Region 10
U.S. Environmental Protection Agency

DRAFT FINAL

Phase I Sediment Sampling Data Evaluation Upper Columbia River Site CERCLA RI/FS References and Appendices pages 209 - 363

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SECTION 7

References

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References

Celgar Pulp Company (Celgar). 1993. *Celgar Pulp Company 1993 Semi-Annual Environmental Performance Report*.

–––. 2004. Operational and historical information on the Celgar Pulp Company, accessed via the Internet at: http://www.castlegar.com/celgar/.

Cominco. 1990. Letter with attached test results to R.J. Crozier, Ministry of Environment.

–––. 1991. *Slag Disposal Options Environmental and Engineering Studies, Trail Operations Cominco Metals*.

–––. 1994. Letter to C. Johnson, head industrial section, Cominco, Ltd., regarding barren slag utilization plan.

–––. 1995. Letter to Scott Hall regarding environmental performance at Trail Cominco for 1994.

–––. 1997. *Cominco, Ltd. Trail Operations 1996 Environmental Report*.

CH2M HILL. 2004a. *Document and Data Gathering Task Summary – Upper Columbia River Site RI/FS.* December 28, 2004.

–––. 2004b. *Draft Phase I Sediment Sampling Approach and Rationale – Upper Columbia River Site CERCLA RI/FS.* Prepared for USEPA Region 10, Seattle, WA. December 10, 2004.

–––. 2004c. *Assessment of the Quality and Usability of Analytical Electronic Data – Upper Columbia River Site RI/FS*.

–––. 2005. *Phase I Sediment Sampling Quality Assurance Project Plan, Upper Columbia River Site CERCLA RI/FS*. March 24, 2005.

–––. 2006. *Draft Technical Memorandum: Upper Columbia River Site CERCLA RI/FS, Summary and Evaluation of 2005 Sediment Toxicity Test Results.* August 11, 2006.

Ecology and Environment (E&E). 2000. *Upper Columbia River Mines and Mills Preliminary Assessments and Site Inspections Report, Stevens County, Washington,* prepared for the U.S. Environmental Protection Agency.

–––. 2003. *Upper Columbia River Expanded Site Inspection Report, Northeast Washington,* prepared for U.S. Environmental Protection Agency.

Environment Canada. 2004. National Pollutant Release Inventory, data on pollutant releases, accessed via the Internet at: http://www.ec.gc.ca/pdb/npri/npri_online_data_e.cfm.

–––. 2006. National Pollutant Release Inventory. Facility information accessed via the Internet at:

http://www.ec.gc.ca/pdb/querysite/facility_information_e.cfm?opt_npri_id=0000000672&opt_report_year=2004

Evergreen State College. 1993. *Retrospective Analysis of Toxic Contaminants in Lake Roosevelt*.

Fisheries and Oceans Canada (BFO). 1992. *Survival and Water Quality Results of Bioassays on Five Species of Aquatic Organisms Exposed to Slag from Cominco's Trail Operations.*

MacDonald Environmental Sciences, Ltd. (MESL). 1997. *Lower Columbia River from Birchbank to the International Border: Water Quality Assessment and Recommended Objectives Technical Report*. Prepared for Environment Canada.

MacDonald, D. D., C. G. Ingersoll, and T. A. Berger. 2000. Development and Evaluation of Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems. Archives. *Environmental Contamination Toxicology* 39:20-31.

Michelsen, T.C., 1992. *Organic Carbon Normalization of Sediment Data*. Technical Memorandum. Washington Department of Ecology, Olympia, WA.

Ministry of Environment, Lands and Parks, Province of B.C. (MELP). 1990. Letter to Washington State Department of Ecology regarding historic slag discharges into the Columbia River.

Ministry of Environment, Province of B.C. (MEPBC). 1979. *Kootenay Air and Water Quality Study Phase II – Water Quality in the Lower Columbia River Basin*. April 1979.

Province of B.C. Environment (BC Environment). 1991a. *Technical Report*, *File No. PE-2753*.

Puget Sound Estuary Program (PSEP). 1986. *Recommended Protocols for Measuring Conventional Sediment Variables in Puget Sound*.

Stober, Q.J., M.E. Kopache, and T.H. Jagielo. 1981. *Limnology of Lake Roosevelt 1980*.

Toevs, G., Morra, M.J., Polizzotto, D.G., Strawn, B.C., Fendorf, S. 2006. Metal(loid) Diagenesis in Mine-Impacted Sediments of Lake Coeur d'Alene, Idaho. Environmental Science 2543 (2006).

U.S. Environmental Protection Agency (USEPA). 1979. *Methods for Chemical Analysis of Water and Wastes*. EPA-600/4-79-020. Revised March 1983.

---. 1989. *Test Methods for Evaluating Solid Wastes*. SW846, Standard Methods for the Examination of Water and Wastewater. 17th Edition.

---. 1991. Memorandum to Thorr Cutler, On-Scene Coordinator, United States Environmental Protection Agency, regarding Preliminary Investigation into report of concentrations of mercury in Big Ship Creek and the Columbia River. August 20, 1991.

---. 2000a. *Guidance for the Data Quality Objectives Process*. USEPA Office of Environmental Information, Washington, D.C. EPA QA/G4. September 2000.

---. 2000b. *Methods for Measuring the Toxicity and Bioaccumulation of Sediment-associated Contaminants with Freshwater Invertebrates, Second Edition*.

---. 2000c. *Upper Columbia River/Lake Roosevelt River Mile 597 to 745, Preliminary Assessment Report, Washington*. Prepared by Ecology and Environment, Inc.

---. 2003. *Upper Columbia River Expanded Site Investigation Report, Northwest Washington.* TDD: 01-02-0028. Region 10 Start – 2, Superfund Technical Assessment and Response Team. May-September 2001 investigation. Prepared by Ecology and Environment, Inc. and Roy F. Weston, Inc. **{USEPA 2001}**[1] [UCR247a]

---. 2004a. *Region 9 Preliminary Remediation Goals*. Updated October 2004.

---. 2004b. *National Sediment Quality Survey*. Appendix D, Screening Values for Chemicals Evaluated. http://www.epa.gov/waterscience/cs/guidelines.htm. Updated December 10, 2004.

U.S. Geological Survey (USGS). 1994. *Sediment Quality Assessment of Franklin Roosevelt Lake and the Upstream Reach of the Columbia River.* October 1992 investigation. October 1994.**{USGS 1992}**

---. 2000. *Contaminant Trends in Sport Fish From Lake Roosevelt and the Upper Columbia River, Washington, 1994-1998*. Water-Resources Investigations Report 00-4024. U.S. Geological Survey, Water Resources Division, Tacoma, WA.

---. 2005.*Vertical Distribution of Trace Element Concentrations and Occurrence of Metallurgical Slag Particles in Accumulated Bed Sediments of Lake Roosevelt, Washington, September 2002*.

Washington State Department of Ecology (Ecology). 1991. *Metals Concentrations in Lake Roosevelt (Columbia River) Largescale Suckers*. Olympia, WA. June 1991.

---. 1995. *Department of Ecology 1993-1994 PCB Source Monitoring Follow-Up Study*. November and December 1995.

---. 1997. *Polychlorinated Dibenzo-P-Dioxins and Dibenzofurans in Upper Columbia River Suspended Particulate Matter, 1990-1994*. 1997.

Welch, E.B., R.J. Totorica, and R.R. Homer. 1992. *Approach to Developing Nutrient Loading Criteria for Franklin D. Roosevelt Lake*. January 1992.

Wentworth, C.K. 1922. A Scale of Grade and Class Terms for Clastic Sediments. Journal of Geology, v. 30, pp. 377-392.

[1] Note: The style **{bold brackets}** indicates the year of the study itself, rather than the year the study results were published.

APPENDIX A

Phase I Sediment Sample Information

TABLE A-1
Summary of Sample Locations, Elevations, and Associated QA/QC Samples by Sample Type
Upper Columbia River RI/FS

Sample Name	Focus Area	Sample Type	Sample Elevation	Sample Latitude	Sample Longitude	Field Duplicate	MS/MSD	Lab Duplicate
TRANSECT SAMPLES								
RM744X2	Focus Area 1	Transect Sample	1281.7	2408428.14	744708.04	X		
RM741X1	Focus Area 1	Transect Sample	1291.3	2402015.62	732952.82			
RM740X3	Focus Area 1	Transect Sample	1291.6	2397427.48	730423.23			
RM739X1	Focus Area 1	Transect Sample	1290.9	2393417.70	727180.00	X	X	X
RM738X1	Focus Area 1	Transect Sample	1289.2	2390069.52	724420.30			
RM737X2		Transect Sample	1252.1	2385817.65	721632.56			
RM737X1		Transect Sample	1281.3	2385361.54	721704.17			
RM736X3		Transect Sample	1287.5	2380125.62	721415.53			
RM735X3		Transect Sample	1286.0	2377966.61	718906.49			
RM735X1		Transect Sample	1283.4	2378362.84	718390.04	X		
RM734X3		Transect Sample	1271.6	2375798.86	716693.76			
RM733X3		Transect Sample	1281.0	2370043.20	713659.00			
RM733X2		Transect Sample	1269.0	2370525.59	713798.69			
RM732X3		Transect Sample	1275.5	2366709.20	710019.20			
RM732X2		Transect Sample	1267.0	2367287.24	709688.12	X	X	X
RM732X1		Transect Sample	1266.4	2369115.06	708831.84			
RM731X3		Transect Sample	1280.0	2363851.50	705266.30			
RM731X1		Transect Sample	1275.8	2365081.46	705104.25			
RM730X1		Transect Sample	1271.0	2362096.43	701372.97			
RM729X3		Transect Sample	1267.8	2358042.61	698625.64			X
RM729X2		Transect Sample	1227.3	2358477.89	698271.79			
RM728X3		Transect Sample	1252.6	2354900.58	697305.21			
RM728X1		Transect Sample	1227.0	2354794.19	696708.90			
RM727X3		Transect Sample	1257.9	2349435.00	693114.86			
RM726X3		Transect Sample	1247.6	2345700.20	690453.07			
RM726X2		Transect Sample	1205.6	2345659.17	689974.29			
RM726X1		Transect Sample	1251.9	2346007.12	689771.03	X	X	X
RM725X3	Focus Area 2	Transect Sample	1273.4	2340756.08	685908.05			
RM725X1	Focus Area 2	Transect Sample	1273.7	2341571.01	685694.25			
RM724X2	Focus Area 2	Transect Sample	1201.8	2341264.12	681155.52			
RM723X5	Focus Area 2	Transect Sample	1278.3	2338349.75	677566.69			
RM723X4	Focus Area 2	Transect Sample	1281.9	2338940.83	677253.57	X	X	X
RM722X3	Focus Area 2	Transect Sample	1277.6	2335049.19	674748.94			
RM722X2	Focus Area 2	Transect Sample	1212.8	2335159.32	674378.00			
RM722X1	Focus Area 2	Transect Sample	1271.1	2335187.25	673401.62			
RM721X3	Focus Area 2	Transect Sample	1278.0	2329845.09	676097.98			
RM721X2	Focus Area 2	Transect Sample	1208.6	2329966.45	675500.99			
RM721X1	Focus Area 2	Transect Sample	1270.3	2329629.12	675267.21			
RM718X3		Transect Sample	1275.5	2320068.20	665866.09			
RM718X2		Transect Sample	1208.8	2321606.93	665958.42			
RM718X1		Transect Sample	1279.8	2322536.28	665993.75			
RM715X3		Transect Sample	1277.2	2311497.60	654678.26			
RM715X1		Transect Sample	1264.6	2312496.51	653577.02	X		X
RM713X1		Transect Sample	1270.2	2312111.30	644219.70			
RM710X3		Transect Sample	1284.6	2316570.05	629005.19	X		
RM710X2		Transect Sample	1202.4	2318368.65	629434.23			
RM710X1		Transect Sample	1276.2	2320851.94	629494.09			
RM708X2	Focus Area 3	Transect Sample	1199.3	2312645.60	622508.11			
RM708X1	Focus Area 3	Transect Sample	1259.0	2313009.56	621748.16		X	X
RM707X3	Focus Area 3	Transect Sample	1265.0	2306681.65	624415.85			
RM707X2	Focus Area 3	Transect Sample	1189.3	2307151.08	620539.57			
RM707X1	Focus Area 3	Transect Sample	1277.9	2307313.00	618875.70			
RM706X6	Focus Area 3	Transect Sample	1226.1	2298951.53	622020.34			
RM706X5	Focus Area 3	Transect Sample	1237.2	2300550.09	620838.75			X
RM706X4	Focus Area 3	Transect Sample	1194.6	2301937.74	619779.75			
RM706X3	Focus Area 3	Transect Sample	1238.6	2303352.90	618638.60			
RM706X2	Focus Area 3	Transect Sample	1240.5	2304011.10	618348.86			
RM705X3	Focus Area 3	Transect Sample	1256.5	2298624.12	617043.87			
RM705X2	Focus Area 3	Transect Sample	1150.5	2299184.61	616923.91			
RM705X1	Focus Area 3	Transect Sample	1256.4	2304282.01	616180.55			
RM704X3	Focus Area 3	Transect Sample	1255.4	2298719.39	611504.51	X	X	X
RM704X2	Focus Area 3	Transect Sample	1199.3	2300101.60	611671.05			
RM701X3		Transect Sample	1257.5	2294280.14	599234.23			
RM701X2		Transect Sample	1161.2	2295119.82	599105.32			
RM701X1		Transect Sample	1259.2	2296268.61	598105.38			
RM698X3		Transect Sample	1258.9	2292780.98	585948.53			
RM698X2		Transect Sample	1187.5	2293888.96	585549.33			
RM695X3		Transect Sample	1275.8	2289739.28	572438.90			
RM695X2		Transect Sample	1141.6	2292166.65	572000.55			
RM695X1		Transect Sample	1268.5	2293041.65	571817.99		X	X
RM693X1		Transect Sample	1276.4	2282906.56	566245.76			
RM692X2		Transect Sample	1122.2	2284066.21	564965.80	X		
RM689X2		Transect Sample	1106.9	2281239.57	550656.29			
RM689X1		Transect Sample	1258.5	2281630.33	550231.68			
RM686X2		Transect Sample	1109.2	2278453.93	536178.83			
RM686X1		Transect Sample	1262.0	2279217.26	536229.39			
RM683X3		Transect Sample	1269.5	2279089.70	521252.96			
RM683X2		Transect Sample	1108.2	2280585.67	521930.90			
RM683X1		Transect Sample	1261.2	2284985.97	523780.64			
RM681X1		Transect Sample	1282.4	2282128.56	511793.58			
RM680X2	Focus Area 4	Transect Sample	1125.8	2283778.29	510736.97			
RM679X3	Focus Area 4	Transect Sample	1274.6	2283103.05	505615.91	X	X	X
RM679X2	Focus Area 4	Transect Sample	1120.8	2285332.90	505856.94			
RM679X1	Focus Area 4	Transect Sample	1268.2	2289123.48	506219.11			
RM678X7	Focus Area 4	Transect Sample	1274.1	2283238.01	500273.06			
RM678X6	Focus Area 4	Transect Sample	1201.7	2283575.59	500363.51			
RM678X5	Focus Area 4	Transect Sample	1170.6	2284634.63	500582.46			
RM678X4	Focus Area 4	Transect Sample	1113.2	2285833.71	500861.06			
RM678X3	Focus Area 4	Transect Sample	1211.9	2286731.63	501044.28			
RM678X2	Focus Area 4	Transect Sample	1200.6	2288321.34	501403.34			
RM677X2	Focus Area 4	Transect Sample	1109.2	2286444.14	495747.80			X
RM677X1	Focus Area 4	Transect Sample	1275.9	2291499.06	497145.84			
RM676X2	Focus Area 4	Transect Sample	1102.7	2287298.92	490644.47			X
RM676X1	Focus Area 4	Transect Sample	1277.1	2292852.53	492295.51			
RM673X3		Transect Sample	1275.3	2293646.50	476511.70			
RM673X2		Transect Sample	1081.1	2294750.91	476982.43			
RM673X1		Transect Sample	1274.6	2296093.50	477844.48			
RM670X3		Transect Sample	1280.0	2291074.88	461919.12			
RM670X2		Transect Sample	1103.1	2291972.04	461013.30	X	X	X
RM670X1		Transect Sample	1277.5	2292619.05	460409.44			
RM667X3		Transect Sample	1280.3	2281691.68	448346.11			
RM667X2		Transect Sample	1121.4	2285799.91	447738.76			
RM667X1		Transect Sample	1280.2	2286501.27	447568.36			
RM664X3		Transect Sample	1282.2	2282394.34	431895.62	X		
RM664X2		Transect Sample	1118.6	2285462.55	431534.54			
RM664X1		Transect Sample	1278.0	2286388.76	431048.38			
RM661X3		Transect Sample	1267.1	2272144.27	425927.99			
RM661X2		Transect Sample	1097.6	2273182.53	424478.52	X	X	X
RM658X2		Transect Sample	1077.9	2275931.62	406881.30			
RM658X1		Transect Sample	1261.8	2277420.85	406956.16			

TABLE A-1
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Sample Name	Focus Area	Sample Type	Sample Elevation	Sample Latitude	Sample Longitude	Field Duplicate	MS/MSD	Lab Duplicate
RM655X3		Transect Sample	1279.9	2266116.80	394259.20			
RM655X2		Transect Sample	1064.5	2268110.43	392480.53			
RM655X1		Transect Sample	1281.4	2269910.20	390603.60			
RM652X3		Transect Sample	1275.9	2252440.15	393342.18		X	X
RM652X2		Transect Sample	1047.5	2252717.69	391503.53			
RM652X1		Transect Sample	1278.1	2252402.28	390102.72			
RM649X3		Transect Sample	1279.8	2236701.04	386782.17			
RM649X2		Transect Sample	1060.6	2237786.24	386524.62			
RM649X1		Transect Sample	1278.0	2241231.44	385448.16			
RM646X3		Transect Sample	1276.4	2240389.57	371400.91			
RM646X2		Transect Sample	1049.6	2242598.76	373180.54			
RM646X1		Transect Sample	1271.6	2243214.29	373595.48			
RM644X2	Focus Area 5	Transect Sample	1018.4	2249011.06	364128.57			
RM644X1	Focus Area 5	Transect Sample	1275.9	2249593.94	364171.86			
RM643X3	Focus Area 5	Transect Sample	1279.6	2246637.76	357908.63			
RM643X2	Focus Area 5	Transect Sample	1040.7	2248215.66	358014.20			
RM643X1	Focus Area 5	Transect Sample	1268.7	2249464.29	358066.55			
RM642X7	Focus Area 5	Transect Sample	1275.2	2246315.75	352289.90			
RM642X6	Focus Area 5	Transect Sample	1162.1	2246637.81	352318.50			
RM642X5	Focus Area 5	Transect Sample	1102.4	2247038.64	352307.31			
RM642X4	Focus Area 5	Transect Sample	1019.4	2247438.35	352338.42			
RM642X3	Focus Area 5	Transect Sample	1149.0	2248246.99	352358.27			
RM642X2	Focus Area 5	Transect Sample	1239.2	2249176.74	352424.76			
RM641X3	Focus Area 5	Transect Sample	1280.5	2246659.51	346814.48			X
RM641X2	Focus Area 5	Transect Sample	1017.1	2248103.95	346903.67			
RM640X2	Focus Area 5	Transect Sample	1030.2	2250437.05	341632.28			
RM640X1	Focus Area 5	Transect Sample	1276.5	2251528.82	341636.96			
RM637X7		Transect Sample	1277.8	2247558.71	326734.07			
RM637X6		Transect Sample	1245.0	2247785.22	326692.81			
RM637X5		Transect Sample	1222.1	2248422.04	326515.50			
RM637X4		Transect Sample	1008.1	2249263.77	326278.03	X	X	X
RM637X3		Transect Sample	1123.4	2250027.29	326083.70			
RM637X2		Transect Sample	1155.6	2250547.77	325936.28			
RM634X3		Transect Sample	1280.2	2240733.99	317531.73			
RM634X2		Transect Sample	1014.4	2243521.81	313219.90			
RM631X3		Transect Sample	1282.5	2228496.00	318115.02			
RM631X2		Transect Sample	989.2	2227747.88	316833.68			
RM631X1		Transect Sample	1280.2	2226953.09	315243.73			
RM628X3		Transect Sample	1271.0	2221083.44	331540.71	X	X	X
RM628X2		Transect Sample	984.6	2220218.24	330126.18			
RM625X3		Transect Sample	1281.2	2205625.95	330911.47			
RM625X2		Transect Sample	983.7	2203684.85	328572.13	X	X	X
RM625X1		Transect Sample	1269.0	2203674.03	327106.79			
RM622X2		Transect Sample	1003.0	2201924.88	344210.26			
RM622X1		Transect Sample	1271.8	2199801.91	342518.76			
RM619X3		Transect Sample	1284.0	2187630.81	348614.14			
RM619X2		Transect Sample	934.1	2185487.30	347457.97			
RM619X1		Transect Sample	1272.5	2185671.47	344242.54			
RM616X2		Transect Sample	954.1	2169083.54	350123.05			
RM616X1		Transect Sample	1270.1	2169240.58	347616.46			
RM613X3		Transect Sample	1276.3	2159198.36	340850.19			
RM613X2		Transect Sample	924.6	2160725.07	340860.30			
RM613X1		Transect Sample	1281.2	2162253.97	340989.01			
RM610X3		Transect Sample	1277.0	2149728.86	339776.37			
RM610X2		Transect Sample	955.2	2148994.78	338062.41			
RM610X1		Transect Sample	1278.0	2147886.94	336569.13			
RM607X3		Transect Sample	1277.0	2136318.27	345208.47			
RM607X2		Transect Sample	915.0	2134595.65	343128.86			
RM607X1		Transect Sample	1259.0	2132964.74	341022.62			
RM606X2	Focus Area 6	Transect Sample	912.2	2131485.94	346953.30			X
RM606X1	Focus Area 6	Transect Sample	1274.8	2130530.88	346329.92			
RM605X9	Focus Area 6	Transect Sample	1283.2	2134592.95	353451.63			
RM605X7	Focus Area 6	Transect Sample	1267.9	2132774.22	353495.58			
RM605X6	Focus Area 6	Transect Sample	1029.1	2131626.07	352728.91			X
RM605X5	Focus Area 6	Transect Sample	933.5	2130579.27	351838.33	X		
RM605X4	Focus Area 6	Transect Sample	1075.2	2129582.49	351425.29			
RM605X3	Focus Area 6	Transect Sample	1117.4	2128505.81	350820.76			
RM605X2	Focus Area 6	Transect Sample	1136.7	2127689.17	350168.19			
RM604X3	Focus Area 6	Transect Sample	1284.6	2128642.73	357937.10			X
RM604X2	Focus Area 6	Transect Sample	930.3	2127347.32	355592.99			
RM604X1	Focus Area 6	Transect Sample	1276.5	2124999.66	351522.60			
RM603X3	Focus Area 6	Transect Sample	1285.0	2122929.58	357701.72			
RM603X2	Focus Area 6	Transect Sample	926.0	2122227.06	354318.49	X		X
RM600X3		Transect Sample	1268.3	2107345.11	352215.17			
RM600X2		Transect Sample	920.5	2107707.59	350617.84			
RM600X1		Transect Sample	1269.0	2109124.42	348078.49			
BIOASSAY/TRANSECT/REFERENCE SAMPLES								
RM744A2(X3)	Focus Area 1	Transect/Bioassay/Pore Water	1295.9	2408305.33	745619.17			
RM744A1(X1)	Focus Area 1	Transect/Bioassay/Pore Water	1295.4	2409210.41	745575.17			
RM743A2(X3)	Focus Area 1	Transect/Bioassay/Pore Water	1295.7	2406578.17	741654.75			
RM743A1(X1)	Focus Area 1	Transect/Bioassay/Pore Water	1294.5	2407235.22	740946.86			
RM742A2(X5)	Focus Area 1	Transect/Bioassay/Pore Water	1291.5	2405463.25	735711.03			
RM742A1(X1)	Focus Area 1	Transect/Bioassay/Pore Water	1292.0	2406790.17	735741.31			
RM741A1(X3)	Focus Area 1	Transect/Bioassay/Pore Water	1291.1	2400203.73	732721.31			X
RM740A1(X1)	Focus Area 1	Transect/Bioassay/Pore Water	1288.4	2397508.23	729409.70			
RM739A1(X3)	Focus Area 1	Transect/Bioassay/Pore Water	1287.8	2392760.20	727649.59			
RM738A1(X3)		Transect/Bioassay/Pore Water	1285.4	2388467.87	723572.83			
RM737A1(X3)		Transect/Bioassay/Pore Water	1279.2	2385483.36	722620.13			
RM736A1(X1)		Transect/Bioassay/Pore Water	1273.3	2382071.99	720975.05			
RM734A1		Bioassay/Pore Water Sample	1271.6	2375798.86	716693.76			
RM733A1(X1)		Transect/Bioassay/Pore Water	1269.7	2371218.22	713297.88			
RM732R1		Reference/Bioassay/Pore Water	1410.0	2370022.87	707080.50			X
RM730A1		Bioassay/Pore Water Sample	1258.7	2361860.42	701004.21			
RM729A1(X1)		Transect/Bioassay/Pore Water	1268.7	2358959.14	698031.25		X	X
RM727A1(X1)		Transect/Bioassay/Pore Water	1252.7	2350564.27	692273.96	X		X
RM726R1		Reference/Bioassay/Pore Water	1716.0	2335679.06	692058.47			
RM724A2(X3)	Focus Area 2	Transect/Bioassay/Pore Water	1250.4	2340428.44	682889.58			
RM724A1(X1)	Focus Area 2	Transect/Bioassay/Pore Water	1249.2	2341548.08	682256.35			
RM723A2(X3)	Focus Area 2	Transect/Bioassay/Pore Water	1248.7	2337701.91	676348.54			X
RM723A1(X1)	Focus Area 2	Transect/Bioassay/Pore Water	1251.5	2340464.47	676289.32			
RM721R1		Reference/Bioassay/Pore Water	1301.0	2328148.26	677786.16	X		
RM713A1(X3)		Transect/Bioassay/Pore Water	1250.7	2310601.84	643646.79	X		
RM708A1(X3)	Focus Area 3	Transect/Bioassay/Pore Water	1249.3	2312364.24	623074.00			
RM706A2(X7)	Focus Area 3	Transect/Bioassay/Pore Water	1251.3	2298137.23	622921.37			
RM706A1(X1)	Focus Area 3	Transect/Bioassay/Pore Water	1248.7	2304940.47	617699.39			
RM705R1	Focus Area 3	Reference/Bioassay/Pore Water	1360.0	2297580.13	615475.86			
RM704A1(X1)	Focus Area 3	Transect/Bioassay/Pore Water	1251.1	2305630.70	611945.19			
RM698A1(X1)		Transect/Bioassay/Pore Water	1251.1	2296930.75	584475.88			
RM692A1(X1)		Transect/Bioassay/Pore Water	1249.6	2289612.46	561690.15	X		
RM689A1(X3)		Transect/Bioassay/Pore Water	1249.6	2277322.32	552840.18			

TABLE A-1
Summary of Sample Locations, Elevations, and Associated QA/QC Samples by Sample Type
Upper Columbia River RI/FS

Sample Name	Focus Area	Sample Type	Sample Elevation	Sample Latitude	Sample Longitude	Field Duplicate	MS/MSD	Lab Duplicate
RM687A1		Bioassay/Pore Water Sample	1252.6	2279453.47	540915.87			
RM686A1(X3)		Transect/Bioassay/Pore Water	1250.1	2276670.84	536118.10			X
RM686R1		Reference/Bioassay/Pore Water	1302.0	2274191.84	533714.32			
RM685R1		Reference/Bioassay/Pore Water	1297.0	2284498.75	528493.09			
RM680A1(X1)	Focus Area 4	Transect/Bioassay/Pore Water	1249.6	2288402.07	511590.34		X	X
RM678A1(X1)	Focus Area 4	Transect/Bioassay/Pore Water	1249.6	2289791.50	501691.70			
RM677A1(X3)	Focus Area 4	Transect/Bioassay/Pore Water	1250.1	2283732.02	494985.03			
RM676A1(X3)	Focus Area 4	Transect/Bioassay/Pore Water	1248.6	2284257.10	489746.90	X		
RM661A1(X1)		Transect/Bioassay/Pore Water	1252.4	2275060.95	422272.87		X	X
RM658A1(X3)		Transect/Bioassay/Pore Water	1250.9	2271972.89	406668.93	X		
RM644A1(X3)	Focus Area 5	Transect/Bioassay/Pore Water	1251.0	2246356.96	363581.40			
RM642A1(X1)	Focus Area 5	Transect/Bioassay/Pore Water	1252.0	2249610.81	352398.38			
RM641A1(X1)	Focus Area 5	Transect/Bioassay/Pore Water	1250.7	2249303.48	346956.11			
RM640A1(X3)	Focus Area 5	Transect/Bioassay/Pore Water	1251.0	2248039.99	341470.33	X		X
RM637A1(X1)		Transect/Bioassay/Pore Water	1251.6	2250933.42	325541.58			
RM634A1(X1)		Transect/Bioassay/Pore Water	1247.2	2245749.91	310993.91			
RM628A1(X1)		Transect/Bioassay/Pore Water	1249.1	2220310.30	328838.35			
RM622A1(X3)		Transect/Bioassay/Pore Water	1248.5	2203529.39	345974.88			
RM616A1(X3)		Transect/Bioassay/Pore Water	1250.3	2168919.70	354389.31			
RM606A1(X3)	Focus Area 6	Transect/Bioassay/Pore Water	1250.6	2134187.47	346459.76			
RM605A2(X8)	Focus Area 6	Transect/Bioassay/Pore Water	1252.1	2133650.53	353925.58			
RM605A1(X1)	Focus Area 6	Transect/Bioassay/Pore Water	1252.6	2126885.82	349712.18			
RM603A1(X1)	Focus Area 6	Transect/Bioassay/Pore Water	1252.0	2122514.67	353017.11			
TRIBUTARY MOUTH SAMPLES								
RM736T1		Tributary Sample	1287.5	2377974.68	721503.53			
RM730T1		Tributary Sample	1265.4	2359007.78	697930.16			
RM729T2		Tributary Sample	1254.5	2358687.75	698006.58			
RM706T2	Focus Area 3	Tributary Sample	1276.8	2297836.47	621403.12			
RM706T1	Focus Area 3	Tributary Sample	1234.0	2296491.80	623326.80			
RM699T1		Tributary Sample	1219.9	2299479.90	585607.40			
RM639T2		Tributary Sample	1123.0	2252418.80	334500.47			
RM639T1		Tributary Sample	1055.1	2253030.63	335943.68	X	X	X
RM616T2		Tributary Sample	1030.6	2166664.26	352343.50			
RM616T1		Tributary Sample	1004.6	2167338.72	354064.08			
BEACH SAMPLES								
RM742B3	Focus Area 1	Beach Subsample Composite	1293.1	2405417.76	734896.62			
RM742B2	Focus Area 1	Beach Subsample Composite	1297.3	2405424.65	734866.00	X	X	X
RM742B1	Focus Area 1	Beach Subsample Composite	1303.0	2405414.15	734803.91			
RM735B3R		Beach Subsample	1274.6	2376467.95	715770.50	X		
RM735B3L		Beach Subsample	1274.6	2376294.47	715976.98			
RM735B3c		Beach Subsample	1274.6	2376386.27	715829.06			
RM735B2R		Beach Subsample	1278.0	2376451.75	715746.19			X
RM735B2L		Beach Subsample	1278.3	2376283.04	715984.76			
RM735B2c		Beach Subsample	1277.0	2376306.11	715793.85			
RM735B1R		Beach Subsample	1288.8	2376410.32	715719.74			
RM735B1L		Beach Subsample	1282.1	2376274.84	715995.31			
RM735B1c		Beach Subsample	1282.2	2376235.88	715761.76			
RM735BSF		Size Fractioned Sample	1277.0	2376306.11	715793.85	X		
RM729B3		Beach Subsample Composite	1261.2	2355990.08	697028.38			
RM729B2		Beach Subsample Composite	1271.8	2355996.52	697007.01			
RM729B1		Beach Subsample Composite	1281.6	2356008.73	696981.37			
RM718B3		Beach Subsample Composite	1258.8	2321658.41	664177.05			
RM718B2		Beach Subsample Composite	1271.3	2322262.42	664081.83			
RM718B1		Beach Subsample Composite	1288.6	2322438.60	663970.49			
RM708B3	Focus Area 3	Beach Subsample Composite	1279.3	2308979.98	620005.89			
RM708B2	Focus Area 3	Beach Subsample Composite	1278.7	2309034.88	619894.54			
RM708B1	Focus Area 3	Beach Subsample Composite	1283.5	2309071.66	619771.62	X	X	X
RM700B3R		Beach Subsample	1254.7	2295878.28	592716.01			
RM700B3L		Beach Subsample	1254.7	2295938.65	592212.07	X		
RM700B3c		Beach Subsample	1259.2	2295901.25	592462.40			
RM700B2R		Beach Subsample	1269.1	2295902.89	592712.07			
RM700B2L		Beach Subsample	1280.6	2295985.57	592222.90			
RM700B2c		Beach Subsample	1274.0	2295943.57	592467.32			
RM700B1R		Beach Subsample	1282.2	2295927.82	592710.10			
RM700B1L		Beach Subsample	1287.5	2296083.99	592238.32			
RM700B1c		Beach Subsample	1284.8	2295997.70	592476.18			X
RM700BSF		Size Fractioned Sample	1274.0	2295943.57	592467.32			
RM697B3		Beach Subsample Composite	1276.7	2290280.20	580189.78	X	X	X
RM697B2		Beach Subsample Composite	1281.5	2290078.43	580331.84			
RM697B1		Beach Subsample Composite	1284.0	2289870.75	580472.26			
RM690B3		Beach Subsample Composite	1259.5	2281392.42	556387.99			
RM690B2		Beach Subsample Composite	1274.1	2281081.40	556266.28			X
RM690B1		Beach Subsample Composite	1284.5	2280939.01	556612.40			
RM675B3		Beach Subsample Composite	1253.4	2293686.77	484253.67			
RM675B2		Beach Subsample Composite	1272.3	2293989.61	484439.45			
RM675B1		Beach Subsample Composite	1282.7	2294284.47	484435.14	X		
RM673B3		Beach Subsample Composite	1278.2	2294090.72	476029.32			
RM673B2		Beach Subsample Composite	1276.9	2293866.56	476028.80			
RM673B1		Beach Subsample Composite	1281.8	2293642.28	476031.92	X	X	X
RM658B3		Beach Subsample Composite	1260.4	2271949.97	399683.17			
RM658B2		Beach Subsample Composite	1277.0	2271832.80	399675.59			
RM658B1		Beach Subsample Composite	1285.6	2271683.74	399670.58			
RM642B3R	Focus Area 5	Beach Subsample	1253.0	2249186.05	348869.95			
RM642B3L	Focus Area 5	Beach Subsample	1252.0	2249280.35	348380.30	X		X
RM642B3c	Focus Area 5	Beach Subsample	1252.0	2249242.82	348630.91			
RM642B2R	Focus Area 5	Beach Subsample	1264.1	2249540.51	348906.95			
RM642B2L	Focus Area 5	Beach Subsample	1263.6	2249603.09	348412.62			
RM642B2c	Focus Area 5	Beach Subsample	1263.7	2249555.87	348659.27			
RM642B1R	Focus Area 5	Beach Subsample	1280.7	2249946.79	348934.68			
RM642B1L	Focus Area 5	Beach Subsample	1278.7	2250085.30	348519.44			
RM642B1c	Focus Area 5	Beach Subsample	1281.2	2249898.09	348695.87			
RM642BSF	Focus Area 5	Size Fractioned Sample	1263.7	2249555.87	348659.27			
RM633B3		Beach Subsample Composite	1266.8	2236919.61	311818.36			
RM633B2		Beach Subsample Composite	1278.4	2236891.54	311773.68			
RM633B1		Beach Subsample Composite	1289.3	2236863.34	311732.64		X	X
RM615B3		Beach Subsample Composite	1274.9	2164329.07	346708.31			
RM615B2		Beach Subsample Composite	1275.4	2164545.90	346495.38			
RM615B1		Beach Subsample Composite	1279.4	2164765.28	346278.88			
RM600B3		Beach Subsample Composite	1265.8	2105034.70	347287.90			
RM600B2		Beach Subsample Composite	1276.2	2105037.10	347180.30			
RM600B1		Beach Subsample Composite	1289.0	2105040.20	347015.40			
CORE SAMPLES								
RM708C1	Focus Area 3	Core Sample	1193.2	2312644.92	622533.64			
RM708C2	Focus Area 3	Core Sample	1193.2	2312644.92	622533.64			
RM708C3	Focus Area 3	Core Sample	1193.2	2312644.92	622533.64			
RM708C4	Focus Area 3	Core Sample	1193.2	2312644.92	622533.64			
RM708C5	Focus Area 3	Core Sample	1193.2	2312644.92	622533.64			
RM704C1	Focus Area 3	Core Sample	1196.6	2300263.25	611928.68			
RM704C2	Focus Area 3	Core Sample	1196.6	2300263.25	611928.68			
RM704C3	Focus Area 3	Core Sample	1196.6	2300263.25	611928.68			
RM704C4	Focus Area 3	Core Sample	1196.6	2300263.25	611928.68			

