	-88	14.4	90	5.4	5	1.5	40060	5.2	17330	33	0.4						
30-47.6178-108.5553-2-15-	0-419295	79940	-0.04	620	5141	55	-74	10.2	79	5.9	6	1.4	32930	3.8	18770	32	0.4						
30-47.6103-108.5278-2-15-	0-419297	69740	-0.04	946	9101	63	-75	14.1	89	4.4	3	1.6	32780	6.3	15810	30	0.4						
30-47.6097-108.5172-2-15-	0-419298	75480	-0.05	858	9969	59	-86	14.9	83	6.3	5	1.5	37100	4.4	17340	32	0.4						
30-47.5953-108.5144-2-15-	0-419299	72690	-0.04	782	7913	58	-72	15.7	74	5.5	4	1.1	40950	4.4	21120	32	0.3						
30-47.5956-108.5128-2-15-	0-419300	69700	-0.05	916	17060	74	-77	12.8	98	5.4	5	1.7	33720	4.8	18120	31	0.3						
30-47.7317-108.1875-2-15-	0-419301	67940	-0.04	932	13430	62	100	13.8	83	5.0	7	1.5	37300	6.0	19820	31	0.3						
30-47.7906-108.2509-2-15-	0-419302	70730	-0.05	1046	30990	57	-77	12.6	77	6.8	5	1.4	39080	5.3	18140	30	0.4						
30-47.8033-108.1525-2-15-	0-419303	71010	-0.04	472	11340	65	126	20.0	79	5.8	4	1.5	48080	4.2	19170	32	0.4						
30-47.8172-108.1478-2-15-	0-419304	64280	-0.05	1488	8958	90	-62	19.9	96	4.9	6	1.8	55990	8.9	17590	37	0.5						
30-47.8192-108.1422-2-15-	0-419305	64380	-0.04	1070	7662	71	-63	13.6	73	5.1	6	1.4	44810	5.6	20040	30	0.4						
30-47.8164-108.1281-2-15-	0-419306	78920	-0.08	569	7633	57	-58	15.4	94	7.0	5	1.7	40810	4.2	25360	31	0.4						
30-47.8193-108.1100-2-15-	0-419308	64940	-0.08	935	11470	67	-69	12.2	72	4.0	5	1.6	30290	6.5	19320	32	0.4						
30-47.7897-108.1075-2-15-	0-419311	73550	-0.09	933	5503	66	-65	16.0	77	4.8	6	1.8	47120	4.5	21560	39	0.4						
30-47.7892-108.1042-2-15-	0-419312	71600	-0.08	947	9476	66	-71	13.0	91	5.3	6	1.4	45070	5.8	18540	33	0.4						
30-47.8247-108.1253-2-15-	0-419314	64370	-0.06	797	12360	60	-65	11.5	89	4.5	4	1.5	32960	8.3	16400	34	0.4						
30-47.8200-108.0694-2-15-	0-419315	60340	-0.08	915	13130	62	-64	9.7	53	4.7	4	1.6	22820	6.7	16580	35	0.3						
30-47.7922-108.0561-2-15-	0-419317	64470	-0.06	922	8620	67	-62	5.4	71	2.2	4	1.5	20040	10.4	15300	40	0.3						
30-47.7600-108.0433-2-15-	0-419318	54540	-0.07	972	12110	67	-105	6.8	79	3.2	4	1.4	22790	7.7	14440	35	0.4						
30-47.7591-108.0409-2-15-	0-419319	64820	-0.07	599	7162	61	-68	10.0	64	4.3	4	1.5	29120	6.5	19000	29	0.3						
30-47.7797-108.0319-2-15-	0-419320	61750	-0.08	786	10590	63	-66	11.2	79	5.3	4	1.6	27050	6.1	17850	33	0.4						
30-47.8042-108.0036-2-15-	0-419321	58440	-0.07	1012	17760	63	-68	9.7	73	3.8	4	1.6	29020	6.6	17450	33	0.4						
30-47.8458-108.0039-2-15-	0-419322	63960	-0.07	930	7837	56	-75	10.7	71	4.2	4	1.5	28030	5.7	17240	29	0.3						
30-47.8708-108.0072-2-15-	0-419325	53510	-0.06	938	22120	52	-64	9.5	51	2.4	4	1.3	20420	5.7	14960	28	0.3						
30-47.8708-108.0319-2-15-	0-419326	57090	-0.08	627	8238	57	-65	6.8	65	4.4	4	1.4	22420	7.6	19130	31	0.3						
30-47.9231-108.1039-2-15-	0-419327	45990	-0.06	595	24020	50	-64	7.5	52	2.7	4	1.3	20300	5.9	11340	29	0.4						
30-47.9306-108.1114-2-15-	0-419328	49730	-0.06	716	5539	45	-65	6.6	53	2.5	4	1.2	18790	7.1	14070	27	0.3						
30-47.9509-108.0792-2-15-	0-419329	53800	-0.06	526	22310	61	-64	10.2	57	2.7	4	1.2	22550	6.9	15110	29	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	LAST 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	
30-47.5803-109.2008-2-15-	0-419269	17230	369	10050	93	-1	12.1	5.7	-229	-1	-1	11.1	4533	201	3.1	142	0.348					
30-47.5722-109.1794-2-12-	0-419269	20590	432	19380	92	2	12.2	5.0	-262	-1	1	10.8	3965	183	2.7	-118	0.356					
30-47.5728-109.1599-2-12-	0-419270	15960	519	8426	71	1	11.3	5.6	517	-1	-1	10.7	4131	192	3.0	-126	0.353					
30-47.5975-109.1397-2-15-	0-419271	19710	295	16510	91	-1	12.0	5.4	-236	-1	-1	10.6	3732	191	2.4	112	0.360					
30-47.5369-109.1164-2-15-	0-419272	20620	345	7396	102	-1	12.8	6.0	220	-1	-1	10.9	4081	214	3.1	121	0.352					
30-47.6017-109.1197-2-15-	0-419273	16440	397	8659	107	-1	12.5	5.5	-220	-1	-1	11.0	3669	191	3.2	-61	0.357					
30-47.6103-109.1111-2-15-	0-419274	21750	420	41560	105	2	9.5	5.6	-382	-1	-1	9.2	3705	160	3.0	107	0.374					
30-47.6219-109.0894-2-15-	0-419275	20900	587	24920	86	1	10.8	5.2	-288	-1	-1	9.1	3058	175	3.2	176	0.379					
30-47.6228-109.0800-2-12-	0-419276	17290	472	11370	77	-1	11.7	5.7	-254	-1	-1	11.3	3659	197	2.8	33	0.354					
30-47.5839-109.0861-2-12-	0-419277	20010	372	9204	99	1	13.1	4.9	359	-1	-1	10.5	3842	203	3.4	130	0.384					
30-47.5853-109.0736-2-15-	0-419278	17160	338	16950	88	-1	11.9	6.1	-293	-1	-1	9.8	3903	193	3.2		0.361					
30-47.6117-109.0500-2-15-	0-419279	17000	429	23190	59	-1	9.5	4.6	-256	-1	-1	8.0	2711	164	2.5	-68	0.423					
30-47.5794-109.0253-2-15-	0-419281	20700	520	7038	95	-1	13.6	5.5	-253	-1	-1	10.7	4040	215	2.9	-90	0.342					
30-47.5783-109.0106-2-15-	0-419282	15150	399	9732	85	-1	10.5	5.6	-259	-1	-1	9.7	4082	177	3.3	-86	0.365					
30-47.6244-109.5311-2-15-	0-419283	15030	360	16210	58	1	9.9	4.8	485	-1	-1	9.2	3421	158	2.4	99	0.392					
30-47.6081-109.5319-2-12-	0-419284	13470	597	9587	-31	-1	9.9	5.9	496	-1	-1	10.5	3688	158	2.8	-22	0.347					
30-47.6131-109.4747-2-12-	0-419286	16570	511	10550	70	2	9.8	5.1	-241	-1	-1	10.1	3783	147	2.8	150	0.349					
30-47.6117-109.4256-2-15-	0-419287	15380	610	8486	91	1	10.6	6.0	386	-1	-1	11.5	4105	182	3.0	137	0.351					
30-47.6142-109.4319-2-15-	0-419288	14010	592	9559	71	1	10.5	6.4	507	-1	-1	10.1	3077	170	3.0	-60	0.367					
30-47.6378-109.4194-2-15-	0-419289	16490	411	7354	97	-1	13.1	5.8	360	-1	-1	11.6	4279	231	2.8	170	0.299					
30-47.6917-109.4444-2-15-	0-419290	19780	359	8457	74	1	12.8	5.6	317	-1	-1	11.2	3945	200	2.9	128	0.329					
30-47.6386-109.3561-2-15-	0-419292	21930	364	22330	72	-1	10.8	6.0	-319	-2	-1	9.7	3291	179	3.4	130	0.343					
30-47.5967-109.3997-2-15-	0-419293	19040	349	13440	99	-1	10.5	5.7	397	-1	-1	9.5	3217	155	2.8	-39	0.377					
30-47.6175-109.4550-2-15-	0-419294	15250	319	17310	91	-1	11.3	6.3	405	-1	-1	11.2	4197	167	2.8	-30	0.330					
30-47.6178-109.5653-2-15-	0-419296	19370	158	13420	71	-1	13.2	6.6	-205	-1	-1	9.9	4085	159	4.1	-72	0.386					
30-47.6103-109.5278-2-15-	0-419297	12490	345	10590	69	-1	9.4	5.6	-249	-1	-1	10.7	3555	133	3.2	76	0.329					
30-47.6097-109.5172-2-15-	0-419298	18650	416	12310	90	-1	11.4	5.9	559	-1	-1	10.6	3477	164	3.0	146	0.353					
30-47.5953-109.5144-2-15-	0-419299	15140	359	12570	77	-1	11.0	5.0	296	-1	-1	10.0	3552	172	3.1	156	0.368					
30-47.5956-109.5128-2-15-	0-419300	14670	354	13890	58	-1	10.6	5.9	387	-1	-1	11.3	3896	168	3.7	118	0.322					
30-47.7817-109.1875-2-15-	0-419301	17190	353	9204	94	-1	10.6	4.8	-206	-1	-1	9.5	3806	162	4.2	76	0.340					
30-47.7906-109.2508-2-15-	0-419302	19220	414	8606	93	-1	12.0	5.1	-268	-1	-1	10.6	3956	179	2.8	-31	0.334					
30-47.8033-109.1525-2-15-	0-419303	21690	540	15220	77	-1	12.5	5.3	-260	-1	-1	10.5	3741	194	3.2	158	0.340					
30-47.9172-109.1478-2-15-	0-419304	14560	599	7525	44	1	11.0	8.1	-235	-1	-1	13.7	4535	204	3.8	205	0.318					
30-47.8192-109.1422-2-15-	0-419305	14330	526	8629	76	-1	10.0	5.0	-222	-1	-1	9.3	4040	170	3.5	129	0.405					
30-47.8164-109.1281-2-15-	0-419306	17800	312	6723	78	-2	13.2	5.9	-205	-2	-1	9.9	4127	231	3.8	175	0.361					
30-47.8183-109.1100-2-15-	0-419308	17030	417	10270	-46	-2	9.6	5.7	-230	-2	-1	10.5	4142	159	3.6	-60	0.301					
30-47.7897-109.1075-2-15-	0-419311	17590	429	7731	72	-2	12.6	5.5	-232	-2	-1	10.5	4259	203	2.4	133	0.364					
30-47.7992-109.1042-2-15-	0-419317	17390	493	7430	95	-2	11.7	6.0	-263	-2	-1	11.9	3901	189	3.2	221	0.318					
30-47.8247-109.1253-2-15-	0-419314	16120	414	9895	76	-2	10.0	4.9	-214	-1	-1	10.0	3263	157	3.5	-87	0.284					
30-47.8200-109.0594-2-15-	0-419316	16650	441	8215	-39	-2	8.0	5.3	-216	-2	-1	9.0	3494	120	2.3	-60	0.253					
30-47.7922-109.0561-2-15-	0-419317	7043	276	12140	-34	-1	5.0	4.8	-177	-1	-1	10.7	3220	70	3.6	81	0.279					
30-47.7600-109.0433-2-15-	0-419318	15170	264	26300	-35	-2	7.1	4.8	-269	-2	-1	9.2	3248	87	2.7	117	0.411					
30-47.7531-109.0408-2-15-	0-419319	10510	292	10150	67	-2	9.9	5.0	-203	-2	-1	9.6	3551	133	2.9	-109	0.291					
30-47.7797-109.0019-2-15-	0-419320	15260	627	8463	-42	-2	9.0	5.6	-246	-2	-1	10.2	3944	144	3.6	97	0.265					
30-47.8042-109.0036-2-15-	0-419321	17360	481	9314	59	-2	8.8	4.8	-227	-2	-1	9.4	3431	122	3.4	67	0.277					
30-47.8458-109.0039-2-15-	0-419322	12550	419	8525	-39	-2	9.0	4.4	-252	-2	-1	9.9	3775	126	2.9	166	0.267					
30-47.8708-109.0072-2-15-	0-419325	15350	317	9377	-33	-1	7.2	3.9	-192	-1	-1	7.3	2903	85	2.7	-79	0.275					
30-47.8708-109.0319-2-15-	0-419326	11930	397	9507	77	-2	7.2	5.1	-213	-2	-1	9.4	3467	119	3.2	64	0.271					
30-47.9231-109.1039-2-15-	0-419327	13200	620	7821	50	-2	7.3	4.0	-231	-2	-1	8.4	2623	74	2.1	-56	0.293					
30-47.9306-109.1114-2-15-	0-419328	6901	356	8074	61	-1	6.8	4.2	-224	-2	-1	8.5	3548	71	2.8	92	0.235					
30-47.9508-109.0792-2-15-	0-419329	17630	504	7534	59	-2	7.9	4.2	-224	-2	-1	7.3	3061	97	2.8	-98	0.307					

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	REFLECT	LASL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECIAL MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SOLUBLE SOLIDS (mg/l)	ROCK TYPE	ROCK COLOR	SEDIMENT TYPE	SEDIMENT COLOR	WATER FLOW	WATER LEVEL	WATER CLAR	SILICAM CHANNEL	VEGETATION TYPE	VEGETATION DENSITY	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)	UNITS IN ppm
							DATE	HOUR																							
30-47.9551-109.0455-2-15-						30-47.9551-109.0455-2-15-	09/16/79	14	22	-	-	-	-	-	-	12-1-5-5-5-	-1	-1-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	2.51
30-47.9753-109.0485-2-15-						30-47.9753-109.0485-2-15-	09/16/79	14	21	-	-	-	-	-	-	4-1-5-5-5-	-1	-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	2.04
30-47.9819-109.0447-2-15-						30-47.9819-109.0447-2-15-	09/16/79	14	21	-	-	-	-	-	-	3-1-6-5-5-	-1	-2-4-4-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	1.87
30-47.9858-109.0367-2-15-						30-47.9858-109.0367-2-15-	09/16/79	14	21	-	-	-	-	-	-	6-1-5-5-5-	-1	-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	1.77
30-47.9503-109.0028-2-15-						30-47.9503-109.0028-2-15-	09/16/79	15	21	-	-	-	-	-	-	4-1-5-4-5-	-1	-2-4-2-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	1.86
30-47.9406-109.0461-2-15-						30-47.9406-109.0461-2-15-	09/16/79	15	21	-	-	-	-	-	-	7-1-6-5-6-	-1	-2-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.15
30-47.9375-109.0903-2-15-						30-47.9375-109.0903-2-15-	09/16/79	15	21	-	-	-	-	-	-	10-1-6-5-5-	-1	-2-4-2-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.12
30-47.9357-109.0881-2-15-						30-47.9357-109.0881-2-15-	09/16/79	17	22	-	-	-	-	-	-	6-1-5-4-5-	-1	-2-4-2-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	2.03
30-47.6100-109.7067-2-15-						30-47.6100-109.7067-2-15-	09/17/79	11	10	-	-	-	-	-	-	7-1-7-4-5-	-1	-2-3-2-4-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.24
30-47.5769-109.7124-2-12-						30-47.5769-109.7124-2-12-	09/17/79	13	0-12.5	-	-	-	8.2	3100	-	4-1-6-5-5-	-2	-1-2-4-3-2-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.72
30-47.6125-109.6829-2-15-						30-47.6125-109.6829-2-15-	09/17/79	15	11	-	-	-	-	-	-	10-1-6-5-5-	-1	-2-3-3-4-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	3.38
30-47.5992-109.7053-2-15-						30-47.5992-109.7053-2-15-	09/17/79	15	15	-	-	-	-	-	-	4-1-6-4-5-	-1	-2-3-3-4-4-	-1-	-	-	-	-	-	-	-	-	-	-	-	3.02
30-47.5928-109.6754-2-15-						30-47.5928-109.6754-2-15-	09/17/79	16	14	-	-	-	-	-	-	5-1-6-5-6-	-1	-2-1-3-4-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.54
30-47.5556-109.7181-2-15-						30-47.5556-109.7181-2-15-	09/17/79	16	14	-	-	-	-	-	-	9-1-5-5-6-	-1	-2-4-2-3-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.58
30-47.5444-109.7117-2-15-						30-47.5444-109.7117-2-15-	09/17/79	17	14	-	-	-	-	-	-	7-1-5-5-6-	-1	-2-3-2-3-4-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.50
30-47.6858-109.7055-2-15-						30-47.6858-109.7055-2-15-	09/17/79	15	30	-	-	-	-	-	-	9-1-1-5-6-	-1	-1-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.24
30-47.6869-109.1192-2-15-						30-47.6869-109.1192-2-15-	09/16/79	15	30	-	-	-	-	-	-	22-1-1-5-5-	-1	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.71
30-47.6308-109.1229-2-15-						30-47.6308-109.1229-2-15-	09/16/79	16	30	-	-	-	-	-	-	13-1-1-5-6-	-1	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.90
30-47.6758-109.1200-2-15-						30-47.6758-109.1200-2-15-	09/16/79	16	30	-	-	-	-	-	-	13-1-1-5-6-	-1	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.89
30-47.7083-109.0155-2-15-						30-47.7083-109.0155-2-15-	09/16/79	18	29	-	-	-	-	-	-	13-1-1-5-5-	-1	-1-4-3-2-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.28
30-47.7375-109.2061-2-15-						30-47.7375-109.2061-2-15-	09/17/79	15	26	-	-	-	-	-	-	13-1-1-5-5-	-1	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.34
30-47.7383-109.2047-2-15-						30-47.7383-109.2047-2-15-	09/17/79	15	26	-	-	-	-	-	-	27-1-1-5-5-	-1	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.53
30-47.7322-109.1989-2-15-						30-47.7322-109.1989-2-15-	09/17/79	15	26	-	-	-	-	-	-	22-1-1-5-6-	-1	-3-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.63
30-47.7353-109.1508-2-15-						30-47.7353-109.1508-2-15-	09/17/79	17	26	-	-	-	-	-	-	13-1-1-5-6-	-1	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	4.01
30-47.7303-109.1511-2-15-						30-47.7303-109.1511-2-15-	09/17/79	17	26	-	-	-	-	-	-	18-1-1-5-6-	-1	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.82
30-47.7308-109.1564-2-15-						30-47.7308-109.1564-2-15-	09/17/79	17	26	-	-	-	-	-	-	27-1-1-5-6-	-1	-1-4-3-3-3-	-3-3-	-	-	-	-	-	-	-	-	-	-	-	3.65
30-47.7297-109.1605-2-15-						30-47.7297-109.1605-2-15-	09/17/79	17	26	-	-	-	-	-	-	19-1-1-5-6-	-1	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.46
30-47.6647-109.1305-2-15-						30-47.6647-109.1305-2-15-	09/17/79	17	25	-	-	-	-	-	-	9-1-1-5-6-	-1	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.77
30-47.6717-109.1292-2-15-						30-47.6717-109.1292-2-15-	09/17/79	19	25	-	-	-	-	-	-	22-1-1-5-6-	-1	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.57
30-47.6675-109.1289-2-15-						30-47.6675-109.1289-2-15-	09/17/79	19	25	-	-	-	-	-	-	13-1-1-5-6-	-1	-1-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.84
30-47.7244-109.2869-2-15-						30-47.7244-109.2869-2-15-	09/18/79	15	32	-	-	-	-	-	-	24-1-1-5-6-	-1	-1-4-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.50
30-47.7147-109.3469-2-15-						30-47.7147-109.3469-2-15-	09/18/79	16	32	-	-	-	-	-	-	27-1-1-5-6-	-1	-1-4-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.35
30-47.7253-109.3567-2-15-						30-47.7253-109.3567-2-15-	09/19/79	16	30	-	-	-	-	-	-	31-1-1-5-6-	-1	-1-4-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.56
30-47.7303-109.3574-2-15-						30-47.7303-109.3574-2-15-	09/19/79	16	30	-	-	-	-	-	-	27-1-1-5-5-	-1	-1-4-3-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.27
30-47.6972-109.2603-2-15-						30-47.6972-109.2603-2-15-	09/18/79	19	26	-	-	-	-	-	-	13-1-1-5-6-	-1	-1-4-3-4-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	3.63
30-47.0978-109.5147-2-15-						30-47.0978-109.5147-2-15-	09/21/79	19	26	-	-	-	-	-	-	12-1-7-5-6-	-1	-2-4-4-2-2-	-9-	-	-	-	-	-	-	-	-	-	-	-	2.72
30-47.0878-109.5164-2-12-						30-47.0878-109.5164-2-12-	09/21/79	19	24-13.5	-	-	-	7.2	490	-	9-1-7-4-6-3-3-1	-2	-4-4-2-2-	-9-	-	-	-	-	-	-	-	-	-	-	-	3.09
30-47.0833-109.5381-2-15-						30-47.0833-109.5381-2-15-	09/21/79	19	22	-	-	-	-	-	-	7-1-7-5-7-	-1	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	3.34
30-47.0836-109.5647-2-12-						30-47.0836-109.5647-2-12-	09/21/79	19	22-18.6	-	-	-	7.8	1350	-	7-1-7-5-6-3-3-1	-3	-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	2.60
30-47.0189-109.5169-2-12-						30-47.0189-109.5169-2-12-	09/21/79	19	22-15.5	-	-	-	6.8	500	-	11-1-7-5-6-3-3-1	-3	-4-4-2-3-	-9-	-	-	-	-	-	-	-	-	-	-	-	3.36
30-47.0258-109.6514-2-15-						30-47.0258-109.6514-2-15-	09/21/79	19	22	-	-	-	-	-	-	11-1-7-5-6-	-1	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	2.36
30-47.0258-109.6517-2-15-						30-47.0258-109.6517-2-15-	09/21/79	20	22	-	-	-	-	-	-	6-1-7-5-6-	-1	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	2.33
30-47.0342-109.6928-2-15-						30-47.0342-109.6928-2-15-	09/21/79	20	22	-	-	-	-	-	-	5-1-7-5-7-	-1	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	2.28
30-47.0456-109.6914-2-15-						30-47.0456-109.6914-2-15-	09/21/79	20	22	-	-	-	-	-	-	3-1-7-5-6-	-1	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	2.25
30-47.0925-109.6422-2-15-						30-47.0925-109.6422-2-15-	09/21/79	20	30	-	-	-	-	-	-	6-1-7-5-7-	-1	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	2.97
30-47.0377-109.8906-2-15-																															