TABLE A-1
Summary of Sample Locations, Elevations, and Associated QA/QC Samples by Sample Type
Upper Columbia River RI/FS

Sample Name	Focus Area	Sample Type	Sample Elevation	Sample Latitude	Sample Longitude	Field Duplicate	MS/MSD	Lab Duplicate
RM704C5	Focus Area 3	Core Sample	1196.6	2300263.25	611928.68			
RM704C6	Focus Area 3	Core Sample	1196.6	2300263.25	611928.68			
RM692C1		Core Sample	1116.1	2284081.23	564952.45			
RM692C2		Core Sample	1116.1	2284081.23	564952.45			
RM692C3		Core Sample	1116.1	2284081.23	564952.45		X	
RM692C4		Core Sample	1116.1	2284081.23	564952.45	X		
RM692C5		Core Sample	1116.1	2284081.23	564952.45			
RM676C1	Focus Area 4	Core Sample	1095.9	2287303.36	490677.84			
RM676C2	Focus Area 4	Core Sample	1095.9	2287303.36	490677.84			
RM676C3	Focus Area 4	Core Sample	1095.9	2287303.36	490677.84			
RM676C4	Focus Area 4	Core Sample	1095.9	2287303.36	490677.84			
RM676C5	Focus Area 4	Core Sample	1095.9	2287303.36	490677.84			
RM661C1		Core Sample	1092.0	2273201.17	424483.53			
RM661C2		Core Sample	1092.0	2273201.17	424483.53			
RM661C3		Core Sample	1092.0	2273201.17	424483.53	X		
RM661C4		Core Sample	1092.0	2273201.17	424483.53			
RM661C5		Core Sample	1092.0	2273201.17	424483.53			
RM644C1	Focus Area 5	Core Sample	1159.1	2248413.54	363992.13			
RM644C2	Focus Area 5	Core Sample	1159.1	2248413.54	363992.13			
RM644C3	Focus Area 5	Core Sample	1159.1	2248413.54	363992.13			
RM644C4	Focus Area 5	Core Sample	1159.1	2248413.54	363992.13			
RM644C5	Focus Area 5	Core Sample	1159.1	2248413.54	363992.13			
RM637C1		Core Sample	1115.6	2250033.37	326100.68			
RM637C2		Core Sample	1115.6	2250033.37	326100.68			
RM637C3		Core Sample	1115.6	2250033.37	326100.68	X		
RM637C4		Core Sample	1115.6	2250033.37	326100.68		X	
RM622C1		Core Sample	1075.2	2200696.15	343475.60			
RM622C2		Core Sample	1075.2	2200696.15	343475.60			
RM622C3		Core Sample	1075.2	2200696.15	343475.60			
RM622C4		Core Sample	1075.2	2200696.15	343475.60			
RM622C5		Core Sample	1075.2	2200696.15	343475.60			
RM622C6		Core Sample	1075.2	2200696.15	343475.60			
RM605C1	Focus Area 6	Core Sample	1075.6	2128806.86	351365.94			
RM605C3	Focus Area 6	Core Sample	1075.6	2128806.86	351365.94	X		
RM605C4	Focus Area 6	Core Sample	1075.6	2128806.86	351365.94			

MS/MSD = matrix spike/matrix spike duplicate

TABLE A-2

Analyses Conducted on Each Sample

Upper Columbia River RI/FS

Sample Name	Pesticides/ PCB Aroclors	Semivolatiles	Metals (Includes Hg and U)	Dioxins/ Furans	TOC	AVS/SEM (includes Hg)	Grain Size	Bioassay 10-day	Bioassay 7-day	Bioassay 28-day	Size-Fractionated Composite	Pore Water Dissolved TAL Metals (includes Hg and U)	TCLP Metals (includes Hg)	TCLP SVOAs	TCLP Pesticides/ PCBs
TRANSECT SAMPLES															
RM744X2	x	x	x		x		x								
RM741X1	x	x	x		x		x								
RM740X3	x	x	x		x		x								
RM739X1	x	x	x		x		x								
RM738X1	x	x	x		x		x								
RM737X2	x	x	x		x		x								
RM737X1	x	x	x		x		x								
RM736X3	x	x	x		x		x								
RM735X3	x	x	x		x		x								
RM735X1	x	x	x		x		x								
RM734X3	x	x	x		x		x								
RM733X3	x	x	x		x		x								
RM733X2	x	x	x		x		x								
RM732X3	x	x	x		x		x								
RM732X2	x	x	x		x		x								
RM732X1	x	x	x		x		x								
RM731X3	x	x	x		x		x								
RM731X1	x	x	x		x		x								
RM730X1	x	x	x		x		x								
RM729X3	x	x	x		x		x								
RM729X2	x	x	x		x		x								
RM728X3	x	x	x		x		x								
RM728X1	x	x	x		x		x								
RM727X3	x	x	x		x		x								
RM726X3	x	x	x		x		x								
RM726X2	x	x	x		x		x								
RM726X1	x	x	x		x		x								
RM725X3	x	x	x		x		x								
RM725X1	x	x	x		x		x								
RM724X2	x	x	x		x		x								
RM723X5	x	x	x		x		x								
RM723X4	x	x	x		x		x								
RM722X3	x	x	x		x		x								
RM722X2	x	x	x		x		x								
RM722X1	x	x	x		x		x								
RM721X3	x	x	x		x		x								
RM721X2	x	x	x		x		x								
RM721X1	x	x	x		x		x								
RM718X3	x	x	x		x		x								
RM718X2	x	x	x		x		x								
RM718X1	x	x	x		x		x								
RM715X3	x	x	x		x		x								
RM715X1	x	x	x		x		x								
RM713X1	x	x	x		x		x								
RM710X3	x	x	x		x		x								
RM710X2	x	x	x		x		x								
RM710X1	x	x	x		x		x								
RM708X2	x	x	x		x		x								
RM708X1	x	x	x		x		x								
RM707X3	x	x	x		x		x								
RM707X2	x	x	x		x		x								
RM707X1	x	x	x		x		x								
RM706X6	x	x	x		x		x								
RM706X5	x	x	x		x		x								
RM706X4	x	x	x		x		x								
RM706X3	x	x	x		x		x								
RM706X2	x	x	x		x		x								
RM705X3	x	x	x		x		x								
RM705X2	x	x	x		x		x								
RM705X1	x	x	x		x		x								
RM704X3	x	x	x		x		x								
RM704X2	x	x	x		x		x								
RM701X3	x	x	x		x		x								
RM701X2	x	x	x		x		x								
RM701X1	x	x	x		x		x								
RM698X3	x	x	x		x		x								
RM698X2	x	x	x		x		x								

TABLE A-2
Analyses Conducted on Each Sample
Upper Columbia River RI/FS

Sample Name	Pesticides/ PCB Aroclors	Semivolatiles	Metals (Includes Hg and U)	Dioxins/ Furans	TOC	AVS/SEM (includes Hg)	Grain Size	Bioassay 10-day	Bioassay 7-day	Bioassay 28-day	Size-Fractionated Composite	Pore Water Dissolved TAL Metals (includes Hg and U)	TCLP Metals (includes Hg)	TCLP SVOAs	TCLP Pesticides/ PCBs
RM695X3	x	x	x		x		x								
RM695X2	x	x	x		x		x								
RM695X1	x	x	x		x		x								
RM693X1	x	x	x		x		x								
RM692X2	x	x	x		x		x								
RM689X2	x	x	x		x		x								
RM689X1	x	x	x		x		x								
RM686X2	x	x	x		x		x								
RM686X1	x	x	x		x		x								
RM683X3	x	x	x		x		x								
RM683X2	x	x	x		x		x								
RM683X1	x	x	x		x		x								
RM681X1	x	x	x		x		x								
RM680X2	x	x	x		x		x								
RM679X3	x	x	x		x		x								
RM679X2	x	x	x		x		x								
RM679X1	x	x	x		x		x								
RM678X7	x	x	x		x		x								
RM678X6	x	x	x		x		x								
RM678X5	x	x	x		x		x								
RM678X4	x	x	x		x		x								
RM678X3	x	x	x		x		x								
RM678X2	x	x	x		x		x								
RM677X2	x	x	x		x		x								
RM677X1	x	x	x		x		x								
RM676X2	x	x	x		x		x								
RM676X1	x	x	x		x		x								
RM673X3	x	x	x		x		x								
RM673X2	x	x	x		x		x								
RM673X1	x	x	x		x		x								
RM670X3	x	x	x		x		x								
RM670X2	x	x	x		x		x								
RM670X1	x	x	x		x		x								
RM667X3	x	x	x		x		x								
RM667X2	x	x	x		x		x								
RM667X1	x	x	x		x		x								
RM664X3	x	x	x		x		x								
RM664X2	x	x	x		x		x								
RM664X1	x	x	x		x		x								
RM661X3	x	x	x		x		x								
RM661X2	x	x	x		x		x								
RM658X2	x	x	x		x		x								
RM658X1	x	x	x		x		x								
RM655X3	x	x	x		x		x								
RM655X2	x	x	x		x		x								
RM655X1	x	x	x		x		x								
RM652X3	x	x	x		x		x								
RM652X2	x	x	x		x		x								
RM652X1	x	x	x		x		x								
RM649X3	x	x	x		x		x								
RM649X2	x	x	x		x		x								
RM649X1	x	x	x		x		x								
RM646X3	x	x	x		x		x								
RM646X2	x	x	x		x		x								
RM646X1	x	x	x		x		x								
RM644X2	x	x	x		x		x								
RM644X1	x	x	x		x		x								
RM643X3	x	x	x		x		x								
RM643X2	x	x	x		x		x								
RM643X1	x	x	x		x		x								
RM642X7	x	x	x		x		x								
RM642X6	x	x	x		x		x								
RM642X5	x	x	x		x		x								
RM642X4	x	x	x		x		x								
RM642X3	x	x	x		x		x								
RM642X2	x	x	x		x		x								
RM641X3	x	x	x		x		x								
RM641X2	x	x	x		x		x								

TABLE A-2
Analyses Conducted on Each Sample
Upper Columbia River RI/FS

Sample Name	Pesticides/ PCB Aroclors	Semivolatiles	Metals (Includes Hg and U)	Dioxins/ Furans	TOC	AVS/SEM (includes Hg)	Grain Size	Bioassay 10-day	Bioassay 7-day	Bioassay 28-day	Size-Fractionated Composite	Pore Water Dissolved TAL Metals (includes Hg and U)	TCLP Metals (includes Hg)	TCLP SVOAs	TCLP Pesticides/ PCBs
RM640X2	x	x	x		x		x								
RM640X1	x	x	x		x		x								
RM637X7	x	x	x		x		x								
RM637X6	x	x	x		x		x								
RM637X5	x	x	x		x		x								
RM637X4	x	x	x		x		x								
RM637X3	x	x	x		x		x								
RM637X2	x	x	x		x		x								
RM634X3	x	x	x		x		x								
RM634X2	x	x	x		x		x								
RM631X3	x	x	x		x		x								
RM631X2	x	x	x		x		x								
RM631X1	x	x	x		x		x								
RM628X3	x	x	x		x		x								
RM628X2	x	x	x		x		x								
RM625X3	x	x	x		x		x								
RM625X2	x	x	x		x		x								
RM625X1	x	x	x		x		x								
RM622X2	x	x	x		x		x								
RM622X1	x	x	x		x		x								
RM619X3	x	x	x		x		x								
RM619X2	x	x	x		x		x								
RM619X1	x	x	x		x		x								
RM616X2	x	x	x		x		x								
RM616X1	x	x	x		x		x								
RM613X3	x	x	x		x		x								
RM613X2	x	x	x		x		x								
RM613X1	x	x	x		x		x								
RM610X3	x	x	x		x		x								
RM610X2	x	x	x		x		x								
RM610X1	x	x	x		x		x								
RM607X3	x	x	x		x		x								
RM607X2	x	x	x		x		x								
RM607X1	x	x	x		x		x								
RM606X2	x	x	x		x		x								
RM606X1	x	x	x		x		x								
RM605X9	x	x	x		x		x								
RM605X7	x	x	x		x		x								
RM605X6	x	x	x		x		x								
RM605X5	x	x	x		x		x								
RM605X4	x	x	x		x		x								
RM605X3	x	x	x		x		x								
RM605X2	x	x	x		x		x								
RM604X3	x	x	x		x		x								
RM604X2	x	x	x		x		x								
RM604X1	x	x	x		x		x								
RM603X3	x	x	x		x		x								
RM603X2	x	x	x		x		x								
RM600X3	x	x	x		x		x								
RM600X2	x	x	x		x		x								
RM600X1	x	x	x		x		x								
Total Number:	186	186	186		186		186								

TABLE A-2
Analyses Conducted on Each Sample
Upper Columbia River RI/FS

Sample Name	Pesticides/ PCB Aroclors	Semivolatiles	Metals (Includes Hg and U)	Dioxins/ Furans	TOC	AVS/SEM (includes Hg)	Grain Size	Bioassay 10-day	Bioassay 7-day	Bioassay 28-day	Size-Fractionated Composite	Pore Water Dissolved TAL Metals (includes Hg and U)	TCLP Metals (includes Hg)	TCLP SVOAs	TCLP Pesticides/ PCBs
BIOASSAY/TRANSECT/REFERENCE SAMPLES															
RM744A2(X3)	x	x	x		x	x	x	x	x	x		x			
RM744A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM743A2(X3)	x	x	x		x	x	x	x	x	x		x			
RM743A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM742A2(X5)	x	x	x		x	x	x	x	x	x		x			
RM742A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM741A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM740A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM739A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM738A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM737A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM736A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM734A1	x	x	x		x	x	x	x	x	x		x			
RM733A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM732R1	x	x	x		x	x	x	x	x	x		x			
RM730A1	x	x	x		x	x	x	x	x	x		x			
RM729A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM727A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM726R1	x	x	x		x	x	x	x	x	x		x			
RM724A2(X3)	x	x	x		x	x	x	x	x	x		x			
RM724A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM723A2(X3)	x	x	x		x	x	x	x	x	x		x			
RM723A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM721R1	x	x	x		x	x	x	x	x	x		x			
RM713A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM708A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM706A2(X7)	x	x	x		x	x	x	x	x	x		x			
RM706A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM705R1	x	x	x		x	x	x	x	x	x		x			
RM704A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM698A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM692A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM689A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM687A1	x	x	x		x	x	x	x	x	x		x			
RM686A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM686R1	x	x	x		x	x	x	x	x	x		x			
RM685R1	x	x	x		x	x	x	x	x	x		x			
RM680A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM678A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM677A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM676A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM661A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM658A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM644A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM642A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM641A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM640A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM637A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM634A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM628A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM622A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM616A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM606A1(X3)	x	x	x		x	x	x	x	x	x		x			
RM605A2(X8)	x	x	x		x	x	x	x	x	x		x			
RM605A1(X1)	x	x	x		x	x	x	x	x	x		x			
RM603A1(X1)	x	x	x		x	x	x	x	x	x		x			
Total Number:	56	56	56		56	56	56	56	56	56		56			

TABLE A-2

Analyses Conducted on Each Sample

Upper Columbia River RI/FS

Sample Name	Pesticides/ PCB Aroclors	Semivolatiles	Metals (Includes Hg and U)	Dioxins/ Furans	TOC	AVS/SEM (includes Hg)	Grain Size	Bioassay 10-day	Bioassay 7-day	Bioassay 28-day	Size-Fractionated Composite	Pore Water Dissolved TAL Metals (includes Hg and U)	TCLP Metals (includes Hg)	TCLP SVOAs	TCLP Pesticides/ PCBs
TRIBUTARY MOUTH SAMPLES															
RM736T1	x	x	x		x		x								
RM730T1	x	x	x		x		x								
RM729T2	x	x	x		x		x								
RM706T2	x	x	x		x		x								
RM706T1	x	x	x		x		x								
RM699T1	x	x	x		x		x								
RM639T2	x	x	x		x		x								
RM639T1	x	x	x		x		x								
RM616T2	x	x	x		x		x								
RM616T1	x	x	x		x		x								
Total Number:	10	10	10		10		10								
BEACH SAMPLES															
RM742B3	x	x	x	x	x		x								
RM742B2	x	x	x	x	x		x								
RM742B1	x	x	x	x	x		x								
RM735B3R	x	x	x		x		x								
RM735B3L	x	x	x		x		x								
RM735B3c	x	x	x		x		x								
RM735B2R	x	x	x		x		x								
RM735B2L	x	x	x		x		x								
RM735B2c	x	x	x		x		x								
RM735B1R	x	x	x		x		x								
RM735B1L	x	x	x		x		x								
RM735B1c	x	x	x		x		x								
RM735BSF	x	x	x	x	x		x				x				
RM729B3	x	x	x	x	x		x								
RM729B2	x	x	x	x	x		x								
RM729B1	x	x	x	x	x		x								
RM718B3	x	x	x	x	x		x								
RM718B2	x	x	x	x	x		x								
RM718B1	x	x	x	x	x		x								
RM708B3	x	x	x	x	x		x								
RM708B2	x	x	x	x	x		x								
RM708B1	x	x	x	x	x		x								
RM700B3R	x	x	x		x		x								
RM700B3L	x	x	x		x		x								
RM700B3c	x	x	x		x		x								
RM700B2R	x	x	x		x		x								
RM700B2L	x	x	x		x		x								
RM700B2c	x	x	x		x		x								
RM700B1R	x	x	x		x		x								
RM700B1L	x	x	x		x		x								
RM700B1c	x	x	x		x		x								
RM700BSF	x	x	x	x	x		x				x				
RM697B3	x	x	x	x	x		x								
RM697B2	x	x	x	x	x		x								
RM697B1	x	x	x	x	x		x								
RM690B3	x	x	x	x	x		x								
RM690B2	x	x	x	x	x		x								
RM690B1	x	x	x	x	x		x								
RM675B3	x	x	x	x	x		x								
RM675B2	x	x	x	x	x		x								
RM675B1	x	x	x	x	x		x								
RM673B3	x	x	x	x	x		x								
RM673B2	x	x	x	x	x		x								
RM673B1	x	x	x	x	x		x								
RM658B3	x	x	x	x	x		x								
RM658B2	x	x	x	x	x		x								
RM658B1	x	x	x	x	x		x								
RM642B3R	x	x	x		x		x								
RM642B3L	x	x	x		x		x								
RM642B3c	x	x	x		x		x								
RM642B2R	x	x	x		x		x								
RM642B2L	x	x	x		x		x								
RM642B2c	x	x	x		x		x								
RM642B1R	x	x	x		x		x								

TABLE A-2
Analyses Conducted on Each Sample
Upper Columbia River RI/FS

Sample Name	Pesticides/ PCB Aroclors	Semivolatiles	Metals (Includes Hg and U)	Dioxins/ Furans	TOC	AVS/SEM (includes Hg)	Grain Size	Bioassay 10-day	Bioassay 7-day	Bioassay 28-day	Size-Fractionated Composite	Pore Water Dissolved TAL Metals (includes Hg and U)	TCLP Metals (includes Hg)	TCLP SVOAs	TCLP Pesticides/ PCBs
RM642B1L	x	x	x		x		x								
RM642B1c	x	x	x		x		x								
RM642BSF	x	x	x	x	x		x				x				
RM633B3	x	x	x	x	x		x								
RM633B2	x	x	x	x	x		x								
RM633B1	x	x	x	x	x		x								
RM615B3	x	x	x	x	x		x								
RM615B2	x	x	x	x	x		x								
RM615B1	x	x	x	x	x		x								
RM600B3	x	x	x	x	x		x								
RM600B2	x	x	x	x	x		x								
RM600B1	x	x	x	x	x		x								
Total Number:	66	66	66	39	66		66				3				
CORE SAMPLES															
RM708C1	x	x	x	x	x		x								
RM708C2	x	x	x	x	x		x								
RM708C3	x	x	x	x	x		x								
RM708C4	x	x	x	x	x		x								
RM708C5	x	x	x	x	x		x								
RM704C1	x	x	x	x	x		x								
RM704C2	x	x	x	x	x		x								
RM704C3	x	x	x	x	x		x								
RM704C4	x	x	x	x	x		x								
RM704C5	x	x	x	x	x		x								
RM704C6	x	x	x	x	x		x								
RM692C1	x	x	x	x	x		x								
RM692C2	x	x	x	x	x		x								
RM692C3	x	x	x	x	x		x								
RM692C4	x	x	x	x	x		x								
RM692C5	x	x	x	x	x		x								
RM676C1	x	x	x	x	x		x								
RM676C2	x	x	x	x	x		x								
RM676C3	x	x	x	x	x		x								
RM676C4	x	x	x	x	x		x								
RM676C5	x	x	x	x	x		x								
RM661C1	x	x	x	x	x		x								
RM661C2	x	x	x	x	x		x								
RM661C3	x	x	x	x	x		x								
RM661C4	x	x	x	x	x		x								
RM661C5	x	x	x	x	x		x								
RM644C1	x	x	x	x	x		x								
RM644C2	x	x	x	x	x		x								
RM644C3	x	x	x	x	x		x								
RM644C4	x	x	x	x	x		x								
RM644C5	x	x	x	x	x		x								
RM637C1	x	x	x	x	x		x								
RM637C2	x	x	x	x	x		x								
RM637C3	x	x	x	x	x		x								
RM637C4	x	x	x	x	x		x								
RM622C1	x	x	x	x	x		x								
RM622C2	x	x	x	x	x		x								
RM622C3	x	x	x	x	x		x								
RM622C4	x	x	x	x	x		x								
RM622C5	x	x	x	x	x		x								
RM622C6	x	x	x	x	x		x								
RM605C1	x	x	x	x	x		x								
RM605C3	x	x	x	x	x		x								
RM605C4	x	x	x	x	x		x								
Total Number:	44	44	44	44	44		44								
IDW SAMPLE															
IDW - Solid 1	x	x	x										x	x	x

AVS/SEM = acid volatile sulfides/simultaneously extracted metals
IDW = investigation-derived waste
PCB = polychlorinated biphenyl
SVOA = semivolatile organic aromatic
TAL = Target Analyte List
TCLP = Toxicity Characteristic Leaching Procedure
TOC = total organic carbon