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	LAST 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	
30-47.9561-103.0456-2-15-	0-410331	-5	-5	-5	23	-20	-15	-5	-10	-15	1	29						
30-47.9753-103.0486-2-15-	0-410332	-5	-5	-5	31	-20	-15	-5	-10	-15	1	25						
30-47.9819-103.0447-2-15-	0-410333	-5	-5	-5	19	-20	-15	-5	-10	-15	2	24						
30-47.9858-103.0367-2-15-	0-410334	-5	-5	-5	17	-20	21	-5	-10	-15	3	23						
30-47.9503-103.0028-2-15-	0-410335	-5	-5	-5	16	-20	-15	-5	-10	-15	1	23						
30-47.9406-103.0461-2-15-	0-410337	-5	-5	-5	21	-20	-15	8	-10	-15	1	34						
30-47.9375-103.0808-2-15-	0-410339	-5	-5	-5	33	-20	16	14	-10	-15	3	49						
30-47.9367-103.0891-2-15-	0-410340	-5	-5	-5	26	-20	22	11	-10	-15	2	34						
30-47.6100-103.7067-2-15-	0-410343	-5	-5	-5	34	-20	39	-5	-10	-15	2	56						
30-47.5769-103.7123-2-12-	0-410345	-5	-5	-5	33	-20	23	15	-10	-15	3	53						
30-47.6125-103.6823-2-15-	0-410346	-5	-5	-5	39	-20	-15	10	-10	-15	2	58						
30-47.5992-103.7053-2-15-	0-410347	-5	-5	-5	25	-20	28	7	-10	-15	2	56						
30-47.5829-103.6756-2-15-	0-410348	-5	-5	-5	36	-20	23	8	-10	-15	3	79						
30-47.5556-103.7183-2-15-	0-410349	-5	-5	-5	36	-20	30	8	-10	-15	3	83						
30-47.5444-103.7117-2-15-	0-410350	-5	-5	-5	42	-20	23	5	-10	-15	3	87						
30-47.6358-103.0706-2-15-	0-410351	-5	-5	-5	36	-20	43	6	-10	-15	2	63						
30-47.6869-103.1192-2-15-	0-410352	-5	-5	-5	44	-20	38	9	-10	-15	2	59						
30-47.6808-103.1228-2-15-	0-410353	-5	-5	-5	33	-20	49	9	-10	-15	2	46						
30-47.5758-103.1200-2-15-	0-410354	-5	-5	-5	32	-20	47	15	-10	-15	3	60						
30-47.7083-103.0156-2-15-	0-410355	-5	-5	-5	26	-20	17	12	-10	-15	2	42						
30-47.7375-103.2061-2-15-	0-410357	-5	-5	-5	39	-20	47	15	-10	-15	2	44						
30-47.7333-103.2042-2-15-	0-410358	-5	-5	-5	44	-20	28	13	-10	-15	2	56						
30-47.7322-103.1989-2-15-	0-410359	-5	-5	-5	45	-20	27	3	-10	-15	2	54						
30-47.7358-103.1509-2-15-	0-410360	-5	-5	-5	39	-20	32	11	-10	-15	2	60						
30-47.7303-103.1511-2-15-	0-410361	-5	-5	-5	42	-20	43	12	-10	-15	2	57						
30-47.7309-103.1564-2-15-	0-410362	-5	-5	-5	35	-20	49	26	-10	-15	2	49						
30-47.7297-103.1606-2-15-	0-410363	-5	-5	-5	40	-20	40	12	-10	-15	2	42						
30-47.6647-103.1306-2-15-	0-410364	-5	-5	-5	43	-20	50	5	-10	-15	2	83						
30-47.6717-103.1292-2-15-	0-410365	-5	-5	-5	34	-20	21	6	-10	-15	3	81						
30-47.6675-103.1289-2-15-	0-410366	-5	-5	-5	42	-20	35	20	-10	-15	2	59						
30-47.7244-103.2869-2-15-	0-410367	-5	-5	-5	46	-20	24	17	-10	-15	2	76						
30-47.7147-103.3449-2-15-	0-410368	-5	-5	-5	41	-20	52	17	-10	-15	2	87						
30-47.7253-103.3567-2-15-	0-410369	-5	-5	-5	41	-20	51	12	-10	-15	2	39						
30-47.7303-103.3678-2-15-	0-410370	-5	-5	-5	38	-20	45	12	-10	-15	2	50						
30-47.5972-103.2503-2-15-	0-410371	-5	-5	-5	46	-20	39	13	-10	-15	3	73						
30-47.0978-103.5147-2-15-	0-410373	-5	-5	-5	35	-20	19	10	-10	-15	1	23						
30-47.0878-103.5164-2-12-	0-410374	-5	-5	-5	43	-20	22	16	-10	-15	2	43						
30-47.0933-103.5383-2-15-	0-410375	-5	-5	-5	33	-20	-15	12	-10	-15	2	30						
30-47.0836-103.5647-2-12-	0-410376	-5	-5	-5	23	-20	30	12	-10	-15	2	47						
30-47.0189-103.6169-2-12-	0-410377	-5	-5	-5	27	-20	24	42	-10	-15	1	30						
30-47.0253-103.6514-2-15-	0-410378	-5	-5	-5	33	-20	-15	8	-10	-15	1	25						
30-47.0258-103.6617-2-15-	0-410379	-5	-5	-5	22	-20	19	13	-10	-15	-1	27						
30-47.0342-103.6928-2-15-	0-410380	-5	-5	-5	23	-20	-15	-5	-10	-15	-1	38						
30-47.0456-103.6914-2-15-	0-410381	-5	-5	-5	19	-20	17	7	-10	-15	1	29						
30-47.0925-103.6492-2-15-	0-410382	-5	-5	-5	24	-20	28	10	-10	-15	1	27						
30-47.0397-103.8906-2-15-	0-410383	-5	-5	-5	31	-20	35	12	-10	-15	2	39						
30-47.0894-103.8933-2-15-	0-410384	-5	-5	-5	21	-20	16	7	-10	-15	-1	30						
30-47.1122-103.8933-2-12-	0-410385	-5	-5	-5	35	-20	18	14	-10	-15	1	31						
30-47.1653-103.9844-2-15-	0-410387	-5	-5	-5	28	-20	15	16	-10	-15	2	38						
30-47.1469-103.9047-2-12-	0-410388	-5	-5	-5	33	-20	30	17	-10	-15	2	78						
30-47.1575-103.8625-2-15-	0-410389	-5	-5	-5	34	-20	24	21	-10	-15	1	36						

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	Cy	Eu	Fe	Hf	K	La	Lu
30-47.9561-108.0456-2-15-						30-419331	43220	-0.08	532	24050	41	113	6.1	45	-1.9	3	1.0	14510	6.1	14250	23	0.3
30-47.9753-103.6486-2-15-						30-419332	48470	-0.07	551	4023	53	-62	5.4	56	3.1	4	1.2	16830	6.8	15370	24	0.3
30-47.9819-103.0447-2-15-						30-419333	45750	-0.06	505	9938	50	-69	5.4	60	3.1	3	1.4	16960	8.2	15510	24	0.3
30-47.9858-103.0367-2-15-						30-419334	45300	-0.05	515	8914	44	-60	5.9	49	2.2	3	1.1	15790	6.4	12980	26	0.3
30-47.9503-103.0028-2-15-						30-419335	37090	-0.06	550	18890	47	64	5.0	48	-1.5	3	1.2	12300	8.3	12950	25	0.3
30-47.9406-103.0461-2-15-						30-419337	49280	-0.08	472	9172	44	-59	7.1	63	-2.0	2	1.0	20740	4.8	13930	25	0.4
30-47.9375-103.0908-2-15-						30-419339	73280	-0.09	550	10720	56	-58	9.5	75	7.9	4	1.2	33670	3.9	18260	28	0.3
30-47.9367-103.0881-2-15-						30-419340	53340	-0.05	550	12760	51	-61	8.5	55	3.2	3	1.4	22400	6.5	17580	31	0.3
30-47.6100-103.7057-2-15-						30-419343	53210	-0.08	1645	25020	66	-33	10.8	82	4.0	4	1.9	30060	5.7	15890	27	0.4
30-47.5769-103.7128-2-15-						30-419345	77440	-0.09	955	9199	79	-64	13.5	95	7.1	5	1.5	39710	5.1	20820	37	0.4
30-47.5125-103.5828-2-15-						30-419346	65800	-0.07	1527	15520	54	-85	11.9	75	5.4	4	1.0	32620	6.2	18370	31	0.3
30-47.5992-103.7053-2-15-						30-419347	68420	-0.07	900	14950	54	-85	9.0	84	4.9	3	1.3	28860	5.3	17130	26	0.3
30-47.5828-103.6756-2-15-						30-419348	75220	-0.10	922	16890	64	-68	12.3	98	6.0	5	1.5	34840	4.3	20350	42	0.4
30-47.5556-103.7183-2-15-						30-419349	72870	-0.09	677	10890	60	-240	12.3	105	7.7	4	1.1	38320	3.6	22500	31	0.3
30-47.5444-103.7117-2-15-						30-419350	77140	-0.09	555	12730	57	-104	11.7	95	6.9	4	1.3	41160	4.2	21250	33	0.4
30-47.6858-103.0706-2-15-						30-419351	70330	-0.07	870	17850	57	-73	14.4	83	6.1	4	1.6	39210	5.4	17840	28	0.3
30-47.6869-103.1192-2-15-						30-419352	75500	-0.09	769	12190	75	-60	17.1	101	7.1	5	1.8	44320	4.5	23460	33	0.5
30-47.6308-103.1228-2-15-						30-419353	70560	-0.09	1392	14110	53	-69	21.0	59	6.3	5	1.5	50000	5.1	17750	37	0.4
30-47.6758-103.1200-2-15-						30-419354	73670	-0.08	552	11470	55	-58	18.1	98	7.6	5	1.2	41590	3.9	19840	38	0.4
30-47.7083-103.0156-2-15-						30-419355	58350	-0.06	354	22470	59	-77	10.1	75	3.4	4	1.5	25940	7.6	16730	33	0.3
30-47.7375-103.2061-2-15-						30-419357	72610	-0.09	1457	12840	61	-62	14.0	95	5.7	5	2.0	39070	5.5	18800	32	0.4
30-47.7393-103.2042-2-15-						30-419358	71760	-0.09	905	16020	71	-64	20.0	84	5.9	5	1.5	48560	4.8	19600	39	0.5
30-47.7322-103.1989-2-15-						30-419359	77030	-0.09	936	10790	53	-62	14.1	88	6.5	5	1.5	42510	4.6	22540	33	0.5
30-47.7359-103.1508-2-15-						30-419360	76290	-0.07	1111	15680	61	-76	19.3	84	6.7	5	1.6	48880	4.7	18670	39	0.4
30-47.7303-103.1511-2-15-						30-419361	76540	-0.09	809	9420	64	-68	17.4	92	7.2	5	1.6	46780	4.2	19590	31	0.4
30-47.7308-103.1564-2-15-						30-419362	71640	-0.08	957	10250	73	-61	18.5	92	6.7	5	1.7	48470	4.9	20640	38	0.5
30-47.7297-103.1505-2-15-						30-419363	74880	-0.09	923	11060	61	-74	18.1	75	6.3	5	1.5	43380	4.7	16930	31	0.4
30-47.6647-103.1306-2-15-						30-419364	71100	-0.07	939	16660	54	-83	21.1	84	6.9	5	1.5	56030	3.7	20340	34	0.4
30-47.6717-103.1292-2-15-						30-419365	76190	-0.09	737	9150	64	-67	12.9	89	7.0	4	1.4	38500	3.5	21900	32	0.3
30-47.6675-103.1289-2-15-						30-419366	72620	-0.09	952	6692	62	113	21.9	93	6.8	5	1.8	58270	4.4	21240	37	0.5
30-47.7244-103.2849-2-15-						30-419367	73030	-0.07	943	12580	51	-67	16.3	81	6.1	5	1.6	40890	4.8	17670	33	0.4
30-47.7147-103.3469-2-15-						30-419368	77950	-0.08	735	19170	53	125	13.6	80	6.4	4	1.5	41330	4.0	19110	33	0.4
30-47.7253-103.3567-2-15-						30-419369	73630	-0.09	1241	9512	61	-58	14.8	88	6.5	5	1.6	40740	5.1	20790	34	0.4
30-47.7303-103.3573-2-15-						30-419370	75560	-0.08	1130	12330	57	-53	20.0	100	7.6	5	1.8	45480	4.7	21760	36	0.3
30-47.6972-103.2603-2-15-						30-419371	74650	-0.08	945	13140	59	-77	18.6	101	6.9	5	1.4	46760	4.1	21040	29	0.4
30-47.0978-103.5147-2-15-						30-419373	57690	-0.05	409	12860	63	-64	10.0	70	4.1	5	1.3	26150	8.6	18870	33	0.4
30-47.0873-103.5164-2-12-						30-419374	45920	-0.03	634	21310	58	-109	3.9	60	5.2	3	1.5	28380	6.9	15700	29	0.3
30-47.0833-103.5383-2-15-						30-419375	59520	-0.05	635	29900	54	-44	7.8	70	5.8	6	1.4	21110	6.2	13460	36	0.5
30-47.0835-103.5547-2-12-						30-419376	49030	-0.07	409	61070	47	-71	7.2	60	3.5	4	1.2	19790	5.5	15240	30	0.3
30-47.0189-103.6169-2-12-						30-419377	49930	-0.06	434	41900	52	290	7.7	53	3.9	4	1.2	20460	8.3	17550	31	0.4
30-47.0258-103.6514-2-15-						30-419378	55010	-0.09	432	12250	46	-56	7.2	54	4.0	4	1.4	21790	7.9	16490	36	0.3
30-47.0258-103.6617-2-15-						30-419379	33120	-0.07	322	103300	40	-53	7.1	60	3.5	3	0.9	18700	7.0	14030	22	0.3
30-47.0342-103.6928-2-15-						30-419380	42960	-0.06	324	90960	47	74	5.5	57	3.4	4	1.2	19760	6.4	13770	24	0.4
30-47.0456-103.6914-2-15-						30-419381	45480	-0.06	321	97480	49	-56	7.6	51	3.2	3	1.0	21450	5.4	14080	27	0.3
30-47.0925-103.6492-2-15-						30-419382	54760	-0.07	590	17030	53	-55	5.5	56	4.2	4	1.8	18720	8.5	17300	32	0.4
30-47.0397-103.8905-2-15-						30-419383	48470	-0.07	722	49880	61	83	7.3	55	3.7	4	1.3	21340	7.9	18840	35	0.4
30-47.0494-103.8833-2-15-						30-419384	39170	-0.07	444	49930	49	-71	4.4	45	2.7	3	1.2	13940	6.8	11270	24	0.3
30-47.1122-103.8933-2-12-						30-419385	50990	-0.06	592	50320	55	91	7.9	53	4.0	4	1.3	21370	6.1	17630	34	0.3
30-47.1653-103.9844-2-15-						30-419387	56260	-0.08	717	17690	60	399	7.6	59	3.5	4	1.4	19450	7.1	17960	34	0.3
30-47.1459-103.9047-2-12-						30-419389	73620	-0.09	743	47210	53	151	7.1	73	5.2	4	1.5	24370	3.8	19430	35	0.3
30-47.1575-103.8625-2-15-						30-419390	53130	-0.06	796	10520	53	-54	8.3	59	4.5	4	1.4	24790	6.5	20040	34	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	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	
30-47.7561-108.0456-2-15-	0-410331	15100	637	10400	-45	-2	5.3	3.2	-273	-2	-1	7.5	2735	63	-1.7	-65	0.335					
30-47.9753-108.0486-2-15-	0-410332	7512	286	9959	-40	-2	5.5	4.4	-188	-2	-1	7.5	3596	66	3.0	-58	0.272					
30-47.9919-108.0447-2-15-	0-410333	7793	400	7967	-34	-2	5.2	3.8	-239	-2	-1	7.4	3568	72	2.0	-52	0.253					
30-47.9358-108.0357-2-15-	0-410334	9956	291	9730	-29	-1	5.8	3.7	-190	-2	-1	7.0	2294	61	2.0	-42	0.253					
30-47.9503-108.0323-2-15-	0-410335	10770	371	8522	-34	-1	4.5	3.9	-189	-2	-1	7.3	2864	48	3.3	46	0.255					
30-47.9406-108.0461-2-15-	0-410337	2220	396	6194	-48	-2	7.9	3.6	-222	-2	-1	8.1	3339	76	2.3	83	0.389					
30-47.9375-108.0409-2-15-	0-410339	17370	350	4339	98	-2	12.4	4.2	-252	-2	-1	10.4	4256	179	3.8	216	0.300					
30-47.9367-108.0881-2-15-	0-410340	15720	350	7893	-35	-2	7.7	4.0	-200	-1	-1	7.1	3382	86	-1.8	79	0.286					
30-47.6100-108.7067-2-15-	0-410343	20220	430	15740	-43	-2	9.9	5.0	537	-2	-1	9.5	3523	118	1.7	59	0.338					
30-47.5769-108.7123-2-12-	0-410345	18740	363	7875	125	-2	13.3	5.3	-223	-2	-1	14.3	4179	212	-2.5	-73	0.260					
30-47.6125-108.6828-2-15-	0-410346	21330	315	14710	94	-2	10.4	4.6	-253	-2	-1	9.4	3573	128	2.2	217	0.360					
30-47.5992-108.7053-2-15-	0-410347	17350	233	19710	-39	-2	10.3	3.9	278	-2	-1	8.7	3396	132	2.8	93	0.347					
30-47.5828-108.6756-2-15-	0-410348	17110	319	9723	-51	-2	11.9	5.8	-219	-2	-1	11.1	3791	218	2.7	216	0.319					
30-47.5556-108.7183-2-15-	0-410349	24590	271	14920	93	-2	13.5	4.9	-216	-2	-1	9.8	4137	211	3.2	-72	0.365					
30-47.5444-108.7117-2-15-	0-410350	13290	336	19290	108	-2	12.9	5.0	-292	-2	-1	11.2	3869	203	2.9	214	0.313					
30-47.6858-108.0706-2-15-	0-410351	18410	550	9709	54	-2	11.5	4.4	-250	-2	-1	9.3	3396	156	3.6	124	0.348					
30-47.6869-108.1102-2-15-	0-410352	19390	499	6333	90	-2	12.4	5.5	-235	-2	-1	11.2	4145	233	3.1	282	0.331					
30-47.6808-108.1228-2-15-	0-410353	19520	560	9523	91	-2	12.4	5.6	-243	-2	-1	12.2	3570	193	2.9	171	0.320					
30-47.5758-108.1260-2-15-	0-410354	17190	397	5565	98	-2	13.3	5.2	-236	-2	-1	11.6	4141	233	2.9	68	0.335					
30-47.7083-108.0156-2-15-	0-410355	15390	403	14190	58	-2	9.2	4.3	-228	-2	-1	9.8	3501	114	2.3	132	0.335					
30-47.7375-108.2061-2-15-	0-410357	20730	440	7942	79	-2	11.5	7.6	-231	-2	-1	10.3	4564	216	2.9	-90	0.324					
30-47.7383-108.2042-2-15-	0-410358	15490	607	6745	75	-2	12.6	5.5	-244	-2	-1	10.4	3771	213	4.0	-104	0.339					
30-47.7322-108.1993-2-15-	0-410359	21010	400	5569	77	-2	12.7	5.3	-253	-2	-1	11.4	3722	212	2.8	232	0.318					
30-47.7358-108.1508-2-15-	0-410360	19520	564	9799	97	-2	12.5	5.1	-265	-2	-1	10.5	3467	211	3.2	157	0.382					
30-47.7303-108.1511-2-15-	0-410361	21100	451	7566	91	-2	12.8	6.5	-264	-2	-1	10.4	3816	239	3.8	118	0.367					
30-47.7308-108.1564-2-15-	0-410362	16230	545	5753	103	-2	12.3	6.1	-234	-2	-1	12.3	4127	210	3.9	133	0.297					
30-47.7297-108.1506-2-15-	0-410363	19990	497	7313	95	-2	12.1	5.4	-281	-2	-1	11.4	3940	209	3.2	41	0.304					
30-47.6647-108.1306-2-15-	0-410364	18370	850	10530	91	-2	12.9	5.8	-295	-2	-1	10.1	4001	207	3.9	172	0.373					
30-47.6717-108.1292-2-15-	0-410365	18070	350	9517	-52	-2	12.4	4.8	-221	-2	-1	10.4	4740	215	3.3	84	0.343					
30-47.6675-108.1287-2-15-	0-410366	21070	594	14950	100	-2	13.7	5.9	-266	-2	-1	11.2	3352	221	3.9	172	0.343					
30-47.7244-108.2867-2-15-	0-410367	15570	422	6920	86	-2	11.5	5.2	-249	-2	-1	9.9	4039	185	3.2	125	0.354					
30-47.7147-108.3469-2-15-	0-410368	22090	383	11530	94	-2	13.1	4.9	-238	-2	-1	10.3	3655	217	3.0	171	0.325					
30-47.7253-108.3567-2-15-	0-410369	22170	444	6657	-48	-2	11.8	5.6	-220	-2	-1	10.2	4419	214	3.6	98	0.349					
30-47.7303-108.3678-2-15-	0-410370	17450	431	5455	109	-2	14.3	5.1	-204	-2	-1	10.6	4307	224	2.7	156	0.309					
30-47.6972-108.2603-2-15-	0-410371	18230	492	9154	73	-2	12.5	5.2	-271	-2	-1	11.0	3931	217	3.5	253	0.330					
30-47.6378-108.5147-2-15-	0-410373	13300	625	5927	-38	-2	9.3	4.9	-249	-2	-1	9.8	2997	89	3.4	160	0.278					
30-47.0878-108.5164-2-12-	0-410374	2235	2195	3931	59	-2	7.1	5.1	-474	-2	-1	9.8	2679	84	3.1	-30	0.315					
30-47.0833-108.5383-2-15-	0-410375	12400	267	3118	-45	-2	9.1	5.5	-172	-2	-1	10.9	3374	108	3.7	-67	0.306					
30-47.0936-108.5647-2-12-	0-410376	19390	501	4255	63	-2	6.6	4.3	-272	-2	-1	8.9	2216	68	2.0	-59	0.292					
30-47.0189-108.6169-2-12-	0-410377	12490	404	3790	-35	-1	5.6	4.2	-199	-2	-1	9.8	2607	79	2.7	187	0.343					
30-47.0258-108.6514-2-15-	0-410378	12990	516	5684	-44	-2	7.2	5.3	-223	-2	-1	8.4	3353	84	3.3	94	0.281					
30-47.0258-108.6617-2-15-	0-410379	22570	434	2934	-41	-2	5.4	3.5	-201	-2	-1	6.4	2333	72	2.4	92	0.364					
30-47.0342-108.6928-2-15-	0-410380	26430	397	2985	-34	-1	5.5	3.9	310	-2	-1	7.4	2421	70	2.8	117	0.308					
30-47.0456-108.6914-2-15-	0-410381	28950	471	3269	63	-2	7.2	3.9	-216	-2	-1	6.5	2752	77	2.5	159	0.346					
30-47.0325-108.6492-2-15-	0-410382	14010	317	6394	46	-2	7.0	-5.8	-185	-2	-1	9.3	3668	96	3.9	55	0.319					
30-47.0397-108.8906-2-15-	0-410383	15550	412	5157	-43	-2	7.3	4.9	-204	-2	-1	9.4	3741	92	2.6	-67	0.319					
30-47.0894-108.8833-2-15-	0-410384	13170	134	6101	-45	-2	4.5	4.5	316	-2	-1	6.8	2439	52	-1.7	-65	0.362					
30-47.1122-108.8833-2-12-	0-410385	11900	422	5557	79	-2	7.0	4.2	-214	-2	-1	8.5	2883	79	2.4	139	0.296					
30-47.1553-108.9844-2-15-	0-410387	22790	252	10460	-44	-2	5.9	4.4	-194	-2	-1	9.3	3571	131	3.5	-93	0.322					
30-47.1469-108.9047-2-12-	0-410388	32630	396	3864	109	-2	10.3	4.7	-235	-2	-1	11.3	3394	183	2.9	-66	0.339					
30-47.1575-108.8625-2-15-	0-410389	17470	263	6148	97	-2	9.9	4.6	-131	-2	-1	10.2	3341	119	3.4	117	0.322					

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	CLOUDS	SPEC. MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SODIUMETER (uL/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	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)	UNITS IN ppm
							DATE	HOUR																											
30-47.1742-109.7994-2-12-	0-419333-09/22/79-12-	29-13.2-C-	8.0-	2400-	9-1-7-6-4-3-3-2-3-4-4-2-1-	-9-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.39			
30-47.0736-109.7791-2-12-	0-419333-09/22/79-12-	29-16.6-	7.4-	750-	11-1-7-6-4-3-3-1-3-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.24				
30-47.0581-109.9417-2-12-	0-419334-09/22/79-12-	29-15.8-	7.5-	520-	9-1-7-5-5-3-3-2-3-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.82				
30-47.1275-109.6430-2-15-	0-419337-09/22/79-15-	29-	-	-	9-1-7-6-8-1-1-3-4-4-2-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.44				
30-47.1272-109.6533-2-15-	0-419339-09/22/79-15-	29-	-	-	3-1-7-5-5-1-1-2-4-4-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.69				
30-47.9142-109.8306-2-15-	0-419400-09/16/79-10-	30-	-	-	9-1-7-5-7-1-1-2-4-4-3-1-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.23				
30-47.9559-108.8005-2-11-	0-419402-09/16/79-12-	22-17.9-C-	6.9-	630-	13-1-7-1-3-3-1-1-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.97				
30-47.9594-108.8005-2-15-	0-419404-09/16/79-12-	26-	-	-	9-1-7-5-5-1-1-2-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.48				
30-47.9525-108.7939-2-15-	0-419405-09/16/79-13-	26-	-	-	6-1-7-5-6-1-1-2-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.77				
30-47.9535-108.7925-2-15-	0-419416-09/16/79-13-	26-	-	-	7-1-7-6-8-1-1-2-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.90				
30-47.9983-108.8211-2-15-	0-419409-09/16/79-13-	26-	-	-	9-1-7-5-5-1-1-2-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.73				
30-47.9911-108.8059-2-15-	0-419406-09/16/79-13-	26-	-	-	6-1-7-5-5-1-1-2-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.51				
30-47.9972-108.8025-2-15-	0-419410-09/16/79-13-	26-	-	-	13-1-7-5-5-1-1-2-4-3-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.88				
30-47.9928-108.7551-2-15-	0-419411-09/16/79-14-	26-	-	-	11-1-7-5-6-1-1-2-4-4-3-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.48				
30-47.8642-108.8253-2-15-	0-419416-09/16/79-15-	24-	-	-	9-1-7-4-7-1-1-2-4-3-3-3-	-1-	-	-	-	-	-																								

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
30-47.1742-109.7994-2-12-			0-413193				-5	-5	-5	28	-20	-15	6	-10	-15	1	50
30-47.0735-109.7781-2-12-			0-413193				-5	-5	-5	25	-20	22	7	-10	-15	2	37
30-47.0581-109.8417-2-12-			0-413194				-5	-5	-5	34	-20	-15	17	-10	-15	1	22
30-47.1275-109.6439-2-15-			0-413197				-5	-5	-5	30	-20	16	9	-10	-15	1	38
30-47.1272-109.6539-2-15-			0-413197				-5	-5	-5	22	-20	-15	8	-10	-15	1	29
30-47.9142-108.8306-2-15-			0-413430				-5	-5	-5	21	-20	35	10	-10	-15	1	40
30-47.9569-108.8000-2-11-			0-413403				-5	-5	-5	26	-20	17	7	-10	-15	1	32
30-47.9594-108.8006-2-15-			0-413434				-5	-5	-5	29	-20	19	9	-10	-15	1	29
30-47.9525-108.7939-2-15-			0-413435				-5	-5	-5	20	-20	24	6	-10	-15	1	26
30-47.9536-108.7925-2-15-			0-413436				-5	-5	-5	25	-20	23	-5	-10	-15	1	21
30-47.9983-108.8211-2-15-			0-413409				-5	-5	-5	21	-20	24	6	-10	-15	2	40
30-47.9911-108.8059-2-15-			0-413437				-5	-5	-5	19	-20	-15	-5	-10	-15	2	43
30-47.9972-108.8025-2-15-			0-413410				-5	-5	-5	12	-20	-15	9	-10	-15	2	81
30-47.8928-108.7581-2-15-			0-413411				-5	-5	-5	35	-20	17	-5	-10	-15	2	50
30-47.8542-108.8283-2-15-			0-413414				-5	-5	-5	27	-20	-15	9	-10	-15	2	49
30-47.8631-108.8333-2-11-			0-413415				-5	-5	-5	38	-20	155	-5	-10	-15	-1	37
30-47.8611-108.7631-2-11-			0-413417				-5	-5	-5	23	-20	-15	-5	-10	-15	2	44
30-47.8831-108.7842-2-15-			0-413419				-5	-5	-5	43	-20	48	-5	-10	-15	1	43
30-47.9342-108.9267-2-11-			0-413420				-5	-5	-5	25	-20	-15	-5	-10	-15	2	43
30-47.8964-108.9325-2-15-			0-413421				-5	-5	-5	19	-20	19	-5	-10	-15	2	37
30-47.8964-108.9369-2-15-			0-413422				-5	-5	-5	30	-20	20	6	-10	-15	-1	59
30-47.8914-108.9294-2-15-			0-413423				-5	-5	-5	25	-20	30	7	-10	-15	1	31
30-47.9981-108.9214-2-15-			0-413424				-5	-5	-5	40	-20	27	10	-10	-15	2	102
30-47.9994-108.9206-2-15-			0-413425				-5	-5	-5	31	-20	22	7	-10	-15	-1	81
30-47.6442-108.7847-2-15-			0-413426				-5	-5	-5	20	-20	-15	-5	-10	-15	1	75
30-47.7200-108.9508-2-15-			0-413427				-5	-5	-5	17	-20	-15	-5	-10	-15	1	41
30-47.7186-108.9497-2-15-			0-413428				-5	-5	-5	27	-20	24	9	-10	-15	1	60
30-47.7239-108.9339-2-15-			0-413429				-5	-5	-5	29	-20	16	8	-10	-15	1	92
30-47.7222-108.9389-2-15-			0-413430				-5	-5	-5	17	-20	-15	-5	-10	-15	1	39
30-47.7103-108.9781-2-15-			0-413431				-5	-5	-5	42	-20	23	8	-10	-15	2	74
30-47.7089-108.9781-2-15-			0-413432				-5	-5	-5	35	-20	19	-5	-10	-15	2	50
30-47.7253-108.8844-2-15-			0-413434				-5	-5	-5	28	-20	18	-5	-10	-15	2	48
30-47.7247-108.8819-2-15-			0-413435				-5	-5	-5	18	-20	-15	-5	-10	-15	2	45
30-47.0322-109.0147-2-15-			0-413436				-5	-5	-5	17	-20	-15	7	-10	-15	1	24
30-47.0359-109.0461-2-15-			0-413437				-5	-5	-5	20	-20	23	-5	-10	-15	1	24
30-47.0342-109.0775-2-15-			0-413437				-5	-5	-5	22	-20	17	-5	-10	-15	2	36
30-47.0419-109.0919-2-12-			0-413441				-5	-5	-5	14	-20	15	-5	-10	-15	1	21
30-47.0400-109.1083-2-15-			0-413442				-5	-5	-5	29	-20	-15	-5	-10	-15	1	26
30-47.0431-109.1267-2-12-			0-413443				-5	-5	-5	25	-20	19	-5	-10	-15	2	30
30-47.6014-109.6992-2-15-			0-413450				-5	-5	-5	38	-20	22	10	-10	-15	2	49
30-47.5203-109.7150-2-15-			0-413451				-5	-5	-5	28	-20	20	8	-10	-15	2	63
30-47.5228-109.6919-2-15-			0-413452				-5	-5	-5	37	-20	22	8	-10	-15	2	54
30-47.5300-109.6767-2-15-			0-413453				-5	-5	-5	36	-20	17	7	-10	-15	1	34
30-47.5475-109.6508-2-15-			0-413454				-5	-5	-5	32	-20	19	7	-10	-15	2	56
30-47.5381-109.6108-2-15-			0-413455				-5	-5	-5	33	-20	18	8	-10	-15	2	54
30-47.5325-109.5764-2-15-			0-413456				-5	-5	-5	37	-20	28	10	-10	-15	2	50
30-47.5011-109.5592-2-15-			0-413457				-5	-5	-5	35	-20	22	5	-10	-15	2	38
30-47.5217-109.5117-2-15-			0-413458				-5	-5	-5	27	-20	30	-5	-10	-15	2	71
30-47.5192-108.4789-2-15-			0-413459				-5	-5	-5	38	-20	32	-5	-10	-15	2	58
30-47.5203-108.4800-2-15-			0-413460				-5	-5	-5	29	-20	26	10	-10	-15	2	39
30-47.5292-108.4600-2-12-			0-413461				-5	-5	-5	40	-20	17	-5	-10	-15	2	62