APPENDIX B

QA/QC Sample Information

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM603X2	28-Apr-05	415.1	Total organic carbon	mg/Kg	18000	17200	4.5%
RM603X2	28-Apr-05	ASTMD422	<200 Total	Percent	99.4	99.4	0.0%
RM603X2	28-Apr-05	ASTMD422	Clay	Percent	31.808	29.82	6.5%
RM603X2	28-Apr-05	ASTMD422	Co. Sand	Percent	0	0	0.0%
RM603X2	28-Apr-05	ASTMD422	Colloids	Percent	34.79	37.772	8.2%
RM603X2	28-Apr-05	ASTMD422	Fine Sand	Percent	0.6	0.4	40.0%
RM603X2	28-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM603X2	28-Apr-05	ASTMD422	Med. Sand	Percent	0	0.2	200.0%
RM603X2	28-Apr-05	ASTMD422	Sand Total	Percent	0.6	0.6	0.0%
RM603X2	28-Apr-05	ASTMD422	Silt	Percent	32.802	31.808	3.1%
RM603X2	28-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	34000	28700	16.9%
RM603X2	28-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	16.3 UR	16.7 UR	NC
RM603X2	28-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	12.6	12.7	0.8%
RM603X2	28-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	393	349	11.9%
RM603X2	28-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	2.7	2.3	16.0%
RM603X2	28-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	5.3	4.8	9.9%
RM603X2	28-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	6470	6010	7.4%
RM603X2	28-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	46.5	40.3	14.3%
RM603X2	28-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	19.4	17.5	10.3%
RM603X2	28-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	89.5	80.7	10.3%
RM603X2	28-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	45800	42700	7.0%
RM603X2	28-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	144	137	5.0%
RM603X2	28-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	11100	10200	8.5%
RM603X2	28-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	2290	2140	6.8%
RM603X2	28-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.48	0.37	25.9%
RM603X2	28-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	39.2	35.2	10.8%
RM603X2	28-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	4860	3870	22.7%
RM603X2	28-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	5 J	5 J	0.0%
RM603X2	28-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	2.7 UJ	2.8 UJ	NC
RM603X2	28-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	581 J	485 J	18.0%
RM603X2	28-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	6.8 U	7 U	NC
RM603X2	28-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	54.4 U	55.7 U	NC
RM603X2	28-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	64.7	54.8	16.6%
RM603X2	28-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	701	640	9.1%
RM603X2	28-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	2 J	2 J	0.0%
RM603X2	28-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	18 U	18 U	NC
RM603X2	28-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	18 U	18 U	NC
RM603X2	28-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	18 U	18 U	NC
RM603X2	28-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	0.7 J	18 U	NC
RM603X2	28-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	18 U	18 U	NC
RM603X2	28-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	18 U	18 U	NC
RM603X2	28-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	18 U	18 U	NC
RM603X2	28-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	18 U	18 U	NC
RM603X2	28-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	2 J	1 J	66.7%
RM603X2	28-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	18 U	18 U	NC
RM603X2	28-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	18 U	18 U	NC
RM603X2	28-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	2 J	1 J	66.7%
RM603X2	28-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	18 U	18 U	NC
RM603X2	28-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	1 J	18 U	NC
RM603X2	28-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4 J	4 J	0.0%
RM603X2	28-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	2 J	1 J	66.7%
RM603X2	28-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	1 J	1 J	0.0%
RM603X2	28-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	3.5 UR	3.5 UR	NC
RM603X2	28-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	14 UR	14 UR	NC
RM603X2	28-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	14 UR	14 UR	NC
RM603X2	28-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	3.5 UR	3.5 UR	NC
RM603X2	28-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	3.5 UR	3.5 UR	NC
RM603X2	28-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	3.5 UR	3.5 UR	NC
RM603X2	28-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	3.5 UR	3.5 UR	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	2.8 U	2.8 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	2.8 U	2.8 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	2.8 U	2.8 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	2.8 U	2.8 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	2.8 U	2.8 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	2.8 U	2.8 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	1.4 U	1.4 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM603X2	28-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	2.8 U	2.8 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	2.8 U	2.8 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	2.8 U	2.8 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	2.8 U	2.8 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	2.8 U	2.8 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	2.8 U	2.8 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	14 U	14 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	140 U	140 U	NC
RM603X2	28-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	1.4 U	1.4 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	880 U	870 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	880 UJ	870 UJ	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	880 U	870 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	880 U	870 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	880 U	870 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	880 U	870 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	880 U	870 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	350 UJ	340 UJ	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	350 UR	340 UR	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	350 U	340 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	880 U	870 U	NC
RM603X2	28-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	350 U	340 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM603X2	28-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	350 U	340 U	NC
RM605C1	3-May-05	415.1	Total organic carbon	mg/Kg	5140	5400	4.9%
RM605C1	3-May-05	ASTMD422	<200 Total	Percent	75.4	74.6	1.1%
RM605C1	3-May-05	ASTMD422	Clay	Percent	9.048	8.952	1.1%
RM605C1	3-May-05	ASTMD422	Co. Sand	Percent	0.2	0	200.0%
RM605C1	3-May-05	ASTMD422	Colloids	Percent	9.048	8.952	1.1%
RM605C1	3-May-05	ASTMD422	Fine Sand	Percent	22.6	23.8	5.2%
RM605C1	3-May-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM605C1	3-May-05	ASTMD422	Med. Sand	Percent	1.8	1.6	11.8%
RM605C1	3-May-05	ASTMD422	Sand Total	Percent	24.6	25.4	3.2%
RM605C1	3-May-05	ASTMD422	Silt	Percent	57.304	56.696	1.1%
RM605C1	3-May-05	CLP TAL TotMetals	Aluminum	mg/Kg	15800	15600	1.3%
RM605C1	3-May-05	CLP TAL TotMetals	Antimony	mg/Kg	8.4 UJ	8 UJ	NC
RM605C1	3-May-05	CLP TAL TotMetals	Arsenic	mg/Kg	4.8	3.5	31.3%
RM605C1	3-May-05	CLP TAL TotMetals	Barium	mg/Kg	179	148	19.0%
RM605C1	3-May-05	CLP TAL TotMetals	Beryllium	mg/Kg	1.3	1.1	16.7%
RM605C1	3-May-05	CLP TAL TotMetals	Cadmium	mg/Kg	0.43 J	0.36 J	17.7%
RM605C1	3-May-05	CLP TAL TotMetals	Calcium	mg/Kg	4060	3250	22.2%
RM605C1	3-May-05	CLP TAL TotMetals	Chromium	mg/Kg	16.2	14	14.6%
RM605C1	3-May-05	CLP TAL TotMetals	Cobalt	mg/Kg	9.3	6.9	29.6%
RM605C1	3-May-05	CLP TAL TotMetals	Copper	mg/Kg	20.9	18	14.9%
RM605C1	3-May-05	CLP TAL TotMetals	Iron	mg/Kg	18700	15400	19.4%
RM605C1	3-May-05	CLP TAL TotMetals	Lead	mg/Kg	20	15.3	26.6%
RM605C1	3-May-05	CLP TAL TotMetals	Magnesium	mg/Kg	5360	4220	23.8%
RM605C1	3-May-05	CLP TAL TotMetals	Manganese	mg/Kg	486	395	20.7%
RM605C1	3-May-05	CLP TAL TotMetals	Mercury	mg/Kg	0.052 J	0.029 J	56.8%
RM605C1	3-May-05	CLP TAL TotMetals	Nickel	mg/Kg	14.7	11.4	25.3%
RM605C1	3-May-05	CLP TAL TotMetals	Potassium	mg/Kg	3450	3280	5.1%
RM605C1	3-May-05	CLP TAL TotMetals	Selenium	mg/Kg	2.5 J	1.4 J	56.4%
RM605C1	3-May-05	CLP TAL TotMetals	Silver	mg/Kg	1.4 UJ	1.3 UR	NC
RM605C1	3-May-05	CLP TAL TotMetals	Sodium	mg/Kg	491 J	558 J	12.8%
RM605C1	3-May-05	CLP TAL TotMetals	Thallium	mg/Kg	3.5 U	3.3 UJ	NC
RM605C1	3-May-05	CLP TAL TotMetals	Uranium	mg/Kg	28.2 U	5.7 U	NC
RM605C1	3-May-05	CLP TAL TotMetals	Vanadium	mg/Kg	28.5	24.7	14.3%
RM605C1	3-May-05	CLP TAL TotMetals	Zinc	mg/Kg	80.5	60.8	27.9%
RM605C1	3-May-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.5 J	0.4 J	22.2%
RM605C1	3-May-05	CLP TCL PAH	Acenaphthene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Acenaphthylene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Anthracene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Chrysene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Dibenzofuran	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Fluoranthene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Fluorene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PAH	Naphthalene	µg/Kg	4.7 U	4.3 U	NC
RM605C1	3-May-05	CLP TCL PAH	Phenanthrene	µg/Kg	6 U	0.2 J	NC
RM605C1	3-May-05	CLP TCL PAH	Pyrene	µg/Kg	6 U	5 U	NC
RM605C1	3-May-05	CLP TCL PCBs	PCB-1016	µg/Kg	2.3 U	2.1 U	NC
RM605C1	3-May-05	CLP TCL PCBs	PCB-1221	µg/Kg	9.3 U	8.6 U	NC
RM605C1	3-May-05	CLP TCL PCBs	PCB-1232	µg/Kg	9.3 U	8.6 U	NC
RM605C1	3-May-05	CLP TCL PCBs	PCB-1242	µg/Kg	2.3 U	2.1 U	NC
RM605C1	3-May-05	CLP TCL PCBs	PCB-1248	µg/Kg	2.3 U	2.1 U	NC
RM605C1	3-May-05	CLP TCL PCBs	PCB-1254	µg/Kg	2.3 U	2.1 U	NC
RM605C1	3-May-05	CLP TCL PCBs	PCB-1260	µg/Kg	2.3 U	2.1 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.93 U	0.86 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.93 U	0.86 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.93 U	0.86 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.93 U	0.86 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.93 U	0.86 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.93 U	0.86 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.46 U	0.42 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM605C1	3-May-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.93 U	0.86 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.93 U	0.86 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.93 U	0.86 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Endrin	µg/Kg	0.93 U	0.86 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.93 U	0.86 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.93 U	0.86 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4.6 U	4.2 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	Toxaphene	µg/Kg	46 U	42 U	NC
RM605C1	3-May-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.46 U	0.42 U	NC
RM605C1	3-May-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	290 U	270 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	290 U	270 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	290 U	270 U	NC
RM605C1	3-May-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	290 U	270 U	NC
RM605C1	3-May-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	290 U	270 U	NC
RM605C1	3-May-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	290 U	270 U	NC
RM605C1	3-May-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	290 U	270 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Acetophenone	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Atrazine	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Benzoic acid	µg/Kg	110 UR	110 UR	NC
RM605C1	3-May-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Caprolactam	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Carbazole	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Isophorone	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	290 U	270 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM605C1	3-May-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	CLP TCL SVOC	Phenol	µg/Kg	110 U	110 U	NC
RM605C1	3-May-05	Dioxins and Furans	% Moisture	%	22.1	23.3	5.3%
RM605C1	3-May-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	1.02 J	0.898 J	12.7%
RM605C1	3-May-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	0.234 J	0.202 J	14.7%
RM605C1	3-May-05	Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	0.0979 U	0.066 U	NC
RM605C1	3-May-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	0.0767 U	0.0427 J	NC
RM605C1	3-May-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	0.0431 U	0.0398 U	NC
RM605C1	3-May-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	0.0759 U	0.0523 U	NC
RM605C1	3-May-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	0.0611 U	0.0335 U	NC
RM605C1	3-May-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	0.0942 U	0.0728 J	NC
RM605C1	3-May-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	0.0693 U	0.0559 U	NC
RM605C1	3-May-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	0.0529 U	0.0604 U	NC
RM605C1	3-May-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	0.052 U	0.0385 J	NC
RM605C1	3-May-05	Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	0.0372 J	0.0385 J	3.4%
RM605C1	3-May-05	Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	0.0743 U	0.0402 U	NC
RM605C1	3-May-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	0.0393 U	0.0389 U	NC
RM605C1	3-May-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	PG/G	0.143 J	0.138 J	3.6%
RM605C1	3-May-05	Dioxins and Furans	Heptachlorodibenzodioxin (Total)	PG/G	1.91	1.67	13.4%
RM605C1	3-May-05	Dioxins and Furans	Heptachlorodibenzofuran (Total)	PG/G	0.408	0.371	9.5%
RM605C1	3-May-05	Dioxins and Furans	Hexachlorodibenzodioxin (Total)	PG/G	0.0765 U	0.115	NC
RM605C1	3-May-05	Dioxins and Furans	Hexachlorodibenzofuran (Total)	PG/G	0.178 J	0.23 J	25.5%
RM605C1	3-May-05	Dioxins and Furans	Octachlorodibenzodioxin	PG/G	6.21	5.99	3.6%
RM605C1	3-May-05	Dioxins and Furans	Octachlorodibenzofuran	PG/G	0.386 J	0.3 J	25.1%
RM605C1	3-May-05	Dioxins and Furans	Pentachlorodibenzodioxin (Total)	PG/G	0.0628	0.0604 U	NC
RM605C1	3-May-05	Dioxins and Furans	Pentachlorodibenzofuran (Total)	PG/G	0.126 J	0.1 J	23.0%
RM605C1	3-May-05	Dioxins and Furans	TEQ WHO-98	PG/G	0.0312	0.0425	30.7%
RM605C1	3-May-05	Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	PG/G	0.0393 U	0.0389 U	NC
RM605C1	3-May-05	Dioxins and Furans	Tetrachlorodibenzofuran (Total)	PG/G	0.381	0.275	32.3%
RM605X5	29-Apr-05	415.1	Total organic carbon	mg/Kg	18100	17300	4.5%
RM605X5	29-Apr-05	ASTMD422	<200 Total	Percent	99.6	99.4	0.2%
RM605X5	29-Apr-05	ASTMD422	Clay	Percent	38.844	39.76	2.3%
RM605X5	29-Apr-05	ASTMD422	Co. Sand	Percent	0	0	0.0%
RM605X5	29-Apr-05	ASTMD422	Colloids	Percent	36.852	36.778	0.2%
RM605X5	29-Apr-05	ASTMD422	Fine Sand	Percent	0.2	0.4	66.7%
RM605X5	29-Apr-05	ASTMD422	Gravel	Percent	0.2	0.2	0.0%
RM605X5	29-Apr-05	ASTMD422	Med. Sand	Percent	0	0	0.0%
RM605X5	29-Apr-05	ASTMD422	Sand Total	Percent	0.2	0.4	66.7%
RM605X5	29-Apr-05	ASTMD422	Silt	Percent	23.904	22.862	4.5%
RM605X5	29-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	13900	28100	67.6%
RM605X5	29-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	22 UR	23.7 UR	NC
RM605X5	29-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	4.9	10.3	71.1%
RM605X5	29-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	183	345	61.4%
RM605X5	29-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1.2 J	2.2	58.8%
RM605X5	29-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	4	6.9	53.2%
RM605X5	29-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	3170	5780	58.3%
RM605X5	29-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	23.9	44.4	60.0%
RM605X5	29-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	9.3 J	17.2 J	59.6%
RM605X5	29-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	49.3	87	55.3%
RM605X5	29-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	22000	38000	53.3%
RM605X5	29-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	115	194	51.1%
RM605X5	29-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	5220	9400	57.2%
RM605X5	29-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	809	1540	62.2%
RM605X5	29-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.86	0.74	15.0%
RM605X5	29-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	19.3	35.2	58.3%
RM605X5	29-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	2140	4480	70.7%
RM605X5	29-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	6.4 J	6.5 J	1.6%
RM605X5	29-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	3.7 UJ	4 UJ	NC
RM605X5	29-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	216 J	446 J	69.5%
RM605X5	29-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	9.2 U	9.9 U	NC
RM605X5	29-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	73.4 UJ	79.1 UJ	NC
RM605X5	29-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	28.9	55.5	63.0%
RM605X5	29-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	437 J	778 J	56.1%
RM605X5	29-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	1 J	1 J	0.0%
RM605X5	29-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	15 U	16 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM605X5	29-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	1 J	0.6 J	50.0%
RM605X5	29-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4 J	4 J	0.0%
RM605X5	29-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	1 J	0.6 J	50.0%
RM605X5	29-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	15 U	16 U	NC
RM605X5	29-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	2.9 UJ	3.1 UJ	NC
RM605X5	29-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	12 UJ	12 UJ	NC
RM605X5	29-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	12 UJ	12 UJ	NC
RM605X5	29-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	2.9 UJ	3.1 UJ	NC
RM605X5	29-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	2.9 UJ	3.1 UJ	NC
RM605X5	29-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	2.9 UJ	3.1 UJ	NC
RM605X5	29-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	2.9 UJ	3.1 UJ	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	2.4 U	2.5 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	2.4 U	2.5 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	2.4 U	2.5 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	2.4 U	2.5 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	2.4 U	2.5 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	2.4 U	2.5 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	2.4 U	2.5 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	2.4 U	2.5 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	2.4 U	2.5 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	2.4 U	2.5 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	2.4 U	2.5 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	2.4 U	2.5 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	12 U	12 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	120 U	120 U	NC
RM605X5	29-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	1.2 U	1.2 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	750 U	780 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	750 UJ	780 UJ	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	750 U	780 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	750 U	780 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	750 U	780 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM605X5	29-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	750 U	780 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	750 U	780 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	290 UJ	310 UJ	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	290 UR	310 UR	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	750 U	780 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	290 U	310 U	NC
RM605X5	29-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	290 U	310 U	NC
RM625X2	28-Apr-05	415.1	Total organic carbon	mg/Kg	14700	14900	1.4%
RM625X2	28-Apr-05	ASTMD422	<200 Total	Percent	97.6	97.4	0.2%
RM625X2	28-Apr-05	ASTMD422	Clay	Percent	20.496	19.48	5.1%
RM625X2	28-Apr-05	ASTMD422	Co. Sand	Percent	0.2	0	200.0%
RM625X2	28-Apr-05	ASTMD422	Colloids	Percent	17.568	20.454	15.2%
RM625X2	28-Apr-05	ASTMD422	Fine Sand	Percent	2.2	2.2	0.0%
RM625X2	28-Apr-05	ASTMD422	Gravel	Percent	0	0.2	200.0%
RM625X2	28-Apr-05	ASTMD422	Med. Sand	Percent	0	0.2	200.0%
RM625X2	28-Apr-05	ASTMD422	Sand Total	Percent	2.4	2.4	0.0%
RM625X2	28-Apr-05	ASTMD422	Silt	Percent	59.536	57.466	3.5%
RM625X2	28-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	19600	18800	4.2%
RM625X2	28-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	13.3 UR	13 UR	NC
RM625X2	28-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	5	5.8	14.8%
RM625X2	28-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	208	206	1.0%
RM625X2	28-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1.9	1.9	0.0%
RM625X2	28-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	2	2.1	4.9%
RM625X2	28-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	4910	4790	2.5%
RM625X2	28-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	26.4	26.2	0.8%
RM625X2	28-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	15.5	14.9	3.9%
RM625X2	28-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	38.9	39.6	1.8%
RM625X2	28-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	32100	31300	2.5%
RM625X2	28-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	68.3	69.1	1.2%
RM625X2	28-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	7010	6920	1.3%
RM625X2	28-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	836	856	2.4%
RM625X2	28-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.2 J	0.2 J	0.0%
RM625X2	28-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	23.5	23.5	0.0%
RM625X2	28-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	2840	2780	2.1%
RM625X2	28-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.2 J	3.2 J	0.0%
RM625X2	28-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	2.2 UR	2.2 UR	NC
RM625X2	28-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	328 J	309 J	6.0%
RM625X2	28-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	5.5 U	5.4 U	NC
RM625X2	28-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	44.2 UJ	43.2 UJ	NC
RM625X2	28-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	49.3	48.6	1.4%
RM625X2	28-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	299	303	1.3%
RM625X2	28-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.8 J	1 J	22.2%
RM625X2	28-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	10 U	10 U	NC
RM625X2	28-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	10 U	10 U	NC
RM625X2	28-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	10 U	10 U	NC
RM625X2	28-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	0.8 J	0.8 J	0.0%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM625X2	28-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	10 U	10 U	NC
RM625X2	28-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	10 U	10 U	NC
RM625X2	28-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	10 U	10 U	NC
RM625X2	28-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	10 U	10 U	NC
RM625X2	28-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	2 J	1 J	66.7%
RM625X2	28-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	10 U	0.4 J	NC
RM625X2	28-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	10 UJ	10 UJ	NC
RM625X2	28-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	2 J	2 J	0.0%
RM625X2	28-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	10 U	10 U	NC
RM625X2	28-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	10 U	10 U	NC
RM625X2	28-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	2 J	3 J	40.0%
RM625X2	28-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	1 J	1 J	0.0%
RM625X2	28-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	1 J	2 J	66.7%
RM625X2	28-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	2 UJ	1.9 U	NC
RM625X2	28-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	8 UJ	7.7 U	NC
RM625X2	28-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	8 UJ	7.7 U	NC
RM625X2	28-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	2 UJ	1.9 U	NC
RM625X2	28-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	2 UJ	1.9 U	NC
RM625X2	28-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	2 UJ	1.9 U	NC
RM625X2	28-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	2 UJ	1.9 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1.6 U	1.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1.6 U	1.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1.6 U	1.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1.6 U	1.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	1.6 U	1.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	1.6 U	1.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1.6 U	1.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1.6 U	1.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1.6 U	1.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1.6 U	1.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1.6 U	1.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1.6 U	1.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	7.9 U	7.6 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	79 U	76 U	NC
RM625X2	28-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.79 U	0.76 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	500 U	490 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	500 UJ	490 UJ	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	500 U	490 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	500 U	490 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM625X2	28-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	500 U	490 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	500 U	490 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	500 U	490 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	200 UJ	190 UJ	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	200 UJ	190 UJ	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	500 U	490 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	200 U	190 U	NC
RM625X2	28-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	200 U	190 U	NC
RM628X3	2-May-05	415.1	Total organic carbon	mg/Kg	40400	28800	33.5%
RM628X3	2-May-05	ASTMD422	<200 Total	Percent	45.2991	41.4	9.0%
RM628X3	2-May-05	ASTMD422	Clay	Percent	3.38776	3.726	9.5%
RM628X3	2-May-05	ASTMD422	Co. Sand	Percent	5.34188	7.2	29.6%
RM628X3	2-May-05	ASTMD422	Colloids	Percent	4.35569	3.312	27.2%
RM628X3	2-May-05	ASTMD422	Fine Sand	Percent	28.4188	29.6	4.1%
RM628X3	2-May-05	ASTMD422	Gravel	Percent	1.1	2.6	81.1%
RM628X3	2-May-05	ASTMD422	Med. Sand	Percent	19.8718	19.2	3.4%
RM628X3	2-May-05	ASTMD422	Sand Total	Percent	53.6325	56	4.3%
RM628X3	2-May-05	ASTMD422	Silt	Percent	37.5557	34.362	8.9%
RM628X3	2-May-05	CLP TAL TotMetals	Aluminum	mg/Kg	10900	11200	2.7%
RM628X3	2-May-05	CLP TAL TotMetals	Antimony	mg/Kg	7.7 UJ	7.4 UJ	NC
RM628X3	2-May-05	CLP TAL TotMetals	Arsenic	mg/Kg	1.2 J	0.96 J	22.2%
RM628X3	2-May-05	CLP TAL TotMetals	Barium	mg/Kg	152	147	3.3%
RM628X3	2-May-05	CLP TAL TotMetals	Beryllium	mg/Kg	1.1	1	9.5%
RM628X3	2-May-05	CLP TAL TotMetals	Cadmium	mg/Kg	4.4	4.5	2.2%
RM628X3	2-May-05	CLP TAL TotMetals	Calcium	mg/Kg	5710	6150	7.4%
RM628X3	2-May-05	CLP TAL TotMetals	Chromium	mg/Kg	19.3	18.6	3.7%
RM628X3	2-May-05	CLP TAL TotMetals	Cobalt	mg/Kg	6.6	6 J	9.5%
RM628X3	2-May-05	CLP TAL TotMetals	Copper	mg/Kg	28.2	27.4	2.9%
RM628X3	2-May-05	CLP TAL TotMetals	Iron	mg/Kg	14800	13300	10.7%
RM628X3	2-May-05	CLP TAL TotMetals	Lead	mg/Kg	48.9	41.3	16.9%
RM628X3	2-May-05	CLP TAL TotMetals	Magnesium	mg/Kg	4460	4320	3.2%
RM628X3	2-May-05	CLP TAL TotMetals	Manganese	mg/Kg	181	178	1.7%
RM628X3	2-May-05	CLP TAL TotMetals	Mercury	mg/Kg	0.15	0.1 J	40.0%
RM628X3	2-May-05	CLP TAL TotMetals	Nickel	mg/Kg	11	11.2	1.8%
RM628X3	2-May-05	CLP TAL TotMetals	Potassium	mg/Kg	1880	1970	4.7%
RM628X3	2-May-05	CLP TAL TotMetals	Selenium	mg/Kg	2.5 J	1.7 J	38.1%
RM628X3	2-May-05	CLP TAL TotMetals	Silver	mg/Kg	1.3 UJ	1.2 UR	NC
RM628X3	2-May-05	CLP TAL TotMetals	Sodium	mg/Kg	198 J	212 UJ	NC
RM628X3	2-May-05	CLP TAL TotMetals	Thallium	mg/Kg	3.2 U	3.1 UJ	NC
RM628X3	2-May-05	CLP TAL TotMetals	Uranium	mg/Kg	25.6 U	9.4 U	NC
RM628X3	2-May-05	CLP TAL TotMetals	Vanadium	mg/Kg	28.6	26	9.5%
RM628X3	2-May-05	CLP TAL TotMetals	Zinc	mg/Kg	291	282	3.1%
RM628X3	2-May-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.7 J	0.9 J	25.0%
RM628X3	2-May-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM628X3	2-May-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM628X3	2-May-05	CLP TCL PAH	Anthracene	µg/Kg	2 J	1 J	66.7%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM628X3	2-May-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	9	7	25.0%
RM628X3	2-May-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	9	8	11.8%
RM628X3	2-May-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	14	17	19.4%
RM628X3	2-May-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	6	8	28.6%
RM628X3	2-May-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	10	10	0.0%
RM628X3	2-May-05	CLP TCL PAH	Chrysene	µg/Kg	20	16	22.2%
RM628X3	2-May-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	2 J	3 J	40.0%
RM628X3	2-May-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	5 U	NC
RM628X3	2-May-05	CLP TCL PAH	Fluoranthene	µg/Kg	9	15	50.0%
RM628X3	2-May-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM628X3	2-May-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	10	13	26.1%
RM628X3	2-May-05	CLP TCL PAH	Naphthalene	µg/Kg	2 J	2 J	0.0%
RM628X3	2-May-05	CLP TCL PAH	Phenanthrene	µg/Kg	2 J	4 J	66.7%
RM628X3	2-May-05	CLP TCL PAH	Pyrene	µg/Kg	7	10	35.3%
RM628X3	2-May-05	CLP TCL PCBs	PCB-1016	µg/Kg	2.2 U	2.1 U	NC
RM628X3	2-May-05	CLP TCL PCBs	PCB-1221	µg/Kg	8.8 U	8.6 U	NC
RM628X3	2-May-05	CLP TCL PCBs	PCB-1232	µg/Kg	8.8 U	8.6 U	NC
RM628X3	2-May-05	CLP TCL PCBs	PCB-1242	µg/Kg	2.2 U	2.1 U	NC
RM628X3	2-May-05	CLP TCL PCBs	PCB-1248	µg/Kg	2.2 U	2.1 U	NC
RM628X3	2-May-05	CLP TCL PCBs	PCB-1254	µg/Kg	2.2 U	2.1 U	NC
RM628X3	2-May-05	CLP TCL PCBs	PCB-1260	µg/Kg	2.2 U	2.1 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.88 U	0.86 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.88 U	0.86 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.88 U	0.86 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.88 U	0.86 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.88 U	0.86 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.88 U	0.86 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.88 U	0.86 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.88 U	0.86 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.88 U	0.86 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Endrin	µg/Kg	0.88 U	0.86 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.88 U	0.86 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.88 U	0.86 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4.3 U	4.3 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	Toxaphene	µg/Kg	43 U	43 U	NC
RM628X3	2-May-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.43 U	0.43 U	NC
RM628X3	2-May-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	280 U	270 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	280 U	270 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	280 U	270 U	NC
RM628X3	2-May-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	110 U	110 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM628X3	2-May-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	280 U	270 U	NC
RM628X3	2-May-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	280 U	270 U	NC
RM628X3	2-May-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	280 U	270 U	NC
RM628X3	2-May-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	280 U	270 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Acetophenone	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Atrazine	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Benzoic acid	µg/Kg	110 UR	110 UR	NC
RM628X3	2-May-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Caprolactam	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Carbazole	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Isophorone	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	280 U	270 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	110 U	110 U	NC
RM628X3	2-May-05	CLP TCL SVOC	Phenol	µg/Kg	110 U	110 U	NC
RM637C1	29-Apr-05	415.1	Total organic carbon	mg/Kg	4070	3320	20.3%
RM637C1	29-Apr-05	ASTMD422	<200 Total	Percent	18	18.7	3.8%
RM637C1	29-Apr-05	ASTMD422	Clay	Percent	0.36	0.187	63.3%
RM637C1	29-Apr-05	ASTMD422	Co. Sand	Percent	0	0	0.0%
RM637C1	29-Apr-05	ASTMD422	Colloids	Percent	0.45	0.6545	37.0%
RM637C1	29-Apr-05	ASTMD422	Fine Sand	Percent	81.6	81	0.7%
RM637C1	29-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM637C1	29-Apr-05	ASTMD422	Med. Sand	Percent	0.4	0.3	28.6%
RM637C1	29-Apr-05	ASTMD422	Sand Total	Percent	82	81.3	0.9%
RM637C1	29-Apr-05	ASTMD422	Silt	Percent	17.19	17.8585	3.8%
RM637C1	29-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	8350	7690	8.2%
RM637C1	29-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	6.9 UJ	6.6 UJ	NC
RM637C1	29-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	2.4	2.5	4.1%
RM637C1	29-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	80.2	79.6	0.8%
RM637C1	29-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.81	0.72	11.8%
RM637C1	29-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	0.09 J	0.12 J	28.6%
RM637C1	29-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	2350	2200	6.6%
RM637C1	29-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	12.7	11.3	11.7%
RM637C1	29-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	5.6 J	5.2 J	7.4%
RM637C1	29-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	9.5	8.9	6.5%
RM637C1	29-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	14700	13400	9.3%
RM637C1	29-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	7.9	7.3	7.9%
RM637C1	29-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	3580	3430	4.3%
RM637C1	29-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	205	197	4.0%
RM637C1	29-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.014 U	0.016 U	NC
RM637C1	29-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	9.6	9	6.5%
RM637C1	29-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1460	1340	8.6%
RM637C1	29-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	0.93 J	1.6 J	53.0%
RM637C1	29-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.2 UJ	1.1 UJ	NC
RM637C1	29-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	114 J	102 J	11.1%
RM637C1	29-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.9 U	2.7 U	NC
RM637C1	29-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	23.1 U	22 U	NC
RM637C1	29-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	22.1	19.5	12.5%
RM637C1	29-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	46.1	44.3	4.0%
RM637C1	29-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.4 J	0.4 J	0.0%
RM637C1	29-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM637C1	29-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	2 J	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4.2 U	4.3 U	NC
RM637C1	29-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	5 U	0.2 J	NC
RM637C1	29-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	5 U	5 U	NC
RM637C1	29-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1 U	1.1 U	NC
RM637C1	29-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4.2 U	4.3 U	NC
RM637C1	29-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4.2 U	4.3 U	NC
RM637C1	29-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1 U	1.1 U	NC
RM637C1	29-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1 U	1.1 U	NC
RM637C1	29-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1 U	1.1 U	NC
RM637C1	29-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1 U	1.1 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.84 U	0.85 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.84 U	0.85 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.84 U	0.85 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.84 U	0.85 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.84 U	0.85 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.84 U	0.85 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.84 U	0.85 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.84 U	0.85 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.84 U	0.85 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.84 U	0.85 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.84 U	0.85 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.84 U	0.85 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4.2 U	4.2 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	42 U	42 U	NC
RM637C1	29-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.42 U	0.42 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	260 U	270 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	260 UJ	270 UJ	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	260 U	270 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	100 U	110 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM637C1	29-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	260 U	270 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	260 U	270 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	260 U	270 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	260 U	270 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	100 UJ	110 UJ	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	100 UR	110 UR	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	260 U	270 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	100 U	110 U	NC
RM637C1	29-Apr-05	Dioxins and Furans	% Moisture	%	21.7	20.3	6.7%
RM637C1	29-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	0.709 J	0.623 J	12.9%
RM637C1	29-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	3.67	2.8	26.9%
RM637C1	29-Apr-05	Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	0.0562 J	0.04 U	NC
RM637C1	29-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	0.0497 J	0.0457 U	NC
RM637C1	29-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	0.103 U	0.0688 U	NC
RM637C1	29-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	0.115 J	0.111 J	3.5%
RM637C1	29-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	0.126 U	0.0989 U	NC
RM637C1	29-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	0.0641 U	0.0695 J	NC
RM637C1	29-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	0.0582 U	0.0501 U	NC
RM637C1	29-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	0.0497 U	0.0442 U	NC
RM637C1	29-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	0.0353 U	0.0236 U	NC
RM637C1	29-Apr-05	Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	0.0907 J	0.0668 J	30.3%
RM637C1	29-Apr-05	Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	0.0612 U	0.0472 U	NC
RM637C1	29-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	0.0357 U	0.0382 U	NC
RM637C1	29-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	PG/G	0.204 J	0.13 J	44.3%
RM637C1	29-Apr-05	Dioxins and Furans	Heptachlorodibenzodioxin (Total)	PG/G	1.28	1.11	14.2%
RM637C1	29-Apr-05	Dioxins and Furans	Heptachlorodibenzofuran (Total)	PG/G	5.8	4.4	27.5%
RM637C1	29-Apr-05	Dioxins and Furans	Hexachlorodibenzodioxin (Total)	PG/G	0.743	0.467	45.6%
RM637C1	29-Apr-05	Dioxins and Furans	Hexachlorodibenzofuran (Total)	PG/G	2.12 J	1.7 J	22.0%
RM637C1	29-Apr-05	Dioxins and Furans	Octachlorodibenzodioxin	PG/G	4.21	3.24 J	26.0%
RM637C1	29-Apr-05	Dioxins and Furans	Octachlorodibenzofuran	PG/G	1.14 J	0.918 J	21.6%
RM637C1	29-Apr-05	Dioxins and Furans	Pentachlorodibenzodioxin (Total)	PG/G	0.307	0.0767	120.0%
RM637C1	29-Apr-05	Dioxins and Furans	Pentachlorodibenzofuran (Total)	PG/G	0.461 J	0.36 J	24.6%
RM637C1	29-Apr-05	Dioxins and Furans	TEQ WHO-98	PG/G	0.0908	0.0631	36.0%
RM637C1	29-Apr-05	Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	PG/G	0.0357 U	0.0382 U	NC
RM637C1	29-Apr-05	Dioxins and Furans	Tetrachlorodibenzofuran (Total)	PG/G	0.545	0.358	41.4%
RM637X4	30-Apr-05	415.1	Total organic carbon	mg/Kg	8120	8170	0.6%
RM637X4	30-Apr-05	ASTMD422	<200 Total	Percent	88.4	86	2.8%
RM637X4	30-Apr-05	ASTMD422	Clay	Percent	23.868	21.5	10.4%
RM637X4	30-Apr-05	ASTMD422	Co. Sand	Percent	0	0	0.0%
RM637X4	30-Apr-05	ASTMD422	Colloids	Percent	15.028	12.04	22.1%
RM637X4	30-Apr-05	ASTMD422	Fine Sand	Percent	11.6	13.8	17.3%
RM637X4	30-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM637X4	30-Apr-05	ASTMD422	Med. Sand	Percent	0	0.2	200.0%
RM637X4	30-Apr-05	ASTMD422	Sand Total	Percent	11.6	14	18.8%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM637X4	30-Apr-05	ASTMD422	Silt	Percent	49.504	52.46	5.8%
RM637X4	30-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	14100	16800	17.5%
RM637X4	30-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	12.5 UR	9.5 UR	NC
RM637X4	30-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	10.2	10.1	1.0%
RM637X4	30-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	188	202	7.2%
RM637X4	30-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1.3	1.5	14.3%
RM637X4	30-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	5.6	6.2	10.2%
RM637X4	30-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	7770	8310	6.7%
RM637X4	30-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	28	32.3	14.3%
RM637X4	30-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	11.4	12.4	8.4%
RM637X4	30-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	38.5	41.1	6.5%
RM637X4	30-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	22800	25600	11.6%
RM637X4	30-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	144	148	2.7%
RM637X4	30-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	7510	8220	9.0%
RM637X4	30-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	529	601	12.7%
RM637X4	30-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.77	0.67	13.9%
RM637X4	30-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	23.9	25.9	8.0%
RM637X4	30-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	2390	2830	16.9%
RM637X4	30-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	2.7 J	3.3 J	20.0%
RM637X4	30-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	2.1 UJ	1.6 UJ	NC
RM637X4	30-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	258 J	295 J	13.4%
RM637X4	30-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	5.2 U	4 U	NC
RM637X4	30-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	41.8 U	31.6 U	NC
RM637X4	30-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	32.8	39	17.3%
RM637X4	30-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	543	577	6.1%
RM637X4	30-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.7 J	1 J	35.3%
RM637X4	30-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	9 U	8 U	NC
RM637X4	30-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	9 U	8 U	NC
RM637X4	30-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	9 U	8 U	NC
RM637X4	30-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	9 U	0.3 J	NC
RM637X4	30-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	9 U	8 U	NC
RM637X4	30-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	9 U	8 U	NC
RM637X4	30-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	9 U	8 U	NC
RM637X4	30-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	9 U	8 U	NC
RM637X4	30-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	0.7 J	1 J	35.3%
RM637X4	30-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	9 U	8 U	NC
RM637X4	30-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	9 U	8 U	NC
RM637X4	30-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	0.7 J	0.6 J	15.4%
RM637X4	30-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	9 U	8 U	NC
RM637X4	30-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	0.4 J	0.3 J	28.6%
RM637X4	30-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	2 J	2 J	0.0%
RM637X4	30-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	0.7 J	1 J	35.3%
RM637X4	30-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	0.7 J	0.6 J	15.4%
RM637X4	30-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.8 U	1.6 U	NC
RM637X4	30-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	7.3 U	6.4 U	NC
RM637X4	30-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	7.3 U	6.4 U	NC
RM637X4	30-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.8 U	1.6 U	NC
RM637X4	30-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.8 U	1.6 U	NC
RM637X4	30-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.8 U	1.6 U	NC
RM637X4	30-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.8 U	1.6 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1.5 U	1.3 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1.5 U	1.3 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1.5 U	1.3 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1.5 U	1.3 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	1.5 U	1.3 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.4 J	1.3 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1.5 U	1.3 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1.5 U	1.3 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1.5 U	1.3 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1.5 U	1.3 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1.5 U	1.3 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1.5 U	1.3 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM637X4	30-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	7.2 U	6.3 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	72 U	63 U	NC
RM637X4	30-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.72 U	0.63 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	460 U	400 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	460 UJ	400 UJ	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	460 U	400 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	460 U	400 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	460 U	400 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	460 U	400 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	460 U	400 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	180 UJ	160 UJ	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	180 UR	160 UR	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	460 UJ	400 UJ	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	180 U	160 U	NC
RM637X4	30-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	180 U	160 U	NC
RM639T1	29-Apr-05	415.1	Total organic carbon	mg/Kg	13400	13800	2.9%
RM639T1	29-Apr-05	ASTMD422	<200 Total	Percent	99.2	99.2	0.0%
RM639T1	29-Apr-05	ASTMD422	Clay	Percent	33.728	32.736	3.0%
RM639T1	29-Apr-05	ASTMD422	Co. Sand	Percent	0	0	0.0%
RM639T1	29-Apr-05	ASTMD422	Colloids	Percent	27.776	27.776	0.0%
RM639T1	29-Apr-05	ASTMD422	Fine Sand	Percent	0.6	0.6	0.0%
RM639T1	29-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM639T1	29-Apr-05	ASTMD422	Med. Sand	Percent	0.2	0.2	0.0%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM639T1	29-Apr-05	ASTMD422	Sand Total	Percent	0.8	0.8	0.0%
RM639T1	29-Apr-05	ASTMD422	Silt	Percent	37.696	38.688	2.6%
RM639T1	29-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	23000	17200	28.9%
RM639T1	29-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	13.6 UR	16.5 UR	NC
RM639T1	29-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	9.3	10.7	14.0%
RM639T1	29-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	232	206	11.9%
RM639T1	29-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1.8	1.6	11.8%
RM639T1	29-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	4.6	4.4	4.4%
RM639T1	29-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	5700	5190	9.4%
RM639T1	29-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	36	31.3	14.0%
RM639T1	29-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	14.8 J	13.6 J	8.5%
RM639T1	29-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	57.1	57.2	0.2%
RM639T1	29-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	32900	29000	12.6%
RM639T1	29-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	118	114	3.4%
RM639T1	29-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	8600	7940	8.0%
RM639T1	29-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	925	844	9.2%
RM639T1	29-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.34	0.35	2.9%
RM639T1	29-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	28.8	26.2	9.5%
RM639T1	29-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	3590	2670	29.4%
RM639T1	29-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	6.2 J	4.2 J	38.5%
RM639T1	29-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	2.3 UJ	2.7 UJ	NC
RM639T1	29-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	276 J	182 J	41.0%
RM639T1	29-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	5.7 U	6.9 U	NC
RM639T1	29-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	45.5 UJ	54.9 UJ	NC
RM639T1	29-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	47.2	38.1	21.3%
RM639T1	29-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	617 J	578 J	6.5%
RM639T1	29-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.4 J	0.8 J	66.7%
RM639T1	29-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	10 U	11 U	NC
RM639T1	29-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	10 U	11 U	NC
RM639T1	29-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	10 U	11 U	NC
RM639T1	29-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	10 U	11 U	NC
RM639T1	29-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	10 U	11 U	NC
RM639T1	29-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	10 U	11 U	NC
RM639T1	29-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	10 U	11 U	NC
RM639T1	29-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	10 U	11 U	NC
RM639T1	29-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	10 U	0.4 J	NC
RM639T1	29-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	10 U	11 U	NC
RM639T1	29-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	10 U	11 U	NC
RM639T1	29-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	0.4 J	0.8 J	66.7%
RM639T1	29-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	10 U	11 U	NC
RM639T1	29-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	10 U	11 U	NC
RM639T1	29-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	1 J	1 J	0.0%
RM639T1	29-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	10 U	0.4 J	NC
RM639T1	29-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	10 U	0.4 J	NC
RM639T1	29-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	2 U	2.1 U	NC
RM639T1	29-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	8 U	8.3 U	NC
RM639T1	29-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	8 U	8.3 U	NC
RM639T1	29-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	2 U	2.1 U	NC
RM639T1	29-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	2 U	2.1 U	NC
RM639T1	29-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	2 U	2.1 U	NC
RM639T1	29-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	2 U	2.1 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1.6 U	1.7 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1.6 U	1.7 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1.6 U	1.7 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1.6 U	1.7 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.49	0.42 J	15.4%
RM639T1	29-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	1.6 U	1.1 J	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1.6 U	1.7 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1.6 U	1.7 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1.6 U	1.7 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1.6 U	1.7 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.79 U	1.7 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM639T1	29-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1.6 U	1.7 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	7.9 U	8.2 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	79 U	82 U	NC
RM639T1	29-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.79 U	0.82 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	500 U	520 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	500 UJ	520 UJ	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	500 U	520 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	500 U	520 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	500 U	520 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	500 U	520 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	500 U	520 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	200 UJ	210 UJ	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	200 UR	210 UR	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	500 U	520 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	200 U	210 U	NC
RM639T1	29-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	200 U	210 U	NC
RM640A1(X:	26-Apr-05	415.1	Total organic carbon	mg/Kg	2110	2250	6.4%
RM640A1(X:	26-Apr-05	ASTMD422	<200 Total	Percent	42.6	36.6	15.2%
RM640A1(X:	26-Apr-05	ASTMD422	Clay	Percent	3.834	1.83	70.8%
RM640A1(X:	26-Apr-05	ASTMD422	Co. Sand	Percent	1.2	0.4	100.0%
RM640A1(X:	26-Apr-05	ASTMD422	Colloids	Percent	4.686	4.392	6.5%
RM640A1(X:	26-Apr-05	ASTMD422	Fine Sand	Percent	51.4	60.6	16.4%
RM640A1(X:	26-Apr-05	ASTMD422	Gravel	Percent	2.4	0	200.0%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM640A1(X:	26-Apr-05	ASTMD422	Med. Sand	Percent	2.4	2.4	0.0%
RM640A1(X:	26-Apr-05	ASTMD422	Sand Total	Percent	55	63.4	14.2%
RM640A1(X:	26-Apr-05	ASTMD422	Silt	Percent	34.08	30.378	11.5%
RM640A1(X:	26-Apr-05	AVS/SEM	Antimony-SEM	umol/g	0.0014 U	0.00131 U	NC
RM640A1(X:	26-Apr-05	AVS/SEM	Cadmium-SEM	umol/g	0.0016 U	0.00178	NC
RM640A1(X:	26-Apr-05	AVS/SEM	Chromium-SEM	umol/g	0.03462	0.02116	48.3%
RM640A1(X:	26-Apr-05	AVS/SEM	Copper-SEM	umol/g	0.06767	0.08183	18.9%
RM640A1(X:	26-Apr-05	AVS/SEM	Lead-SEM	umol/g	0.06419 J	0.06178 J	3.8%
RM640A1(X:	26-Apr-05	AVS/SEM	Mercury-SEM	umol/g	2.4E-06 U	1.6E-06 U	NC
RM640A1(X:	26-Apr-05	AVS/SEM	Nickel-SEM	umol/g	0.12093	0.11071	8.8%
RM640A1(X:	26-Apr-05	AVS/SEM	Sulfide-AVS	umol/g	0.02268 UJ	0.01391 J	NC
RM640A1(X:	26-Apr-05	AVS/SEM	Zinc-SEM	umol/g	0.24	0.45128	61.1%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	11200	11500	2.6%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	7 UR	7.7 UR	NC
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	9.3	8.6	7.8%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	120	120	0.0%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1	1	0.0%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	0.35 J	0.3 J	15.4%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	4000	4240	5.8%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	21.3	22.1	3.7%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	13.4	14.5	7.9%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	17.8	17.4	2.3%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	19900	22000	10.0%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	17.9 J	18.8 J	4.9%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	5180	5460	5.3%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	489	508	3.8%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.018 J	0.022 J	20.0%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	21.7	23.7	8.8%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	2290	2190	4.5%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.1 U	4.1 U	NC
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.2 UR	1.3 UR	NC
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	170 J	166 J	2.4%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.9 U	3.2 U	NC
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	23.3 UJ	25.7 UJ	NC
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	29.8	30.1	1.0%
RM640A1(X:	26-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	86.5	93.8	8.1%
RM640A1(X:	26-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.4 J	0.4 J	0.0%
RM640A1(X:	26-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	0.2 J	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	5 U	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	5 U	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	0.6 J	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	5 UJ	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	0.8 J	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	5 U	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	1 J	1 J	0.0%
RM640A1(X:	26-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	0.6 J	0.2 J	100.0%
RM640A1(X:	26-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	0.4 J	5 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.1 U	1.1 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4.3 U	4.4 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4.3 U	4.4 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.1 U	1.1 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.1 U	1.1 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.1 U	1.1 U	NC
RM640A1(X:	26-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.1 U	1.1 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.86 U	0.87 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.86 U	0.87 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.86 U	0.87 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.86 U	0.87 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.86 U	0.87 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.86 U	0.87 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.42 U	0.43 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.86 U	0.87 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.86 U	0.87 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.86 U	0.87 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.86 U	0.87 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.86 U	0.87 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.86 U	0.87 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4.2 U	4.3 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	42 U	43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.42 U	0.43 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	270 U	270 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	270 UJ	270 UJ	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	270 U	270 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	270 U	270 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	270 U	270 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	270 U	270 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	270 U	270 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	110 UJ	110 UJ	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	110 UR	110 UR	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	110 U	110 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	270 U	270 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	110 U	110 U	NC
RM640A1(X:	26-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	110 U	110 U	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Aluminum	µg/L	121 U	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Antimony	µg/L	60 U	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Arsenic	µg/L	10 U	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Barium	µg/L	345	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Beryllium	µg/L	5 U	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Cadmium	µg/L	0.27 J	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Calcium	µg/L	91400	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Chromium	µg/L	5.8 J	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Cobalt	µg/L	3.8 U	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Copper	µg/L	25 U	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Iron	µg/L	119 U	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Lead	µg/L	10 U	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Magnesium	µg/L	21100	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Manganese	µg/L	4740	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Mercury	µg/L	0.2 UJ	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Nickel	µg/L	4.7 J	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Potassium	µg/L	936 J	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Selenium	µg/L	35 U	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Silver	µg/L	10 U	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Sodium	µg/L	5350	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Thallium	µg/L	25 U	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Uranium	µg/L	200 U	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Vanadium	µg/L	12.8 J	--	NC
RM640A1(X:	11-May-05	CLP TAL TotMetals-PW	Zinc	µg/L	73.3	--	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Aluminum	µg/L	--	67.4 U	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Antimony	µg/L	--	60 U	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Arsenic	µg/L	--	10 U	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Barium	µg/L	--	269	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Beryllium	µg/L	--	5 U	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Cadmium	µg/L	--	0.3 J	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Calcium	µg/L	--	96200	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Chromium	µg/L	--	6.7 J	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Cobalt	µg/L	--	4.2 J	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Copper	µg/L	--	25 U	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Iron	µg/L	--	68.9 U	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Lead	µg/L	--	10 U	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Magnesium	µg/L	--	22800	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Manganese	µg/L	--	5680	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Mercury	µg/L	--	0.2 UJ	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Nickel	µg/L	--	5.6 J	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Potassium	µg/L	--	1270 J	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Selenium	µg/L	--	35 U	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Silver	µg/L	--	10 U	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Sodium	µg/L	--	4650 J	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Thallium	µg/L	--	25 U	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Uranium	µg/L	--	200 U	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Vanadium	µg/L	--	13.7 J	NC
RM640A1(X:	12-May-05	CLP TAL TotMetals-PW	Zinc	µg/L	--	39.1 J	NC
RM642B3L	15-Apr-05	415.1	Total organic carbon	mg/Kg	4680	4120	12.7%
RM642B3L	15-Apr-05	ASTMD422	<200 Total	Percent	36.8	35	5.0%
RM642B3L	15-Apr-05	ASTMD422	Clay	Percent	2.944	2.8	5.0%
RM642B3L	15-Apr-05	ASTMD422	Co. Sand	Percent	2.2	5.8	90.0%
RM642B3L	15-Apr-05	ASTMD422	Colloids	Percent	4.048	3.5	14.5%
RM642B3L	15-Apr-05	ASTMD422	Fine Sand	Percent	42.6	37.4	13.0%
RM642B3L	15-Apr-05	ASTMD422	Gravel	Percent	0	1.6	200.0%
RM642B3L	15-Apr-05	ASTMD422	Med. Sand	Percent	18.4	20.2	9.3%
RM642B3L	15-Apr-05	ASTMD422	Sand Total	Percent	63.2	63.4	0.3%
RM642B3L	15-Apr-05	ASTMD422	Silt	Percent	29.808	28.7	3.8%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	13600	14700	7.8%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	0.58 J	1.3 J	76.6%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	6.4	6.2	3.2%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	158	140	12.1%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1	1.1	9.5%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	1.9	0.85	76.4%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	3210	3130	2.5%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	18.3	18.4	0.5%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM642B3L	15-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	9.2	9	2.2%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	23.2	19	19.9%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	18700	19500	4.2%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	24.4	25.4	4.0%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	4370	4270	2.3%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	340	306	10.5%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.065 J	0.026 J	85.7%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	16.5	15.5	6.3%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	3060	2890	5.7%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.9 UR	4.3 UR	NC
RM642B3L	15-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.1 UJ	1.2 UJ	NC
RM642B3L	15-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	122 J	171 J	33.4%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.8 U	3.1 U	NC
RM642B3L	15-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	6.1 J	24.7 U	NC
RM642B3L	15-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	26.5	28.8	8.3%
RM642B3L	15-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	149	147	1.4%
RM642B3L	15-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4.2 U	4.2 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	5 U	5 U	NC
RM642B3L	15-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1 U	1 U	NC
RM642B3L	15-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4.1 U	4.1 U	NC
RM642B3L	15-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4.1 U	4.1 U	NC
RM642B3L	15-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1 U	1 U	NC
RM642B3L	15-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1 U	1 U	NC
RM642B3L	15-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1 U	1 U	NC
RM642B3L	15-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1 U	1 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.81 U	0.82 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.74 J	0.82 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	2.7	0.19 J	173.7%
RM642B3L	15-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.81 U	0.82 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	2.7	0.11 J	184.3%
RM642B3L	15-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	10	0.64 J	175.9%
RM642B3L	15-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.81 U	0.82 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.81 U	0.82 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.81 U	0.82 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.81 U	0.82 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.81 U	0.82 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.81 U	0.82 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4 U	4.1 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	40 U	41 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM642B3L	15-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.4 U	0.41 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	260 U	260 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	260 U	260 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	260 U	260 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	260 U	260 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	260 U	260 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	260 U	260 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	260 U	260 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	55 J	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	260 U	260 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	100 U	100 U	NC
RM642B3L	15-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	100 U	100 U	NC
RM658A1(X	22-Apr-05	415.1	Total organic carbon	mg/Kg	2360	2630	10.8%
RM658A1(X	22-Apr-05	ASTMD422	<200 Total	Percent	51.4	50.6	1.6%
RM658A1(X	22-Apr-05	ASTMD422	Clay	Percent	9.766	9.614	1.6%
RM658A1(X	22-Apr-05	ASTMD422	Co. Sand	Percent	1.8	0.6	100.0%
RM658A1(X	22-Apr-05	ASTMD422	Colloids	Percent	4.112	4.048	1.6%
RM658A1(X	22-Apr-05	ASTMD422	Fine Sand	Percent	39.8	41.6	4.4%
RM658A1(X	22-Apr-05	ASTMD422	Gravel	Percent	0.6	0	200.0%
RM658A1(X	22-Apr-05	ASTMD422	Med. Sand	Percent	6.4	7.2	11.8%
RM658A1(X	22-Apr-05	ASTMD422	Sand Total	Percent	48	49.4	2.9%
RM658A1(X	22-Apr-05	ASTMD422	Silt	Percent	37.522	36.938	1.6%
RM658A1(X	22-Apr-05	AVS/SEM	Antimony-SEM	umol/g	0.0014 U	0.00181 U	NC
RM658A1(X	22-Apr-05	AVS/SEM	Cadmium-SEM	umol/g	0.00756	0.0052	37.0%
RM658A1(X	22-Apr-05	AVS/SEM	Chromium-SEM	umol/g	0.08078	0.04231	62.5%
RM658A1(X	22-Apr-05	AVS/SEM	Copper-SEM	umol/g	0.62002	0.15737	119.0%
RM658A1(X	22-Apr-05	AVS/SEM	Lead-SEM	umol/g	0.077	0.08832	13.7%
RM658A1(X	22-Apr-05	AVS/SEM	Mercury-SEM	umol/g	3.9E-06 U	3.3E-06 U	NC
RM658A1(X	22-Apr-05	AVS/SEM	Nickel-SEM	umol/g	2.55493	0.19928	171.1%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM658A1(X:	22-Apr-05	AVS/SEM	Sulfide-AVS	umol/g	0.02389 UR	0.0248 UR	NC
RM658A1(X:	22-Apr-05	AVS/SEM	Zinc-SEM	umol/g	0.67921	0.63944	6.0%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	13300	13700	3.0%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	7.7 UR	7.1 UR	NC
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	5	5.2	3.9%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	149	147	1.4%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1.2	1.2	0.0%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	0.41 J	0.4 J	2.5%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	4990	5180	3.7%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	30.5	30.6	0.3%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	12.5	12.1	3.3%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	23.1	23.1	0.0%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	23400	23600	0.9%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	19.4 J	18.8 J	3.1%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	7030	7150	1.7%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	563	573	1.8%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.015 J	0.021 J	33.3%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	27.4	27.3	0.4%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	2550	2580	1.2%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	4 U	3.4 U	NC
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.3 UR	1.2 UR	NC
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	291 J	302 J	3.7%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	3.2 U	3 U	NC
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	25.6 UJ	23.8 UJ	NC
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	38.7	38.3	1.0%
RM658A1(X:	22-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	88.6	88.9	0.3%
RM658A1(X:	22-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.7 J	0.7 J	0.0%
RM658A1(X:	22-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	6 U	6 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	6 U	6 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	6 U	6 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	6 U	6 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	6 U	6 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	0.2 J	0.2 J	0.0%
RM658A1(X:	22-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	6 U	6 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	0.5 J	0.4 J	22.2%
RM658A1(X:	22-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	0.2 J	0.2 J	0.0%
RM658A1(X:	22-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	6 U	6 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	6 U	6 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	0.2 J	6 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	6 U	6 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	0.2 J	6 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	1 J	1 J	0.0%
RM658A1(X:	22-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	0.2 J	0.2 J	0.0%
RM658A1(X:	22-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	0.2 J	6 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.1 U	1.1 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4.5 U	4.5 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4.5 U	4.5 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.1 U	1.1 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.1 U	1.1 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.1 U	1.1 U	NC
RM658A1(X:	22-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.1 U	1.1 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.9 U	0.9 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.9 U	0.9 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.9 U	0.9 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.9 U	0.9 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.9 U	0.9 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.9 U	0.9 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.9 U	0.9 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.9 U	0.9 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.9 U	0.9 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.9 U	0.9 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.9 U	0.9 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.9 U	0.9 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4.4 U	4.4 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	44 U	44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.44 U	0.44 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	280 U	280 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	280 UJ	280 UJ	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	280 U	280 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	280 U	280 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	280 U	280 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	280 U	280 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	280 U	280 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	110 UJ	110 UJ	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	280 U	280 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	110 U	110 U	NC
RM658A1(X:	22-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	110 U	110 U	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Aluminum	µg/L	--	282	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Antimony	µg/L	--	60 U	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Arsenic	µg/L	--	10 U	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Barium	µg/L	--	216	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Beryllium	µg/L	--	5 U	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Cadmium	µg/L	--	0.3 J	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Calcium	µg/L	--	54000	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Chromium	µg/L	--	1.4 J	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Cobalt	µg/L	--	0.72 U	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Copper	µg/L	--	5.5 J	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Iron	µg/L	--	198	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Lead	µg/L	--	10 U	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Magnesium	µg/L	--	11400	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Manganese	µg/L	--	651	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Mercury	µg/L	--	0.2 UJ	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Nickel	µg/L	--	40 U	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Potassium	µg/L	--	1890 J	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Selenium	µg/L	--	35 U	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Silver	µg/L	--	10 U	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Sodium	µg/L	--	3730 J	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Thallium	µg/L	--	25 U	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Uranium	µg/L	--	200 U	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Vanadium	µg/L	--	50 U	NC
RM658A1(X:	5-May-05	CLP TAL TotMetals-PW	Zinc	µg/L	--	45.9 J	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Aluminum	µg/L	473	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Antimony	µg/L	60 U	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Arsenic	µg/L	10 U	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Barium	µg/L	189 J	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Beryllium	µg/L	5 U	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Cadmium	µg/L	0.27 J	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Calcium	µg/L	47400	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Chromium	µg/L	1.6 J	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Cobalt	µg/L	1 U	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Copper	µg/L	5.6 J	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Iron	µg/L	424	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Lead	µg/L	10 U	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Magnesium	µg/L	10400	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Manganese	µg/L	702	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Mercury	µg/L	0.014 J	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Nickel	µg/L	40 U	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Potassium	µg/L	1700 J	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Selenium	µg/L	35 U	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Silver	µg/L	10 U	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Sodium	µg/L	3220 J	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Thallium	µg/L	25 U	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Uranium	µg/L	200 U	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Vanadium	µg/L	50 U	--	NC
RM658A1(X:	8-May-05	CLP TAL TotMetals-PW	Zinc	µg/L	39.6 J	--	NC
RM661C1	29-Apr-05	415.1	Total organic carbon	mg/Kg	3990	3950	1.0%
RM661C1	29-Apr-05	ASTMD422	<200 Total	Percent	85.8	80.8	6.0%
RM661C1	29-Apr-05	ASTMD422	Clay	Percent	9.438	9.696	2.7%
RM661C1	29-Apr-05	ASTMD422	Co. Sand	Percent	0	0	0.0%
RM661C1	29-Apr-05	ASTMD422	Colloids	Percent	5.148	5.656	9.4%
RM661C1	29-Apr-05	ASTMD422	Fine Sand	Percent	14	19	30.3%
RM661C1	29-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM661C1	29-Apr-05	ASTMD422	Med. Sand	Percent	0.2	0.2	0.0%
RM661C1	29-Apr-05	ASTMD422	Sand Total	Percent	14.2	19.2	29.9%
RM661C1	29-Apr-05	ASTMD422	Silt	Percent	71.214	65.448	8.4%
RM661C1	29-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	10200	10000	2.0%
RM661C1	29-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	5.9 UR	7.3 UR	NC
RM661C1	29-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	8.9	9.3	4.4%
RM661C1	29-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	315	317	0.6%
RM661C1	29-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.98	0.93	5.2%
RM661C1	29-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	4.9	5	2.0%
RM661C1	29-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	20100	20900	3.9%
RM661C1	29-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	27.2	25.9	4.9%
RM661C1	29-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	9.2	8.9	3.3%
RM661C1	29-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	34.7	35.4	2.0%
RM661C1	29-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	22000	22300	1.4%
RM661C1	29-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	234	242	3.4%
RM661C1	29-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	10800	11000	1.8%
RM661C1	29-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	403	407	1.0%
RM661C1	29-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.6	0.7	15.4%
RM661C1	29-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	24	23.1	3.8%
RM661C1	29-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1720	1590	7.9%
RM661C1	29-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.4 J	4.1 J	18.7%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM661C1	29-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	0.99 UR	1.2 UR	NC
RM661C1	29-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	237 J	238 J	0.4%
RM661C1	29-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.5 U	3 U	NC
RM661C1	29-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	19.8 UJ	24.3 UJ	NC
RM661C1	29-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	33.6	31.7	5.8%
RM661C1	29-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	545	557	2.2%
RM661C1	29-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.9 J	2 J	75.9%
RM661C1	29-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	6 U	6 U	NC
RM661C1	29-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	6 U	6 U	NC
RM661C1	29-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	6 U	6 U	NC
RM661C1	29-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	0.5 J	0.5 J	0.0%
RM661C1	29-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	6 U	6 U	NC
RM661C1	29-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	6 U	6 U	NC
RM661C1	29-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	0.2 J	0.5 J	85.7%
RM661C1	29-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	6 UJ	6 UJ	NC
RM661C1	29-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	0.7 J	1 J	35.3%
RM661C1	29-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	6 U	6 U	NC
RM661C1	29-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	6 U	6 U	NC
RM661C1	29-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	0.7 J	1 J	35.3%
RM661C1	29-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	6 U	6 U	NC
RM661C1	29-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	6 U	0.5 J	NC
RM661C1	29-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	2 J	3 J	40.0%
RM661C1	29-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	1 J	2 J	66.7%
RM661C1	29-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	0.7 J	1 J	35.3%
RM661C1	29-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.2 U	1.2 U	NC
RM661C1	29-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4.7 U	4.8 U	NC
RM661C1	29-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4.7 U	4.8 U	NC
RM661C1	29-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.2 U	1.2 U	NC
RM661C1	29-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.2 U	1.2 U	NC
RM661C1	29-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.2 U	1.2 U	NC
RM661C1	29-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.2 U	1.2 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.95 U	0.96 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.95 U	0.96 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.95 U	0.96 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.95 U	0.96 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.95 U	0.96 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.95 U	0.96 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.95 U	0.96 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.95 U	0.96 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.95 U	0.96 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.95 U	0.96 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.95 U	0.96 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.95 U	0.96 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4.7 U	4.7 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	47 U	47 U	NC
RM661C1	29-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.47 U	0.47 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	300 U	300 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	120 U	120 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM661C1	29-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	300 U	300 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	300 U	300 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	300 U	300 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	300 U	300 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	300 U	300 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	300 U	300 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	120 UR	120 UR	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	300 U	300 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	120 U	120 U	NC
RM661C1	29-Apr-05	Dioxins and Furans	% Moisture	%	30.4	32.8	7.6%
RM661C1	29-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	8.23	10.7	26.1%
RM661C1	29-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	1.85 J	2.49	29.5%
RM661C1	29-Apr-05	Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	0.167 U	0.208 J	NC
RM661C1	29-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	0.185 J	0.261 J	34.1%
RM661C1	29-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	0.272 J	0.336 J	21.1%
RM661C1	29-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	0.461 J	0.65 J	34.0%
RM661C1	29-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	0.145 U	0.179 U	NC
RM661C1	29-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	0.349 J	0.508 J	37.1%
RM661C1	29-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	0.114 U	0.109 U	NC
RM661C1	29-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	0.117 U	0.172 U	NC
RM661C1	29-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	0.135 U	0.167 U	NC
RM661C1	29-Apr-05	Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	0.164 U	0.201 J	NC
RM661C1	29-Apr-05	Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	0.265 U	0.32 J	NC
RM661C1	29-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	0.112 J	0.15 J	29.0%
RM661C1	29-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	PG/G	1.45	2.64	58.2%
RM661C1	29-Apr-05	Dioxins and Furans	Heptachlorodibenzodioxin (Total)	PG/G	17.2	22.3	25.8%
RM661C1	29-Apr-05	Dioxins and Furans	Heptachlorodibenzofuran (Total)	PG/G	4.45	6.41	36.1%
RM661C1	29-Apr-05	Dioxins and Furans	Hexachlorodibenzodioxin (Total)	PG/G	4.51	5.67	22.8%
RM661C1	29-Apr-05	Dioxins and Furans	Hexachlorodibenzofuran (Total)	PG/G	3.07 J	3.78 J	20.7%
RM661C1	29-Apr-05	Dioxins and Furans	Octachlorodibenzodioxin	PG/G	57	75.4	27.8%
RM661C1	29-Apr-05	Dioxins and Furans	Octachlorodibenzofuran	PG/G	4.44	6.01	30.0%
RM661C1	29-Apr-05	Dioxins and Furans	Pentachlorodibenzodioxin (Total)	PG/G	1.13	0.809	33.1%
RM661C1	29-Apr-05	Dioxins and Furans	Pentachlorodibenzofuran (Total)	PG/G	2.56 J	2.87 J	11.4%
RM661C1	29-Apr-05	Dioxins and Furans	TEQ WHO-98	PG/G	0.5017	0.911	57.9%
RM661C1	29-Apr-05	Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	PG/G	0.238	0.499	70.8%
RM661C1	29-Apr-05	Dioxins and Furans	Tetrachlorodibenzofuran (Total)	PG/G	6.77	9.3	31.5%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM661X2	19-Apr-05	415.1	Total organic carbon	mg/Kg	7490	6460	14.8%
RM661X2	19-Apr-05	ASTMD422	<200 Total	Percent	99	98.6	0.4%
RM661X2	19-Apr-05	ASTMD422	Clay	Percent	21.78	26.622	20.0%
RM661X2	19-Apr-05	ASTMD422	Co. Sand	Percent	0.2	0	200.0%
RM661X2	19-Apr-05	ASTMD422	Colloids	Percent	12.87	14.79	13.9%
RM661X2	19-Apr-05	ASTMD422	Fine Sand	Percent	0.8	1.4	54.5%
RM661X2	19-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM661X2	19-Apr-05	ASTMD422	Med. Sand	Percent	0	0	0.0%
RM661X2	19-Apr-05	ASTMD422	Sand Total	Percent	1	1.4	33.3%
RM661X2	19-Apr-05	ASTMD422	Silt	Percent	64.35	57.188	11.8%
RM661X2	19-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	13400	14700	9.3%
RM661X2	19-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	0.92 UR	1.5 UJ	NC
RM661X2	19-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	5.9	5.3	10.7%
RM661X2	19-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	171	180	5.1%
RM661X2	19-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1.3	1.4	7.4%
RM661X2	19-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	1.5	1.5	0.0%
RM661X2	19-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	8020	9010	11.6%
RM661X2	19-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	33.8	35.6	5.2%
RM661X2	19-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	11.4	11.9	4.3%
RM661X2	19-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	61.4	66.8	8.4%
RM661X2	19-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	26900	27500	2.2%
RM661X2	19-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	98.8	99.3	0.5%
RM661X2	19-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	8120	8440	3.9%
RM661X2	19-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	591	534	10.1%
RM661X2	19-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.35	0.32	9.0%
RM661X2	19-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	27.4	29.3	6.7%
RM661X2	19-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	2110	2210	4.6%
RM661X2	19-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	6.5 UR	5.6 UJ	NC
RM661X2	19-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.9 UJ	1.6 UJ	NC
RM661X2	19-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	225 J	276 J	20.4%
RM661X2	19-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	4.7 U	4 U	NC
RM661X2	19-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	10.3 J	9.6 J	7.0%
RM661X2	19-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	38.9	40.8	4.8%
RM661X2	19-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	275	282	2.5%
RM661X2	19-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	2 J	3 J	40.0%
RM661X2	19-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	8 U	8 U	NC
RM661X2	19-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	8 U	8 U	NC
RM661X2	19-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	8 U	8 U	NC
RM661X2	19-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	1 J	1 J	0.0%
RM661X2	19-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	8 U	1 J	NC
RM661X2	19-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	2 J	2 J	0.0%
RM661X2	19-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	1 J	1 J	0.0%
RM661X2	19-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	2 J	1 J	66.7%
RM661X2	19-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	2 J	3 J	40.0%
RM661X2	19-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	8 U	8 U	NC
RM661X2	19-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	1 J	1 J	0.0%
RM661X2	19-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	2 J	3 J	40.0%
RM661X2	19-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	0.6 J	1 J	50.0%
RM661X2	19-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	1 J	8 U	NC
RM661X2	19-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	3 J	3 J	0.0%
RM661X2	19-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	3 J	4 J	28.6%
RM661X2	19-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	2 J	2 J	0.0%
RM661X2	19-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.6 U	1.7 U	NC
RM661X2	19-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	6.4 U	6.7 U	NC
RM661X2	19-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	6.4 U	6.7 U	NC
RM661X2	19-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.6 U	1.7 U	NC
RM661X2	19-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.6 U	1.7 U	NC
RM661X2	19-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.6 U	1.7 U	NC
RM661X2	19-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.6 U	1.7 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1.3 U	1.3 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1.3 U	1.3 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1.3 U	1.3 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1.3 U	1.3 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	1.3 U	1.3 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	1.3 U	1.3 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.63 U	0.66 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM661X2	19-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1.3 U	1.3 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1.3 U	1.3 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1.3 U	1.3 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1.3 U	1.3 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1.3 U	1.3 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1.3 U	1.3 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	6.3 U	6.6 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	63 U	66 U	NC
RM661X2	19-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.63 U	0.66 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	400 U	420 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	400 UR	420 UR	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	400 U	420 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	400 U	420 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	400 UJ	420 UJ	NC
RM661X2	19-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	400 U	420 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	400 U	420 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	160 UR	170 UR	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	160 U	170 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	400 U	420 U	NC
RM661X2	19-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	160 U	170 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM661X2	19-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	160 U	170 U	NC
RM664X3	19-Apr-05	415.1	Total organic carbon	mg/Kg	321	418	26.3%
RM664X3	19-Apr-05	ASTMD422	<200 Total	Percent	2.7	2.8	3.6%
RM664X3	19-Apr-05	ASTMD422	Clay	Percent	0.0405	0.028	36.5%
RM664X3	19-Apr-05	ASTMD422	Co. Sand	Percent	2.5	2.6	3.9%
RM664X3	19-Apr-05	ASTMD422	Colloids	Percent	0.0405	0.042	3.6%
RM664X3	19-Apr-05	ASTMD422	Fine Sand	Percent	54.9	54.7	0.4%
RM664X3	19-Apr-05	ASTMD422	Gravel	Percent	1.7	1.9	11.1%
RM664X3	19-Apr-05	ASTMD422	Med. Sand	Percent	38.2	38	0.5%
RM664X3	19-Apr-05	ASTMD422	Sand Total	Percent	95.6	95.3	0.3%
RM664X3	19-Apr-05	ASTMD422	Silt	Percent	2.619	2.73	4.2%
RM664X3	19-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	6290	6180	1.8%
RM664X3	19-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	0.77 UJ	0.66 UJ	NC
RM664X3	19-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	6.1	6.8	10.9%
RM664X3	19-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	35.4	41.4	15.6%
RM664X3	19-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.48	0.45 J	6.5%
RM664X3	19-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	0.47 U	0.5 U	NC
RM664X3	19-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	2640	2440	7.9%
RM664X3	19-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	21.3	16.2	27.2%
RM664X3	19-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	6.4	5.9	8.1%
RM664X3	19-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	12.2	11.3	7.7%
RM664X3	19-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	16000	15800	1.3%
RM664X3	19-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	6.1	7.3	17.9%
RM664X3	19-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	3910	3860	1.3%
RM664X3	19-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	186	207	10.7%
RM664X3	19-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.096 U	0.1 U	NC
RM664X3	19-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	17.7	16.3	8.2%
RM664X3	19-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	664	708	6.4%
RM664X3	19-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.3 UJ	3.5 UJ	NC
RM664X3	19-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	0.93 UJ	1 UJ	NC
RM664X3	19-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	70.9 J	69.7 J	1.7%
RM664X3	19-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.3 U	2.5 U	NC
RM664X3	19-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	4.7 J	4.8 J	2.1%
RM664X3	19-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	23.2	20.5	12.4%
RM664X3	19-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	36.3	37.5	3.3%
RM664X3	19-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	4 U	4 U	NC
RM664X3	19-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	4 U	4 U	NC
RM664X3	19-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	4 U	4 U	NC
RM664X3	19-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	4 U	4 U	NC
RM664X3	19-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	4 U	4 U	NC
RM664X3	19-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	4 U	4 UJ	NC
RM664X3	19-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	4 U	4 UJ	NC
RM664X3	19-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	4 U	4 UJ	NC
RM664X3	19-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	4 U	4 UJ	NC
RM664X3	19-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	4 U	4 U	NC
RM664X3	19-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	4 U	4 UJ	NC
RM664X3	19-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	4 U	4 U	NC
RM664X3	19-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	4 U	4 U	NC
RM664X3	19-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	4 U	4 U	NC
RM664X3	19-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	4 U	4 UJ	NC
RM664X3	19-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	3.4 U	3.4 U	NC
RM664X3	19-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	4 U	4 U	NC
RM664X3	19-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	4 U	4 U	NC
RM664X3	19-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	0.84 U	0.84 U	NC
RM664X3	19-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	3.4 U	3.4 U	NC
RM664X3	19-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	3.4 U	3.4 U	NC
RM664X3	19-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	0.84 U	0.84 U	NC
RM664X3	19-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	0.84 U	0.84 U	NC
RM664X3	19-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	0.84 U	0.84 U	NC
RM664X3	19-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	0.84 U	0.84 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.68 U	0.68 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.68 U	0.68 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.68 U	0.68 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.68 U	0.68 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.68 U	0.68 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.68 U	0.68 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.33 U	0.33 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM664X3	19-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.68 U	0.68 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.68 U	0.68 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.68 U	0.68 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.68 U	0.68 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.68 U	0.68 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.68 U	0.68 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	3.3 U	3.3 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	33 U	33 U	NC
RM664X3	19-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.33 U	0.33 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	210 U	210 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	210 UR	210 UR	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	210 U	210 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	210 U	210 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	210 UJ	210 UJ	NC
RM664X3	19-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	210 U	210 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	210 U	210 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	83 UR	83 UR	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	210 U	210 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM664X3	19-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	83 U	83 U	NC
RM664X3	19-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	83 U	83 U	NC
RM670X2	14-Apr-05	415.1	Total organic carbon	mg/Kg	9950	9510	4.5%
RM670X2	14-Apr-05	ASTMD422	<200 Total	Percent	72.4	70.8	2.2%
RM670X2	14-Apr-05	ASTMD422	Clay	Percent	14.48	14.16	2.2%
RM670X2	14-Apr-05	ASTMD422	Co. Sand	Percent	0	0	0.0%
RM670X2	14-Apr-05	ASTMD422	Colloids	Percent	6.516	5.664	14.0%
RM670X2	14-Apr-05	ASTMD422	Fine Sand	Percent	25.6	26.8	4.6%
RM670X2	14-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM670X2	14-Apr-05	ASTMD422	Med. Sand	Percent	2	2.4	18.2%
RM670X2	14-Apr-05	ASTMD422	Sand Total	Percent	27.6	29.2	5.6%
RM670X2	14-Apr-05	ASTMD422	Silt	Percent	51.404	50.976	0.8%
RM670X2	14-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	12000	14000	15.4%
RM670X2	14-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	12.8 UR	3.3 J	NC
RM670X2	14-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	7.3	13.1	56.9%
RM670X2	14-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	166	198	17.6%
RM670X2	14-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.98 J	1.2 J	20.2%
RM670X2	14-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	4.2	5.2	21.3%
RM670X2	14-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	5160	5670	9.4%
RM670X2	14-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	31.2	36.4	15.4%
RM670X2	14-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	9.7 J	10.9 J	11.7%
RM670X2	14-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	50.8	63.9	22.8%
RM670X2	14-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	21800	23800	8.8%
RM670X2	14-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	192	259	29.7%
RM670X2	14-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	6670	7280	8.7%
RM670X2	14-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	536	596	10.6%
RM670X2	14-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	1.1	1.7	42.9%
RM670X2	14-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	23.2	25.4	9.1%
RM670X2	14-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1840	2400	26.4%
RM670X2	14-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	7.5 UR	8.5 UR	NC
RM670X2	14-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	2.1 UJ	2.4 UJ	NC
RM670X2	14-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	260 J	302 J	14.9%
RM670X2	14-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	5.3 U	6.1 U	NC
RM670X2	14-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	42.7 U	48.9 U	NC
RM670X2	14-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	34.4	38.8	12.0%
RM670X2	14-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	397	507	24.3%
RM670X2	14-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	1 J	3 J	100.0%
RM670X2	14-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	9 U	9 U	NC
RM670X2	14-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	9 U	9 U	NC
RM670X2	14-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	9 U	9 U	NC
RM670X2	14-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	1 J	2 J	66.7%
RM670X2	14-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	1 J	1 J	0.0%
RM670X2	14-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	2 J	3 J	40.0%
RM670X2	14-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	9 U	1 J	NC
RM670X2	14-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	1 J	2 J	66.7%
RM670X2	14-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	2 J	3 J	40.0%
RM670X2	14-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	9 U	9 U	NC
RM670X2	14-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	9 U	9 U	NC
RM670X2	14-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	2 J	3 J	40.0%
RM670X2	14-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	9 U	9 U	NC
RM670X2	14-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	1 J	1 J	0.0%
RM670X2	14-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	7 U	7.4 U	NC
RM670X2	14-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	3 J	5 J	50.0%
RM670X2	14-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	1 J	2 J	66.7%
RM670X2	14-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.7 U	1.8 U	NC
RM670X2	14-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	7 U	7.3 U	NC
RM670X2	14-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	7 U	7.3 U	NC
RM670X2	14-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.7 U	1.8 U	NC
RM670X2	14-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.7 U	1.8 U	NC
RM670X2	14-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.7 U	1.8 U	NC
RM670X2	14-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.7 U	1.8 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1.4 U	1.5 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1.4 U	1.5 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1.4 U	1.5 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1.4 U	1.5 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	1.4 U	1.5 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	1.4 U	1.5 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.69 U	0.72 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM670X2	14-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1.4 U	1.5 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1.4 U	1.5 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1.4 U	1.5 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1.4 U	1.5 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1.4 U	1.5 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1.4 U	1.5 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	6.9 U	7.2 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	69 U	72 U	NC
RM670X2	14-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.69 U	0.72 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	440 U	460 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	440 UJ	460 UJ	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	170 UJ	180 UJ	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	440 U	460 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	440 U	460 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	440 UJ	460 UJ	NC
RM670X2	14-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	440 U	460 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	440 U	460 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	440 UR	460 UR	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	170 UJ	180 UJ	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	170 U	180 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM670X2	14-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	440 U	460 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	170 U	180 U	NC
RM670X2	14-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	170 U	180 U	NC
RM673B1	16-Apr-05	415.1	Total organic carbon	mg/Kg	1500	1480	1.3%
RM673B1	16-Apr-05	ASTMD422	<200 Total	Percent	29.4	30	2.0%
RM673B1	16-Apr-05	ASTMD422	Clay	Percent	0.882	0	200.0%
RM673B1	16-Apr-05	ASTMD422	Co. Sand	Percent	3.4	4.3	23.4%
RM673B1	16-Apr-05	ASTMD422	Colloids	Percent	0	0.45	200.0%
RM673B1	16-Apr-05	ASTMD422	Fine Sand	Percent	36.8	35	5.0%
RM673B1	16-Apr-05	ASTMD422	Gravel	Percent	7.8	7.1	9.4%
RM673B1	16-Apr-05	ASTMD422	Med. Sand	Percent	22.6	23.6	4.3%
RM673B1	16-Apr-05	ASTMD422	Sand Total	Percent	62.8	62.9	0.2%
RM673B1	16-Apr-05	ASTMD422	Silt	Percent	28.518	29.55	3.6%
RM673B1	16-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	9080 J	7660 J	17.0%
RM673B1	16-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	1.2 J	1.7 J	34.5%
RM673B1	16-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	4.1	2.4	52.3%
RM673B1	16-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	77.9	73.5	5.8%
RM673B1	16-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.66	0.51 J	25.6%
RM673B1	16-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	0.17 J	0.18 J	5.7%
RM673B1	16-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	2990	2730	9.1%
RM673B1	16-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	14.8	13.1	12.2%
RM673B1	16-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	6.4	5.8	9.8%
RM673B1	16-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	12.1	12.3	1.6%
RM673B1	16-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	14800	13500	9.2%
RM673B1	16-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	6.7	6.3	6.2%
RM673B1	16-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	3550	3600	1.4%
RM673B1	16-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	248	246	0.8%
RM673B1	16-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.01 J	0.012 J	18.2%
RM673B1	16-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	12.8	12.1	5.6%
RM673B1	16-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1160	1130	2.6%
RM673B1	16-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	4 UR	3.7 UR	NC
RM673B1	16-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.1 UJ	1.1 UJ	NC
RM673B1	16-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	129 J	93.7 J	31.7%
RM673B1	16-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.9 U	2.7 U	NC
RM673B1	16-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	22.8 U	21.4 U	NC
RM673B1	16-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	26.3	21.4	20.5%
RM673B1	16-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	48.9	43.4	11.9%
RM673B1	16-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4 U	4 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	5 U	5 U	NC
RM673B1	16-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	0.97 UJ	0.98 U	NC
RM673B1	16-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	3.9 UJ	3.9 U	NC
RM673B1	16-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	3.9 UJ	3.9 U	NC
RM673B1	16-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	0.97 UJ	0.98 U	NC
RM673B1	16-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	0.97 UJ	0.98 U	NC
RM673B1	16-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	0.97 UJ	0.98 U	NC
RM673B1	16-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	0.97 UJ	0.98 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.79 U	0.79 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.79 U	0.79 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.79 U	0.79 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.79 U	0.79 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.79 U	0.062 J	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.79 U	0.29 J	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.39 U	0.39 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM673B1	16-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.79 U	0.79 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.79 U	0.79 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.79 U	0.79 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.79 U	0.79 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.79 U	0.79 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.79 U	0.79 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	3.9 U	3.9 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	39 U	39 U	NC
RM673B1	16-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.39 U	0.39 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	250 U	250 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	250 U	250 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	250 U	250 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	250 U	250 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	250 U	250 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	250 U	250 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	250 U	250 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	98 UR	97 UR	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	98 U	97 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM673B1	16-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	250 U	250 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	98 U	97 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	0.548 U	0.56 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	0.119 U	0.111 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	0.0713 U	0.0829 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	0.0793 U	0.0717 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	0.0474 J	0.0452 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	0.0879 U	0.0697 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	0.0456 U	0.0436 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	0.0841 U	0.0712 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	0.0697 U	0.0676 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	0.0572 U	0.0682 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	0.0409 U	0.0429 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	0.0573 J	0.0448 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	0.0468 U	0.0699 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	0.0446 U	0.0542 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	PG/G	0.0843 U	0.0893 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	Heptachlorodibenzodioxin (Total)	PG/G	1.08 U	1.11 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	Heptachlorodibenzofuran (Total)	PG/G	0.219 U	0.188 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	Hexachlorodibenzodioxin (Total)	PG/G	0.0764	0.102	28.7%
RM673B1	16-Apr-05	Dioxins and Furans	Hexachlorodibenzofuran (Total)	PG/G	0.124	0.077 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	Octachlorodibenzodioxin	PG/G	3.3 U	3.64 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	Octachlorodibenzofuran	PG/G	0.21 U	0.22 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	Pentachlorodibenzodioxin (Total)	PG/G	0.165	0.0654	86.5%
RM673B1	16-Apr-05	Dioxins and Furans	Pentachlorodibenzofuran (Total)	PG/G	0.0876 U	0.042 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	TEQ WHO-98	PG/G	0.0105	0 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	PG/G	0.0446 U	0.0542 U	NC
RM673B1	16-Apr-05	Dioxins and Furans	Tetrachlorodibenzofuran (Total)	PG/G	0.0843 U	0.134 U	NC
RM675B1	16-Apr-05	415.1	Total organic carbon	mg/Kg	7430	11000	38.7%
RM675B1	16-Apr-05	ASTMD422	<200 Total	Percent	39	39.6	1.5%
RM675B1	16-Apr-05	ASTMD422	Clay	Percent	0	3.168	200.0%
RM675B1	16-Apr-05	ASTMD422	Co. Sand	Percent	1.6	2.2	31.6%
RM675B1	16-Apr-05	ASTMD422	Colloids	Percent	1.17	1.188	1.5%
RM675B1	16-Apr-05	ASTMD422	Fine Sand	Percent	30.8	33.2	7.5%
RM675B1	16-Apr-05	ASTMD422	Gravel	Percent	9.8	4.8	68.5%
RM675B1	16-Apr-05	ASTMD422	Med. Sand	Percent	18.8	20.2	7.2%
RM675B1	16-Apr-05	ASTMD422	Sand Total	Percent	51.2	55.6	8.2%
RM675B1	16-Apr-05	ASTMD422	Silt	Percent	37.83	35.244	7.1%
RM675B1	16-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	7780 J	7080 J	9.4%
RM675B1	16-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	1 J	0.95 J	5.1%
RM675B1	16-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	2.3	1.7	30.0%
RM675B1	16-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	65.6	65.9	0.5%
RM675B1	16-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.63	0.57	10.0%
RM675B1	16-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	3.1	2.2	34.0%
RM675B1	16-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	3100	2710	13.4%
RM675B1	16-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	19.5	15.7	21.6%
RM675B1	16-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	5.6 J	5.3	5.5%
RM675B1	16-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	14.8	14.5	2.0%
RM675B1	16-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	13300	11900	11.1%
RM675B1	16-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	51.1	51	0.2%
RM675B1	16-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	4040	3450	15.8%
RM675B1	16-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	145	137	5.7%
RM675B1	16-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.062 J	0.07 J	12.1%
RM675B1	16-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	14	12.9	8.2%
RM675B1	16-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1200	1260	4.9%
RM675B1	16-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	4.3 UR	3.5 UR	NC
RM675B1	16-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.2 UJ	1 UJ	NC
RM675B1	16-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	94 J	101 J	7.2%
RM675B1	16-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	3.1 U	2.5 U	NC
RM675B1	16-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	24.4 U	20.3 U	NC
RM675B1	16-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	21.9	20	9.1%
RM675B1	16-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	220	227	3.1%
RM675B1	16-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	5 U	5 U	NC
RM675B1	16-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM675B1	16-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM675B1	16-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	5 U	NC
RM675B1	16-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	0.4 J	0.4 J	0.0%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM675B1	16-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	0.4 J	0.4 J	0.0%
RM675B1	16-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	0.6 J	0.6 J	0.0%
RM675B1	16-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	0.4 J	0.4 J	0.0%
RM675B1	16-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	0.4 J	0.4 J	0.0%
RM675B1	16-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	0.6 J	0.6 J	0.0%
RM675B1	16-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	5 U	NC
RM675B1	16-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	5 U	NC
RM675B1	16-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	0.6 J	0.8 J	28.6%
RM675B1	16-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM675B1	16-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	0.4 J	5 U	NC
RM675B1	16-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	3.8 U	4.2 U	NC
RM675B1	16-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	0.4 J	0.4 J	0.0%
RM675B1	16-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	0.6 J	0.6 J	0.0%
RM675B1	16-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	0.92 U	1 U	NC
RM675B1	16-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	3.7 U	4.1 U	NC
RM675B1	16-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	3.7 U	4.1 U	NC
RM675B1	16-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	0.92 U	1 U	NC
RM675B1	16-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	0.92 U	1 U	NC
RM675B1	16-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	0.92 U	1 U	NC
RM675B1	16-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	0.92 U	1 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.75 U	0.83 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.75 U	0.83 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.75 U	0.83 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.75 U	0.83 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.75 U	0.83 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.81 J	0.83 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.75 U	0.83 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.75 U	0.83 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.75 U	0.83 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.75 U	0.83 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.75 U	0.83 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.75 U	0.83 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	3.7 U	4.1 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	37 U	41 U	NC
RM675B1	16-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.37 U	0.41 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	230 U	260 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	230 U	260 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	230 U	260 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	230 U	260 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM675B1	16-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	230 U	260 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	230 U	260 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	230 U	260 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	93 UR	100 UR	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	230 U	260 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	93 U	100 U	NC
RM675B1	16-Apr-05	Dioxins and Furans	% Moisture	%	15.6	23	38.3%
RM675B1	16-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	6.38	11	53.2%
RM675B1	16-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	0.533 J	0.949 J	56.1%
RM675B1	16-Apr-05	Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	0.109 U	0.111 U	NC
RM675B1	16-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	0.234 J	0.218 U	NC
RM675B1	16-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	0.0634 U	0.103 U	NC
RM675B1	16-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	0.374 J	0.632 J	51.3%
RM675B1	16-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	0.0532 U	0.0755 U	NC
RM675B1	16-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	0.265 J	0.378 U	NC
RM675B1	16-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	0.0856 U	0.11 U	NC
RM675B1	16-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	0.129 J	0.16 U	NC
RM675B1	16-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	0.0748 U	0.0716 U	NC
RM675B1	16-Apr-05	Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	0.1 U	0.141 U	NC
RM675B1	16-Apr-05	Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	0.0925 U	0.163 U	NC
RM675B1	16-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	0.0944 J	0.0734 U	NC
RM675B1	16-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	PG/G	1.42	2.19	42.7%
RM675B1	16-Apr-05	Dioxins and Furans	Heptachlorodibenzodioxin (Total)	PG/G	13.1	21.9	50.3%
RM675B1	16-Apr-05	Dioxins and Furans	Heptachlorodibenzofuran (Total)	PG/G	1.18 U	2.37	NC
RM675B1	16-Apr-05	Dioxins and Furans	Hexachlorodibenzodioxin (Total)	PG/G	3.01	3.53	15.9%
RM675B1	16-Apr-05	Dioxins and Furans	Hexachlorodibenzofuran (Total)	PG/G	1.21	1.98	48.3%
RM675B1	16-Apr-05	Dioxins and Furans	Octachlorodibenzodioxin	PG/G	51.7	98.6	62.4%
RM675B1	16-Apr-05	Dioxins and Furans	Octachlorodibenzofuran	PG/G	0.741 J	1.36 J	58.9%
RM675B1	16-Apr-05	Dioxins and Furans	Pentachlorodibenzodioxin (Total)	PG/G	0.401	0.253	45.3%
RM675B1	16-Apr-05	Dioxins and Furans	Pentachlorodibenzofuran (Total)	PG/G	0.538	1.09 J	67.8%
RM675B1	16-Apr-05	Dioxins and Furans	TEQ WHO-98	PG/G	0.536	0.4117	26.2%
RM675B1	16-Apr-05	Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	PG/G	0.0944	0.11	15.3%
RM675B1	16-Apr-05	Dioxins and Furans	Tetrachlorodibenzofuran (Total)	PG/G	1	4.36 J	125.4%
RM676A1(X:	21-Apr-05	415.1	Total organic carbon	mg/Kg	918	1230	29.1%
RM676A1(X:	21-Apr-05	ASTMD422	<200 Total	Percent	57.6	63	9.0%
RM676A1(X:	21-Apr-05	ASTMD422	Clay	Percent	3.456	5.04	37.3%
RM676A1(X:	21-Apr-05	ASTMD422	Co. Sand	Percent	0.2	0.4	66.7%
RM676A1(X:	21-Apr-05	ASTMD422	Colloids	Percent	5.76	5.04	13.3%
RM676A1(X:	21-Apr-05	ASTMD422	Fine Sand	Percent	39.8	34.6	14.0%
RM676A1(X:	21-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM676A1(X:	21-Apr-05	ASTMD422	Med. Sand	Percent	2.4	2	18.2%
RM676A1(X:	21-Apr-05	ASTMD422	Sand Total	Percent	42.4	37	13.6%
RM676A1(X:	21-Apr-05	ASTMD422	Silt	Percent	48.384	52.92	9.0%
RM676A1(X:	21-Apr-05	AVS/SEM	Antimony-SEM	umol/g	0.0014 U	0.00131 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM676A1(X:	21-Apr-05	AVS/SEM	Cadmium-SEM	umol/g	0.00116	0.00142	20.7%
RM676A1(X:	21-Apr-05	AVS/SEM	Chromium-SEM	umol/g	0.02885	0.02885	0.0%
RM676A1(X:	21-Apr-05	AVS/SEM	Copper-SEM	umol/g	0.09127	0.10071	9.8%
RM676A1(X:	21-Apr-05	AVS/SEM	Lead-SEM	umol/g	0.02799	0.03427	20.2%
RM676A1(X:	21-Apr-05	AVS/SEM	Mercury-SEM	umol/g	3.4E-06 U	3.2E-06 U	NC
RM676A1(X:	21-Apr-05	AVS/SEM	Nickel-SEM	umol/g	0.07324	0.06813	7.2%
RM676A1(X:	21-Apr-05	AVS/SEM	Sulfide-AVS	umol/g	0.02328 UR	0.037 J	NC
RM676A1(X:	21-Apr-05	AVS/SEM	Zinc-SEM	umol/g	0.1698	0.23252	31.2%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	10400	9380	10.3%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	7.6 UJ	1.3 J	NC
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	3.7	3.1	17.6%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	122	108	12.2%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1 J	0.96 J	4.1%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	0.2 J	0.16 J	22.2%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	11300	11400	0.9%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	24.3	24.5	0.8%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	9.8	9.6	2.1%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	22.3	19.9	11.4%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	20700	21700	4.7%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	10.5 J	9.2 J	13.2%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	6760	6220	8.3%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	501	454	9.8%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.012 J	0.15 U	NC
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	22.3	21.3	4.6%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1990	1850	7.3%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.7 J	4.3 J	15.0%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.3 UJ	1.3 UJ	NC
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	244 J	298 J	19.9%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	3.2 U	3.3 U	NC
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	25.4 U	26.6 U	NC
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	32.9	35.3	7.0%
RM676A1(X:	21-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	61.1	59	3.5%
RM676A1(X:	21-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	0.4 J	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4.4 U	0.9 J	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	5 U	6 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.1 U	1.1 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4.3 U	4.4 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4.3 U	4.4 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.1 U	1.1 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.1 U	1.1 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.1 U	1.1 U	NC
RM676A1(X:	21-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.1 U	1.1 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.86 U	0.89 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.48 J	0.89 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.86 U	0.89 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.86 U	0.89 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.54 J	0.89 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	1.4	0.89 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.43 U	0.44 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.86 U	0.89 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.86 U	0.89 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.86 U	0.89 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.86 U	0.89 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.86 U	0.89 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.86 U	0.89 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4.3 U	4.4 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	43 U	44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.43 U	0.44 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	270 U	280 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	270 UR	280 UR	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	270 U	280 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	270 U	280 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	270 UJ	280 UJ	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	270 U	280 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	270 U	280 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	110 UR	110 UR	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	270 U	280 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	110 U	110 U	NC
RM676A1(X:	21-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	110 U	110 U	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Aluminum	µg/L	111 U	--	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Antimony	µg/L	60 U	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Arsenic	µg/L	5.7 J	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Barium	µg/L	255	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Beryllium	µg/L	5 U	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Cadmium	µg/L	5 U	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Calcium	µg/L	56900	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Chromium	µg/L	2.1 J	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Cobalt	µg/L	1.4 J	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Copper	µg/L	7.1 J	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Iron	µg/L	102	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Lead	µg/L	5 J	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Magnesium	µg/L	11800	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Manganese	µg/L	2710	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Mercury	µg/L	0.2 U	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Nickel	µg/L	3.6 J	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Potassium	µg/L	2110 J	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Selenium	µg/L	35 U	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Silver	µg/L	10 U	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Sodium	µg/L	7850	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Thallium	µg/L	25 U	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Uranium	µg/L	200 U	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Vanadium	µg/L	2.1 J	--	NC
RM676A1(X:	29-Apr-05	CLP TAL TotMetals-PW	Zinc	µg/L	42 J	--	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Aluminum	µg/L	--	109 U	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Antimony	µg/L	--	60 U	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Arsenic	µg/L	--	10 U	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Barium	µg/L	--	243	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Beryllium	µg/L	--	5 U	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Cadmium	µg/L	--	5 U	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Calcium	µg/L	--	50100	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Chromium	µg/L	--	1.5 J	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Cobalt	µg/L	--	0.84 J	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Copper	µg/L	--	5.5 J	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Iron	µg/L	--	69.6 U	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Lead	µg/L	--	10 U	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Magnesium	µg/L	--	10800	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Manganese	µg/L	--	2110	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Mercury	µg/L	--	0.2 U	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Nickel	µg/L	--	3.4 J	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Potassium	µg/L	--	2190 J	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Selenium	µg/L	--	35 U	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Silver	µg/L	--	10 U	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Sodium	µg/L	--	11700	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Thallium	µg/L	--	25 U	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Uranium	µg/L	--	200 U	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Vanadium	µg/L	--	2.6 J	NC
RM676A1(X:	1-May-05	CLP TAL TotMetals-PW	Zinc	µg/L	--	37.3 J	NC
RM679X3	12-Apr-05	415.1	Total organic carbon	mg/Kg	1390	1180	16.3%
RM679X3	12-Apr-05	ASTMD422	<200 Total	Percent	36.4	37.2	2.2%
RM679X3	12-Apr-05	ASTMD422	Clay	Percent	0.364	0	200.0%
RM679X3	12-Apr-05	ASTMD422	Co. Sand	Percent	4.4	6.2	34.0%
RM679X3	12-Apr-05	ASTMD422	Colloids	Percent	1.456	1.488	2.2%
RM679X3	12-Apr-05	ASTMD422	Fine Sand	Percent	25.4	23.2	9.1%
RM679X3	12-Apr-05	ASTMD422	Gravel	Percent	5.4	4.4	20.4%
RM679X3	12-Apr-05	ASTMD422	Med. Sand	Percent	28.4	29	2.1%
RM679X3	12-Apr-05	ASTMD422	Sand Total	Percent	58.2	58.4	0.3%
RM679X3	12-Apr-05	ASTMD422	Silt	Percent	34.58	35.712	3.2%
RM679X3	12-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	5800	6530	11.8%
RM679X3	12-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	0.65 J	0.64 UJ	NC
RM679X3	12-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	2.3	2.5	8.3%
RM679X3	12-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	61.1	68.7	11.7%
RM679X3	12-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.51	0.56 J	9.3%
RM679X3	12-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	0.16 J	0.079 J	67.8%
RM679X3	12-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	4550	5150	12.4%
RM679X3	12-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	12.8	12.2	4.8%
RM679X3	12-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	4.8	5.2 J	8.0%
RM679X3	12-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	11.2	12	6.9%
RM679X3	12-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	10400	11500	10.0%
RM679X3	12-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	4.5	5.2	14.4%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM679X3	12-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	3460	3930	12.7%
RM679X3	12-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	225	254	12.1%
RM679X3	12-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.11 U	0.12 U	NC
RM679X3	12-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	11.3	11.3	0.0%
RM679X3	12-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	945	1030	8.6%
RM679X3	12-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.1 UR	4 UR	NC
RM679X3	12-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	0.88 UJ	1.1 UJ	NC
RM679X3	12-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	164 J	153 J	6.9%
RM679X3	12-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.2 U	2.9 U	NC
RM679X3	12-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	7.8 U	22.9 U	NC
RM679X3	12-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	19.9	20.1	1.0%
RM679X3	12-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	31.9	36	12.1%
RM679X3	12-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	3.9 U	3.9 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	5 U	5 U	NC
RM679X3	12-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	0.96 U	0.97 U	NC
RM679X3	12-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	3.9 U	3.9 U	NC
RM679X3	12-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	3.9 U	3.9 U	NC
RM679X3	12-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	0.96 U	0.97 U	NC
RM679X3	12-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	0.96 U	0.97 U	NC
RM679X3	12-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	0.96 U	0.97 U	NC
RM679X3	12-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	0.96 U	0.97 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.78 U	0.78 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.78 U	0.78 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.78 U	0.78 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.78 U	0.78 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.78 U	0.78 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.78 U	0.78 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.78 U	0.78 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.78 U	0.78 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.78 U	0.78 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.78 U	0.78 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.78 U	0.78 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.78 U	0.78 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	3.8 U	3.8 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	38 U	38 U	NC
RM679X3	12-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.38 U	0.38 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	97 U	97 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM679X3	12-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	240 U	250 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	240 U	250 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	240 U	250 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	240 U	250 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	240 U	250 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	240 U	250 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	240 U	250 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	97 UJ	97 UJ	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	240 U	250 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	97 U	97 U	NC
RM679X3	12-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	97 U	97 U	NC
RM692A1(X	20-Apr-05	415.1	Total organic carbon	mg/Kg	391	353	10.2%
RM692A1(X	20-Apr-05	ASTMD422	<200 Total	Percent	2.6	4.1	44.8%
RM692A1(X	20-Apr-05	ASTMD422	Clay	Percent	0.026	0.041	44.8%
RM692A1(X	20-Apr-05	ASTMD422	Co. Sand	Percent	1.1	1.5	30.8%
RM692A1(X	20-Apr-05	ASTMD422	Colloids	Percent	0.026	0.0615	81.1%
RM692A1(X	20-Apr-05	ASTMD422	Fine Sand	Percent	67.7	66.7	1.5%
RM692A1(X	20-Apr-05	ASTMD422	Gravel	Percent	0.1	3.8	189.7%
RM692A1(X	20-Apr-05	ASTMD422	Med. Sand	Percent	28.5	23.9	17.6%
RM692A1(X	20-Apr-05	ASTMD422	Sand Total	Percent	97.3	92.1	5.5%
RM692A1(X	20-Apr-05	ASTMD422	Silt	Percent	2.548	3.9975	44.3%
RM692A1(X	20-Apr-05	AVS/SEM	Antimony-SEM	umol/g	0.00115 U	0.00115 U	NC
RM692A1(X	20-Apr-05	AVS/SEM	Cadmium-SEM	umol/g	0.00088	0.00077	14.1%
RM692A1(X	20-Apr-05	AVS/SEM	Chromium-SEM	umol/g	0.00654	0.00462	34.5%
RM692A1(X	20-Apr-05	AVS/SEM	Copper-SEM	umol/g	0.02046 U	0.02046 U	NC
RM692A1(X	20-Apr-05	AVS/SEM	Lead-SEM	umol/g	0.01496	0.01255	17.5%
RM692A1(X	20-Apr-05	AVS/SEM	Mercury-SEM	umol/g	6.5E-06 U	4.8E-06 U	NC
RM692A1(X	20-Apr-05	AVS/SEM	Nickel-SEM	umol/g	0.00954	0.00784	19.6%
RM692A1(X	20-Apr-05	AVS/SEM	Sulfide-AVS	umol/g	0.01966 UR	0.01875 UR	NC
RM692A1(X	20-Apr-05	AVS/SEM	Zinc-SEM	umol/g	0.16368	0.11473 U	NC
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	3460	4100	16.9%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	0.62 UJ	0.91 UJ	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	0.65 J	0.97 J	39.5%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	30.5	36.6	18.2%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.34 J	0.41 J	18.7%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	0.55 U	0.61 U	NC
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	1960	1920	2.1%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	6.8	9.3	31.1%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	2.6 J	3.1 J	17.5%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	5.3	6.8	24.8%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	6640	8370	23.1%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	3.9	4.4	12.0%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	1980	2370	17.9%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	103	122	16.9%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.14 U	0.12 U	NC
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	6.3	6.8	7.6%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	474 J	557 J	16.1%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.9 UJ	4.3 UJ	NC
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.1 UJ	1.2 UJ	NC
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	74.6 J	85.8 J	14.0%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.8 U	3.1 U	NC
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	22 U	24.6 U	NC
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	11.7	16.3	32.9%
RM692A1(X	20-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	28.7	35.3	20.6%
RM692A1(X	20-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	0.2 J	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4.1 U	4.2 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	5 U	5 U	NC
RM692A1(X	20-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1 U	--	NC
RM692A1(X	20-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4 U	--	NC
RM692A1(X	20-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4 U	--	NC
RM692A1(X	20-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1 U	--	NC
RM692A1(X	20-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1 U	--	NC
RM692A1(X	20-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1 U	--	NC
RM692A1(X	20-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1 U	--	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.81 U	0.81 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.81 U	0.81 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.81 U	0.81 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.81 U	0.81 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.81 U	0.81 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.81 U	0.81 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.81 U	0.81 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.81 U	0.81 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.81 U	0.81 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.81 U	0.81 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.81 U	0.81 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.81 U	0.81 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.4 U	0.4 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4 U	4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	40 U	40 U	NC
RM692A1(X	20-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.4 U	0.4 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	250 U	260 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	250 UR	260 UR	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	250 U	260 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	250 U	260 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	250 UJ	260 UJ	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	250 U	260 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	250 U	260 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	100 UR	100 UR	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	100 UJ	100 UJ	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	250 U	260 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	100 U	100 U	NC
RM692A1(X	20-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	415.1	Total organic carbon	mg/Kg	4030	4290	6.3%
RM692C1	23-Apr-05	ASTMD422	<200 Total	Percent	10.4	7	39.1%
RM692C1	23-Apr-05	ASTMD422	Clay	Percent	0.156	0.07	76.1%
RM692C1	23-Apr-05	ASTMD422	Co. Sand	Percent	1.5	1.2	22.2%
RM692C1	23-Apr-05	ASTMD422	Colloids	Percent	0.052	0.07	29.5%
RM692C1	23-Apr-05	ASTMD422	Fine Sand	Percent	63.2	69	8.8%
RM692C1	23-Apr-05	ASTMD422	Gravel	Percent	0.8	0	200.0%
RM692C1	23-Apr-05	ASTMD422	Med. Sand	Percent	24.1	22.8	5.5%
RM692C1	23-Apr-05	ASTMD422	Sand Total	Percent	88.8	93	4.6%
RM692C1	23-Apr-05	ASTMD422	Silt	Percent	10.192	6.86	39.1%
RM692C1	23-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	8520	9460	10.5%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM692C1	23-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	2.7 J	4.8 J	56.0%
RM692C1	23-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	7.5	7.7	2.6%
RM692C1	23-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	240	227	5.6%
RM692C1	23-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.67	0.75	11.3%
RM692C1	23-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	3.6	3.1	14.9%
RM692C1	23-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	26600	26900	1.1%
RM692C1	23-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	18.7	19.3	3.2%
RM692C1	23-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	11.7 J	14.6 J	22.1%
RM692C1	23-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	299	330	9.9%
RM692C1	23-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	40100	39700	1.0%
RM692C1	23-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	550	475	14.6%
RM692C1	23-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	7490	7480	0.1%
RM692C1	23-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	828 J	816 J	1.5%
RM692C1	23-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.063 J	0.039 J	47.1%
RM692C1	23-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	9.7	10.7	9.8%
RM692C1	23-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1950	2540	26.3%
RM692C1	23-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	4.5	4.6	2.2%
RM692C1	23-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.2 UJ	1.2 UJ	NC
RM692C1	23-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	894	1200	29.2%
RM692C1	23-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	3 U	3 U	NC
RM692C1	23-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	23.8 U	24 U	NC
RM692C1	23-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	28.7	32.3	11.8%
RM692C1	23-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	4020	3570	11.9%
RM692C1	23-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	1 J	0.4 J	85.7%
RM692C1	23-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	5 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	0.8 J	5 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	5 U	5 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	5 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	0.6 J	5 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	5 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	2 J	5 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	5 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	0.6 J	5 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	2 J	0.2 J	163.6%
RM692C1	23-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	0.8 J	0.2 J	120.0%
RM692C1	23-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	2 J	4.3 U	NC
RM692C1	23-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	3 J	0.4 J	152.9%
RM692C1	23-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	2 J	5 U	NC
RM692C1	23-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1 U	1 U	NC
RM692C1	23-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4.2 U	4.2 U	NC
RM692C1	23-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4.2 U	4.2 U	NC
RM692C1	23-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1 U	1 U	NC
RM692C1	23-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1 U	1 U	NC
RM692C1	23-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1 U	1 U	NC
RM692C1	23-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1 U	1 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.84 U	0.84 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.84 U	0.84 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.84 U	0.84 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.84 U	0.84 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.84 U	0.84 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.84 U	0.84 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.84 U	0.84 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.84 U	0.84 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.84 U	0.84 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.84 U	0.84 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.84 U	0.84 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.84 U	0.84 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.41 U	0.41 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM692C1	23-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4.1 U	4.1 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	41 U	41 U	NC
RM692C1	23-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.41 U	0.41 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	260 U	260 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	260 UJ	260 UJ	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	260 U	260 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	260 U	260 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	260 U	260 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	260 U	260 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	260 U	260 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	100 UR	100 UR	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	260 UJ	260 UJ	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	100 UJ	100 UJ	NC
RM692C1	23-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	100 U	100 U	NC
RM692C1	23-Apr-05	Dioxins and Furans	% Moisture	%	20.3	25.2	21.5%
RM692C1	23-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	4.21	1.62 J	88.9%
RM692C1	23-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	0.867 J	0.342 J	86.8%
RM692C1	23-Apr-05	Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	0.0711 J	0.0353 J	67.3%
RM692C1	23-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	0.0917 J	0.0504 U	NC
RM692C1	23-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	0.119 J	0.0517 U	NC
RM692C1	23-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	0.238 J	0.102 U	NC
RM692C1	23-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	0.0744 J	0.0386 J	63.4%
RM692C1	23-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	0.134 J	0.0517 J	88.6%
RM692C1	23-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	0.0492 J	0.064 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM692C1	23-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	0.0697 J	0.0366 J	62.3%
RM692C1	23-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	0.0956 U	0.0477 U	NC
RM692C1	23-Apr-05	Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	0.093 J	0.0405 U	NC
RM692C1	23-Apr-05	Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	0.182 J	0.0948 J	63.0%
RM692C1	23-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	0.134 J	0.0726 U	NC
RM692C1	23-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	PG/G	4.04	2	67.5%
RM692C1	23-Apr-05	Dioxins and Furans	Heptachlorodibenzodioxin (Total)	PG/G	8.8	3.41	88.3%
RM692C1	23-Apr-05	Dioxins and Furans	Heptachlorodibenzofuran (Total)	PG/G	2.52	0.988	87.3%
RM692C1	23-Apr-05	Dioxins and Furans	Hexachlorodibenzodioxin (Total)	PG/G	2.06	0.812	86.9%
RM692C1	23-Apr-05	Dioxins and Furans	Hexachlorodibenzofuran (Total)	PG/G	1.51	0.491	101.8%
RM692C1	23-Apr-05	Dioxins and Furans	Octachlorodibenzodioxin	PG/G	34.1	13	89.6%
RM692C1	23-Apr-05	Dioxins and Furans	Octachlorodibenzofuran	PG/G	2.53 J	0.999 J	86.8%
RM692C1	23-Apr-05	Dioxins and Furans	Pentachlorodibenzodioxin (Total)	PG/G	0.265	0.309	15.3%
RM692C1	23-Apr-05	Dioxins and Furans	Pentachlorodibenzofuran (Total)	PG/G	1.53 J	0.594 J	88.1%
RM692C1	23-Apr-05	Dioxins and Furans	TEQ WHO-98	PG/G	0.8342	0.3139	90.6%
RM692C1	23-Apr-05	Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	PG/G	0.258	0.0484	136.8%
RM692C1	23-Apr-05	Dioxins and Furans	Tetrachlorodibenzofuran (Total)	PG/G	9.79	4.4	76.0%
RM692X2	9-Apr-05	415.1	Total organic carbon	mg/Kg	25900	29800	14.0%
RM692X2	9-Apr-05	ASTMD422	<200 Total	Percent	94.2	95.4	1.3%
RM692X2	9-Apr-05	ASTMD422	Clay	Percent	16.014	17.172	7.0%
RM692X2	9-Apr-05	ASTMD422	Co. Sand	Percent	0.4	0.2	66.7%
RM692X2	9-Apr-05	ASTMD422	Colloids	Percent	15.072	15.264	1.3%
RM692X2	9-Apr-05	ASTMD422	Fine Sand	Percent	4.6	3.6	24.4%
RM692X2	9-Apr-05	ASTMD422	Gravel	Percent	0.2	0.2	0.0%
RM692X2	9-Apr-05	ASTMD422	Med. Sand	Percent	0.6	0.6	0.0%
RM692X2	9-Apr-05	ASTMD422	Sand Total	Percent	5.6	4.4	24.0%
RM692X2	9-Apr-05	ASTMD422	Silt	Percent	63.114	62.964	0.2%
RM692X2	9-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	13500	13500	0.0%
RM692X2	9-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	2.1 J	1.6 J	27.0%