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	LAB SAMPLE LOCATION NUMBER	Concentrations reported in weight parts per million (ppm)																
							Al	Ar	Ba	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu	
30-47.1742-109.7994-2-12-	0-412320	52050	-0.09	718	71280	67	158	7.0	45	3.8	4	1.4	26620	4.7	15480	27	0.3						
30-47.0736-109.7781-2-12-	0-412320	52120	-0.09	917	50460	51	-56	7.5	88	5.0	4	1.6	25160	5.3	22600	36	0.3						
30-47.0581-109.8417-2-12-	0-412320	54320	-0.07	653	23100	53	-62	6.7	73	3.5	4	1.5	22120	7.1	19230	31	0.3						
30-47.1275-109.6439-2-15-	0-412320	55500	-0.06	551	40350	59	99	3.0	61	4.5	4	1.2	23350	5.9	17150	33	0.4						
30-47.1272-109.6539-2-15-	0-412320	52930	-0.09	656	32400	72	147	7.4	64	5.4	4	1.6	23200	6.1	19320	32	0.3						
30-47.9142-109.8305-2-15-	0-412400	59040	-0.09	1154	14480	69	-58	14.8	96	5.2	5	1.6	35490	4.8	19110	37	0.5						
30-47.9569-109.8000-2-11-	0-412400	53020	-0.07	656	52920	52	-75	7.1	97	4.0	4	1.2	21230	6.2	16540	28	0.3						
30-47.9594-109.8005-2-15-	0-412400	59460	-0.07	576	22990	57	-67	9.4	77	4.7	4	1.5	24600	4.9	19030	27	0.3						
30-47.9525-109.7939-2-15-	0-412400	59430	-0.09	838	21670	57	97	9.1	117	4.6	4	1.5	24430	6.0	18100	26	0.3						
30-47.9536-109.7925-2-15-	0-412400	54660	-0.09	720	16970	55	-60	13.8	78	4.2	4	1.5	24070	5.3	14400	27	0.4						
30-47.9993-109.8211-2-15-	0-412400	55580	-0.07	922	2853	53	-65	9.4	85	4.1	4	1.4	26130	6.0	15730	26	0.3						
30-47.9911-109.8069-2-15-	0-412400	59370	-0.06	989	33220	58	-70	9.4	83	3.4	4	1.4	23930	7.3	16900	33	0.3						
30-47.9972-109.8025-2-15-	0-412410	52400	-0.08	920	12450	56	-67	8.0	98	3.5	4	1.1	20620	5.7	17840	27	0.4						
30-47.9928-109.7581-2-15-	0-412411	54360	-0.07	656	11940	51	-47	5.8	58	3.9	3	1.2	24230	4.7	13360	30	0.2						
30-47.8642-109.8283-2-15-	0-412414	76330	-0.07	922	7967	56	-60	8.5	94	5.4	4	1.4	30570	5.1	17630	30	0.3						
30-47.8631-109.8333-2-11-	0-412415	45230	-0.07	1352	33640	154	-108	27.1	695	2.3	4	2.5	42940	7.4	19390	95	0.3						
30-47.8611-109.7631-2-11-	0-412417	52940	-0.08	522	22290	58	-71	3.8	43	3.7	5	1.4	13950	6.8	20240	32	0.4						
30-47.8931-109.7842-2-15-	0-412419	70110	-0.06	729	19740	59	-71	12.8	129	5.1	4	1.5	36510	4.9	20650	30	0.3						
30-47.9342-109.9267-2-11-	0-412420	55910	-0.06	578	34100	59	190	5.6	33	4.0	5	1.4	16770	5.6	18570	33	0.4						
30-47.8954-109.9325-2-15-	0-412421	74460	-0.07	733	13460	50	-74	11.0	64	5.2	3	1.3	29210	3.8	16670	25	0.2						
30-47.8954-109.9359-2-15-	0-412422	57520	-0.06	729	4722	56	-73	7.7	70	4.0	4	1.5	24650	5.1	15610	24	0.3						
30-47.8914-109.9294-2-15-	0-412423	63390	-0.06	722	21150	52	-70	8.4	78	3.4	3	1.3	22550	4.5	16270	27	0.2						
30-47.9981-109.9214-2-15-	0-412424	75180	-0.08	1022	9548	58	206	12.7	86	6.5	4	1.8	42510	5.1	19110	35	0.4						
30-47.9994-109.9205-2-15-	0-412425	70520	-0.07	684	22840	61	-81	11.5	73	6.0	4	1.4	34880	6.0	19470	35	0.4						
30-47.6442-109.7547-2-15-	0-412426	61940	-0.09	922	22450	49	149	7.4	62	3.5	4	1.5	26210	6.0	16250	24	0.4						
30-47.7200-109.9508-2-15-	0-412427	63460	-0.06	922	15950	51	-77	9.3	60	3.2	3	1.7	21540	4.1	16660	23	0.3						
30-47.7196-109.9497-2-15-	0-412429	64720	-0.06	1425	17080	67	-87	9.4	132	4.3	4	1.0	26120	8.6	17000	33	0.4						
30-47.7239-109.9339-2-15-	0-412429	66310	-0.06	602	15640	55	-73	11.9	59	4.2	4	1.4	29850	4.7	18990	29	0.4						
30-47.7222-109.9389-2-15-	0-412430	62050	-0.07	842	24540	39	-71	6.5	52	3.7	3	1.2	20380	4.7	16470	23	0.3						
30-47.7103-109.9731-2-15-	0-412431	66890	-0.09	755	14840	55	-87	13.1	72	6.1	4	1.3	43320	4.0	16240	36	0.3						
30-47.7089-109.9781-2-15-	0-412432	71130	-0.07	956	17590	56	-72	11.2	71	5.9	5	1.9	32050	5.1	19420	36	0.4						
30-47.7253-109.9844-2-15-	0-412434	62840	-0.06	657	21400	49	196	9.3	77	3.6	4	1.2	25880	5.5	15580	25	0.3						
30-47.7247-109.8819-2-15-	0-412435	61110	-0.07	744	22480	52	-69	7.1	54	3.4	4	1.3	25000	5.0	16990	24	0.3						
30-47.0322-109.0147-2-15-	0-412436	39420	-0.07	374	18420	49	-40	4.9	46	3.7	4	1.2	20290	9.1	11730	23	0.3						
30-47.0369-109.0461-2-15-	0-412437	39270	-0.07	337	36490	44	-47	4.8	42	3.0	4	1.2	19600	7.5	12670	23	0.3						
30-47.0342-109.0775-2-15-	0-412437	42230	-0.06	374	27210	53	-37	10.3	58	4.2	4	1.1	24940	7.8	14900	26	0.3						
30-47.0419-109.0919-2-12-	0-412441	23290	-0.07	351	17080	42	-34	5.3	36	1.8	3	0.9	9667	11.8	8640	21	0.3						
30-47.0400-109.1083-2-15-	0-412442	25970	-0.07	425	35980	46	-44	4.0	46	3.0	4	1.1	18680	8.3	13890	24	0.3						
30-47.0431-109.1267-2-12-	0-412443	34700	-0.06	272	24340	49	-41	6.6	49	3.0	4	1.3	17800	11.2	12490	31	0.4						
30-47.6014-109.6992-2-15-	0-412450	89670	-0.07	564	6974	61	-78	9.5	39	5.9	4	1.3	31440	4.7	18050	35	0.4						
30-47.5203-109.7150-2-15-	0-412451	65410	-0.06	731	13740	60	-78	14.4	70	5.4	4	1.3	39320	4.8	20470	29	0.3						
30-47.5228-109.6919-2-15-	0-412452	61930	-0.07	1093	26360	70	-85	12.5	77	4.3	5	1.6	39450	8.4	18060	34	0.4						
30-47.5300-109.6767-2-15-	0-412453	57790	-0.06	947	19190	55	-94	12.2	68	5.6	4	1.5	33630	6.7	17920	28	0.4						
30-47.5475-109.6508-2-15-	0-412454	74530	-0.07	738	11100	54	-80	17.7	94	6.3	4	1.4	44620	4.7	19580	30	0.4						
30-47.5331-109.6108-2-15-	0-412455	64120	-0.06	1224	9845	51	-95	13.8	67	4.7	5	1.0	30540	6.2	15570	29	0.3						
30-47.5325-109.5764-2-15-	0-412456	57270	-0.07	729	12750	62	-73	11.8	73	5.1	4	1.2	30930	5.8	20350	30	0.3						
30-47.5311-109.5592-2-15-	0-412457	64110	-0.06	1975	15110	48	-85	10.8	72	3.6	4	1.7	25610	6.8	14100	30	0.3						
30-47.5217-109.5117-2-15-	0-412458	72430	-0.07	749	21130	49	-93	12.6	73	5.1	4	1.1	34570	5.7	16070	29	0.3						
30-47.5192-109.4789-2-15-	0-412459	45170	-0.06	845	20940	51	-65	15.5	78	4.8	4	1.3	37310	5.6	18070	30	0.4						
30-47.5203-109.4300-2-15-	0-412460	53410	-0.06	1110	8248	53	-83	12.2	79	3.7	4	1.1	32240	6.1	17440	26	0.3						
30-47.5292-109.4500-2-12-	0-412461	77600	-0.06	939	11770	70	-74	16.2	99	6.3	4	1.5	46460	4.8	21480	36	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	
30-47.1742-109.7994-2-12-	0-413270	20957	372	4374	-52	-2	5.8	4.5	-224	-3	-1	6.6	2866	120	-2.5	184	0.665					
30-47.0736-109.7781-2-12-	0-413271	17771	403	4330	97	-2	9.3	4.8	-215	-2	-1	9.5	3254	145	4.1	79	0.341					
30-47.0581-109.8417-2-12-	0-413272	13890	236	5725	56	-2	7.6	4.5	-220	-2	-1	9.3	3158	76	3.0	-61	0.288					
30-47.1275-109.6439-2-15-	0-413297	23170	279	7757	61	-2	7.8	4.2	259	-2	-1	9.4	3429	104	2.4	147	0.410					
30-47.1272-109.6639-2-15-	0-413300	15750	392	4234	58	-2	7.5	4.4	-204	-2	-1	9.1	3129	131	-2.1	165	0.296					
30-47.9142-108.8306-2-15-	0-413400	20990	104	7707	-45	-2	11.6	5.4	-194	-2	-1	9.8	4001	189	2.8	165	0.330					
30-47.9569-109.8000-2-11-	0-413403	12610	382	8572	58	-2	7.9	4.0	315	-2	-1	9.3	2830	88	-1.4	37	0.319					
30-47.9594-108.8005-2-15-	0-413404	16350	445	7522	59	-2	9.8	3.8	-234	-2	-1	8.7	3011	108	2.1	118	0.400					
30-47.9525-109.7939-2-15-	0-413405	18830	417	6877	61	-2	9.3	3.8	-227	-3	-1	8.2	3634	134	2.2	121	0.338					
30-47.9536-108.7925-2-15-	0-413406	12620	274	6864	-55	-2	9.9	3.7	-207	-2	-1	7.1	3398	102	-1.8	170	0.831					
30-47.9933-108.8211-2-15-	0-413409	11540	202	8501	79	-2	9.4	4.0	-205	-2	-1	9.2	3636	118	2.6	109	0.297					
30-47.9911-109.8067-2-15-	0-413410	19010	335	10700	-36	-2	9.2	4.3	324	-2	-1	8.4	2829	91	3.3	-53	0.299					
30-47.9972-108.8025-2-15-	0-413411	15470	271	11740	-43	-2	7.3	4.5	-197	-2	-1	9.0	3296	92	2.2	-58	0.320					
30-47.9928-109.7581-2-15-	0-413411	14070	159	6137	-39	-2	9.3	4.0	259	-2	-1	6.6	3263	102	-1.9	110	0.376					
30-47.8642-108.8283-2-15-	0-413414	13800	139	7139	83	-2	11.5	4.4	-196	-2	-1	11.1	4387	144	1.9	-26	0.341					
30-47.8631-108.8333-2-11-	0-413415	65390	470	22550	62	-2	12.1	3.9	681	6	-1	14.4	7082	135	3.7	-63	0.269					
30-47.8611-109.7631-2-11-	0-413417	23520	256	13370	-42	-2	5.4	5.4	-202	-2	-1	9.8	2894	57	3.7	-63	0.263					
30-47.8331-109.7842-2-15-	0-413418	23750	321	10350	69	-2	13.3	4.2	313	-2	-1	7.9	4406	139	2.5	167	0.580					
30-47.9342-108.9267-2-11-	0-413420	24160	337	15330	72	-1	5.3	4.6	-256	-2	-1	9.0	2664	45	2.6	-50	0.277					
30-47.8964-108.9325-2-15-	0-413421	15150	276	12490	53	-2	9.9	3.4	-210	-2	-1	7.9	3160	121	-1.6	135	0.339					
30-47.8964-108.9349-2-15-	0-413422	17730	242	14790	71	-2	7.9	3.9	275	-2	-1	7.5	3488	101	2.7	-76	0.328					
30-47.8914-108.9294-2-15-	0-413423	22680	254	15790	55	-2	7.2	4.3	-176	-2	-1	5.9	2719	50	2.4	-63	0.336					
30-47.9981-109.9214-2-15-	0-413424	17830	275	11780	98	-2	12.2	4.6	-259	-3	-1	11.8	3517	200	2.5	202	0.325					
30-47.9994-109.9205-2-15-	0-413425	25890	549	12450	95	-2	10.9	4.3	-261	-2	-1	8.5	3457	157	2.5	-38	0.374					
30-47.6442-108.7847-2-15-	0-413426	12520	271	17890	-50	-2	7.7	5.0	-222	-2	-1	7.6	3858	96	3.4	144	0.382					
30-47.7200-108.9508-2-15-	0-413427	12920	243	19030	-42	-2	7.0	4.1	337	-2	-1	7.2	3184	82	2.6	-62	0.319					
30-47.7136-109.9497-2-15-	0-413428	13930	309	16310	-39	-2	9.7	5.2	355	-2	-1	9.4	4679	103	3.1	-60	0.324					
30-47.7239-109.9337-2-15-	0-413429	21750	244	14140	86	-1	9.7	4.8	-200	-2	-1	8.3	3475	100	2.2	-98	0.329					
30-47.7222-109.9392-2-15-	0-413430	17670	293	12460	-42	-2	4.5	3.4	316	-2	1	6.8	2990	72	-1.7	-62	0.326					
30-47.7103-108.9781-2-15-	0-413431	21750	324	18270	70	-2	12.4	3.8	-235	-2	-1	10.1	3931	187	-1.8	-93	0.363					
30-47.7089-108.9781-2-15-	0-413432	13710	340	9872	71	-2	10.5	4.2	-239	-2	-1	9.3	3263	162	2.9	-62	0.410					
30-47.7253-108.9844-2-15-	0-413434	17290	312	15540	73	-1	9.1	4.1	300	-2	-1	8.1	3291	93	3.0	103	0.341					
30-47.7247-108.9812-2-15-	0-413435	23730	305	13170	-45	-2	7.7	4.7	-200	-2	-1	8.5	3622	92	2.2	-64	0.328					
30-47.0322-109.0147-2-15-	0-413436	11900	403	928	-45	-2	7.1	3.3	-227	-2	-1	7.1	2950	67	2.9	-69	0.351					
30-47.0369-109.0461-2-15-	0-413437	13030	451	895	-43	-2	5.4	3.6	-248	-2	-1	7.5	2248	74	2.8	131	0.321					
30-47.0342-109.0775-2-15-	0-413439	14420	452	957	-41	-2	7.9	4.1	-206	-2	-1	7.9	4011	94	3.3	-81	0.341					
30-47.0419-109.0919-2-12-	0-413441	7377	375	998	-42	-2	3.8	2.9	-169	-2	-1	5.5	2429	58	-1.4	-60	0.460					
30-47.0400-109.1083-2-15-	0-413442	14740	413	921	-47	-2	4.2	3.8	-229	-2	-1	7.3	2901	75	2.7	-96	0.378					
30-47.0431-109.1267-2-12-	0-413443	11970	579	1028	-39	-1	5.1	4.3	-226	-2	-1	7.5	3160	76	2.6	-60	0.375					
30-47.6014-109.6992-2-15-	0-413445	19130	203	13380	-31	-2	12.3	5.9	284	-1	-1	11.1	3106	168	2.8	-42	0.344					
30-47.5203-108.7150-2-15-	0-413451	24750	425	14560	65	-2	11.0	4.5	-238	-1	-1	9.3	3686	156	2.9	140	0.362					
30-47.5228-108.6919-2-15-	0-413452	13030	588	14330	-29	-2	9.7	5.4	-274	-1	-1	9.8	3241	134	4.9	-37	0.345					
30-47.5300-108.6767-2-15-	0-413453	14850	393	12550	48	-1	9.0	5.6	-255	-1	-1	9.4	3535	123	3.5	120	0.346					
30-47.5475-108.6503-2-15-	0-413454	14240	450	14210	86	-2	11.4	5.3	-241	-1	-1	12.0	3932	191	3.0	105	0.313					
30-47.5381-108.6108-2-15-	0-413455	14400	507	20160	82	-1	9.4	5.3	-276	-1	1	8.2	3493	114	2.5	106	0.343					
30-47.5325-108.5764-2-15-	0-413456	15710	247	13370	60	-2	9.8	4.4	-216	-1	-1	9.8	3582	143	3.3	98	0.317					
30-47.5011-108.6592-2-15-	0-413457	9588	359	15150	-75	-1	7.2	4.2	-255	-1	-1	8.3	3084	86	3.1	93	0.316					
30-47.5217-108.6117-2-15-	0-413458	14150	365	18740	-30	-2	10.6	4.4	366	-1	-1	8.9	3164	141	3.0	239	0.360					
30-47.5192-108.4789-2-15-	0-413459	13010	422	10180	58	-1	10.2	3.9	255	-1	-1	9.0	3371	144	2.7	115	0.347					
30-47.5203-108.4809-2-15-	0-413460	15130	273	18340	-23	-1	7.6	5.7	-229	-1	-1	7.9	3660	123	2.8	100	0.389					
30-47.5292-108.4600-2-12-	0-413461	12330	442	8515	74	-2	12.6	5.0	-272	-1	-1	12.1	4107	194	2.9	109	0.297					

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

①

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)	SOUNDLOMER (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	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)	UNITS IN ppm
30-47.5329	-103.4567	-2-15-	0-410467	-09/22/79	-15-	22-	-	-	-	-	-	-	-	-	-	5-1-6-3-6-	-1-	-2-1-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.92		
30-47.5247	-108.4058	-2-12-	0-410467	-09/22/79	-15-	20-22.5	-	-	-	-	-	-	8.2-16570	-	-	4-1-6-5-6-	-2-	-2-1-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.75		
30-47.5236	-103.4033	-2-15-	0-410466	-03/22/73	-16-	20-	-	-	-	-	-	-	-	-	-	5-1-6-5-6-	-1-	-2-1-2-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.64		
30-47.5489	-103.5664	-2-15-	0-410465	-09/22/73	-17-	21-	-	-	-	-	-	-	-	-	-	3-1-7-5-6-	-1-	-2-1-2-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.83		
30-47.5508	-103.5582	-2-15-	0-410466	-09/22/79	-19-	10-	-	-	-	-	-	-	-	-	-	6-1-6-5-6-	-1-	-2-1-2-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.58		
30-47.5761	-109.4428	-2-15-	0-410467	-03/22/73	-18-	21-	-	-	-	-	-	-	-	-	-	4-1-6-5-6-	-1-	-2-4-3-4-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.70		
30-47.5900	-108.4394	-2-15-	0-410468	-08/22/73	-19-	22-	-	-	-	-	-	-	-	-	-	10-1-6-5-6-	-1-	-2-1-3-4-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.07		
30-47.5411	-103.4217	-2-12-	0-410469	-09/22/79	-17-	21-21.5	-	-	-	-	-	-	8.2-10010	-	-	5-1-6-5-6-	-2-	-2-4-3-3-3-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.82		
30-47.5436	-103.4242	-2-15-	0-410470	-09/22/73	-19-	21-	-	-	-	-	-	-	-	-	-	7-1-6-4-5-	-1-	-2-1-2-3-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.72		
30-47.6300	-109.5235	-2-15-	0-410471	-09/23/73	-11-	19-	-	-	-	-	-	-	-	-	-	5-1-6-4-5-	-1-	-2-3-2-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.69		
30-47.6161	-103.5611	-2-15-	0-410471	-09/22/73	-11-	22-	-	-	-	-	-	-	-	-	-	1-6-5-5-5-	-1-	-2-3-2-3-1-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.44		
30-47.1793	-109.6925	-2-15-	0-410474	-09/22/79	-16-	26-	-	-	-	-	-	-	-	-	-	9-1-7-5-5-	-1-	-3-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.89		
30-47.2431	-109.6136	-2-15-	0-410476	-09/22/79	-17-	25-	-	-	-	-	-	-	-	-	-	11-1-7-5-5-	-1-	-2-4-4-2-2-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.23		
30-47.2419	-109.5994	-2-15-	0-410477	-03/22/73	-17-	25-	-	-	-	-	-	-	-	-	-	4-1-7-5-5-	-1-	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.60		
30-47.2419	-109.5886	-2-15-	0-410478	-03/22/73	-17-	25-	-	-	-	-	-	-	-	-	-	9-1-7-5-7-	-1-	-2-4-4-2-3-	-1-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.62		
30-47.5347	-103.3681	-2-15-	0-410481	-03/22/73	-13-	27-	-	-	-	-	-	-	-	-	-	13-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.36		
30-47.5447	-109.3750	-2-15-	0-410483	-03/22/79	-13-	27-	-	-	-	-	-	-	-	-	-	4-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.71		
30-47.5444	-103.4036	-2-12-	0-410484	-08/22/79	-14-	28-18.9	-	-	-	-	-	-	7.7-3400	-	-	13-1-6-5-6-2-2-	-2-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.45		
30-47.5350	-109.4092	-2-15-	0-410487	-09/22/73	-14-	28-	-	-	-	-	-	-	-	-	-	11-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.14		
30-47.5344	-109.4194	-2-15-	0-410488	-09/22/73	-14-	28-	-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.71		
30-47.5269	-109.4594	-2-15-	0-410489	-08/22/73	-14-	28-	-	-	-	-	-	-	-	-	-	10-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.63		
30-47.5275	-109.4333	-2-15-	0-410500	-03/22/73	-14-	28-	-	-	-	-	-	-	-	-	-	13-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.45		
30-47.5644	-109.3847	-2-12-	0-410503	-09/22/73	-15-	27-21.1	-	-	-	-	-	-	8.6-3535	-	-	6-1-5-5-6-2-3-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.86		
30-47.5606	-109.4303	-2-15-	0-410504	-09/22/73	-15-	27-	-	-	-	-	-	-	-	-	-	6-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.37		
30-47.5561	-109.4719	-2-15-	0-410507	-09/22/73	-16-	26-	-	-	-	-	-	-	-	-	-	9-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.58		
30-47.5656	-109.4722	-2-15-	0-410509	-09/22/79	-16-	26-	-	-	-	-	-	-	-	-	-	16-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.95		
30-47.5794	-109.4717	-2-15-	0-410509	-09/22/73	-16-	26-	-	-	-	-	-	-	-	-	-	11-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.38		
30-47.6125	-109.4593	-2-15-	0-410511	-08/22/73	-16-	25-	-	-	-	-	-	-	-	-	-	13-1-6-5-1-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.01		
30-47.6197	-109.4559	-2-15-	0-410512	-09/22/79	-17-	25-	-	-	-	-	-	-	-	-	-	6-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.93		
30-47.6136	-109.4264	-2-15-	0-410514	-09/22/73	-17-	25-	-	-	-	-	-	-	-	-	-	15-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.10		
30-47.6028	-109.4192	-2-15-	0-410515	-03/22/79	-19-	25-	-	-	-	-	-	-	-	-	-	11-1-6-5-1-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.72		
30-47.5991	-109.4139	-2-15-	0-410516	-09/22/79	-19-	25-	-	-	-	-	-	-	-	-	-	6-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.49		
30-47.5936	-109.4075	-2-15-	0-410517	-09/22/73	-19-	25-	-	-	-	-	-	-	-	-	-	6-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.81		
30-47.5900	-109.3867	-2-15-	0-410519	-09/22/79	-19-	25-	-	-	-	-	-	-	-	-	-	18-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.83		
30-47.5814	-109.2753	-2-15-	0-410519	-09/22/73	-19-	25-	-	-	-	-	-	-	-	-	-	18-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.41		
30-47.5808	-109.2200	-2-15-	0-410520	-09/22/79	-19-	25-	-	-	-	-	-	-	-	-	-	13-1-5-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.51		
30-47.5878	-109.3812	-2-15-	0-410521	-09/22/79	-19-	24-	-	-	-	-	-	-	-	-	-	11-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.23		
30-47.6153	-109.9047	-2-15-	0-410522	-09/23/73	-11-	25-	-	-	-	-	-	-	-	-	-	9-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.23		
30-47.6161	-109.9233	-2-15-	0-410522	-09/23/73	-11-	25-	-	-	-	-	-	-	-	-	-	15-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.40		
30-47.6025	-109.9372	-2-15-	0-410524	-09/23/73	-11-	24-	-	-	-	-	-	-	-	-	-	9-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.68		
30-47.5953	-109.1319	-2-15-	0-410525	-09/23/73	-11-	25-	-	-	-	-	-	-	-	-	-	15-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.08		
30-47.5867	-109.1739	-2-15-	0-410526	-09/23/73	-12-	23-	-	-	-	-	-	-	-	-	-	9-1-5-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.52		
30-47.5858	-109.0319	-2-15-	0-410527	-09/23/79	-12-	28-	-	-	-	-	-	-	-	-	-	13-1-6-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.23		
30-47.5933	-109.0169	-2-15-	0-410528	-09/23/79	-12-	28-	-	-	-	-	-	-	-	-	-	6-1-5-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.41		
30-47.5344	-109.0679	-2-15-	0-410529	-09/23/79	-12-	28-	-	-	-	-	-	-	-	-	-	11-1-5-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.45		
30-47.5842	-109.0859	-2-15-	0-410530	-09/23/73	-12-	28-	-	-	-	-	-	-	-	-	-	8-1-5-5-5-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.33		
30-47.6089	-109.2603	-2-15-	0-410533	-09/23/79	-13-	29-	-	-	-	-	-	-	-	-	-	9-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.51		
30-47.6019	-109.2586	-2-15-	0-410534	-09/23/73	-13-	29-	-	-	-	-	-	-	-	-	-	12-1-6-5-6-	-1-	-2-4-3-2-2-	-3-	-	-	-	-	-											

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	
30-47.5328-103.4567-2-15-	30-47.5328	-103.4567	2-15-	30-47.5328	2-15-	30-47.5328	-5	4	-5	40	-20	51	7	-10	-15	2	63	
30-47.5247-103.4058-2-12-	30-47.5247	-103.4058	2-12-	30-47.5247	2-12-	30-47.5247	-5	-5	-5	41	-20	60	10	-10	-15	2	47	
30-47.5236-103.4033-2-15-	30-47.5236	-103.4033	2-15-	30-47.5236	2-15-	30-47.5236	-5	-5	-5	48	-20	35	9	-10	-15	2	65	
30-47.5489-103.5654-2-15-	30-47.5489	-103.5654	2-15-	30-47.5489	2-15-	30-47.5489	-5	-5	5	35	-20	35	7	-10	-15	2	66	
30-47.5503-103.5589-2-15-	30-47.5503	-103.5589	2-15-	30-47.5503	2-15-	30-47.5503	-5	-5	-5	44	-20	29	8	-10	-15	2	77	
30-47.5961-103.4429-2-15-	30-47.5961	-103.4429	2-15-	30-47.5961	2-15-	30-47.5961	-5	5	-5	35	-20	52	10	-10	-15	2	45	
30-47.5900-103.4394-2-15-	30-47.5900	-103.4394	2-15-	30-47.5900	2-15-	30-47.5900	-5	-5	-5	26	-20	19	7	-10	-15	2	46	
30-47.5411-103.4217-2-12-	30-47.5411	-103.4217	2-12-	30-47.5411	2-12-	30-47.5411	-5	5	-5	43	-20	54	16	-10	-15	1	43	
30-47.5436-103.4242-2-15-	30-47.5436	-103.4242	2-15-	30-47.5436	2-15-	30-47.5436	-5	-5	-5	53	-20	29	16	-10	-15	2	64	
30-47.6300-103.6235-2-15-	30-47.6300	-103.6235	2-15-	30-47.6300	2-15-	30-47.6300	-5	-5	5	31	-20	38	5	-10	-15	2	48	
30-47.6161-103.5511-2-15-	30-47.6161	-103.5511	2-15-	30-47.6161	2-15-	30-47.6161	-5	-5	-5	41	-20	30	9	-10	-15	2	42	
30-47.1383-103.6925-2-15-	30-47.1383	-103.6925	2-15-	30-47.1383	2-15-	30-47.1383	-5	-5	-5	33	-20	23	6	-10	-15	2	35	
30-47.2431-103.6135-2-15-	30-47.2431	-103.6135	2-15-	30-47.2431	2-15-	30-47.2431	-5	-5	-5	21	-20	-15	40	-10	-15	1	25	
30-47.2419-103.5994-2-15-	30-47.2419	-103.5994	2-15-	30-47.2419	2-15-	30-47.2419	-5	5	-5	24	-20	-15	13	-10	-15	1	36	
30-47.2419-103.5886-2-15-	30-47.2419	-103.5886	2-15-	30-47.2419	2-15-	30-47.2419	-5	-5	-5	20	-20	-15	8	-10	-15	2	28	
30-47.5367-103.3581-2-15-	30-47.5367	-103.3581	2-15-	30-47.5367	2-15-	30-47.5367	-5	5	-5	38	-20	-15	8	-10	-15	2	37	
30-47.5447-103.3750-2-15-	30-47.5447	-103.3750	2-15-	30-47.5447	2-15-	30-47.5447	-5	-5	-5	22	-20	-15	7	-10	-15	1	35	
30-47.5444-103.4035-2-12-	30-47.5444	-103.4035	2-12-	30-47.5444	2-12-	30-47.5444	-5	-5	-5	14	-20	-15	6	-10	-15	2	37	
30-47.5350-103.4092-2-15-	30-47.5350	-103.4092	2-15-	30-47.5350	2-15-	30-47.5350	-5	-5	-5	25	-20	-15	5	-10	-15	2	59	
30-47.5344-103.4124-2-15-	30-47.5344	-103.4124	2-15-	30-47.5344	2-15-	30-47.5344	-5	7	-5	24	-20	21	6	-10	-15	2	49	
30-47.5269-103.4594-2-15-	30-47.5269	-103.4594	2-15-	30-47.5269	2-15-	30-47.5269	-5	-5	-5	26	-20	-15	-5	-10	-15	2	43	
30-47.5275-103.4333-2-15-	30-47.5275	-103.4333	2-15-	30-47.5275	2-15-	30-47.5275	-5	-5	-5	18	-20	21	11	-10	-15	2	31	
30-47.5544-103.3947-2-12-	30-47.5544	-103.3947	2-12-	30-47.5544	2-12-	30-47.5544	-5	5	-5	22	-20	15	-5	-10	-15	2	46	
30-47.5606-103.4303-2-15-	30-47.5606	-103.4303	2-15-	30-47.5606	2-15-	30-47.5606	-5	5	-5	31	-20	15	6	-10	-15	2	50	
30-47.5561-103.4719-2-15-	30-47.5561	-103.4719	2-15-	30-47.5561	2-15-	30-47.5561	-5	-5	-5	25	-20	15	-5	-10	-15	2	41	
30-47.5656-103.4722-2-15-	30-47.5656	-103.4722	2-15-	30-47.5656	2-15-	30-47.5656	-5	-5	-5	20	-20	19	-5	-10	-15	1	38	
30-47.5794-103.4717-2-15-	30-47.5794	-103.4717	2-15-	30-47.5794	2-15-	30-47.5794	-5	5	-5	32	-20	-15	6	-10	-15	2	42	
30-47.6125-103.4583-2-15-	30-47.6125	-103.4583	2-15-	30-47.6125	2-15-	30-47.6125	-5	5	-5	23	-20	-15	-5	-10	-15	2	23	
30-47.6197-103.4558-2-15-	30-47.6197	-103.4558	2-15-	30-47.6197	2-15-	30-47.6197	-5	-5	-5	17	-20	-15	6	-10	-15	2	31	
30-47.6136-103.4264-2-15-	30-47.6136	-103.4264	2-15-	30-47.6136	2-15-	30-47.6136	-5	-5	-5	25	-20	-15	6	-10	-15	2	76	
30-47.6028-103.4192-2-15-	30-47.6028	-103.4192	2-15-	30-47.6028	2-15-	30-47.6028	-5	11	-5	12	-20	-15	-5	-10	-15	2	33	
30-47.5981-103.4139-2-15-	30-47.5981	-103.4139	2-15-	30-47.5981	2-15-	30-47.5981	-5	-5	-5	39	-20	-15	6	-10	-15	2	40	
30-47.5936-103.4075-2-15-	30-47.5936	-103.4075	2-15-	30-47.5936	2-15-	30-47.5936	-5	-5	-5	11	-20	-15	9	-10	-15	2	39	
30-47.5900-103.3867-2-15-	30-47.5900	-103.3867	2-15-	30-47.5900	2-15-	30-47.5900	-5	-5	-5	12	-20	-15	-5	-10	-15	2	39	
30-47.5814-103.2753-2-15-	30-47.5814	-103.2753	2-15-	30-47.5814	2-15-	30-47.5814	-5	5	-5	29	-20	15	7	-10	-15	2	63	
30-47.5808-103.2200-2-15-	30-47.5808	-103.2200	2-15-	30-47.5808	2-15-	30-47.5808	-5	5	-5	31	-20	-15	8	-10	-15	2	41	
30-47.5878-103.3819-2-15-	30-47.5878	-103.3819	2-15-	30-47.5878	2-15-	30-47.5878	-5	-5	-5	29	-20	-15	12	-10	-15	2	45	
30-47.6153-103.4047-2-15-	30-47.6153	-103.4047	2-15-	30-47.6153	2-15-	30-47.6153	-5	-5	-5	37	-20	27	8	-10	-15	3	71	
30-47.6161-103.9233-2-15-	30-47.6161	-103.9233	2-15-	30-47.6161	2-15-	30-47.6161	-5	-5	-5	43	-20	25	11	-10	-15	3	66	
30-47.6225-103.9372-2-15-	30-47.6225	-103.9372	2-15-	30-47.6225	2-15-	30-47.6225	-5	-5	-5	28	-20	22	14	-10	-15	2	46	
30-47.5953-103.1319-2-15-	30-47.5953	-103.1319	2-15-	30-47.5953	2-15-	30-47.5953	-5	-5	-5	22	-20	-15	-5	-10	-15	2	46	
30-47.5967-103.1739-2-15-	30-47.5967	-103.1739	2-15-	30-47.5967	2-15-	30-47.5967	-5	5	-5	20	-20	16	6	-10	-15	2	36	
30-47.5858-103.0319-2-15-	30-47.5858	-103.0319	2-15-	30-47.5858	2-15-	30-47.5858	-5	-5	-5	17	-20	15	-5	-10	-15	2	28	
30-47.5833-103.0169-2-15-	30-47.5833	-103.0169	2-15-	30-47.5833	2-15-	30-47.5833	-5	-5	-5	28	-20	15	-5	-10	-15	2	44	
30-47.5844-103.0678-2-15-	30-47.5844	-103.0678	2-15-	30-47.5844	2-15-	30-47.5844	-5	-5	-5	15	-20	-15	-5	-10	-15	2	25	
30-47.5842-103.0358-2-15-	30-47.5842	-103.0358	2-15-	30-47.5842	2-15-	30-47.5842	-5	5	-5	23	-20	17	-5	-10	-15	3	80	
30-47.6089-103.2403-2-15-	30-47.6089	-103.2403	2-15-	30-47.6089	2-15-	30-47.6089	-5	4	-5	30	-20	15	6	-10	-15	2	43	
30-47.6019-103.2586-2-15-	30-47.6019	-103.2586	2-15-	30-47.6019	2-15-	30-47.6019	-5	5	-5	29	-20	23	13	-10	-15	2	49	
30-47.6139-103.3011-2-15-	30-47.6139	-103.3011	2-15-	30-47.6139	2-15-	30-47.6139	-5	-5	-5	33	-20	20	-5	-10	-15	2	35	
30-47.6125-103.3469-2-15-	30-47.6125	-103.3469	2-15-	30-47.6125	2-15-	30-47.6125	-5	-5	-5	23	-20	-15	10	-10	-15	2	38	
30-47.5833-103.3462-2-15-	30-47.5833	-103.3462	2-15-	30-47.5833	2-15-	30-47.5833	-5	-5	-5	24	-20	13	18	-10	-15	2	27	

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	U.S. 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
30-47.5328-103.4557-2-15-			0-412468			71847	-0.05	919	17430	64	-75	21.8	90	5.9	6	1.6	51720	6.8	21640	34	0.4	
30-47.5247-103.4058-2-12-			0-412458			76309	-0.05	747	10300	53	-58	13.6	91	7.3	5	1.5	47150	4.5	20780	37	0.3	
30-47.5236-103.4033-2-15-			0-412458			73547	-0.03	915	8330	75	-78	20.7	87	7.1	5	1.7	43000	5.7	19810	35	0.4	
30-47.5489-103.5664-2-15-			0-412455			65600	-0.07	609	43340	51	-100	11.5	78	6.5	4	1.2	32850	3.5	14500	30	0.3	
30-47.5509-103.5589-2-15-			0-412455			75120	-0.05	524	27920	57	-75	15.4	85	6.6	4	1.6	39920	3.8	19320	30	0.4	
30-47.5961-103.4428-2-15-			0-412459			79027	-0.07	679	5570	63	-74	16.0	83	6.4	5	1.4	36020	3.9	20260	34	0.3	
30-47.5900-103.4394-2-15-			0-412453			64270	-0.05	892	16150	67	-69	9.2	95	4.2	5	1.7	28460	5.6	15990	32	0.4	
30-47.5411-103.4217-2-12-			0-412453			63927	-0.05	4294	29260	63	-90	23.3	105	5.4	5	2.0	59430	7.3	16390	37	0.4	
30-47.5436-103.4242-2-15-			0-412470			73250	-0.06	724	15250	56	-91	18.5	79	6.4	4	1.6	48810	5.5	22430	35	0.4	
30-47.6300-103.6235-2-15-			0-412471			62270	-0.05	922	11340	61	-75	13.9	85	5.8	4	1.3	42660	4.6	19770	37	0.3	
30-47.6161-103.5511-2-15-			0-412473			67730	-0.07	7083	15390	61	-74	11.8	76	4.9	5	1.6	31840	4.9	18180	31	0.4	
30-47.1983-103.6925-2-15-			0-412474			53527	-0.05	626	34790	61	104	7.2	60	4.3	5	1.3	24010	7.0	16740	34	0.4	
30-47.2431-103.6135-2-15-			0-412475			45910	-0.05	663	46940	42	136	4.8	50	2.5	3	1.2	19520	7.4	16180	22	0.3	
30-47.2419-103.5994-2-15-			0-412477			49360	-0.05	640	10950	53	-55	5.9	50	3.3	4	1.2	19320	10.4	16220	27	0.4	
30-47.2419-103.5886-2-15-			0-412473			56040	-0.06	609	31030	59	-55	4.6	48	3.4	4	1.1	18090	7.6	16440	29	0.3	
30-47.5367-103.3681-2-15-			0-412493			71357	-0.05	552	12850	57	-72	9.7	57	5.3	5	1.3	26350	5.2	17090	35	0.3	
30-47.5447-103.3750-2-15-			0-412493			61640	-0.05	449	10560	70	125	7.4	61	3.6	4	1.4	21960	9.6	18390	35	0.4	
30-47.5444-103.4036-2-12-			0-412495			50990	-0.05	594	31040	51	115	7.5	36	2.9	4	1.2	18430	7.2	17660	27	0.3	
30-47.5350-103.4092-2-15-			0-412497			73670	-0.07	574	23430	70	-63	7.1	45	5.9	5	1.3	21930	5.3	21220	30	0.4	
30-47.5344-103.4194-2-15-			0-412498			67410	-0.06	653	19280	59	80	7.8	42	5.1	4	1.3	23970	5.9	21570	32	0.4	
30-47.5269-103.4594-2-15-			0-412499			63640	-0.05	715	12770	47	-79	8.2	62	3.7	3	1.2	22030	5.6	18650	25	0.4	
30-47.5275-103.4333-2-15-			0-412500			62110	-0.05	563	8353	57	187	8.4	57	4.0	4	1.4	22090	6.4	19100	31	0.3	
30-47.5644-103.3847-2-12-			0-412503			56330	-0.05	643	34770	60	192	5.6	39	4.1	5	1.1	17820	7.4	18340	28	0.3	
30-47.5606-103.4303-2-15-			0-412504			62750	-0.06	609	25190	53	132	6.9	49	4.8	4	1.4	23600	5.3	18680	29	0.4	
30-47.5551-103.4719-2-15-			0-412507			59550	-0.05	569	32120	64	128	8.1	57	3.6	4	1.3	21670	7.7	19430	32	0.4	
30-47.5656-103.4722-2-15-			0-412508			52510	-0.04	735	16310	51	-71	6.9	50	2.8	4	1.2	18020	7.3	15580	29	0.3	
30-47.5744-103.4717-2-15-			0-412509			60520	-0.06	477	16470	61	168	6.7	48	3.2	5	1.3	20100	6.9	18280	30	0.4	
30-47.6125-103.4583-2-15-			0-412511			44940	-0.04	444	47300	43	-70	4.1	22	2.3	3	1.2	12580	4.7	18320	23	0.3	
30-47.6197-103.4558-2-15-			0-412512			55330	-0.05	578	38390	67	107	6.6	37	3.6	4	1.2	19260	6.6	20270	34	0.3	
30-47.6136-103.4264-2-15-			0-412514			52270	-0.05	797	61490	53	241	10.4	41	4.5	3	1.2	27800	4.3	12930	28	0.3	
30-47.6028-103.4192-2-15-			0-412515			49690	-0.04	552	40980	67	-76	4.1	23	2.5	4	1.3	12560	9.0	17720	31	0.4	
30-47.5981-103.4139-2-15-			0-412515			57020	-0.05	627	32420	59	-75	5.7	44	3.6	4	1.3	20310	6.3	20640	28	0.4	
30-47.5936-103.4075-2-15-			0-412517			57850	-0.04	514	32980	57	71	7.0	46	4.4	4	1.3	18060	6.3	19630	33	0.3	
30-47.5800-103.3867-2-15-			0-412518			59990	-0.05	569	59490	56	106	6.2	42	3.1	4	1.3	15960	7.3	15150	29	0.3	
30-47.5814-103.2753-2-15-			0-412519			54430	-0.05	727	16920	64	-108	3.2	48	3.2	4	1.4	20510	5.4	15200	31	0.4	
30-47.5808-103.2200-2-15-			0-412520			74960	-0.06	903	7019	60	-65	11.7	72	5.8	4	1.6	32200	4.2	19050	35	0.4	
30-47.5878-103.3819-2-15-			0-412521			66090	-0.05	903	14190	51	-73	7.9	61	4.7	4	1.2	23120	6.4	18830	32	0.3	
30-47.6153-103.9047-2-15-			0-412522			70160	-0.04	855	13420	56	-56	12.0	83	5.2	5	1.4	34690	5.3	19740	33	0.4	
30-47.6161-103.9233-2-15-			0-412523			75910	-0.07	717	9335	61	-53	13.2	108	6.6	5	1.3	31580	4.6	24740	30	0.3	
30-47.6025-103.9372-2-15-			0-412524			70750	-0.06	873	13650	65	-55	10.7	78	5.9	5	1.3	32580	5.4	20910	31	0.4	
30-47.5953-103.1319-2-15-			0-412525			61520	-0.05	555	23390	63	-67	6.2	46	3.6	4	1.2	19340	6.9	21260	33	0.4	
30-47.5867-103.1739-2-15-			0-412526			58390	-0.05	675	23350	57	-67	7.5	41	3.5	4	1.2	20410	6.5	18310	32	0.4	
30-47.5958-103.0319-2-15-			0-412527			60590	-0.06	727	15000	56	-63	6.1	70	3.1	4	1.4	20330	7.0	18520	29	0.4	
30-47.5833-103.0169-2-15-			0-412528			52640	-0.05	586	39150	55	-77	6.5	47	3.5	4	1.4	19700	5.7	17080	27	0.3	
30-47.5844-103.0678-2-15-			0-412529			49640	-0.04	575	25540	56	-70	4.1	33	2.3	3	1.1	12750	6.6	16290	26	0.4	
30-47.5842-103.0853-2-15-			0-412529			56730	-0.05	657	35060	51	-67	9.0	68	3.4	3	1.1	25150	5.7	15210	31	0.3	
30-47.6089-103.2603-2-15-			0-412533			63810	-0.06	825	9989	65	-67	8.6	59	4.5	4	1.3	22480	5.7	15600	29	0.3	
30-47.6019-103.2585-2-15-			0-412534			62740	-0.06	725	2267	56	-88	11.4	77	5.5	4	1.6	32460	5.6	18130	31	0.3	
30-47.6119-103.3011-2-15-			0-412536			53740	-0.07	887	8866	50	203	6.7	69	3.6	4	1.4	21150	6.9	14910	29	0.3	
30-47.6125-103.3463-2-15-			0-412537			52510	-0.07	577	44270	50	-77	6.8	35	4.1	4	1.3	18010	5.3	17180	26	0.3	
30-47.5833-103.3469-2-15-			0-412539			55690	-0.06	746	31710	54	-77	9.3	33	3.2	4	1.4	27120	6.6	17140	31	0.3	