RM692X2	9-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	8.6	8.6	0.0%
RM692X2	9-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	401	396	1.3%
RM692X2	9-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1.2	1.2	0.0%
RM692X2	9-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	3.5	3.4	2.9%
RM692X2	9-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	14200	13900	2.1%
RM692X2	9-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	31.8	32.1	0.9%
RM692X2	9-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	11.1 J	11.1	0.0%
RM692X2	9-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	100	95.3	4.8%
RM692X2	9-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	27500	28100	2.2%
RM692X2	9-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	152	150	1.3%
RM692X2	9-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	11700	11500	1.7%
RM692X2	9-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	439	447	1.8%
RM692X2	9-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.3	0.34	12.5%
RM692X2	9-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	25.1	24.9	0.8%
RM692X2	9-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1920	1900	1.0%
RM692X2	9-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	8.3 U	7.6 U	NC
RM692X2	9-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	2.4 U	2.2 U	NC
RM692X2	9-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	217 J	210 J	3.3%
RM692X2	9-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	5.9 U	5.4 U	NC
RM692X2	9-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	47.3 U	43.2 U	NC
RM692X2	9-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	41	42.1	2.6%
RM692X2	9-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	635 J	629 J	0.9%
RM692X2	9-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.8 J	0.8 J	0.0%
RM692X2	9-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	10 U	10 U	NC
RM692X2	9-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	10 U	10 U	NC
RM692X2	9-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	10 U	10 U	NC
RM692X2	9-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	2 J	2 J	0.0%
RM692X2	9-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	10 U	10 U	NC
RM692X2	9-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	10 U	10 U	NC
RM692X2	9-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	1 J	0.8 J	22.2%
RM692X2	9-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	10 U	10 U	NC
RM692X2	9-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	3 J	2 J	40.0%
RM692X2	9-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	10 U	10 U	NC
RM692X2	9-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	10 U	10 U	NC
RM692X2	9-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	4 J	2 J	66.7%
RM692X2	9-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	10 U	10 U	NC
RM692X2	9-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	10 U	10 U	NC
RM692X2	9-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	2 J	1 J	66.7%
RM692X2	9-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	2 J	2 J	0.0%
RM692X2	9-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	3 J	2 J	40.0%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM692X2	9-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	2 U	2.1 U	NC
RM692X2	9-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	7.9 U	8.4 U	NC
RM692X2	9-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	7.9 U	8.4 U	NC
RM692X2	9-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	2 U	2.1 U	NC
RM692X2	9-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	2 U	2.1 U	NC
RM692X2	9-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	2 U	2.1 U	NC
RM692X2	9-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	2 U	2.1 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1.6 U	1.7 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1.6 U	1.7 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1.6 U	1.7 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1.6 U	1.7 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	1.6 U	1.7 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	1.6 U	1.7 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1.6 U	1.7 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1.6 U	1.7 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1.6 U	1.7 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1.6 U	1.7 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1.6 U	1.7 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1.6 U	1.7 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	7.8 U	8.3 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	78 U	83 U	NC
RM692X2	9-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.78 U	0.83 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	500 U	520 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	500 U	520 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	500 U	520 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	500 U	520 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	500 U	520 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	500 U	520 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	500 U	520 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	200 UJ	210 UJ	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	200 U	210 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM692X2	9-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	500 U	520 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	200 U	210 U	NC
RM692X2	9-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	200 U	210 U	NC
RM697B3	13-Apr-05	415.1	Total organic carbon	mg/Kg	23200	21900	5.8%
RM697B3	13-Apr-05	ASTMD422	<200 Total	Percent	86.2162	86.8571	0.7%
RM697B3	13-Apr-05	ASTMD422	Clay	Percent	22.1366	19.8531	10.9%
RM697B3	13-Apr-05	ASTMD422	Co. Sand	Percent	1.08108	1.42857	27.7%
RM697B3	13-Apr-05	ASTMD422	Colloids	Percent	5.82542	6.20408	6.3%
RM697B3	13-Apr-05	ASTMD422	Fine Sand	Percent	10	9.14286	9.0%
RM697B3	13-Apr-05	ASTMD422	Gravel	Percent	0	0.3	200.0%
RM697B3	13-Apr-05	ASTMD422	Med. Sand	Percent	2.7027	2.28571	16.7%
RM697B3	13-Apr-05	ASTMD422	Sand Total	Percent	13.7838	12.8571	7.0%
RM697B3	13-Apr-05	ASTMD422	Silt	Percent	58.2542	60.8	4.3%
RM697B3	13-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	13000	14100	8.1%
RM697B3	13-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	1.8 J	2.5 J	32.6%
RM697B3	13-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	2.3	1.9	19.0%
RM697B3	13-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	232	246	5.9%
RM697B3	13-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1.2 J	1.3	8.0%
RM697B3	13-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	7.8	8.4	7.4%
RM697B3	13-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	5670	6150	8.1%
RM697B3	13-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	24.8	26.4	6.2%
RM697B3	13-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	8.7	9.2	5.6%
RM697B3	13-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	34	35.4	4.0%
RM697B3	13-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	18100	20000	10.0%
RM697B3	13-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	222	233	4.8%
RM697B3	13-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	5220	5530	5.8%
RM697B3	13-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	267	266	0.4%
RM697B3	13-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.8 J	0.87	8.4%
RM697B3	13-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	19.7	20.4	3.5%
RM697B3	13-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	2260	2390	5.6%
RM697B3	13-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	5.3 UR	5.8 UR	NC
RM697B3	13-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.5 UJ	1.7 UJ	NC
RM697B3	13-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	242 J	263 J	8.3%
RM697B3	13-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	3.8 U	4.2 U	NC
RM697B3	13-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	30.2 U	33.3 U	NC
RM697B3	13-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	29	31.4	7.9%
RM697B3	13-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	700	728	3.9%
RM697B3	13-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.6 J	0.6 J	0.0%
RM697B3	13-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	7 UJ	7 U	NC
RM697B3	13-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	7 U	7 U	NC
RM697B3	13-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	7 U	7 U	NC
RM697B3	13-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	0.6 J	0.6 J	0.0%
RM697B3	13-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	0.6 J	0.6 J	0.0%
RM697B3	13-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	0.8 J	0.6 J	28.6%
RM697B3	13-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	7 U	7 U	NC
RM697B3	13-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	0.6 J	7 U	NC
RM697B3	13-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	0.8 J	0.9 J	11.8%
RM697B3	13-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	7 U	7 U	NC
RM697B3	13-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	7 UJ	7 U	NC
RM697B3	13-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	1 J	0.9 J	10.5%
RM697B3	13-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	7 UJ	7 U	NC
RM697B3	13-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	7 U	7 U	NC
RM697B3	13-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	0.8 U	0.9 U	NC
RM697B3	13-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	1 J	0.9 J	10.5%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM697B3	13-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	0.8 J	0.6 J	28.6%
RM697B3	13-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.4 U	1.4 U	NC
RM697B3	13-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	5.7 U	5.8 U	NC
RM697B3	13-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	5.7 U	5.8 U	NC
RM697B3	13-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.4 U	1.4 U	NC
RM697B3	13-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.4 U	1.4 U	NC
RM697B3	13-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.4 U	1.4 U	NC
RM697B3	13-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.4 U	1.4 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1.1 U	1.2 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1.1 U	1.2 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1.1 U	1.2 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1.1 U	1.2 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	1.1 U	1.2 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	1.1 U	1.2 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1.1 U	1.2 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1.1 U	1.2 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1.1 U	1.2 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1.1 U	1.2 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1.1 U	1.2 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1.1 U	1.2 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	5.6 U	5.7 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	56 U	57 U	NC
RM697B3	13-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.56 U	0.57 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	360 U	360 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	360 U	360 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	360 U	360 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	360 U	360 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	360 U	360 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	360 U	360 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	360 U	360 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	140 UJ	140 UJ	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM697B3	13-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	360 U	360 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	140 U	140 U	NC
RM697B3	13-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	8.58	9.89	14.2%
RM697B3	13-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	1.74	1.88	7.7%
RM697B3	13-Apr-05	Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	0.208 U	0.229 J	NC
RM697B3	13-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	0.178 J	0.31 J	54.1%
RM697B3	13-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	0.241 J	0.288 U	NC
RM697B3	13-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	0.772 J	0.859 U	NC
RM697B3	13-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	0.189 J	0.215 J	12.9%
RM697B3	13-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	0.514 U	0.535 U	NC
RM697B3	13-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	0.213 U	0.15 U	NC
RM697B3	13-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	0.262 J	0.277 J	5.6%
RM697B3	13-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	0.243 J	0.25 J	2.8%
RM697B3	13-Apr-05	Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	0.21 U	0.238 J	NC
RM697B3	13-Apr-05	Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	0.465 J	0.474 J	1.9%
RM697B3	13-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	0.245 J	0.255 U	NC
RM697B3	13-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	PG/G	16.1	15.5	3.8%
RM697B3	13-Apr-05	Dioxins and Furans	Heptachlorodibenzodioxin (Total)	PG/G	19.1 J	21.6 J	12.3%
RM697B3	13-Apr-05	Dioxins and Furans	Heptachlorodibenzofuran (Total)	PG/G	4.03	4.88	19.1%
RM697B3	13-Apr-05	Dioxins and Furans	Hexachlorodibenzodioxin (Total)	PG/G	6.23	5.85	6.3%
RM697B3	13-Apr-05	Dioxins and Furans	Hexachlorodibenzofuran (Total)	PG/G	2.26	3.16	33.2%
RM697B3	13-Apr-05	Dioxins and Furans	Octachlorodibenzodioxin	PG/G	50.9	85.2	50.4%
RM697B3	13-Apr-05	Dioxins and Furans	Octachlorodibenzofuran	PG/G	4.16	4.85	15.3%
RM697B3	13-Apr-05	Dioxins and Furans	Pentachlorodibenzodioxin (Total)	PG/G	0.999	1.28	24.7%
RM697B3	13-Apr-05	Dioxins and Furans	Pentachlorodibenzofuran (Total)	PG/G	3.11	3.43	9.8%
RM697B3	13-Apr-05	Dioxins and Furans	TEQ WHO-98	PG/G	2.6	2.287	12.8%
RM697B3	13-Apr-05	Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	PG/G	0.723	0.19 U	NC
RM697B3	13-Apr-05	Dioxins and Furans	Tetrachlorodibenzofuran (Total)	PG/G	29.8	29.2	2.0%
RM700B3L	12-Apr-05	415.1	Total organic carbon	mg/Kg	472	422	11.2%
RM700B3L	12-Apr-05	ASTMD422	<200 Total	Percent	2	2	0.0%
RM700B3L	12-Apr-05	ASTMD422	Clay	Percent	0	0	0.0%
RM700B3L	12-Apr-05	ASTMD422	Co. Sand	Percent	5.9	5.1	14.5%
RM700B3L	12-Apr-05	ASTMD422	Colloids	Percent	0	0	0.0%
RM700B3L	12-Apr-05	ASTMD422	Fine Sand	Percent	33.2	27.3	19.5%
RM700B3L	12-Apr-05	ASTMD422	Gravel	Percent	15.2	27.3	56.9%
RM700B3L	12-Apr-05	ASTMD422	Med. Sand	Percent	43.7	38.3	13.2%
RM700B3L	12-Apr-05	ASTMD422	Sand Total	Percent	82.8	70.7	15.8%
RM700B3L	12-Apr-05	ASTMD422	Silt	Percent	2	2	0.0%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	4730	4190	12.1%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	0.45 UJ	0.57 UJ	NC
RM700B3L	12-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	1.5	1.8	18.2%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	36.9 J	42.1 J	13.2%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.35 J	0.27 J	25.8%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	0.19 J	0.12 J	45.2%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	2430	14800	143.6%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	10.3 J	9 J	13.5%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	3.8 J	2.9 J	26.9%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	10	8.9	11.6%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	10100	8760	14.2%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	7.6	6	23.5%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	3100	2540	19.9%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	147	130	12.3%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM700B3L	12-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.004 J	0.098 U	NC
RM700B3L	12-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	8.2	6.9	17.2%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	503	562	11.1%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	0.85 R	3.5 UR	NC
RM700B3L	12-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	0.9 U	1 U	NC
RM700B3L	12-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	98.1 U	98.8 U	NC
RM700B3L	12-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.2 U	2.5 U	NC
RM700B3L	12-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	17.9 UJ	20 UJ	NC
RM700B3L	12-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	20	18.7	6.7%
RM700B3L	12-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	40.2	33.3	18.8%
RM700B3L	12-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	4 U	0.2 J	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	3.5 U	3.6 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	4 U	4 U	NC
RM700B3L	12-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	4 U	0.2 J	NC
RM700B3L	12-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	0.86 U	0.85 U	NC
RM700B3L	12-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	3.5 U	3.4 U	NC
RM700B3L	12-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	3.5 U	3.4 U	NC
RM700B3L	12-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	0.86 U	0.85 U	NC
RM700B3L	12-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	0.86 U	0.85 U	NC
RM700B3L	12-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	0.86 U	0.85 U	NC
RM700B3L	12-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	0.86 U	0.85 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.7 U	0.69 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.7 U	0.69 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.7 U	0.69 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.7 U	0.69 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.7 U	0.69 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.7 U	0.69 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.7 U	0.69 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.7 U	0.69 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.7 U	0.69 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.7 U	0.69 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.7 U	0.69 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.7 U	0.69 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	3.4 U	3.4 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	34 U	34 U	NC
RM700B3L	12-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.34 U	0.34 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	85 U	85 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM700B3L	12-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	220 U	220 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	220 U	220 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	220 U	220 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	220 U	220 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	220 U	220 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	220 U	220 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	220 U	220 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	85 UJ	85 UJ	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	220 U	220 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	85 U	85 U	NC
RM700B3L	12-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	85 U	85 U	NC
RM704X3	8-Apr-05	415.1	Total organic carbon	mg/Kg	4730	4560	3.7%
RM704X3	8-Apr-05	ASTMD422	<200 Total	Percent	58.6	52	11.9%
RM704X3	8-Apr-05	ASTMD422	Clay	Percent	4.102	3.64	11.9%
RM704X3	8-Apr-05	ASTMD422	Co. Sand	Percent	0	0	0.0%
RM704X3	8-Apr-05	ASTMD422	Colloids	Percent	0.586	0.52	11.9%
RM704X3	8-Apr-05	ASTMD422	Fine Sand	Percent	40.8	47.4	15.0%
RM704X3	8-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM704X3	8-Apr-05	ASTMD422	Med. Sand	Percent	0.6	0.6	0.0%
RM704X3	8-Apr-05	ASTMD422	Sand Total	Percent	41.4	48	14.8%
RM704X3	8-Apr-05	ASTMD422	Silt	Percent	53.912	47.84	11.9%
RM704X3	8-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	7120	6350	11.4%
RM704X3	8-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	7.6 UR	7.9 UR	NC
RM704X3	8-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	10	6.8	38.1%
RM704X3	8-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	853	863	1.2%
RM704X3	8-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.64	0.58 J	9.8%
RM704X3	8-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	4.7	4	16.1%
RM704X3	8-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	34900	30700	12.8%
RM704X3	8-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	17.8	16.6	7.0%
RM704X3	8-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	5.1 J	4.3 J	17.0%
RM704X3	8-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	42.4	35.9	16.6%
RM704X3	8-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	21000	19100	9.5%
RM704X3	8-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	254	216	16.2%
RM704X3	8-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	21200	18400	14.1%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM704X3	8-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	364	316	14.1%
RM704X3	8-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.62	0.92	39.0%
RM704X3	8-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	17.2	14.9	14.3%
RM704X3	8-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1310	1130	14.8%
RM704X3	8-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	4.4 UR	4.6 UR	NC
RM704X3	8-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.3 UJ	1.3 UJ	NC
RM704X3	8-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	125 J	106 J	16.5%
RM704X3	8-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	3.2 UJ	3.3 UJ	NC
RM704X3	8-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	25.3 UJ	26.4 UJ	NC
RM704X3	8-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	28.5	27.8	2.5%
RM704X3	8-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	896	743	18.7%
RM704X3	8-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.4 J	0.9 J	76.9%
RM704X3	8-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	6 U	6 U	NC
RM704X3	8-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	6 U	6 U	NC
RM704X3	8-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	6 U	6 U	NC
RM704X3	8-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	0.4 J	0.7 J	54.5%
RM704X3	8-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	6 U	6 U	NC
RM704X3	8-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	6 U	6 U	NC
RM704X3	8-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	6 U	0.7 J	NC
RM704X3	8-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	6 U	6 U	NC
RM704X3	8-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	0.7 J	0.9 J	25.0%
RM704X3	8-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	6 U	6 U	NC
RM704X3	8-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	0.2 J	0.4 J	66.7%
RM704X3	8-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	1 J	1 J	0.0%
RM704X3	8-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	6 U	6 U	NC
RM704X3	8-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	6 U	0.7 J	NC
RM704X3	8-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4.5 U	1 J	NC
RM704X3	8-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	0.9 J	1 J	10.5%
RM704X3	8-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	0.9 J	0.9 J	0.0%
RM704X3	8-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.1 U	1.1 U	NC
RM704X3	8-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4.4 U	4.5 U	NC
RM704X3	8-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4.4 U	4.5 U	NC
RM704X3	8-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.1 U	1.1 U	NC
RM704X3	8-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.1 U	1.1 U	NC
RM704X3	8-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.1 U	1.1 U	NC
RM704X3	8-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.1 U	1.1 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.88 U	0.89 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.88 U	0.89 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.88 U	0.89 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.88 U	0.89 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.88 U	0.89 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.88 U	0.89 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.88 U	0.89 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.88 U	0.89 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.88 U	0.89 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.88 U	0.89 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.88 U	0.89 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.88 U	0.89 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4.3 U	4.4 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	43 U	44 U	NC
RM704X3	8-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.43 U	0.44 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	110 U	110 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM704X3	8-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	280 U	280 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	280 U	280 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	280 U	280 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	280 U	280 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	280 U	280 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	280 U	280 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	280 U	280 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	110 UJ	110 UJ	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	280 U	280 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	110 U	110 U	NC
RM704X3	8-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	110 U	110 U	NC
RM708B1	7-Apr-05	415.1	Total organic carbon	mg/Kg	3410	4990	37.6%
RM708B1	7-Apr-05	ASTMD422	<200 Total	Percent	35.2778	35.3125	0.1%
RM708B1	7-Apr-05	ASTMD422	Clay	Percent	1.46991	0.55176	90.8%
RM708B1	7-Apr-05	ASTMD422	Co. Sand	Percent	6.38889	6.875	7.3%
RM708B1	7-Apr-05	ASTMD422	Colloids	Percent	0	0	0.0%
RM708B1	7-Apr-05	ASTMD422	Fine Sand	Percent	47.5	45.9375	3.3%
RM708B1	7-Apr-05	ASTMD422	Gravel	Percent	0	0.9	200.0%
RM708B1	7-Apr-05	ASTMD422	Med. Sand	Percent	10.8333	10.9375	1.0%
RM708B1	7-Apr-05	ASTMD422	Sand Total	Percent	64.7222	63.75	1.5%
RM708B1	7-Apr-05	ASTMD422	Silt	Percent	33.8079	34.7607	2.8%
RM708B1	7-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	7310	6630	9.8%
RM708B1	7-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	6.2 UJ	0.52 J	NC
RM708B1	7-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	3.9 U	4.1 U	NC
RM708B1	7-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	101	102	1.0%
RM708B1	7-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.36 J	0.32 J	11.8%
RM708B1	7-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	1.6	1.3	20.7%
RM708B1	7-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	7110	8430	17.0%
RM708B1	7-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	14	13	7.4%
RM708B1	7-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	5.2	5.5	5.6%
RM708B1	7-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	14.1	14.6	3.5%
RM708B1	7-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	12700	13300	4.6%
RM708B1	7-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	52.3	45.9	13.0%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM708B1	7-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	4220	4750	11.8%
RM708B1	7-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	170	183	7.4%
RM708B1	7-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.078 J	0.061 J	24.5%
RM708B1	7-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	12.9	12.3	4.8%
RM708B1	7-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1070	991	7.7%
RM708B1	7-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.6 U	2.3 J	NC
RM708B1	7-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1 U	1.1 U	NC
RM708B1	7-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	95.9 J	56.7 J	51.4%
RM708B1	7-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.6 U	2.6 U	NC
RM708B1	7-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	7.5 J	21 U	NC
RM708B1	7-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	18.6	21.5	14.5%
RM708B1	7-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	186 J	178 J	4.4%
RM708B1	7-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	1 J	0.9 J	10.5%
RM708B1	7-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	0.3 J	0.2 J	40.0%
RM708B1	7-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	13 U	12 U	NC
RM708B1	7-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	13 U	12 U	NC
RM708B1	7-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	2 J	0.7 J	96.3%
RM708B1	7-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	0.5 J	0.5 J	0.0%
RM708B1	7-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	1 J	1 J	0.0%
RM708B1	7-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	0.5 J	0.2 J	85.7%
RM708B1	7-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	13 UJ	12 UJ	NC
RM708B1	7-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	2 J	1 J	66.7%
RM708B1	7-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	0.5 J	0.5 J	0.0%
RM708B1	7-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	0.3 J	12 U	NC
RM708B1	7-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	13 U	0.7 J	NC
RM708B1	7-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	0.3 J	0.2 J	40.0%
RM708B1	7-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	0.3 J	0.7 J	80.0%
RM708B1	7-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	7	7	0.0%
RM708B1	7-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	1 J	1 J	0.0%
RM708B1	7-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	1 J	0.7 J	35.3%
RM708B1	7-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.2 U	1.2 U	NC
RM708B1	7-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	5 U	4.7 U	NC
RM708B1	7-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	5 U	4.7 U	NC
RM708B1	7-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.2 U	1.2 U	NC
RM708B1	7-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.2 U	1.2 U	NC
RM708B1	7-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.2 U	1.2 U	NC
RM708B1	7-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.2 U	1.2 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1 U	0.94 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1 U	0.94 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1 U	0.94 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1 U	0.94 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	1 U	0.94 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	1 U	0.94 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1 U	0.94 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1 U	0.94 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1 U	0.94 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1 U	0.94 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1 U	0.94 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1 U	0.94 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	5 U	4.6 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	50 U	46 U	NC
RM708B1	7-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.5 U	0.46 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	130 U	120 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM708B1	7-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	320 U	290 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	320 U	290 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	320 U	290 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	320 U	290 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	320 U	290 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	320 U	290 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	320 U	290 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	130 UJ	120 UJ	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	320 U	290 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	130 U	120 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	% Moisture	%	12.4	12.7	2.4%
RM708B1	7-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	1.43 J	1.5 J	4.8%
RM708B1	7-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	0.393 J	0.41 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	0.123 U	0.0626 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	0.0762 U	0.0538 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	0.0516 U	0.0509 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	0.0968 U	0.105 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	0.0529 J	0.0476 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	0.0752 U	0.0793 J	NC
RM708B1	7-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	0.0642 U	0.0421 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	0.0446 U	0.0308 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	0.0432 U	0.0377 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	0.0561 U	0.0621 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	0.0774 J	0.0879 J	12.7%
RM708B1	7-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	0.0397 U	0.0635 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	PG/G	1.15	1.17	1.7%
RM708B1	7-Apr-05	Dioxins and Furans	Heptachlorodibenzodioxin (Total)	PG/G	2.84	3.07	7.8%
RM708B1	7-Apr-05	Dioxins and Furans	Heptachlorodibenzofuran (Total)	PG/G	0.617 J	0.889 J	36.1%
RM708B1	7-Apr-05	Dioxins and Furans	Hexachlorodibenzodioxin (Total)	PG/G	0.332	0.872	89.7%
RM708B1	7-Apr-05	Dioxins and Furans	Hexachlorodibenzofuran (Total)	PG/G	0.493	0.64	25.9%
RM708B1	7-Apr-05	Dioxins and Furans	Octachlorodibenzodioxin	PG/G	10.3	10.3	0.0%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM708B1	7-Apr-05	Dioxins and Furans	Octachlorodibenzofuran	PG/G	0.673 J	0.829 J	20.8%
RM708B1	7-Apr-05	Dioxins and Furans	Pentachlorodibenzodioxin (Total)	PG/G	0.0446 U	0.0308 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	Pentachlorodibenzofuran (Total)	PG/G	0.526 J	0.504 J	4.3%
RM708B1	7-Apr-05	Dioxins and Furans	TEQ WHO-98	PG/G	0.276	0.1853	39.3%
RM708B1	7-Apr-05	Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	PG/G	0.0397 U	0.0408 U	NC
RM708B1	7-Apr-05	Dioxins and Furans	Tetrachlorodibenzofuran (Total)	PG/G	2.32	2.27	2.2%
RM710X3	16-Apr-05	415.1	Total organic carbon	mg/Kg	7480	7800 J	4.2%
RM710X3	16-Apr-05	ASTMD422	<200 Total	Percent	16.6	16.8	1.2%
RM710X3	16-Apr-05	ASTMD422	Clay	Percent	0.498	0.672	29.7%
RM710X3	16-Apr-05	ASTMD422	Co. Sand	Percent	0.8	1	22.2%
RM710X3	16-Apr-05	ASTMD422	Colloids	Percent	0	3.864	200.0%
RM710X3	16-Apr-05	ASTMD422	Fine Sand	Percent	75.4	74.2	1.6%
RM710X3	16-Apr-05	ASTMD422	Gravel	Percent	0	0.2	200.0%
RM710X3	16-Apr-05	ASTMD422	Med. Sand	Percent	7.2	7.8	8.0%
RM710X3	16-Apr-05	ASTMD422	Sand Total	Percent	83.4	83	0.5%
RM710X3	16-Apr-05	ASTMD422	Silt	Percent	16.102	12.264	27.1%
RM710X3	16-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	11700	11200	4.4%
RM710X3	16-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	1.5 UR	1.9 J	NC
RM710X3	16-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	5.3	3.9	30.4%
RM710X3	16-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	120	123	2.5%
RM710X3	16-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.69 J	0.7 J	1.4%
RM710X3	16-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	1.1	1.4	24.0%
RM710X3	16-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	2560	2620	2.3%
RM710X3	16-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	14.3	14	2.1%
RM710X3	16-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	5.2 J	4.9 J	5.9%
RM710X3	16-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	13.9	14.8	6.3%
RM710X3	16-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	15400 J	13900 J	10.2%
RM710X3	16-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	85.3	92.4	8.0%
RM710X3	16-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	3000	2940	2.0%
RM710X3	16-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	214	199	7.3%
RM710X3	16-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.11 J	0.11 J	0.0%
RM710X3	16-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	10.8	10.9	0.9%
RM710X3	16-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	933	917	1.7%
RM710X3	16-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.9 UR	3.8 UR	NC
RM710X3	16-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.1 U	1.1 U	NC
RM710X3	16-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	124 J	125 J	0.8%
RM710X3	16-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.8 UJ	2.7 UJ	NC
RM710X3	16-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	22 UJ	21.9 UJ	NC
RM710X3	16-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	25.4	22.3	13.0%
RM710X3	16-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	182	188	3.2%
RM710X3	16-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.2 J	0.2 J	0.0%
RM710X3	16-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	0.4 J	5 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	5 U	5 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	5 U	5 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	5 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	5 U	5 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	5 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	5 U	0.2 J	NC
RM710X3	16-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	5 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	5 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	5 U	0.2 J	NC
RM710X3	16-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	5 U	5 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4 U	4.1 U	NC
RM710X3	16-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	0.4 J	0.4 J	0.0%
RM710X3	16-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	5 U	5 U	NC
RM710X3	16-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	0.98 U	1 U	NC
RM710X3	16-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4 U	4 U	NC
RM710X3	16-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4 U	4 U	NC
RM710X3	16-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	0.98 U	1 U	NC
RM710X3	16-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	0.98 U	1 U	NC
RM710X3	16-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	0.98 U	1 U	NC
RM710X3	16-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	0.98 U	1 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.79 U	0.8 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.79 U	0.8 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.79 U	0.8 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.79 U	0.8 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM710X3	16-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.79 U	0.8 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.79 U	0.8 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.79 U	0.8 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.79 U	0.8 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.79 U	0.8 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.79 U	0.8 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.79 U	0.8 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.79 U	0.8 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	3.9 U	4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	39 U	40 U	NC
RM710X3	16-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.39 U	0.4 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	250 U	250 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	250 U	250 UR	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	250 U	250 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	250 U	250 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	250 U	250 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	250 U	250 UJ	NC
RM710X3	16-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	250 U	250 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	98 UR	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	98 U	100 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM710X3	16-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	250 U	250 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	98 U	100 U	NC
RM710X3	16-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	98 U	100 U	NC
RM713A1(X	23-Apr-05	415.1	Total organic carbon	mg/Kg	8710	9320	6.8%
RM713A1(X	23-Apr-05	ASTMD422	<200 Total	Percent	35	33	5.9%
RM713A1(X	23-Apr-05	ASTMD422	Clay	Percent	1.4	1.65	16.4%
RM713A1(X	23-Apr-05	ASTMD422	Co. Sand	Percent	2	1.2	50.0%
RM713A1(X	23-Apr-05	ASTMD422	Colloids	Percent	0.7	0.66	5.9%
RM713A1(X	23-Apr-05	ASTMD422	Fine Sand	Percent	60.8	60.2	1.0%
RM713A1(X	23-Apr-05	ASTMD422	Gravel	Percent	0	3.4	200.0%
RM713A1(X	23-Apr-05	ASTMD422	Med. Sand	Percent	2.2	2.2	0.0%
RM713A1(X	23-Apr-05	ASTMD422	Sand Total	Percent	65	63.6	2.2%
RM713A1(X	23-Apr-05	ASTMD422	Silt	Percent	32.9	30.69	7.0%
RM713A1(X	23-Apr-05	AVS/SEM	Antimony-SEM	umol/g	0.00164 U	0.00419	NC
RM713A1(X	23-Apr-05	AVS/SEM	Cadmium-SEM	umol/g	0.01512	0.01423	6.1%
RM713A1(X	23-Apr-05	AVS/SEM	Chromium-SEM	umol/g	0.10385	0.05577	60.2%
RM713A1(X	23-Apr-05	AVS/SEM	Copper-SEM	umol/g	1.00557	0.45321	75.7%
RM713A1(X	23-Apr-05	AVS/SEM	Lead-SEM	umol/g	0.83012 J	0.58398 J	34.8%
RM713A1(X	23-Apr-05	AVS/SEM	Mercury-SEM	umol/g	1.3E-05	8.5E-06 U	NC
RM713A1(X	23-Apr-05	AVS/SEM	Nickel-SEM	umol/g	1.80548	0.0494 U	NC
RM713A1(X	23-Apr-05	AVS/SEM	Sulfide-AVS	umol/g	0.084 J	0.16	62.3%
RM713A1(X	23-Apr-05	AVS/SEM	Zinc-SEM	umol/g	6.50145	5.15527	23.1%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	7810	5970	26.7%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	10.6 UJ	9.7 UJ	NC
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	6	3.2	60.9%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	291	243	18.0%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.92	0.73 J	23.0%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	3.6	2.1	52.6%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	9510	7840	19.3%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	22.7	18	23.1%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	8.2 J	6.3 J	26.2%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	80.3	49.6	47.3%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	19100	16100	17.0%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	183	113	47.3%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	7830	6190	23.4%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	294 J	253 J	15.0%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.65 J	0.45 J	36.4%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	18.4	13.6	30.0%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1420	1130	22.7%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	7	4.6 J	41.4%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.8 UJ	1.6 UJ	NC
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	126 J	122 J	3.2%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	4.4 U	4.1 U	NC
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	35.4 U	32.4 U	NC
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	29.7	26.4	11.8%
RM713A1(X	23-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	643	434	38.8%
RM713A1(X	23-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	1 J	1 J	0.0%
RM713A1(X	23-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	7 U	6 U	NC
RM713A1(X	23-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	7 U	6 U	NC
RM713A1(X	23-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	7 U	6 U	NC
RM713A1(X	23-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	1 J	0.5 J	66.7%
RM713A1(X	23-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	1 J	0.7 J	35.3%
RM713A1(X	23-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	7 U	6 U	NC
RM713A1(X	23-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	0.8 J	0.7 J	13.3%
RM713A1(X	23-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	7 U	6 U	NC
RM713A1(X	23-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	2 J	1 J	66.7%
RM713A1(X	23-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	7 U	6 U	NC
RM713A1(X	23-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	7 U	0.5 J	NC
RM713A1(X	23-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	2 J	2 J	0.0%
RM713A1(X	23-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	7 U	6 U	NC
RM713A1(X	23-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	1 J	0.7 J	35.3%
RM713A1(X	23-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	2 J	1 J	66.7%
RM713A1(X	23-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	2 J	2 J	0.0%
RM713A1(X	23-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	2 J	1 J	66.7%
RM713A1(X	23-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.3 U	1.2 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM713A1(X:	23-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	5.4 U	5 U	NC
RM713A1(X:	23-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	5.4 U	5 U	NC
RM713A1(X:	23-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.3 U	1.2 U	NC
RM713A1(X:	23-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.3 U	1.2 U	NC
RM713A1(X:	23-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.3 U	1.2 U	NC
RM713A1(X:	23-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.3 U	1.2 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1.1 U	1 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1.1 U	1 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1.1 U	1 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1.1 U	1 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.12 J	0.11 J	8.7%
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	1.1 U	1 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1.1 U	1 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1.1 U	1 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1.1 U	1 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1.1 U	1 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1.1 U	1 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1.1 U	1 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	5.3 U	4.9 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	53 U	49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.53 U	0.49 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	340 U	320 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	340 UJ	320 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	340 U	320 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	340 U	320 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	340 U	320 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	340 U	320 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	340 U	320 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	130 UR	120 UR	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	130 U	120 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	130 U	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	340 UJ	320 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	130 UJ	120 U	NC
RM713A1(X:	23-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	130 U	120 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Aluminum	µg/L	44.9 J	200 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Antimony	µg/L	60 U	60 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Arsenic	µg/L	10 U	10 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Barium	µg/L	326	259	22.9%
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Beryllium	µg/L	5 U	5 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Cadmium	µg/L	5 U	5 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Calcium	µg/L	58400	59400	1.7%
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Chromium	µg/L	1.6 J	1.8 J	11.8%
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Cobalt	µg/L	1.7 U	1.9 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Copper	µg/L	5 J	3.3 J	41.0%
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Iron	µg/L	160 U	149 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Lead	µg/L	2.3 J	10 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Magnesium	µg/L	15000	15600	3.9%
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Manganese	µg/L	2070	2210	6.5%
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Mercury	µg/L	0.2 UJ	0.2 UJ	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Nickel	µg/L	40 U	40 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Potassium	µg/L	1990 J	2030 J	2.0%
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Selenium	µg/L	35 U	35 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Silver	µg/L	10 U	10 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Sodium	µg/L	3100 J	2990 J	3.6%
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Thallium	µg/L	25 U	25 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Uranium	µg/L	200 U	200 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Vanadium	µg/L	50 U	50 U	NC
RM713A1(X:	8-May-05	CLP TAL TotMetals-PW	Zinc	µg/L	69.7	39.7 J	54.8%
RM715X1	15-Apr-05	415.1	Total organic carbon	mg/Kg	16800	20800	21.3%
RM715X1	15-Apr-05	ASTMD422	<200 Total	Percent	64.8649	65.7143	1.3%
RM715X1	15-Apr-05	ASTMD422	Clay	Percent	7.01242	7.04082	0.4%
RM715X1	15-Apr-05	ASTMD422	Co. Sand	Percent	1.89189	0.95238	66.1%
RM715X1	15-Apr-05	ASTMD422	Colloids	Percent	0.87655	0.78231	11.4%
RM715X1	15-Apr-05	ASTMD422	Fine Sand	Percent	30.5405	30.9524	1.3%
RM715X1	15-Apr-05	ASTMD422	Gravel	Percent	0.8	0	200.0%
RM715X1	15-Apr-05	ASTMD422	Med. Sand	Percent	1.89189	2.38095	22.9%
RM715X1	15-Apr-05	ASTMD422	Sand Total	Percent	34.3243	34.2857	0.1%
RM715X1	15-Apr-05	ASTMD422	Silt	Percent	56.9759	57.8912	1.6%
RM715X1	15-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	10400 J	8800 J	16.7%
RM715X1	15-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	2.7 J	2.4 J	11.8%
RM715X1	15-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	8.9	7.4	18.4%
RM715X1	15-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	483	399	19.0%
RM715X1	15-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.97	0.79	20.5%
RM715X1	15-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	5.6	5.2	7.4%
RM715X1	15-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	17300	16200	6.6%
RM715X1	15-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	25.9	22.5	14.0%
RM715X1	15-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	8.7	7.7	12.2%
RM715X1	15-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	105	92.7	12.4%
RM715X1	15-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	24000	20700	14.8%
RM715X1	15-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	275	232	17.0%
RM715X1	15-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	12300	11600	5.9%
RM715X1	15-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	315	280	11.8%
RM715X1	15-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	1.1	1.2	8.7%
RM715X1	15-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	20.9	18.5	12.2%
RM715X1	15-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1780	1530	15.1%
RM715X1	15-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	5.1 UR	5 UR	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM715X1	15-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.5 UJ	1.4 UJ	NC
RM715X1	15-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	198 J	128 J	42.9%
RM715X1	15-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	3.6 U	3.6 U	NC
RM715X1	15-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	23.2 J	20.2 J	13.8%
RM715X1	15-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	32	27.9	13.7%
RM715X1	15-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	971	870	11.0%
RM715X1	15-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	2 J	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	7 U	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	7 U	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	7 U	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	2 J	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	2 J	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	2 J	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	7 U	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	2 J	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	3 J	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	0.5 J	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	7 U	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	3 J	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	7 U	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	1 J	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	3 U	5.4 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	4 J	7 U	NC
RM715X1	15-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	3 J	7 U	NC
RM715X1	15-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.3 U	1.3 U	NC
RM715X1	15-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	5.2 U	5.3 U	NC
RM715X1	15-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	5.2 U	5.3 U	NC
RM715X1	15-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.3 U	1.3 U	NC
RM715X1	15-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.3 U	1.3 U	NC
RM715X1	15-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.3 U	1.3 U	NC
RM715X1	15-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.3 U	1.3 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1 U	1.1 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1 U	1.1 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1 U	0.2 J	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1 U	1.1 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.18 J	0.19 J	5.4%
RM715X1	15-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.48 J	0.85 J	55.6%
RM715X1	15-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1 U	1.1 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1 U	1.1 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1 U	1.1 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1 U	1.1 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1 U	1.1 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1 U	1.1 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	5.1 U	5.2 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	51 U	52 U	NC
RM715X1	15-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.51 U	0.52 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	330 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	83 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	330 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	330 U	340 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	130 U	130 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM715X1	15-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	130 U	340 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	330 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	130 U	340 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	83 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	130 U	340 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	330 U	340 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	83 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	130 U	340 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	130 U	340 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	330 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	83 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	83 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	83 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	330 U	340 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	130 U	130 U	NC
RM715X1	15-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	130 U	130 U	NC
RM721R1	22-Apr-05	415.1	Total organic carbon	mg/Kg	20300	28500	33.6%
RM721R1	22-Apr-05	ASTMD422	<200 Total	Percent	30.2	41.6	31.8%
RM721R1	22-Apr-05	ASTMD422	Clay	Percent	2.416	3.328	31.8%
RM721R1	22-Apr-05	ASTMD422	Co. Sand	Percent	6.4	0.8	155.6%
RM721R1	22-Apr-05	ASTMD422	Colloids	Percent	0.604	1.248	69.5%
RM721R1	22-Apr-05	ASTMD422	Fine Sand	Percent	40	51	24.2%
RM721R1	22-Apr-05	ASTMD422	Gravel	Percent	14.8	0	200.0%
RM721R1	22-Apr-05	ASTMD422	Med. Sand	Percent	8.6	6.6	26.3%
RM721R1	22-Apr-05	ASTMD422	Sand Total	Percent	55	58.4	6.0%
RM721R1	22-Apr-05	ASTMD422	Silt	Percent	27.18	37.024	30.7%
RM721R1	22-Apr-05	AVS/SEM	Antimony-SEM	umol/g	0.00205 U	0.00189 U	NC
RM721R1	22-Apr-05	AVS/SEM	Cadmium-SEM	umol/g	0.00356	0.00472	28.0%
RM721R1	22-Apr-05	AVS/SEM	Chromium-SEM	umol/g	0.05385	0.03269	48.9%
RM721R1	22-Apr-05	AVS/SEM	Copper-SEM	umol/g	0.22189	0.11645	62.3%
RM721R1	22-Apr-05	AVS/SEM	Lead-SEM	umol/g	0.05116	0.05309	3.7%
RM721R1	22-Apr-05	AVS/SEM	Mercury-SEM	umol/g	4.9E-06 U	2.8E-06 U	NC
RM721R1	22-Apr-05	AVS/SEM	Nickel-SEM	umol/g	0.71368	0.04769	174.9%
RM721R1	22-Apr-05	AVS/SEM	Sulfide-AVS	umol/g	3.4 J	7.2 J	71.7%
RM721R1	22-Apr-05	AVS/SEM	Zinc-SEM	umol/g	0.42527	0.37326	13.0%
RM721R1	22-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	7730	7230	6.7%
RM721R1	22-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	14.7 UJ	8.4 UJ	NC
RM721R1	22-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	3.4	1.1 U	NC
RM721R1	22-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	119	74.5	46.0%
RM721R1	22-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.62 J	0.49 J	23.4%
RM721R1	22-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	0.57 J	0.26 J	74.7%
RM721R1	22-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	40600	22200	58.6%
RM721R1	22-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	24.6	19.8	21.6%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM721R1	22-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	6.8 J	6.7 J	1.5%
RM721R1	22-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	19.1	11	53.8%
RM721R1	22-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	15500	14700	5.3%
RM721R1	22-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	16.4	8.5	63.5%
RM721R1	22-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	5070	5220	2.9%
RM721R1	22-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	625	341	58.8%
RM721R1	22-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.062 J	0.008 J	154.3%
RM721R1	22-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	15.4	13.5	13.1%
RM721R1	22-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	940 J	820	13.6%
RM721R1	22-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	4.7 J	3.7 U	NC
RM721R1	22-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	2.5 UJ	1.4 UJ	NC
RM721R1	22-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	176 U	190 U	NC
RM721R1	22-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	6.1 U	3.5 U	NC
RM721R1	22-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	49 U	28 U	NC
RM721R1	22-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	27.7	30.4	9.3%
RM721R1	22-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	60.8	48.7	22.1%
RM721R1	22-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.3 J	0.3 J	0.0%
RM721R1	22-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	7 UJ	7 UJ	NC
RM721R1	22-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	1 J	1 J	0.0%
RM721R1	22-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	7 U	7 U	NC
RM721R1	22-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.4 U	1.4 U	NC
RM721R1	22-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	5.6 U	5.6 U	NC
RM721R1	22-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	5.6 U	5.6 U	NC
RM721R1	22-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.4 U	1.4 U	NC
RM721R1	22-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.4 U	1.4 U	NC
RM721R1	22-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.4 U	1.4 U	NC
RM721R1	22-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.4 U	1.4 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1.1 U	1.1 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1.1 U	1.1 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1.1 U	1.1 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1.1 U	1.1 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	1.1 U	1.1 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	1.1 U	1.1 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1.1 U	1.1 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1.1 U	1.1 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1.1 U	1.1 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1.1 U	1.1 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1.1 U	1.1 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1.1 U	1.1 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	5.4 U	5.5 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	54 U	55 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM721R1	22-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.54 U	0.55 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	340 U	350 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	340 U	350 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	340 U	350 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	340 U	350 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	340 U	350 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	340 U	350 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	340 U	350 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	340 U	350 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	140 U	140 U	NC
RM721R1	22-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	140 U	140 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Aluminum	µg/L	87.5 J	51.6 J	51.6%
RM721R1	5-May-05	CLP TAL TotMetals-PW	Antimony	µg/L	60 U	60 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Arsenic	µg/L	10 U	10 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Barium	µg/L	237	299	23.1%
RM721R1	5-May-05	CLP TAL TotMetals-PW	Beryllium	µg/L	5 U	5 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Cadmium	µg/L	5 U	5 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Calcium	µg/L	107000	106000	0.9%
RM721R1	5-May-05	CLP TAL TotMetals-PW	Chromium	µg/L	1.9 J	2.2 J	14.6%
RM721R1	5-May-05	CLP TAL TotMetals-PW	Cobalt	µg/L	0.67 U	0.71 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Copper	µg/L	2.2 J	2.8 J	24.0%
RM721R1	5-May-05	CLP TAL TotMetals-PW	Iron	µg/L	57.2 U	78.5 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Lead	µg/L	10 U	10 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Magnesium	µg/L	22900	22500	1.8%
RM721R1	5-May-05	CLP TAL TotMetals-PW	Manganese	µg/L	1980	1900	4.1%
RM721R1	5-May-05	CLP TAL TotMetals-PW	Mercury	µg/L	0.2 UJ	0.2 UJ	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Nickel	µg/L	40 U	40 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Potassium	µg/L	4280 J	4550 J	6.1%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM721R1	5-May-05	CLP TAL TotMetals-PW	Selenium	µg/L	35 U	35 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Silver	µg/L	10 U	10 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Sodium	µg/L	6320	6440	1.9%
RM721R1	5-May-05	CLP TAL TotMetals-PW	Thallium	µg/L	25 U	25 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Uranium	µg/L	200 U	200 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Vanadium	µg/L	50 U	50 U	NC
RM721R1	5-May-05	CLP TAL TotMetals-PW	Zinc	µg/L	42.2 J	57.5 J	30.7%
RM723X4	12-Apr-05	415.1	Total organic carbon	mg/Kg	754	1110	38.2%
RM723X4	12-Apr-05	ASTMD422	<200 Total	Percent	3.68421	5.51724	39.8%
RM723X4	12-Apr-05	ASTMD422	Clay	Percent	0	0	0.0%
RM723X4	12-Apr-05	ASTMD422	Co. Sand	Percent	1.92982	2.52874	26.9%
RM723X4	12-Apr-05	ASTMD422	Colloids	Percent	0.09695	0.09512	1.9%
RM723X4	12-Apr-05	ASTMD422	Fine Sand	Percent	51.7544	50.3448	2.8%
RM723X4	12-Apr-05	ASTMD422	Gravel	Percent	0	0.2	200.0%
RM723X4	12-Apr-05	ASTMD422	Med. Sand	Percent	42.6316	41.3793	3.0%
RM723X4	12-Apr-05	ASTMD422	Sand Total	Percent	96.3158	94.2529	2.2%
RM723X4	12-Apr-05	ASTMD422	Silt	Percent	3.58726	5.42212	40.7%
RM723X4	12-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	9080	9990	9.5%
RM723X4	12-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	5.9 J	4.8 J	20.6%
RM723X4	12-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	13.4	11.4	16.1%
RM723X4	12-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	302	300	0.7%
RM723X4	12-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.59	0.65	9.7%
RM723X4	12-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	2.2	2	9.5%
RM723X4	12-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	22400	24500	9.0%
RM723X4	12-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	20.7	20.7	0.0%
RM723X4	12-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	9.7	10.3	6.0%
RM723X4	12-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	339	333	1.8%
RM723X4	12-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	50500 D	49300 D	2.4%
RM723X4	12-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	224	205	8.9%
RM723X4	12-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	7270	7520	3.4%
RM723X4	12-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	1040	926	11.6%
RM723X4	12-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.18	0.092 J	64.7%
RM723X4	12-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	7.7	7.9	2.6%
RM723X4	12-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1810	2260	22.1%
RM723X4	12-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.2 UR	3.3 UR	NC
RM723X4	12-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	0.26 UJ	0.94 UJ	NC
RM723X4	12-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	916	1290	33.9%
RM723X4	12-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.3 U	2.4 U	NC
RM723X4	12-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	18 U	8.3 U	NC
RM723X4	12-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	24.5	29.2	17.5%
RM723X4	12-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	4070	3740	8.5%
RM723X4	12-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.3 J	0.4 J	28.6%
RM723X4	12-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	4 U	4 U	NC
RM723X4	12-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	4 U	4 U	NC
RM723X4	12-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	4 U	4 U	NC
RM723X4	12-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	4 U	4 U	NC
RM723X4	12-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	4 U	4 U	NC
RM723X4	12-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	4 U	0.4 J	NC
RM723X4	12-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	0.3 J	4 U	NC
RM723X4	12-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	4 U	0.4 J	NC
RM723X4	12-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	0.3 J	0.4 J	28.6%
RM723X4	12-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	4 U	4 U	NC
RM723X4	12-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	4 U	0.2 J	NC
RM723X4	12-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	0.3 J	0.4 J	28.6%
RM723X4	12-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	4 U	4 U	NC
RM723X4	12-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	4 U	4 U	NC
RM723X4	12-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	3.6 U	3.6 U	NC
RM723X4	12-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	0.5 J	0.5 J	0.0%
RM723X4	12-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	4 U	4 U	NC
RM723X4	12-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	0.88 U	0.89 U	NC
RM723X4	12-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	3.6 U	3.6 U	NC
RM723X4	12-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	3.6 U	3.6 U	NC
RM723X4	12-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	0.88 U	0.89 U	NC
RM723X4	12-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	0.88 U	0.89 U	NC
RM723X4	12-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	0.88 U	0.89 U	NC
RM723X4	12-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	0.88 U	0.89 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.71 U	0.72 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.71 U	0.72 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.71 U	0.72 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM723X4	12-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.71 U	0.72 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.71 U	0.72 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.71 U	0.72 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.71 U	0.72 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.71 U	0.72 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.71 U	0.72 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.71 U	0.72 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.71 U	0.72 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.71 U	0.72 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	3.5 U	3.6 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	35 U	35 U	NC
RM723X4	12-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.35 U	0.35 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	220 U	230 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	220 U	230 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	220 U	230 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	220 U	230 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	220 U	230 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	220 U	230 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	220 U	230 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	87 UJ	90 UJ	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	87 U	90 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM723X4	12-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	220 U	230 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	87 U	90 U	NC
RM723X4	12-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	87 U	90 U	NC
RM726X1	8-Apr-05	415.1	Total organic carbon	mg/Kg	7810 J	6610 J	16.6%
RM726X1	8-Apr-05	ASTMD422	<200 Total	Percent	14.4	14.8	2.7%
RM726X1	8-Apr-05	ASTMD422	Clay	Percent	0	0.148	200.0%
RM726X1	8-Apr-05	ASTMD422	Co. Sand	Percent	0	0	0.0%
RM726X1	8-Apr-05	ASTMD422	Colloids	Percent	0	0	0.0%
RM726X1	8-Apr-05	ASTMD422	Fine Sand	Percent	84.4	84	0.5%
RM726X1	8-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM726X1	8-Apr-05	ASTMD422	Med. Sand	Percent	1.2	1.2	0.0%
RM726X1	8-Apr-05	ASTMD422	Sand Total	Percent	85.6	85.2	0.5%
RM726X1	8-Apr-05	ASTMD422	Silt	Percent	14.4	14.652	1.7%
RM726X1	8-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	6670	5320	22.5%
RM726X1	8-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	16.2 J	14.8 J	9.0%
RM726X1	8-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	10.6	6.3	50.9%
RM726X1	8-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	386	338	13.3%
RM726X1	8-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.61 J	0.53 J	14.0%
RM726X1	8-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	2	2.3	14.0%
RM726X1	8-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	20800	17700	16.1%
RM726X1	8-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	28.5	23.4	19.7%
RM726X1	8-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	12.4	10.5	16.6%
RM726X1	8-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	369	271	30.6%
RM726X1	8-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	36500	27600	27.8%
RM726X1	8-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	130	129	0.8%
RM726X1	8-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	9930	8870	11.3%
RM726X1	8-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	698	583	18.0%
RM726X1	8-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.2	0.35	54.5%
RM726X1	8-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	12.7	10.6	18.0%
RM726X1	8-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1210	1110	8.6%
RM726X1	8-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	4.7 UJ	5.4 UJ	NC
RM726X1	8-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.3 UJ	1.5 UJ	NC
RM726X1	8-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	306 J	241 J	23.8%
RM726X1	8-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	3.4 U	3.8 U	NC
RM726X1	8-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	26.9 U	30.7 U	NC
RM726X1	8-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	22.5	19.7	13.3%
RM726X1	8-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	2470	2040	19.1%
RM726X1	8-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.8 J	0.5 J	46.2%
RM726X1	8-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	7 U	7 U	NC
RM726X1	8-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	7 U	7 U	NC
RM726X1	8-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	1 J	7 U	NC
RM726X1	8-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	5 J	1 J	133.3%
RM726X1	8-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	5 J	2 J	85.7%
RM726X1	8-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	7 U	7 U	NC
RM726X1	8-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	3 J	7 U	NC
RM726X1	8-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	7 U	7 U	NC
RM726X1	8-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	5 J	2 J	85.7%
RM726X1	8-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	1 J	7 U	NC
RM726X1	8-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	7 U	7 U	NC
RM726X1	8-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	12	3 J	120.0%
RM726X1	8-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	7 U	7 U	NC
RM726X1	8-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	5 J	7 U	NC
RM726X1	8-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	1 J	5.4 U	NC
RM726X1	8-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	4 J	1 J	120.0%
RM726X1	8-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	8	2 J	120.0%
RM726X1	8-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.3 U	1.3 U	NC
RM726X1	8-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	5.3 U	5.3 U	NC
RM726X1	8-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	5.3 U	5.3 U	NC
RM726X1	8-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.3 U	1.3 U	NC
RM726X1	8-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.3 U	1.3 U	NC
RM726X1	8-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.3 U	1.3 U	NC
RM726X1	8-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.3 U	1.3 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1.1 U	1.1 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1.1 U	1.1 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM726X1	8-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1.1 U	1.1 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1.1 U	1.1 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	1.1 U	1.1 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	1.1 U	1.1 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1.1 U	1.1 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1.1 U	1.1 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1.1 U	1.1 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1.1 U	1.1 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1.1 U	1.1 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1.1 U	1.1 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	5.2 U	5.3 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	52 U	53 U	NC