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

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DOE SAMPLE NUMBER						LAJL SAMPLE LOCATION NUMBER AND FIELD DATA																		U CONCENTRATION											
STATE	LATITUDE	LONGITUDE	LAJL LAD	SAMPLE TYPE	REPLICATE	LAJL SAMPLE LOCATION NUMBER	TIME SAMPLED		AIR TEMPERATURE	WATER TEMPERATURE	COMMENTS	SPECM MEASUREMENTS	pH	CONDUCTIVITY (umho/cm)	SOLVENTER (elt 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	WELL TYPE	WELL DIAMETER (INCHES)	WELL DEPTH (FEET)	WATER DEPTH (FEET)	SEDIMENT SAMPLES ANALYZED BY DELAYED NEUTRON COUNTING (DNC)	UNITS IN ppm
							DATE	HT/TP																											
30-47.5403-109.3453-2-15-						0-412541-09/23/79-15-	23-									9-1-6-5-6-	-1-	-2-4-3-2-2-	-3-															2.92	
30-47.5672-109.3396-2-15-						0-412542-09/23/79-15-	23-									9-1-6-5-6-	-1-	-2-4-3-2-2-	-3-															2.49	
30-47.5528-109.3114-2-15-						0-412543-09/23/79-15-	23-									18-1-6-5-6-	-1-	-2-4-3-2-2-	-3-															2.13	
30-47.5531-109.3022-2-15-						0-412544-09/23/79-15-	20-									12-1-6-5-6-	-1-	-2-4-3-2-2-	-3-															2.66	
30-47.5558-109.3235-2-15-						0-412547-09/23/79-15-	20-									6-1-5-5-5-	-1-	-2-4-3-2-2-	-3-															2.72	
30-47.7072-109.7175-2-15-						0-412557-09/25/79-14-	20-									8-1-5-4-5-	-1-	-2-3-3-4-1-	-3-															2.06	
30-47.7047-109.7150-2-15-						0-412551-09/25/79-14-	20-									9-1-6-5-6-	-1-	-2-3-3-4-1-	-3-															2.42	
30-47.7072-109.7111-2-15-						0-412552-09/25/79-14-	20-									11-1-6-5-7-	-1-	-3-3-4-1-	-3-															3.22	
30-47.7106-109.7072-2-15-						0-412553-09/25/79-14-	20-									4-1-5-5-7-	-1-	-2-3-3-4-1-	-3-															2.55	
30-47.7225-109.6972-2-15-						0-412554-09/25/79-14-	20-									8-1-5-4-7-	-1-	-2-3-3-4-1-	-3-															2.27	
30-47.7306-109.6908-2-15-						0-412555-09/25/79-14-	20-									11-1-6-5-7-	-1-	-2-3-3-4-1-	-3-															2.25	
30-47.7342-109.6900-2-15-						0-412556-09/25/79-14-	20-									15-1-6-5-5-	-1-	-2-3-3-4-1-	-3-															2.05	
30-47.7356-109.6909-2-15-						0-412557-09/25/79-14-	20-									8-1-6-5-5-	-1-	-2-3-3-4-1-	-3-															2.59	
30-47.7369-109.6561-2-15-						0-412558-09/25/79-14-	20-									12-1-6-5-6-	-1-	-2-3-3-4-1-	-3-															3.44	
30-47.7364-109.6108-2-15-						0-412559-09/25/79-14-	20-									5-1-5-4-6-	-1-	-2-3-3-4-1-	-3-															2.51	
30-47.7439-109.5858-2-15-						0-412560-09/25/79-15-	23-									4-1-6-4-5-	-1-	-2-2-3-4-1-	-3-															2.57	
30-47.7411-109.5553-2-15-						0-412561-09/25/79-15-	23-									6-1-6-5-6-	-1-	-2-3-3-4-1-	-3-															2.51	
30-47.7392-109.5478-2-15-						0-412562-09/25/79-15-	23-									5-1-6-4-5-	-1-	-2-3-3-4-1-	-3-															2.64	
30-47.7428-109.5325-2-15-						0-412563-09/25/79-15-	20-									8-1-6-4-6-	-1-	-2-3-3-4-1-	-3-															2.60	
30-47.7456-109.5281-2-15-						0-412564-09/25/79-15-	20-									11-1-6-4-6-	-1-	-2-3-3-4-1-	-3-															2.48	
30-47.7428-109.5186-2-15-						0-412565-09/25/79-15-	20-									4-1-5-4-7-	-1-	-2-3-3-4-1-	-3-															2.33	
30-47.7431-109.5064-2-15-						0-412566-09/25/79-15-	20-									5-1-6-4-7-	-1-	-2-3-3-4-1-	-3-															2.40	
30-47.7339-109.4994-2-15-						0-412567-09/25/79-15-	20-									9-1-6-4-7-	-1-	-2-3-3-4-1-	-3-															2.52	
30-47.7286-109.4775-2-15-						0-412568-09/25/79-15-	27-									6-1-6-5-6-	-1-	-2-3-3-4-1-	-3-															3.04	
30-47.7231-109.4506-2-15-						0-412569-09/25/79-15-	27-									6-1-6-5-5-	-1-	-2-3-3-4-1-	-1-															2.83	
30-47.7222-109.4342-2-15-						0-412570-09/25/79-15-	27-									4-1-6-5-6-	-1-	-2-3-3-4-1-	-1-															3.26	
30-47.7244-109.4300-2-15-						0-412571-09/25/79-17-	27-									9-1-6-4-5-	-1-	-2-3-3-4-1-	-1-															2.33	
30-47.7313-109.4028-2-15-						0-412572-09/25/79-17-	27-									9-1-6-5-6-	-1-	-2-3-3-4-1-	-1-															2.54	
30-47.7425-109.3517-2-15-						0-412573-09/25/79-2-	24-									16-1-6-4-6-	-1-	-2-3-3-4-2-	-3-															2.49	
30-47.7494-109.3467-2-15-						0-412574-09/26/79-9-	24-									9-1-6-4-1-	-1-	-2-3-3-4-2-	-3-															2.62	
30-47.7533-109.3344-2-15-						0-412575-09/26/79-9-	24-									8-1-6-4-1-	-1-	-2-3-3-4-2-	-3-															2.57	
30-47.7569-109.3314-2-15-						0-412576-09/26/79-9-	24-									9-1-6-4-5-	-1-	-2-3-3-4-2-	-3-															2.58	
30-47.7544-109.3192-2-15-						0-412577-09/26/79-9-	24-									13-1-6-4-5-	-1-	-2-3-3-4-2-	-3-															2.52	
30-47.7609-109.3122-2-15-						0-412578-09/26/79-9-	24-									5-1-6-4-1-	-1-	-2-3-3-4-2-	-3-															2.71	
30-47.7606-109.3051-2-15-						0-412579-09/26/79-10-	24-									11-1-6-4-5-	-1-	-2-3-3-4-2-	-3-															2.61	
30-47.7578-109.2992-2-15-						0-412580-09/26/79-10-	24-									6-1-5-4-5-	-1-	-2-3-3-4-2-	-3-															3.07	
30-47.7772-109.2872-2-15-						0-412581-09/26/79-10-	24-									15-1-6-4-1-	-1-	-2-3-3-4-2-	-3-															2.76	
30-47.7911-109.2856-2-15-						0-412582-09/26/79-10-	24-									12-1-5-4-1-	-1-	-2-3-3-4-2-	-3-															2.77	
30-47.7367-109.2856-2-15-						0-412583-09/26/79-11-	24-									5-1-6-4-6-	-1-	-2-3-3-4-2-	-3-															2.65	
30-47.7928-109.2786-2-15-						0-412584-09/26/79-11-	24-									9-1-5-4-6-	-1-	-2-3-3-4-2-	-3-															2.79	
30-47.7953-109.2706-2-15-						0-412585-09/26/79-11-	24-									9-1-6-4-5-	-1-	-2-3-3-4-2-	-3-															3.02	
30-47.7953-109.2485-2-15-						0-412586-09/26/79-11-	24-									5-1-6-4-6-	-1-	-2-4-3-4-2-	-3-															3.03	
30-47.7894-109.2217-2-15-						0-412587-09/26/79-11-	26-									9-1-6-5-5-	-1-	-2-3-3-4-2-	-3-															3.70	
30-47.7964-109.2156-2-15-						0-412588-09/26/79-12-	26-									16-1-6-5-5-	-1-	-2-3-3-4-2-	-3-															2.72	
30-47.7964-109.2108-2-15-						0-412589-09/26/79-12-	26-									9-1-6-5-1-	-1-	-2-3-3-4-2-	-3-															2.62	
30-47.7881-109.1942-2-15-						0-412590-09/26/79-12-	25-									16-1-6-5-6-	-1-	-2-3-3-4-2-	-3-															2.53	
30-47.7928-109.1906-2-15-						0-412591-09/26/79-12-	25-									9-1-6-4-6-	-1-	-2-3-3-4-2-	-3-															2.68	
30-47.7736-109.1628-2-15-						0-412592-09/26/79-12-	25-									11-1-6-4-6-	-1-	-2-3-3-4-2-	-3-															2.72	
30-47.7831-109.1619-2-15-						0-412593-09/26/79-12-	26-									9-1-6-4-5-	-1-	-2-3-3-4-2-	-1-															2.21	
30-47.7869-109.1223-2-15-						0-412594-09/26/79-12-</																													

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	
30-47.5333-109.3458-2-15-	0-410541	-5	-5	-5	24	-20	34	17	-10	-15						2	29	
30-47.5672-109.3386-2-15-	0-410542	-5	-5	-5	32	-20	22	15	-10	-15						2	29	
30-47.5528-109.3114-2-15-	0-410543	-5	-5	-5	16	-20	20	6	-10	-15						2	30	
30-47.5531-109.3022-2-15-	0-410544	-5	-5	-5	32	-20	-15	16	-10	-15						2	33	
30-47.5558-109.3235-2-15-	0-410547	-5	-5	-5	29	-20	24	12	-10	-15						2	28	
30-47.7072-109.7175-2-15-	0-410550	-5	-5	-5	15	-20	-15	-5	-10	-15						1	25	
30-47.7047-109.7150-2-15-	0-410551	-5	-5	-5	26	-20	17	-5	-10	-15						1	41	
30-47.7072-109.7111-2-15-	0-410552	-5	-5	-5	33	-20	17	-5	-10	-15						2	42	
30-47.7106-109.7072-2-15-	0-410553	-5	-5	-5	31	-20	22	7	-10	-15						2	31	
30-47.7225-109.6972-2-15-	0-410554	-5	-5	-5	26	-20	16	-5	-10	-15						1	26	
30-47.7306-109.6908-2-15-	0-410555	-5	-5	-5	17	-20	31	8	-10	-15						1	26	
30-47.7342-109.6900-2-15-	0-410556	-5	-5	-5	21	-20	35	-5	-10	-15						1	29	
30-47.7356-109.6808-2-15-	0-410557	-5	-5	-5	22	-20	13	8	-10	-15						1	31	
30-47.7369-109.6561-2-15-	0-410558	-5	-5	-5	34	-20	17	10	-10	-15						2	29	
30-47.7264-109.6103-2-15-	0-410559	-5	-5	-5	16	-20	-15	9	-10	-15						1	25	
30-47.7439-109.5858-2-15-	0-410560	-5	-5	-5	25	-20	15	9	-10	-15						1	26	
30-47.7411-109.5553-2-15-	0-410561	-5	-5	-5	22	-20	19	-5	-10	-15						2	30	
30-47.7392-109.5479-2-15-	0-410562	-5	-5	-5	28	-20	-15	-5	-10	-15						2	32	
30-47.7428-109.5325-2-15-	0-410563	-5	-5	-5	16	-20	-15	7	-10	-15						1	24	
30-47.7456-109.5281-2-15-	0-410564	-5	-5	-5	18	-20	20	5	-10	-15						1	36	
30-47.7428-109.5185-2-15-	0-410565	-5	-5	-5	21	-20	-15	-5	-10	-15						1	26	
30-47.7431-109.5064-2-15-	0-410566	-5	-5	-5	18	-20	16	-5	-10	-15						1	26	
30-47.7339-109.4994-2-15-	0-410567	-5	-5	-5	24	-20	-15	-5	-10	-15						1	33	
30-47.7286-109.4775-2-15-	0-410568	-5	-5	-5	24	-20	-15	10	-10	-15						2	43	
30-47.7231-109.4506-2-15-	0-410569	-5	-5	-5	35	-20	13	6	-10	-15						1	37	
30-47.7222-109.4342-2-15-	0-410570	-5	-5	-5	30	-20	-15	9	-10	-15						1	35	
30-47.7244-109.4300-2-15-	0-410571	-5	-5	-5	19	-20	-15	5	-10	-15						1	25	
30-47.7319-109.4028-2-15-	0-410572	-5	-5	-5	25	-20	16	5	-10	-15						1	28	
30-47.7425-109.3617-2-15-	0-410573	-5	-5	-5	21	-20	-15	5	-10	-15						1	23	
30-47.7494-109.3467-2-15-	0-410574	-5	-5	-5	24	-20	-15	-5	-10	-15						1	18	
30-47.7533-109.3344-2-15-	0-410575	-5	-5	-5	15	-20	-15	7	-10	-15						1	20	
30-47.7569-109.3314-2-15-	0-410576	-5	-5	-5	14	-20	17	6	-10	-15						1	38	
30-47.7544-109.3192-2-15-	0-410577	-5	-5	-5	21	-20	-15	5	-10	-15						1	20	
30-47.7608-109.3122-2-15-	0-410578	-5	-5	-5	18	-20	-15	-5	-10	-15						1	22	
30-47.7606-109.3061-2-15-	0-410579	-5	-5	-5	30	-20	-15	-5	-10	-15						2	32	
30-47.7678-109.2992-2-15-	0-410580	-5	-5	-5	19	-20	-15	-5	-10	-15						1	28	
30-47.7772-109.2872-2-15-	0-410581	-5	-5	-5	20	-20	-15	5	-10	-15						1	27	
30-47.7811-109.2856-2-15-	0-410582	-5	-5	-5	18	-20	-15	-5	-10	-15						1	33	
30-47.7857-109.2856-2-15-	0-410583	-5	-5	-5	26	-20	-15	-5	-10	-15						1	24	
30-47.7928-109.2789-2-15-	0-410584	-5	-5	-5	21	-20	18	0	-10	-15						1	23	
30-47.7953-109.2708-2-15-	0-410585	-5	-5	-5	18	-20	-15	-5	-10	-15						1	31	
30-47.7953-109.2489-2-15-	0-410586	-5	-5	-5	34	-20	24	6	-10	-15						2	36	
30-47.7894-109.2217-2-15-	0-410587	-5	-5	-5	29	-20	-15	5	-10	-15						1	50	
30-47.7964-109.2150-2-15-	0-410588	-5	-5	-5	14	-20	-15	-5	-10	-15						1	27	
30-47.7964-109.2108-2-15-	0-410589	-4	-4	-4	19	-19	-14	-4	-9	-14						1	17	
30-47.7881-109.1942-2-15-	0-410590	-5	-5	-5	22	-20	-15	8	-10	-15						2	45	
30-47.7928-109.1906-2-15-	0-410591	-5	-5	-5	29	-20	-15	8	-10	-15						2	42	
30-47.7786-109.1628-2-15-	0-410592	-5	-5	-5	19	-20	22	5	-10	-15						2	40	
30-47.7831-109.1619-2-15-	0-410593	-5	-5	-5	10	-20	16	-5	-10	-15						2	33	
30-47.7869-109.1225-2-15-	0-410594	-5	-5	-5	18	-20	-15	-5	-10	-15						2	31	
30-47.7822-109.1247-2-15-	0-410595	-5	-5	-5	18	-20	-15	6	-10	-15						1	31	