RM726X1	8-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.52 U	0.53 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	330 U	340 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	330 U	340 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	330 U	340 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	330 U	340 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	330 U	340 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	330 U	340 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	330 U	340 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	130 UJ	130 UJ	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	130 U	130 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM726X1	8-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	330 U	340 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	130 U	130 U	NC
RM726X1	8-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	130 U	130 U	NC
RM727A1(X	23-Apr-05	415.1	Total organic carbon	mg/Kg	6600	6890	4.3%
RM727A1(X	23-Apr-05	ASTMD422	<200 Total	Percent	19.1	19.5	2.1%
RM727A1(X	23-Apr-05	ASTMD422	Clay	Percent	0.955	0.8775	8.5%
RM727A1(X	23-Apr-05	ASTMD422	Co. Sand	Percent	0.9	0.6	40.0%
RM727A1(X	23-Apr-05	ASTMD422	Colloids	Percent	0.2865	0.195	38.0%
RM727A1(X	23-Apr-05	ASTMD422	Fine Sand	Percent	78.2	77.9	0.4%
RM727A1(X	23-Apr-05	ASTMD422	Gravel	Percent	0.4	0.5	22.2%
RM727A1(X	23-Apr-05	ASTMD422	Med. Sand	Percent	1.4	1.5	6.9%
RM727A1(X	23-Apr-05	ASTMD422	Sand Total	Percent	80.5	80	0.6%
RM727A1(X	23-Apr-05	ASTMD422	Silt	Percent	17.8585	18.4275	3.1%
RM727A1(X	23-Apr-05	AVS/SEM	Antimony-SEM	umol/g	0.00665	0.00517	25.0%
RM727A1(X	23-Apr-05	AVS/SEM	Cadmium-SEM	umol/g	0.01601	0.01868	15.4%
RM727A1(X	23-Apr-05	AVS/SEM	Chromium-SEM	umol/g	0.12501	0.10193	20.3%
RM727A1(X	23-Apr-05	AVS/SEM	Copper-SEM	umol/g	1.5359	1.38954	10.0%
RM727A1(X	23-Apr-05	AVS/SEM	Lead-SEM	umol/g	0.87838 J	0.89768 J	2.2%
RM727A1(X	23-Apr-05	AVS/SEM	Mercury-SEM	umol/g	3.9E-06 U	5.5E-06 U	NC
RM727A1(X	23-Apr-05	AVS/SEM	Nickel-SEM	umol/g	0.07154 U	0.06983	NC
RM727A1(X	23-Apr-05	AVS/SEM	Sulfide-AVS	umol/g	0.084 J	0.067 J	22.5%
RM727A1(X	23-Apr-05	AVS/SEM	Zinc-SEM	umol/g	16.2154	14.2573	12.9%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	6040	5760	4.7%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	5.6 J	5.8 J	3.5%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	9.1	6.6	31.8%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	371	304	19.9%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.61 J	0.57 J	6.8%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	3	3	0.0%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	27200	23100	16.3%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	20.1	17.6	13.3%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	7.3	7.3 J	0.0%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	126	134	6.2%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	24900	23100	7.5%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	170	169	0.6%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	14500	12000	18.9%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	374	358	4.4%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.37 J	0.28 J	27.7%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	12.6	12.1	4.0%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1030	995	3.5%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	6.5	6.2	4.7%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.2 UJ	1.5 UJ	NC
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	251 U	218 U	NC
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	3.1 U	3.7 U	NC
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	24.5 U	29.4 U	NC
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	25.7	21.5	17.8%
RM727A1(X	23-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	1310	1250	4.7%
RM727A1(X	23-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.5 J	0.7 J	33.3%
RM727A1(X	23-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	6 U	6 U	NC
RM727A1(X	23-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	6 U	6 U	NC
RM727A1(X	23-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	6 U	6 U	NC
RM727A1(X	23-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	2 J	0.5 J	120.0%
RM727A1(X	23-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	1 J	0.7 J	35.3%
RM727A1(X	23-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	2 J	6 U	NC
RM727A1(X	23-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	0.5 J	0.5 J	0.0%
RM727A1(X	23-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	0.7 J	6 UJ	NC
RM727A1(X	23-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	3 J	0.7 J	124.3%
RM727A1(X	23-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	6 U	0.2 J	NC
RM727A1(X	23-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	6 U	6 U	NC
RM727A1(X	23-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	1 J	1 J	0.0%
RM727A1(X	23-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	6 U	6 U	NC
RM727A1(X	23-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	0.7 J	6 U	NC
RM727A1(X	23-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	1 J	1 J	0.0%
RM727A1(X	23-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	1 J	1 J	0.0%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM727A1(X	23-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	1 J	0.7 J	35.3%
RM727A1(X	23-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.2 U	1.2 U	NC
RM727A1(X	23-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	5 U	5 U	NC
RM727A1(X	23-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	5 U	5 U	NC
RM727A1(X	23-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.2 U	1.2 U	NC
RM727A1(X	23-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.2 U	1.2 U	NC
RM727A1(X	23-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.2 U	1.2 U	NC
RM727A1(X	23-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.2 U	1.2 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	1 U	1 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	1 U	1 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	1 U	1 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	1 U	1 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	1 U	1 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	1 U	0.5 J	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	1 U	1 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	1 U	1 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	1 U	1 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	1 U	1 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1 U	1 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	1 U	1 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4.9 U	4.9 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	49 U	49 U	NC
RM727A1(X	23-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.49 U	0.49 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	310 U	310 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	310 UJ	310 UJ	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	310 U	310 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	310 U	310 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	310 U	310 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	310 U	310 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	310 U	310 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	120 UR	120 UR	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM727A1(X	23-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	310 UJ	310 UJ	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	120 U	120 U	NC
RM727A1(X	23-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	120 U	120 U	NC
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Aluminum	µg/L	66.4 U	62.2 U	NC
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Antimony	µg/L	60 U	60 U	NC
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Arsenic	µg/L	10 U	10 U	NC
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Barium	µg/L	404	424	4.8%
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Beryllium	µg/L	5 U	5 U	NC
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Cadmium	µg/L	0.45 J	0.48 J	6.5%
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Calcium	µg/L	73100	75600	3.4%
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Chromium	µg/L	4.2 J	4.2 J	0.0%
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Cobalt	µg/L	1.6 U	2.3 U	NC
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Copper	µg/L	7.6 J	7.4 J	2.7%
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Iron	µg/L	80.4 U	83.3 U	NC
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Lead	µg/L	7.1 J	5.3 J	29.0%
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Magnesium	µg/L	11500	12000	4.3%
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Manganese	µg/L	1940	2110	8.4%
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Mercury	µg/L	0.021 J	0.021 J	0.0%
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Nickel	µg/L	40 U	40 U	NC
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Potassium	µg/L	1850 J	1930 J	4.2%
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Selenium	µg/L	35 U	35 U	NC
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Silver	µg/L	10 U	10 U	NC
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Sodium	µg/L	4710 J	4850 J	2.9%
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Thallium	µg/L	25 U	25 U	NC
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Uranium	µg/L	200 U	200 U	NC
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Vanadium	µg/L	5.7 J	4.8 J	17.1%
RM727A1(X	11-May-05	CLP TAL TotMetals-PW	Zinc	µg/L	97.2	104	6.8%
RM732X2	16-Apr-05	415.1	Total organic carbon	mg/Kg	1820	1450	22.6%
RM732X2	16-Apr-05	ASTMD422	<200 Total	Percent	2.1	1.6	27.0%
RM732X2	16-Apr-05	ASTMD422	Clay	Percent	0.0315	0.024	27.0%
RM732X2	16-Apr-05	ASTMD422	Co. Sand	Percent	21.8	20	8.6%
RM732X2	16-Apr-05	ASTMD422	Colloids	Percent	0	0	0.0%
RM732X2	16-Apr-05	ASTMD422	Fine Sand	Percent	25.9	23.8	8.5%
RM732X2	16-Apr-05	ASTMD422	Gravel	Percent	6	11.6	63.6%
RM732X2	16-Apr-05	ASTMD422	Med. Sand	Percent	44.2	43	2.8%
RM732X2	16-Apr-05	ASTMD422	Sand Total	Percent	91.9	86.8	5.7%
RM732X2	16-Apr-05	ASTMD422	Silt	Percent	2.0685	1.576	27.0%
RM732X2	16-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	10500	11900	12.5%
RM732X2	16-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	38.3 J	30.7 J	22.0%
RM732X2	16-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	17.5	19.9	12.8%
RM732X2	16-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	697	719	3.1%
RM732X2	16-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.74 J	0.79 J	6.5%
RM732X2	16-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	0.85	0.38 J	76.4%
RM732X2	16-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	24700	27800	11.8%
RM732X2	16-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	54.5	57.8	5.9%
RM732X2	16-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	26.9	27.4	1.8%
RM732X2	16-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	850	944	10.5%
RM732X2	16-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	80800 JD	88200 JD	8.8%
RM732X2	16-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	165	171	3.6%
RM732X2	16-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	5240	5430	3.6%
RM732X2	16-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	1700	1790	5.2%
RM732X2	16-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.045 J	0.022 J	68.7%
RM732X2	16-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	12.8	11.7	9.0%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM732X2	16-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1950	2240	13.8%
RM732X2	16-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.6 UR	3.4 UR	NC
RM732X2	16-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1 U	0.97 U	NC
RM732X2	16-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	892	981	9.5%
RM732X2	16-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.6 UJ	2.4 UJ	NC
RM732X2	16-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	20.6 UJ	19.5 UJ	NC
RM732X2	16-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	37.3	37.1	0.5%
RM732X2	16-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	6200 D	6950 D	11.4%
RM732X2	16-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	3.6 U	3.6 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	4 U	4 U	NC
RM732X2	16-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	0.86 U	0.87 UJ	NC
RM732X2	16-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	3.5 U	3.6 UJ	NC
RM732X2	16-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	3.5 U	3.6 UJ	NC
RM732X2	16-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	0.86 U	0.87 UJ	NC
RM732X2	16-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	0.86 U	0.87 UJ	NC
RM732X2	16-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	0.86 U	0.87 UJ	NC
RM732X2	16-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	0.86 U	0.87 UJ	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.7 U	0.7 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.7 U	0.7 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.12 J	0.7 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.7 U	0.7 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.072 J	0.7 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.29 J	0.13 J	76.2%
RM732X2	16-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.7 U	0.7 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.7 U	0.7 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.7 U	0.7 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.7 U	0.7 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.7 U	0.7 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.7 U	0.7 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	3.4 U	3.5 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	34 U	35 U	NC
RM732X2	16-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.34 U	0.35 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	220 U	220 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM732X2	16-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	220 U	220 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	220 U	220 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	220 U	220 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	220 U	220 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	220 U	220 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	220 U	220 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	86 U	88 UR	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	220 U	220 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	86 U	88 U	NC
RM732X2	16-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	86 U	88 U	NC
RM735B3R	11-Apr-05	415.1	Total organic carbon	mg/Kg	5660 J	4250 J	28.5%
RM735B3R	11-Apr-05	ASTMD422	<200 Total	Percent	9.4	9.67742	2.9%
RM735B3R	11-Apr-05	ASTMD422	Clay	Percent	0.094	0.10406	10.2%
RM735B3R	11-Apr-05	ASTMD422	Co. Sand	Percent	1.1	1.29032	15.9%
RM735B3R	11-Apr-05	ASTMD422	Colloids	Percent	0.141	0.10406	30.1%
RM735B3R	11-Apr-05	ASTMD422	Fine Sand	Percent	84.1	82.9032	1.4%
RM735B3R	11-Apr-05	ASTMD422	Gravel	Percent	0.8	1.6	66.7%
RM735B3R	11-Apr-05	ASTMD422	Med. Sand	Percent	4.6	4.51613	1.8%
RM735B3R	11-Apr-05	ASTMD422	Sand Total	Percent	89.8	88.7097	1.2%
RM735B3R	11-Apr-05	ASTMD422	Silt	Percent	9.165	9.4693	3.3%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	6950	6950	0.0%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	15.6 J	18.8 J	18.6%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	10.2	10.2	0.0%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	534	627	16.0%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.57	0.61	6.8%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	4.8	4.7	2.1%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	46100	47100	2.1%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	33	36.2	9.2%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	14	15.3	8.9%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	491	525	6.7%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	51500	52000	1.0%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	217	236	8.4%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	16400	17200	4.8%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	961	1040	7.9%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.12 J	0.14	15.4%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM735B3R	11-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	11.9	12.5	4.9%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1290	1390	7.5%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.8 UJ	4.2 UJ	NC
RM735B3R	11-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.1 UJ	1.2 UJ	NC
RM735B3R	11-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	361 J	370 J	2.5%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.7 U	3 U	NC
RM735B3R	11-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	21.8 U	24.1 U	NC
RM735B3R	11-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	22.5	25	10.5%
RM735B3R	11-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	3910	4210	7.4%
RM735B3R	11-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.6 J	0.9 J	40.0%
RM735B3R	11-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM735B3R	11-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM735B3R	11-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	5 U	NC
RM735B3R	11-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	0.8 J	1 J	22.2%
RM735B3R	11-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	5 U	5 U	NC
RM735B3R	11-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	5 U	NC
RM735B3R	11-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	0.6 J	5 U	NC
RM735B3R	11-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	5 U	NC
RM735B3R	11-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	1 J	1 J	0.0%
RM735B3R	11-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	0.2 J	NC
RM735B3R	11-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	0.2 J	5 U	NC
RM735B3R	11-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	1 J	2 J	66.7%
RM735B3R	11-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM735B3R	11-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	0.6 J	5 U	NC
RM735B3R	11-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4.3 U	4.3 U	NC
RM735B3R	11-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	0.8 J	1 J	22.2%
RM735B3R	11-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	1 J	2 J	66.7%
RM735B3R	11-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.1 U	1.1 U	NC
RM735B3R	11-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4.2 U	4.3 U	NC
RM735B3R	11-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4.2 U	4.3 U	NC
RM735B3R	11-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.1 U	1.1 U	NC
RM735B3R	11-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.1 U	1.1 U	NC
RM735B3R	11-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.1 U	1.1 U	NC
RM735B3R	11-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.1 U	1.1 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.85 U	0.86 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.85 U	0.86 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.85 U	0.86 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.85 U	0.86 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.85 U	0.86 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.85 U	0.86 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.85 U	0.86 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.85 U	0.86 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.85 U	0.86 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.85 U	0.86 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.85 U	0.86 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.85 U	0.86 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4.2 U	4.2 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	42 U	42 U	NC
RM735B3R	11-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.42 U	0.42 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	110 U	110 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM735B3R	11-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	270 U	270 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	270 U	270 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	270 U	270 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	270 U	270 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	270 U	270 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	270 U	270 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	270 U	270 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	110 UJ	110 UJ	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	270 U	270 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	110 U	110 U	NC
RM735B3R	11-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	110 U	110 U	NC
RM735BSF	11-Apr-05	415.1	Total organic carbon	mg/Kg	3740 J	4190 J	11.3%
RM735BSF	11-Apr-05	ASTMD422	<200 Total	Percent	11.6	11.7108	1.0%
RM735BSF	11-Apr-05	ASTMD422	Clay	Percent	0.058	0.11925	69.1%
RM735BSF	11-Apr-05	ASTMD422	Co. Sand	Percent	0.7	0.9165	26.8%
RM735BSF	11-Apr-05	ASTMD422	Colloids	Percent	0.116	0.05963	64.2%
RM735BSF	11-Apr-05	ASTMD422	Fine Sand	Percent	56.9	57.5356	1.1%
RM735BSF	11-Apr-05	ASTMD422	Gravel	Percent	0.3	0.6	66.7%
RM735BSF	11-Apr-05	ASTMD422	Med. Sand	Percent	30.5	29.2261	4.3%
RM735BSF	11-Apr-05	ASTMD422	Sand Total	Percent	88.1	87.6782	0.5%
RM735BSF	11-Apr-05	ASTMD422	Silt	Percent	11.426	11.5319	0.9%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	11900	11000	7.9%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	33.3 J	29.8 J	11.1%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	17.7	15.6	12.6%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	1090 J	999 J	8.7%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.95	0.87	8.8%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	2.9	2.1	32.0%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	45500	42400	7.1%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	70.4 J	59.6 J	16.6%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	28.8	23.2	21.5%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	1340	1080	21.5%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	118000 D	93900 D	22.7%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	227	230	1.3%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	9610	9650	0.4%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	1980	1680	16.4%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM735BSF	11-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.075 J	0.16	72.3%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	13.4	12.7	5.4%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	2560	2140	17.9%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.4 UR	3.6 UR	NC
RM735BSF	11-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	0.97 U	1 U	NC
RM735BSF	11-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	1220	1040	15.9%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.4 U	2.6 U	NC
RM735BSF	11-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	15.8 J	20.4 UJ	NC
RM735BSF	11-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	30.7	28.4	7.8%
RM735BSF	11-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	10000 D	7890 D	23.6%
RM735BSF	11-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.6 J	0.4 J	40.0%
RM735BSF	11-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM735BSF	11-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM735BSF	11-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	5 U	NC
RM735BSF	11-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	1 J	1 J	0.0%
RM735BSF	11-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	2 J	2 J	0.0%
RM735BSF	11-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	5 U	NC
RM735BSF	11-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	1 J	1 J	0.0%
RM735BSF	11-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	5 U	NC
RM735BSF	11-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	2 J	2 J	0.0%
RM735BSF	11-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	0.4 J	5 U	NC
RM735BSF	11-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	0.4 J	5 U	NC
RM735BSF	11-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	3 J	3 J	0.0%
RM735BSF	11-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM735BSF	11-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	2 J	1 J	66.7%
RM735BSF	11-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	3.9 U	3.9 U	NC
RM735BSF	11-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	2 J	2 J	0.0%
RM735BSF	11-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	3 J	3 J	0.0%
RM735BSF	11-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	0.96 U	0.96 U	NC
RM735BSF	11-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	3.9 U	3.9 U	NC
RM735BSF	11-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	3.9 U	3.9 U	NC
RM735BSF	11-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	0.96 U	0.96 U	NC
RM735BSF	11-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	0.96 U	0.96 U	NC
RM735BSF	11-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	0.96 U	0.96 U	NC
RM735BSF	11-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	0.96 U	0.96 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.77 U	0.78 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.77 U	0.78 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.77 U	0.78 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.77 U	0.78 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.77 U	0.78 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.77 U	0.78 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.77 U	0.78 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.77 U	0.78 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.77 U	0.78 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.77 U	0.78 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.77 U	0.78 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.77 U	0.78 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	3.8 U	3.8 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	38 U	38 U	NC
RM735BSF	11-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.38 U	0.38 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	96 U	97 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM735BSF	11-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	240 U	250 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	240 U	250 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	240 U	250 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	240 U	250 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	240 U	250 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	240 U	250 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	240 U	250 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	96 UJ	97 UJ	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	240 U	250 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	96 U	97 U	NC
RM735BSF	11-Apr-05	Dioxins and Furans	% Moisture	%	21.9	12.5	54.7%
RM735BSF	11-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	4.1	2.53	47.4%
RM735BSF	11-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	1.61 J	0.946 J	52.0%
RM735BSF	11-Apr-05	Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	0.0696 U	0.0318 U	NC
RM735BSF	11-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	0.0725 U	0.063 U	NC
RM735BSF	11-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	0.0649 U	0.0643 U	NC
RM735BSF	11-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	0.196 U	0.16 J	NC
RM735BSF	11-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	0.0609 U	0.0577 U	NC
RM735BSF	11-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	0.134 J	0.12 U	NC
RM735BSF	11-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	0.0746 U	0.0219 U	NC
RM735BSF	11-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	0.0549 U	0.0491 J	NC
RM735BSF	11-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	0.0305 U	0.0351 U	NC
RM735BSF	11-Apr-05	Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	0.0668 U	0.059 U	NC
RM735BSF	11-Apr-05	Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	0.0681 J	0.073 U	NC
RM735BSF	11-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	0.0643 U	0.0453 U	NC
RM735BSF	11-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	PG/G	0.77	0.72	6.7%
RM735BSF	11-Apr-05	Dioxins and Furans	Heptachlorodibenzodioxin (Total)	PG/G	8.34	5.78	36.3%
RM735BSF	11-Apr-05	Dioxins and Furans	Heptachlorodibenzofuran (Total)	PG/G	4.22 J	2.05 J	69.2%
RM735BSF	11-Apr-05	Dioxins and Furans	Hexachlorodibenzodioxin (Total)	PG/G	1.42	0.578	84.3%
RM735BSF	11-Apr-05	Dioxins and Furans	Hexachlorodibenzofuran (Total)	PG/G	1.5	0.942	45.7%
RM735BSF	11-Apr-05	Dioxins and Furans	Octachlorodibenzodioxin	PG/G	35.9	19.6	58.7%
RM735BSF	11-Apr-05	Dioxins and Furans	Octachlorodibenzofuran	PG/G	4.11	1.32 J	102.8%
RM735BSF	11-Apr-05	Dioxins and Furans	Pentachlorodibenzodioxin (Total)	PG/G	0.0819	0.162	65.7%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM735BSF	11-Apr-05	Dioxins and Furans	Pentachlorodibenzofuran (Total)	PG/G	0.394	0.333	16.8%
RM735BSF	11-Apr-05	Dioxins and Furans	TEQ WHO-98	PG/G	0.1587	0.174	9.2%
RM735BSF	11-Apr-05	Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	PG/G	0.0643 U	0.0895	NC
RM735BSF	11-Apr-05	Dioxins and Furans	Tetrachlorodibenzofuran (Total)	PG/G	1.62	1.66	2.4%
RM735BSF	16-May-05	415.1-Sieved<75um	Total organic carbon	mg/Kg	--	12800	NC
RM735BSF	16-May-05	415.1-Sieved>75um	Total organic carbon	mg/Kg	2530	--	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Aluminum-Sieved <75 um	mg/Kg	--	8800	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Antimony-Sieved <75 um	mg/Kg	--	3.8 J	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Arsenic-Sieved <75 um	mg/Kg	--	12.1	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Barium-Sieved <75 um	mg/Kg	--	1000	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Beryllium-Sieved <75 um	mg/Kg	--	0.62 J	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Cadmium-Sieved <75 um	mg/Kg	--	5.5	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Calcium-Sieved <75 um	mg/Kg	--	27600	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Chromium-Sieved <75 um	mg/Kg	--	30.5	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Cobalt-Sieved <75 um	mg/Kg	--	13.1	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Copper-Sieved <75 um	mg/Kg	--	291 J	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Iron-Sieved <75 um	mg/Kg	--	37200	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Lead-Sieved <75 um	mg/Kg	--	321	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Magnesium-Sieved <75 um	mg/Kg	--	14100	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Manganese-Sieved <75 um	mg/Kg	--	719	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Mercury-Sieved <75 um	mg/Kg	--	0.41	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Nickel-Sieved <75 um	mg/Kg	--	21.2	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Potassium-Sieved <75 um	mg/Kg	--	1640	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Selenium-Sieved <75 um	mg/Kg	--	4	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Silver-Sieved <75 um	mg/Kg	--	0.95 UR	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Sodium-Sieved <75 um	mg/Kg	--	226 J	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Thallium-Sieved <75 um	mg/Kg	--	2.4 U	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Uranium-Sieved <75 um	mg/Kg	--	19.1 UJ	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Vanadium-Sieved <75 um	mg/Kg	--	41.3	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved<75um	Zinc-Sieved <75 um	mg/Kg	--	1890	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Aluminum-Sieved >75 um	mg/Kg	--	14000	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Antimony-Sieved >75 um	mg/Kg	--	45.2 J	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Arsenic-Sieved >75 um	mg/Kg	--	12.2	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Barium-Sieved >75 um	mg/Kg	--	1290	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Beryllium-Sieved >75 um	mg/Kg	--	0.74 J	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Cadmium-Sieved >75 um	mg/Kg	--	4.3	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Calcium-Sieved >75 um	mg/Kg	--	58000	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Chromium-Sieved >75 um	mg/Kg	--	85.8	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Cobalt-Sieved >75 um	mg/Kg	--	34.2	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Copper-Sieved >75 um	mg/Kg	--	1660 J	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Iron-Sieved >75 um	mg/Kg	--	130000 D	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Lead-Sieved >75 um	mg/Kg	--	322	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Magnesium-Sieved >75 um	mg/Kg	--	12700	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Manganese-Sieved >75 um	mg/Kg	--	2470	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Mercury-Sieved >75 um	mg/Kg	--	0.34	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Nickel-Sieved >75 um	mg/Kg	--	14.3	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Potassium-Sieved >75 um	mg/Kg	--	3200	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Selenium-Sieved >75 um	mg/Kg	--	7.7	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Silver-Sieved >75 um	mg/Kg	--	0.9 UR	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Sodium-Sieved >75 um	mg/Kg	--	1410	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Thallium-Sieved >75 um	mg/Kg	--	2.2 U	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Uranium-Sieved >75 um	mg/Kg	--	17.9 UJ	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Vanadium-Sieved >75 um	mg/Kg	--	39.3	NC
RM735BSF	16-May-05	CLP TAL TotMetals-Sieved>75um	Zinc-Sieved >75 um	mg/Kg	--	10700 D	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	2-Methylnaphthalene-Sieved <75 um	µg/Kg	--	1 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Acenaphthene-Sieved <75 um	µg/Kg	--	4 U	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Acenaphthylene-Sieved <75 um	µg/Kg	--	4 U	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Anthracene-Sieved <75 um	µg/Kg	--	0.9 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Benzo(a)anthracene-Sieved <75 um	µg/Kg	--	3 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Benzo(a)pyrene-Sieved <75 um	µg/Kg	--	4 U	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Benzo(b)fluoranthene-Sieved <75 um	µg/Kg	--	4 U	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Benzo(ghi)perylene-Sieved <75 um	µg/Kg	--	4 U	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Benzo(k)fluoranthene-Sieved <75 um	µg/Kg	--	4 U	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Chrysene-Sieved <75 um	µg/Kg	--	5	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Dibenzo(a,h)anthracene-Sieved <75 um	µg/Kg	--	1 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Dibenzofuran-Sieved <75 um	µg/Kg	--	1 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Fluoranthene-Sieved <75 um	µg/Kg	--	10	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Fluorene-Sieved <75 um	µg/Kg	--	2 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Indeno[1,2,3-cd]pyrene-Sieved <75 um	µg/Kg	--	4 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Naphthalene-Sieved <75 um	µg/Kg	--	3 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Phenanthrene-Sieved <75 um	µg/Kg	--	8	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved<75um	Pyrene-Sieved <75 um	µg/Kg	--	7	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	2-Methylnaphthalene-Sieved >75 um	µg/Kg	--	1 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Acenaphthene-Sieved >75 um	µg/Kg	--	4 U	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Acenaphthylene-Sieved >75 um	µg/Kg	--	4 U	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Anthracene-Sieved >75 um	µg/Kg	--	0.5 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Benzo(a)anthracene-Sieved >75 um	µg/Kg	--	2 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Benzo(a)pyrene-Sieved >75 um	µg/Kg	--	2 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Benzo(b)fluoranthene-Sieved >75 um	µg/Kg	--	4 U	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Benzo(ghi)perylene-Sieved >75 um	µg/Kg	--	4 U	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Benzo(k)fluoranthene-Sieved >75 um	µg/Kg	--	4 U	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Chrysene-Sieved >75 um	µg/Kg	--	4	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Dibenzo(a,h)anthracene-Sieved >75 um	µg/Kg	--	0.7 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Dibenzofuran-Sieved >75 um	µg/Kg	--	0.7 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Fluoranthene-Sieved >75 um	µg/Kg	--	7	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Fluorene-Sieved >75 um	µg/Kg	--	4 U	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Indeno[1,2,3-cd]pyrene-Sieved >75 um	µg/Kg	--	2 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Naphthalene-Sieved >75 um	µg/Kg	--	2 J	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Phenanthrene-Sieved >75 um	µg/Kg	--	5	NC
RM735BSF	16-May-05	CLP TCL PAH-Sieved>75um	Pyrene-Sieved >75 um	µg/Kg	--	6	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved<75um	PCB-1016-Sieved <75 um	µg/Kg	--	1.7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved<75um	PCB-1221-Sieved <75 um	µg/Kg	--	7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved<75um	PCB-1232-Sieved <75 um	µg/Kg	--	7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved<75um	PCB-1242-Sieved <75 um	µg/Kg	--	1.7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved<75um	PCB-1248-Sieved <75 um	µg/Kg	--	1.7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved<75um	PCB-1254-Sieved <75 um	µg/Kg	--	1.7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved<75um	PCB-1260-Sieved <75 um	µg/Kg	--	1.7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved>75um	PCB-1016-Sieved >75 um	µg/Kg	--	1.7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved>75um	PCB-1221-Sieved >75 um	µg/Kg	--	6.7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved>75um	PCB-1232-Sieved >75 um	µg/Kg	--	6.7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved>75um	PCB-1242-Sieved >75 um	µg/Kg	--	1.7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved>75um	PCB-1248-Sieved >75 um	µg/Kg	--	1.7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved>75um	PCB-1254-Sieved >75 um	µg/Kg	--	1.7 U	NC
RM735BSF	16-May-05	CLP TCL PCBs-Sieved>75um	PCB-1260-Sieved >75 um	µg/Kg	--	1.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	2,4'-DDD-Sieved <75 um	µg/Kg	--	0.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	2,4'-DDE-Sieved <75 um	µg/Kg	--	0.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	2,4'-DDT-Sieved <75 um	µg/Kg	--	0.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	4,4'-DDD-Sieved <75 um	µg/Kg	--	0.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	4,4'-DDE-Sieved <75 um	µg/Kg	--	0.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	4,4'-DDT-Sieved <75 um	µg/Kg	--	0.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Aldrin-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	alpha-BHC-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	alpha-Chlordane-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	beta-BHC-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	cis-Nonachlor-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	delta-BHC-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Dieldrin-Sieved <75 um	µg/Kg	--	0.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Endosulfan I-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Endosulfan II-Sieved <75 um	µg/Kg	--	0.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Endosulfan sulfate-Sieved <75 um	µg/Kg	--	0.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Endrin aldehyde-Sieved <75 um	µg/Kg	--	0.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Endrin ketone-Sieved <75 um	µg/Kg	--	0.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Endrin-Sieved <75 um	µg/Kg	--	0.7 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	gamma-BHC (Lindane)-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	gamma-Chlordane-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Heptachlor epoxide-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Heptachlor-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Hexachlorobenzene-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Hexachlorobutadiene-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Methoxychlor-Sieved <75 um	µg/Kg	--	3.4 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Oxychlordane-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	Toxaphene-Sieved <75 um	µg/Kg	--	34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved<75um	trans-Nonachlor-Sieved <75 um	µg/Kg	--	0.34 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	2,4'-DDD-Sieved >75 um	µg/Kg	--	0.67 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	2,4'-DDE-Sieved >75 um	µg/Kg	--	0.67 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	2,4'-DDT-Sieved >75 um	µg/Kg	--	0.67 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	4,4'-DDD-Sieved >75 um	µg/Kg	--	0.67 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	4,4'-DDE-Sieved >75 um	µg/Kg	--	0.67 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	4,4'-DDT-Sieved >75 um	µg/Kg	--	0.67 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Aldrin-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	alpha-BHC-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	alpha-Chlordane-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	beta-BHC-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	cis-Nonachlor-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	delta-BHC-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Dieldrin-Sieved >75 um	µg/Kg	--	0.67 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Endosulfan I-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Endosulfan II-Sieved >75 um	µg/Kg	--	0.67 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Endosulfan sulfate-Sieved >75 um	µg/Kg	--	0.67 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Endrin aldehyde-Sieved >75 um	µg/Kg	--	0.67 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Endrin ketone-Sieved >75 um	µg/Kg	--	0.67 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Endrin-Sieved >75 um	µg/Kg	--	0.67 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	gamma-BHC (Lindane)-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	gamma-Chlordane-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Heptachlor epoxide-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Heptachlor-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Hexachlorobenzene-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Hexachlorobutadiene-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Methoxychlor-Sieved >75 um	µg/Kg	--	3.3 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Oxychlordane-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	Toxaphene-Sieved >75 um	µg/Kg	--	33 U	NC
RM735BSF	16-May-05	CLP TCL Pesticides-Sieved>75um	trans-Nonachlor-Sieved >75 um	µg/Kg	--	0.33 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	1,1'-Biphenyl-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	1,2,4-Trichlorobenzene-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	1,2-Dichlorobenzene-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	1,3-Dichlorobenzene-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	1,4-Dichlorobenzene-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2,2'-Oxybis(1-Chloropropane)-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2,4,5-Trichlorophenol-Sieved <75 um	µg/Kg	--	220 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2,4,6-Trichlorophenol-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2,4-Dichlorophenol-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2,4-Dimethylphenol-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2,4-Dinitrophenol-Sieved <75 um	µg/Kg	--	220 UJ	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2,4-Dinitrotoluene-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2,6-Dinitrotoluene-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2-Chloronaphthalene-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2-Chlorophenol-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2-Methylphenol-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2-Nitroaniline-Sieved <75 um	µg/Kg	--	220 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	2-Nitrophenol-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	3,3-Dichlorobenzidine-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	3-Nitroaniline-Sieved <75 um	µg/Kg	--	220 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	4,6-Dinitro-2-methylphenol-Sieved <75 um	µg/Kg	--	220 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	4-Bromophenyl-phenylether-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	4-Chloro-3-methylphenol-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	4-Chloroaniline-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	4-Chlorophenyl-phenyl ether-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	4-Methylphenol-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	4-Nitroaniline-Sieved <75 um	µg/Kg	--	220 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	4-Nitrophenol-Sieved <75 um	µg/Kg	--	220 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Acetophenone-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Atrazine-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Benzaldehyde-Sieved <75 um	µg/Kg	--	87 UJ	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Benzoic acid-Sieved <75 um	µg/Kg	--	87 UR	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Benzyl alcohol-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Bis(2-Chloroethoxy)methane-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Bis(2-Chloroethyl)ether-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Bis(2-ethylhexyl)phthalate-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Butyl benzyl phthalate-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Caprolactam-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Carbazole-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Di-n-butyl phthalate-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Di-n-octylphthalate-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Diethyl phthalate-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Dimethyl phthalate-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Hexachloroethane-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Isophorone-Sieved <75 um	µg/Kg	--	87 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	N-Nitrosodi-n-propylamine-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	N-Nitrosodiphenylamine-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Nitrobenzene-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Pentachlorophenol-Sieved <75 um	µg/Kg	--	220 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Perchlorocyclopentadiene-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved<75um	Phenol-Sieved <75 um	µg/Kg	--	87 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	1,1'-Biphenyl-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	1,2,4-Trichlorobenzene-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	1,2-Dichlorobenzene-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	1,3-Dichlorobenzene-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	1,4-Dichlorobenzene-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2,2'-Oxybis(1-Chloropropane)-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2,4,5-Trichlorophenol-Sieved >75 um	µg/Kg	--	210 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2,4,6-Trichlorophenol-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2,4-Dichlorophenol-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2,4-Dimethylphenol-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2,4-Dinitrophenol-Sieved >75 um	µg/Kg	--	210 UJ	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2,4-Dinitrotoluene-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2,6-Dinitrotoluene-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2-Chloronaphthalene-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2-Chlorophenol-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2-Methylphenol-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2-Nitroaniline-Sieved >75 um	µg/Kg	--	210 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	2-Nitrophenol-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	3,3-Dichlorobenzidine-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	3-Nitroaniline-Sieved >75 um	µg/Kg	--	210 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	4,6-Dinitro-2-methylphenol-Sieved >75 um	µg/Kg	--	210 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	4-Bromophenyl-phenylether-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	4-Chloro-3-methylphenol-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	4-Chloroaniline-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	4-Chlorophenyl-phenyl ether-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	4-Methylphenol-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	4-Nitroaniline-Sieved >75 um	µg/Kg	--	210 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	4-Nitrophenol-Sieved >75 um	µg/Kg	--	210 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Acetophenone-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Atrazine-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Benzaldehyde-Sieved >75 um	µg/Kg	--	83 UJ	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Benzoic acid-Sieved >75 um	µg/Kg	--	83 UR	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Benzyl alcohol-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Bis(2-Chloroethoxy)methane-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Bis(2-Chloroethyl)ether-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Bis(2-ethylhexyl)phthalate-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Butyl benzyl phthalate-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Caprolactam-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Carbazole-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Di-n-butyl phthalate-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Di-n-octylphthalate-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Diethyl phthalate-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Dimethyl phthalate-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Hexachloroethane-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Isophorone-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	N-Nitrosodi-n-propylamine-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	N-Nitrosodiphenylamine-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Nitrobenzene-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Pentachlorophenol-Sieved >75 um	µg/Kg	--	210 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Perchlorocyclopentadiene-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	CLP TCL SVOC-Sieved>75um	Phenol-Sieved >75 um	µg/Kg	--	83 U	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	% Moisture	%	--	1.9	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	--	9.85	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	--	3.99 J	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	--	0.14 U	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	--	0.26 U	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	--	0.209 J	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	--	0.706 J	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	--	0.19 U	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	--	0.428 J	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	--	0.0915 J	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	--	0.159 U	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	--	0.159 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	--	0.189 U	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	--	0.219 J	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	--	0.0795 U	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	2,3,7,8-Tetrachlorodibenzofuran	PG/G	--	1.69	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	Heptachlorodibenzodioxin (Total)	PG/G	--	21.4	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	Heptachlorodibenzofuran (Total)	PG/G	--	7.97	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	Hexachlorodibenzodioxin (Total)	PG/G	--	5.27	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	Hexachlorodibenzofuran (Total)	PG/G	--	3.58 J	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	Octachlorodibenzodioxin	PG/G	--	77.8	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	Octachlorodibenzofuran	PG/G	--	4.89 J	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	Pentachlorodibenzodioxin (Total)	PG/G	--	0.891	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	Pentachlorodibenzofuran (Total)	PG/G	--	1.89 J	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	TEQ WHO-98	PG/G	--	0.5683	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	Tetrachlorodibenzodioxin (Total)	PG/G	--	0.471	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved<75um	Tetrachlorodibenzofuran (Total)	PG/G	--	3.47	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	% Moisture	%	0.8	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	1.5 J	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	0.721 J	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	0.148 U	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	0.122 U	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	0.0901 U	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	0.165 U	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	0.0869 U	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	0.128 J	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	0.125 U	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	0.0732 J	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	0.107 U	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	0.0857 U	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	0.126 U	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	0.0774 U	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	2,3,7,8-Tetrachlorodibenzofuran	PG/G	0.749 J	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	Heptachlorodibenzodioxin (Total)	PG/G	3.38	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	Heptachlorodibenzofuran (Total)	PG/G	1.44	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	Hexachlorodibenzodioxin (Total)	PG/G	0.388	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	Hexachlorodibenzofuran (Total)	PG/G	0.764 J	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	Octachlorodibenzodioxin	PG/G	11	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	Octachlorodibenzofuran	PG/G	0.745 J	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	Pentachlorodibenzodioxin (Total)	PG/G	0.0732	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	Pentachlorodibenzofuran (Total)	PG/G	0.317 J	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	TEQ WHO-98	PG/G	0.1843	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	Tetrachlorodibenzodioxin (Total)	PG/G	0.0774 U	--	NC
RM735BSF	16-May-05	Dioxins and Furans-Sieved>75um	Tetrachlorodibenzofuran (Total)	PG/G	1.19	--	NC
RM735X1	14-Apr-05	415.1	Total organic carbon	mg/Kg	4000	2260	55.6%
RM735X1	14-Apr-05	ASTMD422	<200 Total	Percent	10.8	11.7	8.0%
RM735X1	14-Apr-05	ASTMD422	Clay	Percent	0.054	0.117	73.7%
RM735X1	14-Apr-05	ASTMD422	Co. Sand	Percent	0.1	0	200.0%
RM735X1	14-Apr-05	ASTMD422	Colloids	Percent	0.108	0.0585	59.5%
RM735X1	14-Apr-05	ASTMD422	Fine Sand	Percent	85	84.3	0.8%
RM735X1	14-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM735X1	14-Apr-05	ASTMD422	Med. Sand	Percent	4.1	4	2.5%
RM735X1	14-Apr-05	ASTMD422	Sand Total	Percent	89.2	88.3	1.0%
RM735X1	14-Apr-05	ASTMD422	Silt	Percent	10.638	11.5245	8.0%
RM735X1	14-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	6970	7820	11.5%
RM735X1	14-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	29.1 J	5.1 J	140.4%
RM735X1	14-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	15.9	14.5	9.2%
RM735X1	14-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	591	636	7.3%
RM735X1	14-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.6 J	0.71	16.8%
RM735X1	14-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	1.8	2.1	15.4%
RM735X1	14-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	24100	28400	16.4%
RM735X1	14-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	42.3	42.1	0.5%
RM735X1	14-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	21.6	20.8	3.8%
RM735X1	14-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	650	579	11.6%
RM735X1	14-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	53400	52400	1.9%
RM735X1	14-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	134	145	7.9%
RM735X1	14-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	7260	10600	37.4%
RM735X1	14-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	1130	1090	3.6%
RM735X1	14-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.087 J	0.13	39.6%
RM735X1	14-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	10	12	18.2%
RM735X1	14-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1390	1460	4.9%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM735X1	14-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.8 UR	4 UR	NC
RM735X1	14-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.1 UJ	1.1 UJ	NC
RM735X1	14-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	593	611	3.0%
RM735X1	14-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.7 U	2.8 U	NC
RM735X1	14-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	8.7 U	22.8 U	NC
RM735X1	14-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	21.6	27.1	22.6%
RM735X1	14-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	4150	3780	9.3%
RM735X1	14-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.4 J	0.4 J	0.0%
RM735X1	14-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM735X1	14-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM735X1	14-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	0.2 J	5 U	NC
RM735X1	14-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	0.7 J	0.6 J	15.4%
RM735X1	14-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	0.9 J	0.8 J	11.8%
RM735X1	14-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	1 J	1 J	0.0%
RM735X1	14-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	0.7 J	0.6 J	15.4%
RM735X1	14-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	0.9 J	0.8 J	11.8%
RM735X1	14-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	1 J	1 J	0.0%
RM735X1	14-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	0.4 J	5 U	NC
RM735X1	14-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	5 U	NC
RM735X1	14-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	2 J	2 J	0.0%
RM735X1	14-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	0.2 J	5 U	NC
RM735X1	14-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	0.7 J	0.8 J	13.3%
RM735X1	14-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	3.8 U	3.9 U	NC
RM735X1	14-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	1 J	1 J	0.0%
RM735X1	14-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	1 J	1 J	0.0%
RM735X1	14-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	0.92 U	0.96 U	NC
RM735X1	14-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	3.7 U	3.9 U	NC
RM735X1	14-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	3.7 U	3.9 U	NC
RM735X1	14-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	0.92 U	0.96 U	NC
RM735X1	14-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	0.92 U	0.96 U	NC
RM735X1	14-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	0.92 U	0.96 U	NC
RM735X1	14-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	0.92 U	0.96 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.74 U	0.77 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.74 U	0.77 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.74 U	0.16 J	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.74 U	0.77 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.74 U	0.097 J	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.31 J	0.49 J	45.0%
RM735X1	14-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.74 U	0.77 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.74 U	0.77 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.74 U	0.77 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.74 U	0.77 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.74 U	0.77 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.74 U	0.77 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	3.7 U	3.8 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	37 U	38 U	NC
RM735X1	14-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.37 U	0.38 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	240 U	240 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	93 U	96 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM735X1	14-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	240 UJ	240 UJ	NC
RM735X1	14-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	93 UJ	96 UJ	NC
RM735X1	14-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	240 U	240 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	240 U	240 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	240 UJ	240 UJ	NC
RM735X1	14-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	240 U	240 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	240 U	240 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	240 UR	240 UR	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	93 UJ	96 UJ	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	240 U	240 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	93 U	96 U	NC
RM735X1	14-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	93 U	96 U	NC
RM739X1	11-Apr-05	415.1	Total organic carbon	mg/Kg	3380	7990	81.1%
RM739X1	11-Apr-05	ASTMD422	<200 Total	Percent	6.2	5.3	15.7%
RM739X1	11-Apr-05	ASTMD422	Clay	Percent	0	0.0265	200.0%
RM739X1	11-Apr-05	ASTMD422	Co. Sand	Percent	0	0	0.0%
RM739X1	11-Apr-05	ASTMD422	Colloids	Percent	0	0	0.0%
RM739X1	11-Apr-05	ASTMD422	Fine Sand	Percent	89	90.9	2.1%
RM739X1	11-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM739X1	11-Apr-05	ASTMD422	Med. Sand	Percent	4.8	3.8	23.3%
RM739X1	11-Apr-05	ASTMD422	Sand Total	Percent	93.8	94.7	1.0%
RM739X1	11-Apr-05	ASTMD422	Silt	Percent	6.2	5.2735	16.2%
RM739X1	11-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	9880	8490	15.1%
RM739X1	11-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	23.2 J	29.9 J	25.2%
RM739X1	11-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	14.7	12	20.2%
RM739X1	11-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	846 J	746 J	12.6%
RM739X1	11-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	0.84	0.73	14.0%
RM739X1	11-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	3	2.9	3.4%
RM739X1	11-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	34000	30800	9.9%
RM739X1	11-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	64.8 J	55.5 J	15.5%
RM739X1	11-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	31.9	26.1	20.0%
RM739X1	11-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	1050	926	12.6%
RM739X1	11-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	86400 D	75500 D	13.5%
RM739X1	11-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	273	238	13.7%
RM739X1	11-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	8110	7940	2.1%
RM739X1	11-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	1630	1430	13.1%
RM739X1	11-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.12 J	0.12 J	0.0%
RM739X1	11-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	13	11.2	14.9%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM739X1	11-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	1830	1630	11.6%
RM739X1	11-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	4.5 UR	3.8 UR	NC
RM739X1	11-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.3 U	1.1 U	NC
RM739X1	11-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	941	811	14.8%
RM739X1	11-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	1.2 J	2.7 U	NC
RM739X1	11-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	6.8 J	8.2 J	18.7%
RM739X1	11-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	27.1	25.5	6.1%
RM739X1	11-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	7240 D	6520 D	10.5%
RM739X1	11-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	0.2 J	0.4 J	66.7%
RM739X1	11-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	6 U	NC
RM739X1	11-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	6 U	NC
RM739X1	11-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	6 U	NC
RM739X1	11-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	0.4 J	1 J	85.7%
RM739X1	11-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	0.4 J	2 J	133.3%
RM739X1	11-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	2 J	NC
RM739X1	11-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	5 U	1 J	NC
RM739X1	11-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	2 J	NC
RM739X1	11-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	0.6 J	3 J	133.3%
RM739X1	11-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	6 U	NC
RM739X1	11-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	6 U	NC
RM739X1	11-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	0.6 J	4 J	147.8%
RM739X1	11-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	6 U	NC
RM739X1	11-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	0.2 J	2 J	163.6%
RM739X1	11-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4.4 U	4.5 U	NC
RM739X1	11-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	0.4 J	2 J	133.3%
RM739X1	11-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	0.6 J	4 J	147.8%
RM739X1	11-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1.1 U	1.1 U	NC
RM739X1	11-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4.3 U	4.4 U	NC
RM739X1	11-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4.3 U	4.4 U	NC
RM739X1	11-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1.1 U	1.1 U	NC
RM739X1	11-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1.1 U	1.1 U	NC
RM739X1	11-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1.1 U	1.1 U	NC
RM739X1	11-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1.1 U	1.1 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.85 U	0.88 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.85 U	0.88 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.85 U	0.88 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.85 U	0.88 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.85 U	0.88 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.85 U	0.88 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.85 U	0.88 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.85 U	0.88 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.85 U	0.88 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.85 U	0.88 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.85 U	0.88 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.85 U	0.88 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4.2 U	4.3 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	42 U	43 U	NC
RM739X1	11-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.42 U	0.43 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	270 U	280 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM739X1	11-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	270 U	280 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	270 U	280 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	270 U	280 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	270 U	280 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	270 U	280 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	270 U	280 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	110 UJ	110 UJ	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	270 U	280 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	110 U	110 U	NC
RM739X1	11-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	110 U	110 U	NC
RM742B2	9-Apr-05	415.1	Total organic carbon	mg/Kg	771	3040 J	119.1%
RM742B2	9-Apr-05	ASTMD422	<200 Total	Percent	2.2	3.4	42.9%
RM742B2	9-Apr-05	ASTMD422	Clay	Percent	0	0.017	200.0%
RM742B2	9-Apr-05	ASTMD422	Co. Sand	Percent	0	0.1	200.0%
RM742B2	9-Apr-05	ASTMD422	Colloids	Percent	0	0	0.0%
RM742B2	9-Apr-05	ASTMD422	Fine Sand	Percent	43.8	44	0.5%
RM742B2	9-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM742B2	9-Apr-05	ASTMD422	Med. Sand	Percent	54	52.5	2.8%
RM742B2	9-Apr-05	ASTMD422	Sand Total	Percent	97.8	96.6	1.2%
RM742B2	9-Apr-05	ASTMD422	Silt	Percent	2.2	3.383	42.4%
RM742B2	9-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	18600	18900	1.6%
RM742B2	9-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	52.3 J	41.3 J	23.5%
RM742B2	9-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	25.2	24.6	2.4%
RM742B2	9-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	1680	1710	1.8%
RM742B2	9-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1.3	1.3	0.0%
RM742B2	9-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	1.2	1.2	0.0%
RM742B2	9-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	63300	64400	1.7%
RM742B2	9-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	123	121	1.6%
RM742B2	9-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	48.6	47.3	2.7%
RM742B2	9-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	2240	2190	2.3%
RM742B2	9-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	187000 D	197000 D	5.2%
RM742B2	9-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	231	251	8.3%
RM742B2	9-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	7070	7580	7.0%
RM742B2	9-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	3680 D	3600 D	2.2%
RM742B2	9-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.03 J	0.01 J	100.0%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM742B2	9-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	12.1	12.4	2.4%
RM742B2	9-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	3610	3680	1.9%
RM742B2	9-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.3 UR	3.7 U	NC
RM742B2	9-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	0.93 UJ	1.1 U	NC
RM742B2	9-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	1770	1730	2.3%
RM742B2	9-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	2.3 UJ	2.7 U	NC
RM742B2	9-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	84.3 J	84.3	0.0%
RM742B2	9-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	38.3	39.1	2.1%
RM742B2	9-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	15200 D	16000 J	5.1%
RM742B2	9-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	0.3 J	4 U	NC
RM742B2	9-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	4 U	4 U	NC
RM742B2	9-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	0.85 UJ	0.84 U	NC
RM742B2	9-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	3.4 UJ	3.4 U	NC
RM742B2	9-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	3.4 UJ	3.4 U	NC
RM742B2	9-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	0.85 UJ	0.84 U	NC
RM742B2	9-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	0.85 UJ	0.84 U	NC
RM742B2	9-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	0.85 UJ	0.84 U	NC
RM742B2	9-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	0.85 UJ	0.84 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.68 U	0.68 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.68 U	0.68 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.68 U	0.68 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.68 U	0.68 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.68 U	0.68 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.68 U	0.68 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.68 U	0.68 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.68 U	0.68 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.68 U	0.68 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.68 U	0.68 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.68 U	0.68 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.68 U	0.68 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	3.4 U	3.4 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	34 U	34 U	NC
RM742B2	9-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.34 U	0.34 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	85 U	85 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM742B2	9-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	210 U	210 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	210 U	210 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	210 U	210 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	210 U	210 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	210 U	210 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	210 U	210 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	210 U	210 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	85 UJ	85 UJ	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	210 U	210 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	85 U	85 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	% Moisture	%	2	2	0.0%
RM742B2	9-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	0.226 U	0.252 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	0.0943 U	0.0751 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	0.0376 U	0.043 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	0.0558 U	0.0612 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	0.027 U	0.0244 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	0.0548 U	0.0605 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	0.0276 U	0.0316 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	0.0554 U	0.061 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	0.0362 U	0.0427 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	0.0259 U	0.0314 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	0.0186 U	0.0277 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	0.0272 U	0.0237 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	0.0342 U	0.0395 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	0.0337 U	0.0371 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	PG/G	0.428	0.424	0.9%
RM742B2	9-Apr-05	Dioxins and Furans	Heptachlorodibenzodioxin (Total)	PG/G	0.47	0.527	11.4%
RM742B2	9-Apr-05	Dioxins and Furans	Heptachlorodibenzofuran (Total)	PG/G	0.165 J	0.0823 J	66.9%
RM742B2	9-Apr-05	Dioxins and Furans	Hexachlorodibenzodioxin (Total)	PG/G	0.0666	0.0609 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	Hexachlorodibenzofuran (Total)	PG/G	0.0292 U	0.115	NC
RM742B2	9-Apr-05	Dioxins and Furans	Octachlorodibenzodioxin	PG/G	1.28 U	1.42 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	Octachlorodibenzofuran	PG/G	0.129 U	0.13 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	Pentachlorodibenzodioxin (Total)	PG/G	0.0259 U	0.0314 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	Pentachlorodibenzofuran (Total)	PG/G	0.064	0.0356	57.0%

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM742B2	9-Apr-05	Dioxins and Furans	TEQ WHO-98	PG/G	0 U	0.0424	NC
RM742B2	9-Apr-05	Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	PG/G	0.0337 U	0.0371 U	NC
RM742B2	9-Apr-05	Dioxins and Furans	Tetrachlorodibenzofuran (Total)	PG/G	0.743	0.7	6.0%
RM744X2	8-Apr-05	415.1	Total organic carbon	mg/Kg	433	327 UJ	NC
RM744X2	8-Apr-05	ASTMD422	<200 Total	Percent	2.5	13.2	136.3%
RM744X2	8-Apr-05	ASTMD422	Clay	Percent	0.0125	0	200.0%
RM744X2	8-Apr-05	ASTMD422	Co. Sand	Percent	0.3	0.4	28.6%
RM744X2	8-Apr-05	ASTMD422	Colloids	Percent	0	0	0.0%
RM744X2	8-Apr-05	ASTMD422	Fine Sand	Percent	27	13.4	67.3%
RM744X2	8-Apr-05	ASTMD422	Gravel	Percent	0	0	0.0%
RM744X2	8-Apr-05	ASTMD422	Med. Sand	Percent	70.2	73	3.9%
RM744X2	8-Apr-05	ASTMD422	Sand Total	Percent	97.5	86.8	11.6%
RM744X2	8-Apr-05	ASTMD422	Silt	Percent	2.4875	13.2	136.6%
RM744X2	8-Apr-05	CLP TAL TotMetals	Aluminum	mg/Kg	19700	19600	0.5%
RM744X2	8-Apr-05	CLP TAL TotMetals	Antimony	mg/Kg	54.9 J	34 J	47.0%
RM744X2	8-Apr-05	CLP TAL TotMetals	Arsenic	mg/Kg	29.1	28.3	2.8%
RM744X2	8-Apr-05	CLP TAL TotMetals	Barium	mg/Kg	1880	1840	2.2%
RM744X2	8-Apr-05	CLP TAL TotMetals	Beryllium	mg/Kg	1.4	1.4	0.0%
RM744X2	8-Apr-05	CLP TAL TotMetals	Cadmium	mg/Kg	2.9	2.6	10.9%
RM744X2	8-Apr-05	CLP TAL TotMetals	Calcium	mg/Kg	64100	64100	0.0%
RM744X2	8-Apr-05	CLP TAL TotMetals	Chromium	mg/Kg	131	128	2.3%
RM744X2	8-Apr-05	CLP TAL TotMetals	Cobalt	mg/Kg	57.4	55.8	2.8%
RM744X2	8-Apr-05	CLP TAL TotMetals	Copper	mg/Kg	2380	2330	2.1%
RM744X2	8-Apr-05	CLP TAL TotMetals	Iron	mg/Kg	198000 D	190000 D	4.1%
RM744X2	8-Apr-05	CLP TAL TotMetals	Lead	mg/Kg	262	273	4.1%
RM744X2	8-Apr-05	CLP TAL TotMetals	Magnesium	mg/Kg	5640	5940	5.2%
RM744X2	8-Apr-05	CLP TAL TotMetals	Manganese	mg/Kg	3770 D	3640	3.5%
RM744X2	8-Apr-05	CLP TAL TotMetals	Mercury	mg/Kg	0.011 J	0.015 J	30.8%
RM744X2	8-Apr-05	CLP TAL TotMetals	Nickel	mg/Kg	12.3	12.8	4.0%
RM744X2	8-Apr-05	CLP TAL TotMetals	Potassium	mg/Kg	3800	3980	4.6%
RM744X2	8-Apr-05	CLP TAL TotMetals	Selenium	mg/Kg	3.8 UR	4.3 UR	NC
RM744X2	8-Apr-05	CLP TAL TotMetals	Silver	mg/Kg	1.1 UJ	1.2 UJ	NC
RM744X2	8-Apr-05	CLP TAL TotMetals	Sodium	mg/Kg	1980	1940	2.0%
RM744X2	8-Apr-05	CLP TAL TotMetals	Thallium	mg/Kg	1.4 J	0.84 J	50.0%
RM744X2	8-Apr-05	CLP TAL TotMetals	Uranium	mg/Kg	21.5 UJ	24.8 UJ	NC
RM744X2	8-Apr-05	CLP TAL TotMetals	Vanadium	mg/Kg	41	41.9	2.2%
RM744X2	8-Apr-05	CLP TAL TotMetals	Zinc	mg/Kg	15200	14900 D	2.0%
RM744X2	8-Apr-05	CLP TCL PAH	2-Methylnaphthalene	µg/Kg	5 U	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Acenaphthene	µg/Kg	5 U	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Acenaphthylene	µg/Kg	5 U	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Anthracene	µg/Kg	5 U	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Benzo(a)anthracene	µg/Kg	0.6 J	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Benzo(a)pyrene	µg/Kg	0.4 J	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	5 U	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	0.4 J	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	5 U	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Chrysene	µg/Kg	0.6 J	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	5 U	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Dibenzofuran	µg/Kg	5 U	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Fluoranthene	µg/Kg	0.8 J	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Fluorene	µg/Kg	5 U	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	5 U	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Naphthalene	µg/Kg	4.1 U	4 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Phenanthrene	µg/Kg	0.8 J	5 U	NC
RM744X2	8-Apr-05	CLP TCL PAH	Pyrene	µg/Kg	1 J	5 U	NC
RM744X2	8-Apr-05	CLP TCL PCBs	PCB-1016	µg/Kg	1 U	0.99 U	NC
RM744X2	8-Apr-05	CLP TCL PCBs	PCB-1221	µg/Kg	4.1 U	4 U	NC
RM744X2	8-Apr-05	CLP TCL PCBs	PCB-1232	µg/Kg	4.1 U	4 U	NC
RM744X2	8-Apr-05	CLP TCL PCBs	PCB-1242	µg/Kg	1 U	0.99 U	NC
RM744X2	8-Apr-05	CLP TCL PCBs	PCB-1248	µg/Kg	1 U	0.99 U	NC
RM744X2	8-Apr-05	CLP TCL PCBs	PCB-1254	µg/Kg	1 U	0.99 U	NC
RM744X2	8-Apr-05	CLP TCL PCBs	PCB-1260	µg/Kg	1 U	0.99 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	2,4'-DDD	µg/Kg	0.81 U	0.8 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	2,4'-DDE	µg/Kg	0.81 U	0.8 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	2,4'-DDT	µg/Kg	0.81 U	0.8 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	4,4'-DDD	µg/Kg	0.81 U	0.8 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	4,4'-DDE	µg/Kg	0.81 U	0.8 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	4,4'-DDT	µg/Kg	0.81 U	0.47 J	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Aldrin	µg/Kg	0.4 U	0.39 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM744X2	8-Apr-05	CLP TCL Pesticides	alpha-BHC	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	alpha-Chlordane	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	beta-BHC	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	cis-Nonachlor	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	delta-BHC	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Dieldrin	µg/Kg	0.81 U	0.8 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Endosulfan I	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Endosulfan II	µg/Kg	0.81 U	0.8 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	0.81 U	0.8 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Endrin	µg/Kg	0.81 U	0.8 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Endrin aldehyde	µg/Kg	0.81 U	0.8 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Endrin ketone	µg/Kg	0.81 U	0.8 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	gamma-Chlordane	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Heptachlor	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Methoxychlor	µg/Kg	4 U	3.9 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Oxychlordane	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	Toxaphene	µg/Kg	40 U	39 U	NC
RM744X2	8-Apr-05	CLP TCL Pesticides	trans-Nonachlor	µg/Kg	0.4 U	0.39 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	250 U	250 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	250 U	250 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2-Chlorophenol	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2-Methylphenol	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2-Nitroaniline	µg/Kg	250 U	250 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	2-Nitrophenol	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	3-Nitroaniline	µg/Kg	250 U	250 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	250 U	250 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	4-Chloroaniline	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	4-Methylphenol	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	4-Nitroaniline	µg/Kg	250 U	250 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	4-Nitrophenol	µg/Kg	250 U	250 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Acetophenone	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Atrazine	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Benzaldehyde	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Benzoic acid	µg/Kg	100 UJ	99 UJ	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Benzyl alcohol	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Caprolactam	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Carbazole	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Diethyl phthalate	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Dimethyl phthalate	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Hexachloroethane	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Isophorone	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	100 U	99 U	NC