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
30-47.5903-109.3458-2-15-			0-419541			51920	-0.07	1403	36780	63	-77	10.0	63	3.8	4	1.7	30500	8.8	19730	32	0.4	
30-47.5572-109.3385-2-15-			0-419542			59970	-0.07	958	12320	51	-72	7.9	65	3.5	4	1.5	24600	6.6	18420	26	0.4	
30-47.5528-109.3114-2-15-			0-419543			57130	-0.05	732	11730	45	-71	5.9	49	3.2	4	1.1	17410	6.6	16530	26	0.3	
30-47.5531-109.3022-2-15-			0-419544			59720	-0.05	937	14240	62	103	3.0	60	3.6	4	1.4	21450	7.5	16220	31	0.4	
30-47.5558-109.3236-2-15-			0-419547			51390	-0.09	1070	12440	45	-64	9.5	67	3.2	4	1.4	22630	6.3	19520	27	0.4	
30-47.7072-109.7175-2-15-			0-419550			52640	-0.05	755	21010	60	-60	5.8	35	2.4	4	1.5	14750	6.7	12850	31	0.3	
30-47.7047-109.7150-2-15-			0-419551			52540	-0.07	774	29320	44	-82	8.0	76	3.9	3	1.3	26200	5.3	15520	25	0.3	
30-47.7072-109.7111-2-15-			0-419552			61730	-0.06	731	25680	54	-61	9.0	56	3.8	4	1.4	23580	7.3	20510	34	0.3	
30-47.7106-109.7072-2-15-			0-419553			69930	-0.09	708	22510	55	-66	7.5	46	3.3	4	1.3	22020	7.1	14720	26	0.3	
30-47.7225-109.6972-2-15-			0-419554			59290	-0.05	770	20110	51	-71	7.3	91	2.5	4	1.4	21620	7.1	15920	28	0.3	
30-47.7306-109.6908-2-15-			0-419555			62190	-0.06	928	21210	33	-85	9.3	130	2.7	3	1.7	27850	8.6	15550	26	0.3	
30-47.7342-109.6900-2-15-			0-419556			63360	-0.06	608	23680	37	-79	9.3	65	2.5	3	1.3	23760	5.9	14390	23	0.2	
30-47.7356-109.6808-2-15-			0-419557			51390	-0.07	826	30050	56	-61	5.5	39	2.7	3	1.7	16590	5.9	15530	22	0.3	
30-47.7369-109.6561-2-15-			0-419558			55390	-0.07	761	26250	58	99	6.4	46	4.5	5	1.7	23460	6.7	17990	32	0.3	
30-47.7264-109.6108-2-15-			0-419559			52620	-0.05	610	32370	59	-74	5.9	36	2.5	4	1.4	17580	7.8	14910	30	0.3	
30-47.7439-109.5858-2-15-			0-419560			52620	-0.05	633	31590	57	-69	7.6	49	3.4	4	1.5	18260	8.1	15420	30	0.3	
30-47.7411-109.5553-2-15-			0-419561			59700	-0.09	640	23210	55	117	6.8	58	2.9	4	1.3	19150	5.7	14380	24	0.4	
30-47.7392-109.5478-2-15-			0-419562			51960	-0.07	751	25600	51	-63	7.8	59	3.6	4	1.3	25480	5.9	18410	29	0.3	
30-47.7428-109.5325-2-15-			0-419563			52570	-0.05	611	31220	51	-73	5.7	38	3.4	4	1.4	15520	5.7	19510	27	0.3	
30-47.7456-109.5281-2-15-			0-419564			60770	-0.06	546	21470	52	-73	9.1	45	3.7	4	1.3	21940	5.7	17170	26	0.3	
30-47.7428-109.5186-2-15-			0-419565			52500	-0.07	642	25610	59	115	5.5	47	2.9	4	1.0	16390	6.8	16810	28	0.3	
30-47.7431-109.5064-2-15-			0-419566			46600	-0.05	725	31250	53	-61	5.3	36	2.6	4	1.1	13370	7.4	14920	30	0.3	
30-47.7339-109.4994-2-15-			0-419567			54670	-0.06	607	29540	53	-74	6.9	35	2.8	4	1.2	15920	6.2	17920	29	0.3	
30-47.7286-109.4775-2-15-			0-419568			61520	-0.06	592	30120	63	69	8.4	49	3.8	4	1.3	22270	7.1	17780	31	0.3	
30-47.7231-109.4506-2-15-			0-419569			51730	-0.07	642	35540	64	99	5.9	28	3.6	5	1.9	14520	6.7	16880	29	0.4	
30-47.7222-109.4342-2-15-			0-419570			57040	-0.07	635	27470	59	102	7.3	65	4.3	4	1.4	24960	5.7	17510	29	0.3	
30-47.7244-109.4300-2-15-			0-419571			56310	-0.06	658	27170	49	129	6.6	48	3.2	4	1.2	20150	4.9	16180	24	0.3	
30-47.7319-109.4028-2-15-			0-419572			59040	-0.06	653	30040	54	-73	6.2	55	3.3	4	1.4	22820	5.5	17040	27	0.3	
30-47.7425-109.3617-2-15-			0-419573			50380	-0.07	780	28470	59	108	5.5	37	2.2	4	1.1	13780	6.4	16700	26	0.3	
30-47.7494-109.3467-2-15-			0-419574			54010	-0.06	774	28210	49	-67	5.1	41	3.0	4	1.2	18190	4.8	17270	29	0.4	
30-47.7533-109.3344-2-15-			0-419575			52610	-0.06	620	30930	61	-76	6.1	32	2.9	4	1.2	14790	6.9	14190	29	0.4	
30-47.7569-109.3314-2-15-			0-419576			54330	-0.06	671	22870	50	104	6.0	48	2.7	4	1.3	19120	5.1	15980	26	0.3	
30-47.7544-109.3192-2-15-			0-419577			51230	-0.07	770	24220	55	130	6.0	35	2.8	4	1.5	14530	6.2	16750	24	0.3	
30-47.7508-109.3122-2-15-			0-419578			51150	-0.06	651	28500	51	-72	5.7	36	3.2	4	1.3	15600	6.0	21190	34	0.3	
30-47.7606-109.3061-2-15-			0-419579			52090	-0.06	835	26300	55	145	6.1	48	2.8	4	1.3	15930	6.3	14480	30	0.4	
30-47.7578-109.2992-2-15-			0-419580			54130	-0.05	938	26240	55	72	8.5	76	3.3	4	1.5	22220	11.2	16980	33	0.4	
30-47.7772-109.2872-2-15-			0-419581			56640	-0.07	920	18870	59	-71	6.3	47	2.8	4	1.5	17870	5.7	15780	25	0.4	
30-47.7811-109.2854-2-15-			0-419582			54770	-0.06	840	18060	55	-62	6.9	64	2.9	4	1.4	19370	5.6	15530	28	0.4	
30-47.7867-109.2856-2-15-			0-419583			55250	-0.06	780	23880	55	134	7.0	40	2.5	4	1.2	17480	6.0	16080	27	0.3	
30-47.7928-109.2789-2-15-			0-419584			56090	-0.06	620	30990	55	-80	6.9	48	3.4	4	1.2	17630	6.8	18320	31	0.4	
30-47.7953-109.2708-2-15-			0-419585			57730	-0.07	920	21970	57	69	7.4	55	3.8	4	1.4	19910	6.7	16510	31	0.3	
30-47.7953-109.2489-2-15-			0-419586			59330	-0.07	932	14850	56	155	8.4	57	3.4	4	1.3	22470	5.0	15290	31	0.3	
30-47.7974-109.2217-2-15-			0-419587			71290	-0.08	651	23150	72	-74	8.4	65	6.1	5	1.5	27010	5.7	19720	39	0.4	
30-47.7964-109.2150-2-15-			0-419588			54600	-0.06	857	21930	55	138	7.7	58	3.1	4	1.4	20760	6.1	15310	33	0.3	
30-47.7964-109.2108-2-15-			0-419589			52900	-0.07	858	23300	48	74	5.2	47	2.8	4	1.5	18610	6.7	14160	27	0.4	
30-47.7981-109.1942-2-15-			0-419590			53000	-0.05	625	26830	48	89	5.7	42	3.9	4	1.4	17610	5.6	17910	25	0.3	
30-47.7928-109.1906-2-15-			0-419591			54490	-0.05	610	27000	53	-80	6.7	35	2.9	4	1.2	16000	5.2	17290	31	0.3	
30-47.7786-109.1628-2-15-			0-419592			54490	-0.07	615	20110	54	-72	9.4	77	2.9	4	1.4	21460	5.6	16860	33	0.3	
30-47.7831-109.1519-2-15-			0-419593			50830	-0.05	761	20960	49	-78	5.7	32	2.2	4	1.2	13900	5.1	16950	26	0.3	
30-47.7869-109.1225-2-15-			0-419594			49760	-0.05	590	28930	57	76	5.8	29	2.9	4	1.2	14020	5.0	16450	27	0.3	
30-47.7922-109.1247-2-15-			0-419595			48410	-0.04	570	29680	57	121	4.4	35	3.4	4	1.0	15820	5.3	14650	28	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	U.S. 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	
30-47.5303-109.3459-2-15-						0-412541	15250	905	10970	-38	-2	5.3	4.9	-276	-2	-1	7.7	3294	77	2.9	-55	0.365
30-47.5672-109.3386-2-15-						0-412542	10670	432	11510	60	-2	7.3	4.1	-223	-2	-1	8.4	3431	74	3.0	132	0.296
30-47.5528-109.3114-2-15-						0-412543	11170	233	12350	57	-1	5.0	3.7	-200	-2	-1	7.4	3233	75	2.8	-46	0.288
30-47.5531-109.3022-2-15-						0-412544	14510	345	11750	59	-1	7.4	4.7	-196	-1	-1	9.4	3681	90	2.7	83	0.283
30-47.5558-109.3236-2-15-						0-412547	12050	374	10140	55	-2	7.5	4.6	-204	-2	-1	8.5	3781	98	2.3	184	0.320
30-47.7072-109.7175-2-15-						0-412550	13940	233	11930	50	-1	5.3	5.1	275	-1	1	7.0	2915	55	3.8	-45	0.294
30-47.7047-109.7150-2-15-						0-412551	23940	292	14220	64	-2	3.9	3.7	-235	-2	-1	7.4	3127	95	2.4	-50	0.327
30-47.7072-109.7111-2-15-						0-412552	24170	258	1223	52	-2	7.9	5.6	-133	-1	-1	8.5	3550	114	3.1	176	0.379
30-47.7106-109.7072-2-15-						0-412553	22020	293	11570	-37	-2	7.9	5.2	303	-2	-1	7.3	3771	94	3.2	79	0.349
30-47.7225-109.6972-2-15-						0-412554	17810	228	14570	57	-2	7.3	3.8	337	-1	-1	6.0	3787	78	2.0	83	0.378
30-47.7306-109.6903-2-15-						0-412555	14720	127	14520	-30	-2	7.8	3.8	-235	-2	-1	6.4	4935	93	1.9	-44	0.352
30-47.7342-109.6900-2-15-						0-412556	19200	306	17750	-30	-1	7.5	3.8	-206	-1	-1	5.7	3032	86	2.1	-82	0.360
30-47.7355-109.5803-2-15-						0-412557	24170	265	9902	-35	-2	5.3	4.3	229	-2	-1	6.8	2974	75	2.4	38	0.381
30-47.7369-109.5561-2-15-						0-412558	23530	248	7132	52	-2	7.4	4.5	-172	-2	-1	8.6	3247	106	3.0	-31	0.400
30-47.7254-109.6108-2-15-						0-412559	21050	207	12880	54	-1	5.5	4.5	-212	-1	-1	7.5	3136	49	3.8	-39	0.330
30-47.7439-109.5958-2-15-						0-412560	23640	329	12350	43	-1	5.0	4.7	257	-1	-1	7.5	3281	69	2.8	-32	0.343
30-47.7411-109.5553-2-15-						0-412561	24940	295	15240	-36	-2	5.8	4.7	-199	-2	-1	7.5	3318	70	2.7	46	0.335
30-47.7392-109.5478-2-15-						0-412562	24590	289	12970	63	-2	9.8	4.1	-189	-2	-1	7.0	3328	93	2.6	75	0.377
30-47.7428-109.5325-2-15-						0-412563	24600	261	12320	-29	-1	5.4	4.2	-210	-2	-1	8.3	2294	48	2.9	-44	0.313
30-47.7456-109.5281-2-15-						0-412564	22410	254	15530	-29	-1	7.5	4.2	-139	-1	-1	7.5	2524	78	2.7	-42	0.331
30-47.7428-109.5186-2-15-						0-412565	23600	262	13560	-32	-2	5.7	4.0	-184	-1	-1	7.3	3266	59	2.6	-32	0.319
30-47.7431-109.5064-2-15-						0-412566	23860	265	12790	52	-1	4.8	4.7	-170	-1	-1	7.3	2555	46	2.2	-46	0.329
30-47.7339-109.4994-2-15-						0-412567	23190	288	12310	70	-1	5.7	4.4	-219	-1	-1	7.7	2932	52	2.9	-42	0.340
30-47.7244-109.4775-2-15-						0-412568	24720	313	10220	72	-2	7.8	4.3	-194	-2	-1	9.5	3278	91	3.8		0.320
30-47.7231-109.4506-2-15-						0-412569	29570	312	14420	76	-2	5.3	5.0	-204	-2	-1	8.8	2545	49	3.3	-54	0.322
30-47.7222-109.4342-2-15-						0-412570	23710	264	9525	64	-2	9.0	4.7	234	-2	-1	9.0	3734	102	3.1	115	0.362
30-47.7434-109.4300-2-15-						0-412571	22340	254	12970	-30	-1	5.4	4.0	-215	-2	-1	6.8	2441	62	2.1	107	0.343
30-47.7319-109.4028-2-15-						0-412572	24590	283	14370	59	-1	7.4	4.4	-196	-1	-1	9.0	3124	71	2.9	55	0.282
30-47.7425-109.3617-2-15-						0-412573	23930	292	14610	-31	-2	5.0	4.3	293	-1	-1	7.5	2962	52	3.3	-46	0.332
30-47.7434-109.3467-2-15-						0-412574	23250	259	13370	54	-2	6.4	4.2	-186	-1	-1	7.8	2304	56	3.4	129	0.336
30-47.7533-109.3344-2-15-						0-412575	24090	270	14110	42	-1	5.3	4.5	-217	-2	-1	8.1	2145	44	2.6	-40	0.317
30-47.7569-109.3314-2-15-						0-412576	17800	287	19160	52	-1	6.4	3.8	-212	-2	1	7.7	3250	67	2.8	-44	0.335
30-47.7544-109.3192-2-15-						0-412577	22710	282	15210	65	-2	5.3	4.4	-203	-2	-1	7.8	2913	61	3.4	-55	0.323
30-47.7608-109.3122-2-15-						0-412578	21070	294	15410	54	-1	5.5	4.2	-192	-1	-1	7.9	2770	47	3.3	-46	0.343
30-47.7606-109.3061-2-15-						0-412579	22890	265	15690	36	-1	5.5	4.5	-229	-2	-1	8.0	2770	57	1.9	-46	0.326
30-47.7678-109.2902-2-15-						0-412580	22220	303	12850	51	-1	5.7	4.8	204	-1	-1	8.6	3923	86	2.8	118	0.357
30-47.7772-109.2872-2-15-						0-412581	20420	395	14200	-35	-2	6.1	5.0	-199	-2	-1	8.6	2895	77	3.1	52	0.321
30-47.7911-109.2856-2-15-						0-412582	14270	265	13100	56	-1	6.5	4.5	203	-1	-1	8.5	2829	75	2.9	62	0.326
30-47.7867-109.2856-2-15-						0-412583	17670	292	14990	-29	-1	5.9	4.6	-225	-2	-1	8.2	2246	67	2.5	-43	0.323
30-47.7928-109.2789-2-15-						0-412584	21150	291	14390	63	-1	5.1	4.4	-205	-1	-1	8.3	2561	60	3.0	54	0.336
30-47.7953-109.2708-2-15-						0-412585	17870	284	13150	45	-2	5.5	4.9	371	-2	-1	7.8	3227	95	2.2	-30	0.387
30-47.7353-109.2489-2-15-						0-412586	17050	267	14470	-35	-2	9.1	5.1	-204	-2	-1	8.2	3703	94	2.7	101	0.370
30-47.7894-109.2217-2-15-						0-412587	21560	317	9861	-37	-2	17.0	4.6	-246	-2	-1	10.7	3586	139	2.8	-56	0.346
30-47.7964-109.2150-2-15-						0-412588	20940	290	17750	-30	-1	5.3	4.8	314	-1	-1	7.4	2956	78	2.9	60	0.368
30-47.7964-109.2108-2-15-						0-412589	23440	263	13890	-34	-2	6.0	4.3	301	-1	-1	6.6	3413	71	3.2	58	0.397
30-47.7381-109.1942-2-15-						0-412590	21340	282	12350	71	-1	5.3	4.5	-187	-1	-1	8.1	2933	57	2.6	38	0.312
30-47.7928-109.1906-2-15-						0-412591	24400	291	14350	50	-1	5.7	4.2	-235	-1	1	8.2	2945	50	2.7	-40	0.327
30-47.7796-109.1429-2-15-						0-412592	22640	290	13770	-39	-2	7.4	4.7	-198	-2	-1	8.1	3225	84	3.1	111	0.335
30-47.7831-109.1519-2-15-						0-412593	23070	235	14430	75	-1	4.9	3.9	-215	-2	-1	7.2	2533	45	2.6	82	0.307
30-47.7859-109.1225-2-15-						0-412594	25690	295	13310	57	-1	4.8	5.2	-191	-1	-1	7.7	2590	47	2.4	79	0.326
30-47.7922-109.1247-2-15-						0-412595	25520	290	14290	50	-1	5.2	4.7	-199	-1	-1	7.9	2793	48	2.8	62	0.305

[illegible]

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	
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	
30-47.7369-109.0944-2-15-						7-413524	-5	-5	-5	12	-20	-15	-5	-10	-15	2	32	
30-47.7906-109.1111-2-15-						7-410597	-5	-5	-5	21	-20	16	-5	-10	-15	2	56	
30-47.7972-109.0767-2-15-						7-413593	-5	-5	-5	20	-20	-15	-5	-10	-15	2	39	
30-47.8022-109.0781-2-15-						7-413590	-5	-5	-5	20	-20	-15	-5	-10	-15	2	43	
30-47.7936-109.0568-2-15-						7-413590	-5	-5	-5	19	-20	-15	-5	-10	-15	1	44	
30-47.7978-109.0229-2-15-						7-413501	-5	-5	-5	24	-20	18	5	-10	-15	1	36	
30-47.8083-109.0150-2-15-						7-413507	-5	-5	-5	30	-20	19	5	-10	-15	2	60	
30-47.8053-109.9911-2-15-						7-413507	-5	-5	-5	32	-20	-15	-5	-10	-15	2	40	
30-47.7994-109.9919-2-15-						7-413504	-5	-5	-5	24	-20	-15	-5	-10	-15	2	40	
30-47.7975-108.9453-2-15-						7-413505	-5	-5	-5	20	-20	-15	-5	-10	-15	1	31	
30-47.7942-108.9436-2-15-						7-413506	-5	-5	-5	11	-20	-15	5	-10	-15	2	33	
30-47.7792-108.9511-2-15-						7-413507	-5	-5	-5	18	-20	-15	-5	-10	-15	1	29	
30-47.7735-108.9535-2-15-						7-413508	-5	-5	-5	22	-20	-15	-5	-10	-15	2	29	
30-47.7589-108.9475-2-15-						7-413507	-5	-5	-5	29	-20	25	5	-10	-15	2	45	
30-47.7431-109.9429-2-15-						7-413510	-5	-5	-5	14	-20	-15	-5	-10	-15	2	35	
30-47.7428-109.9479-2-15-						7-413511	-5	-5	-5	15	-20	-15	-5	-10	-15	2	43	
30-47.7314-109.9272-2-15-						7-413512	-5	-5	-5	23	-20	-15	-5	-10	-15	2	40	
30-47.7335-108.9019-2-15-						7-413513	-5	-5	-5	38	-20	30	8	-10	-15	2	46	
30-47.7375-108.9014-2-15-						7-413514	-5	-5	-5	24	-20	18	11	-10	-15	2	54	
30-47.7339-108.8809-2-15-						7-413515	-5	-5	-5	39	-20	19	10	-10	-15	2	58	
30-47.7300-108.8583-2-15-						7-413516	-5	-5	-5	30	-20	21	7	-10	-15	2	65	
30-47.7250-108.8531-2-15-						7-413517	-5	-5	-5	29	-20	25	-5	-10	-15	2	60	
30-47.7189-108.8514-2-15-						7-413518	-5	-5	-5	22	-20	27	-5	-10	-15	1	49	
30-47.7061-108.8119-2-15-						7-413519	-5	-5	-5	45	-20	24	-5	-10	-15	2	45	
30-47.7017-108.8164-2-15-						7-413520	-5	-5	-5	27	-20	17	5	-10	-15	2	69	
30-47.6947-108.7919-2-15-						7-413521	-5	-5	-5	30	-20	33	-5	-10	-15	2	54	
30-47.6857-108.7986-2-15-						7-413522	-5	-5	-5	21	-20	15	8	-10	-15	2	49	
30-47.6844-108.7961-2-15-						7-413523	-5	-5	-5	17	-20	-15	-5	-10	-15	2	50	
30-47.6814-108.7922-2-15-						7-413524	-5	-5	-5	27	-20	33	7	-10	-15	2	62	
30-47.6511-109.7397-2-15-						7-413525	-5	-5	-5	21	-20	26	7	-10	-15	2	46	
30-47.6514-109.7456-2-15-						7-413526	-5	-5	-5	40	-20	24	-5	-10	-15	2	51	
30-47.6517-108.7269-2-15-						7-413527	-5	-5	-5	42	-20	36	-5	-10	-15	2	72	
30-47.2606-109.9575-2-15-						7-413529	-5	-5	-5	29	-20	29	16	-10	-15	2	46	
30-47.3442-109.9372-2-15-						7-413530	-5	-5	-5	37	-20	25	16	-10	-15	2	66	
30-47.3450-109.8733-2-15-						7-413531	-5	-5	-5	23	-20	18	7	-10	-15	2	36	
30-47.3597-109.8519-2-15-						7-413532	-5	-5	-5	26	-20	-15	7	-10	-15	2	43	
30-47.3278-109.8303-2-15-						7-413533	-5	-5	-5	30	-20	-15	5	-10	-15	1	46	
30-47.3172-109.8272-2-15-						7-413534	-5	-5	-5	19	-20	15	8	-10	-15	2	57	
30-47.3033-109.8500-2-15-						7-413535	-5	-5	-5	15	-20	17	14	-10	-15	1	87	
30-47.2733-109.7258-2-12-						7-413536	-5	-5	-5	37	-20	30	-5	-10	-15	2	41	
30-47.2831-109.7328-2-15-						7-413537	-5	-5	-5	28	-20	15	13	-10	-15	2	75	
30-47.2872-109.7317-2-15-						7-413538	-5	-5	-5	30	-20	22	9	-10	-15	3	113	
30-47.2992-109.7383-2-15-						7-413539	-5	-5	-5	41	-20	27	7	-10	18	2	84	
30-47.3069-109.5475-2-15-						7-413545	-5	-5	-5	34	-20	34	12	-10	-15	1	35	
30-47.3222-109.5519-2-15-						7-413546	-5	-5	-5	23	-20	-15	8	-10	-15	1	33	
30-47.3339-109.5417-2-15-						7-413547	-5	-5	-5	31	-20	15	-5	-10	-15	1	40	
30-47.3539-109.5358-2-12-						7-413548	-5	-5	-5	34	-20	18	12	-10	-15	2	41	
30-47.2797-109.5953-2-12-						7-413549	-5	-5	-5	14	-20	-15	9	-10	-15	2	29	

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	Bar	Ca	Ce	Cl	Co	Cr	Cs	Dy	Eu	Fe	Hf	K	La	Lu
30-47.7969-109.0944-2-15-	0-413595	46700	-0.04	535	27400	52	-75	5.2	37	2.2	4	1.1	13940	6.6	15290	26	0.4					
30-47.7906-109.1111-2-15-	0-410597	61500	-0.05	544	26910	62	72	7.7	48	4.8	4	1.2	22720	5.9	17270	35	0.3					
30-47.7972-109.0767-2-15-	0-410598	51190	-0.05	535	28850	61	-71	6.3	45	2.9	4	1.2	16900	6.7	15510	29	0.4					
30-47.8022-109.0781-2-15-	0-410599	43470	-0.04	552	32750	56	90	5.3	34	2.8	4	1.2	16540	6.9	15360	30	0.3					
30-47.7936-109.0508-2-15-	0-410600	51840	-0.04	522	31610	54	-79	5.0	33	3.1	4	1.2	16610	5.8	18240	31	0.3					
30-47.7978-109.0239-2-15-	0-413601	56060	-0.04	550	27950	59	-73	6.2	43	2.4	3	1.1	17260	6.3	16260	27	0.3					
30-47.8033-109.0150-2-15-	0-413602	62100	-0.04	550	27050	61	-70	9.6	63	5.4	4	1.2	32160	5.0	16750	31	0.4					
30-47.8053-109.9911-2-15-	0-413603	58200	-0.05	597	30190	55	122	6.0	50	3.3	4	1.3	20720	7.4	18500	30	0.3					
30-47.7994-109.9819-2-15-	0-413604	53860	-0.04	555	24230	42	-73	4.8	30	2.0	3	1.1	13180	4.1	16870	25	0.3					
30-47.7975-109.9653-2-15-	0-413605	53550	-0.04	582	26350	53	-71	6.4	47	2.5	4	1.3	16160	6.2	14980	29	0.3					
30-47.7942-109.9435-2-15-	0-413606	59400	-0.05	792	25680	43	-73	5.8	39	2.5	3	1.1	15810	4.0	14880	24	0.2					
30-47.7792-109.9511-2-15-	0-413607	58170	-0.04	651	24970	53	-83	5.3	31	1.9	3	1.0	13890	4.4	17530	25	0.3					
30-47.7736-109.9536-2-15-	0-413608	56580	-0.04	723	23300	45	-75	4.6	39	1.7	3	1.1	13620	4.9	16400	25	0.3					
30-47.7689-109.9475-2-15-	0-413609	55580	-0.05	684	22890	53	-62	8.8	52	3.6	4	1.2	22170	6.5	16940	27	0.2					
30-47.7481-109.9428-2-15-	0-413610	55930	-0.05	764	27110	43	-71	4.0	54	1.9	3	1.1	13770	4.1	14990	25	0.2					
30-47.7428-109.9474-2-15-	0-413611	57950	-0.05	841	23320	49	-82	6.0	42	2.6	4	1.2	15910	3.7	14940	27	0.2					
30-47.7314-109.9272-2-15-	0-413612	55190	-0.05	540	25150	57	-78	7.3	43	3.7	4	1.1	20460	5.4	18190	27	0.3					
30-47.7336-109.9017-2-15-	0-413613	62230	-0.05	818	26200	56	112	9.7	63	4.5	4	1.3	27270	6.4	19430	32	0.3					
30-47.7375-109.9014-2-15-	0-413614	54010	-0.05	828	21310	54	-70	7.7	59	4.3	4	1.3	21350	5.1	16450	29	0.3					
30-47.7339-109.8808-2-15-	0-413615	67500	-0.05	884	23060	59	-67	7.3	68	5.3	4	1.4	27150	6.2	17580	35	0.3					
30-47.7300-109.8683-2-15-	0-413616	65410	-0.06	717	22870	58	141	9.0	69	5.1	4	1.6	26020	6.1	19390	32	0.4					
30-47.7250-109.8531-2-15-	0-413617	53730	-0.05	639	23250	54	-72	10.6	59	5.0	4	1.2	26170	4.9	16730	27	0.3					
30-47.7182-109.8514-2-15-	0-413618	60090	-0.05	877	21500	58	-73	8.6	66	3.6	4	1.0	21730	5.4	19050	28	0.4					
30-47.7061-109.8119-2-15-	0-413619	62020	-0.05	888	15460	51	-79	9.4	54	4.1	4	1.1	26190	6.0	17590	29	0.3					
30-47.7017-109.8164-2-15-	0-413620	72270	-0.05	737	14570	52	-82	10.5	77	5.4	4	1.4	29680	4.7	16810	30	0.3					
30-47.6947-109.7919-2-15-	0-413621	62810	-0.05	736	17170	51	-85	11.1	58	4.6	4	1.3	24690	5.0	16730	29	0.3					
30-47.6847-109.7986-2-15-	0-413622	58060	-0.06	670	27270	61	-83	7.2	56	4.1	4	1.5	18290	5.8	15920	28	0.4					
30-47.6844-109.7961-2-15-	0-413623	60240	-0.05	737	28090	52	83	6.5	44	2.9	4	1.3	18080	4.5	16820	26	0.3					
30-47.6814-109.7922-2-15-	0-413624	72770	-0.07	824	15430	50	-85	10.2	73	4.4	4	1.2	30030	5.8	16130	30	0.4					
30-47.6611-109.7897-2-15-	0-413625	61580	-0.06	783	17670	58	-79	10.5	65	3.7	5	1.4	24420	5.0	17600	30	0.4					
30-47.6514-109.7656-2-15-	0-413626	67360	-0.07	1543	15150	72	-73	12.6	81	4.9	5	1.2	35910	6.3	18980	31	0.3					
30-47.6517-109.7262-2-15-	0-413627	72340	-0.06	1231	13120	59	-87	11.2	78	4.9	5	1.4	34370	5.2	17400	32	0.4					
30-47.2606-109.9575-2-15-	0-413628	53240	-0.06	627	54610	61	184	7.0	59	3.1	3	1.3	20890	5.6	17630	33	0.2					
30-47.3442-109.9172-2-15-	0-413629	49930	-0.05	650	51660	45	431	7.5	48	4.3	3	1.2	20470	6.4	16490	32	0.3					
30-47.3450-109.8733-2-15-	0-413630	51210	-0.07	831	22250	67	-74	8.4	52	4.1	4	1.3	24870	5.7	18180	30	0.3					
30-47.3597-109.8519-2-15-	0-413631	61350	-0.05	670	33510	57	167	5.5	34	3.5	4	1.4	19900	7.5	15500	31	0.3					
30-47.3278-109.8303-2-15-	0-413632	62000	-0.05	642	16040	65	125	6.4	47	4.1	4	1.3	20980	6.5	18050	29	0.3					
30-47.3172-109.8272-2-15-	0-413633	42800	-0.06	700	36440	60	653	9.6	59	3.7	4	1.2	25380	6.1	15360	31	0.3					
30-47.3033-109.8600-2-15-	0-413634	51010	-0.08	553	65170	43	744	6.4	54	3.8	3	1.0	19250	2.6	12560	26	0.2					
30-47.2733-109.7258-2-12-	0-413635	46970	-0.05	2009	33880	76	144	10.9	57	3.1	4	1.7	34380	9.3	14770	37	0.3					
30-47.2831-109.7328-2-15-	0-413641	55250	-0.05	1135	47370	56	-65	5.4	48	4.3	4	1.0	24990	7.2	16970	34	0.3					
30-47.2872-109.7317-2-15-	0-413642	59840	-0.05	244	14660	62	252	9.3	90	5.8	4	1.5	29800	6.2	22730	38	0.3					
30-47.2992-109.7383-2-15-	0-413643	64320	-0.07	222	44300	54	-60	6.4	59	5.6	5	1.2	23160	4.2	22140	34	0.3					
30-47.3069-109.5475-2-15-	0-413644	61740	-0.06	737	20890	61	-77	7.9	65	3.4	5	1.6	23090	11.6	15680	41	0.4					
30-47.3222-109.5512-2-15-	0-413645	54120	-0.05	542	14280	60	-60	6.2	46	3.3	3	1.4	20930	7.2	14900	30	0.3					
30-47.3339-109.5417-2-15-	0-413646	51020	-0.05	553	25450	60	-63	8.6	60	3.4	4	1.4	21420	9.7	16250	32	0.3					
30-47.3539-109.5358-2-12-	0-413647	61210	-0.06	528	15870	58	-69	7.3	56	4.1	4	1.5	22930	7.3	21920	29	0.3					
30-47.2797-109.5953-2-12-	0-413648	49090	-0.04	325	12990	47	-64	3.2	32	2.4	3	1.1	12610	7.0	15790	26	0.2					

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APPENDIX II

STANDARD LASL HSSR PROCEDURES AND CODES

APPENDIX II-A

Summary of Standard LASL HSSR Field and Analytical Procedures

APPENDIX II-B

Explanation of Codes Used in Appendix I

APPENDIX II-C

Key to Sample Types Listed in Appendix I

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 directly into one each, prewashed and sealed, 41-ml reactor "rabbit" and 25-ml vial (both polyethylene). Water samples in both the rabbit and vial 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. 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 sieved through a 100-mesh stainless steel sieve. The minus 100-mesh 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.

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. A conductivity of 50 000 $\mu\text{mho/cm}$ was assigned to any water sample for which the actual conductivity exceeded that value, the maximum measurable value on the instrument used. 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.

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. 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 0.20-ml aliquots of water are transferred to platinum dishes. 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 the appropriate data listings, is then the average obtained from the duplicate aliquots. The lower limit of detection for each aliquot by the normal procedure is 0.2 ppb; however, in some areas many samples have uranium concentrations below this. Consequently, when a sample run by the normal procedure is determined to have <0.2 ppb uranium, it is routinely reanalyzed using new duplicate aliquots that have been put through an additional evaporative concentration step that provides a 10X concentration factor. This additional procedure, using the same basic fluorometric method, reduces the lower limit of detection of uranium in natural waters to 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. Whether concentrated or not

(which can be determined from the uranium level in the listing), 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 Water Samples by Delayed-Neutron Counting (DNC)

Only waters with >40 ppb uranium (as determined by fluorometry at the LASL, where this is the upper limit of detection without recalibration) or those with impurities that cause interference with uranium-induced fluorescence are analyzed using DNC. Samples are received in 41-ml or 25-ml vials (used exclusively in some of the early work) and are transferred to clean, labeled, 41-ml rabbits before being analyzed. Each water sample is weighed, and its weight (less that of the rabbit) and location number are recorded. The rabbits are then loaded into a 25-sample transfer clip. The reactor pneumatic transfer system and background radiation levels are checked and four standards are run for calibration. The transfer clip is installed on the pneumatic feed line and the samples are cycled through the system (typically, a 60-s irradiation, 30-s delay, and 60-s count cycle is used). The uranium concentration is automatically measured, converted to ppb, and entered into a computer data base. The lower detection limit for uranium in water by DNC as used at the LASL is 0.5 ppb. The statistical error of this method is $\approx 20\%$ at a uranium concentration of 1 ppb, $\approx 6\%$ at 10 ppb, and $<4\%$ at 40 ppb or greater. Statistical treatments of uranium concentrations obtained from the same suites of samples analyzed both by fluorometry and DNC have shown that there is no significant difference between the results of the two analytical methods as used at the LASL. This analytical comparability is rechecked periodically.

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 multi-channel 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_{α} 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 minus 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 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

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 ($^{\circ}\text{C}$).

WATER TEMPERATURE: The temperature measured in the sample water (in situ whenever possible) at the time of sampling, to the nearest one-half of one 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
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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

WELL TYPE: If a well water sample, the single digit in this column provides a general description of the type of well from which the sample was taken, as given below.

1 = Windmill-stock	4 = Suction pump	7 = Hand bail
2 = Windmill-domestic	5 = Jet pump	8 = Unknown
3 = Submersible pump	6 = Large turbine	9 = Other

WELL DIAMETER: When shown, the one or two digits in this column give the measured or estimated inside diameter, in inches, of the well casing from which the water sample came.

WELL DEPTH: When shown, the one, two, or three digits in this column give the total drilled depth from the surface, in feet, of the well from which the sample came. Three 9s in this column indicates a well depth greater than 1000 ft.

WATER DEPTH: When shown, the one, two, or three digits in this column give the known depth, in feet, from the surface to the standing water in the well. A -1 in this column indicates a flowing artesian well.

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

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).
- 08 - Well 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.
- 15 - Dry stream sediment sample dried at $\leq 100^\circ\text{C}$ (if necessary) and sieved to -100 mesh through stainless steel sieves.
- 99 - Dry spring sediment sample dried at $\leq 100^\circ\text{C}$ (if necessary) and sieved to -100 mesh through stainless steel sieves.

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After IntraSearch, 1979.

SCALE 1:250 000

GEOLOGIC MAP OF THE LEWISTOWN NTMS QUADRANGLE, MONTANA.

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EXPLANATION

CENOZOIC	SEDIMENTARY	QUATERNARY
Q	Q ₁	Q
	Q ₂	
	Q ₃	
T	T ₁	
	T ₂	
	T ₃	
K	K ₁	
	K ₂	
	K ₃	
C	C ₁	
	C ₂	
	C ₃	
J	J ₁	
	J ₂	
	J ₃	
M	M ₁	
	M ₂	
	M ₃	
D	D ₁	
	D ₂	
	D ₃	
P	P ₁	
	P ₂	
	P ₃	

STRATIGRAPHIC LEGEND

QUATERNARY	SEDIMENTARY	QUATERNARY
Q ₁	Alluvium	Q ₁
Q ₂	Terrace deposits	Q ₂
Q ₃	Glacial	Q ₃
T ₁	Landslide, slump	T ₁
T ₂	Gravel	T ₂
T ₃	Volcanics	T ₃
T ₄	Interflow	T ₄
K ₁	Fuller Creek Fm.	K ₁
K ₂	Hell Creek Fm.	K ₂
K ₃	Big Horn Fm.	K ₃
C ₁	Claggett Fm.	C ₁
C ₂	Eagle Sh.	C ₂
C ₃	Colorado Sh.	C ₃
J ₁	Swiss Fm.	J ₁
J ₂	Shinarump Fm.	J ₂
J ₃	Piper Fm.	J ₃
M ₁	Heath Fm.	M ₁
M ₂	Other Fm.	M ₂
M ₃	Kibbey Fm.	M ₃
D ₁	Madison Canyon Fm.	D ₁
D ₂	Longhorn Ls.	D ₂
D ₃	Three Forks Fm.	D ₃
P ₁	Jefferson Fm.	P ₁
P ₂	Big Horn Del.	P ₂
P ₃	Snowy Range Fm.	P ₃
P ₄	Plum Ls.	P ₄
P ₅	Park Sh.	P ₅
P ₆	Manitou Ls.	P ₆
P ₇	Wishy Sh.	P ₇
P ₈	Flathead Grit	P ₈
P ₉	Gneiss	P ₉
P ₁₀	Schist	P ₁₀
P ₁₁	Granite	P ₁₁

MAP SOURCES

U.S.G.S. MAPS AND PUBLICATIONS

- QO 29
- Bull. 751
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- Geologic Map of Montana, 1955

OTHER SOURCES

- 2d Annual Field Conference Guidebook, Billings Geol. Soc. 1959
- IntraSearch-Data depicted from non-exclusive IntraSearch photogeologic mapping file.

GEOLOGIC SYMBOLS

The LASL sample location numbers above are the same as those used in Appendixes I A and I B except the leading two alphanumeric characters have been dropped.

SCALE 1:250 000

0 5 10 15 20 25 MILES

0 5 10 15 20 25 KILOMETERS

SAMPLE LOCATION OVERLAY

FOR THE LEWISTOWN NTMS QUADRANGLE,

MONTANA.

LEGEND

SYMBOLS	CONCENTRATIONS (ppb)
◇ SPRING	0.00- 1.00
	1.01- 2.00
	2.01- 5.00
	5.01- 10.00
	10.01- 20.00
	20.01- 50.00
	50.01-100.00
	> 100.00
□ STREAM	
○ WELL	

URANIUM CONCENTRATIONS (ppb) IN WATERS
OVERLAY
TO THE LEWISTOWN NTMS QUADRANGLE, MONTANA

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LEGEND

SYMBOLS	CONDUCTIVITIES (μmho/cm)
◇ SPRING	<div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> </div> <div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> </div> <div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> </div>
□ STREAM	<div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> </div> <div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> </div> <div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> </div>
○ WELL	<div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> </div> <div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> <div>□</div> </div> <div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> <div>○</div> </div>
	<div>0 - 50</div> <div>51 - 100</div> <div>101 - 200</div> <div>201 - 500</div> <div>501 - 1000</div> <div>1001 - 2000</div> <div>2001 - 5000</div> <div>> 5000</div>

CONDUCTIVITIES (μmho/cm) IN WATERS
OVERLAY
TO THE LEWISTOWN NTMS QUADRANGLE, MONTANA

SCALE 1:250 000

LEGEND

SYMBOLS		CONCENTRATIONS (ppm)				
◇	WET SPRING	◇	□	⊠	+	0.00- 2.00
		◇	□	⊠	+	2.01- 3.00
		◇	□	⊠	+	3.01- 4.00
		◇	□	⊠	+	4.01- 5.00
		◇	□	⊠	+	5.01- 6.00
		◇	□	⊠	+	6.01- 7.00
		◇	□	⊠	+	7.01- 10.00
		◇	□	⊠	+	> 10.00
□	WET STREAM					
⊠	DRY STREAM					
+	DRY SPRING					

URANIUM CONCENTRATIONS (ppm) IN SEDIMENTS
OVERLAY
TO THE LEWISTOWN NTMS QUADRANGLE, MONTANA

SCALE 1:250 000

LEGEND

SYMBOLS	CONCENTRATIONS (ppm)				
◇ WET SPRING	◇	◇	◇	+	0.0- 2.0
	◇	◇	◇	+	2.1- 4.0
	◇	◇	◇	+	4.1- 6.0
□ WET STREAM	◇	◇	◇	+	6.1- 8.0
	◇	◇	◇	+	8.1- 10.0
⊠ DRY STREAM	◇	◇	◇	+	10.1- 12.0
	◇	◇	◇	+	12.1- 14.0
+ DRY SPRING	◇	◇	◇	+	> 14.0

THORIUM CONCENTRATIONS (ppm) IN SEDIMENTS
OVERLAY
TO THE LEWISTOWN NTMS QUADRANGLE, MONTANA

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