TABLE B-1

Primary vs Field Duplicate Evaluation

Upper Columbia River RI/FS

Object Name	Collection Date	Method Type	Analyte	Units	Primary Sample	Field Duplicate	RPD
RM744X2	8-Apr-05	CLP TCL SVOC	Nitrobenzene	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Pentachlorophenol	µg/Kg	250 U	250 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	100 U	99 U	NC
RM744X2	8-Apr-05	CLP TCL SVOC	Phenol	µg/Kg	100 U	99 U	NC

TABLE B-2

Field Rinsate Blank Results

Upper Columbia River RI/FS

Sample ID	Collection Date	Sample Type	Method Type	Analyte	Result	Qualifier Code	Project Qualifier Code	Validation Qualifier Code	Units
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	0.0025		U	U	ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.0027		U	U	ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.0021	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	0.0018	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	0.0010	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	0.0018	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	0.0011	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	0.0018	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	0.0015	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	7.28E-04	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	0.0013	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	9.68E-04		U	U	ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	7.10E-04	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	0.0012	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	0.0012	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	Heptachlorodibenzodioxin (Total)	0.0025				ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	Heptachlorodibenzofuran (Total)	0.0027		U	U	ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	Hexachlorodibenzodioxin (Total)	0.0018	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	Hexachlorodibenzofuran (Total)	9.68E-04		U	U	ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	Octachlorodibenzodioxin	0.011		U	U	ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	Octachlorodibenzofuran	0.0034	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	Pentachlorodibenzodioxin (Total)	0.0013	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	Pentachlorodibenzofuran (Total)	7.19E-04	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	TEQ WHO-98	0		U	U	ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	0.0012	U	U		ng/L
05164058	16-May-05	Field Rinsate Blank	Dioxins and Furans	Tetrachlorodibenzofuran (Total)	0.0012	U	U		ng/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL PCBs	PCB-1016	1.0	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL PCBs	PCB-1221	2.0	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL PCBs	PCB-1232	1.0	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL PCBs	PCB-1242	1.0	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL PCBs	PCB-1248	1.0	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL PCBs	PCB-1254	1.0	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL PCBs	PCB-1260	1.0	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	2,4'-DDD	1.0	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	2,4'-DDE	1.0	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	2,4'-DDT	1.0	U	U		µg/L

TABLE B-2

Field Rinsate Blank Results

Upper Columbia River RI/FS

Sample ID	Collection Date	Sample Type	Method Type	Analyte	Result	Qualifier Code	Project Qualifier Code	Validation Qualifier Code	Units
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	4,4'-DDD	0.10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	4,4'-DDE	0.10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	4,4'-DDT	0.10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Aldrin	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	alpha-BHC	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	alpha-Chlordane	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	beta-BHC	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	cis-Nonachlor	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	delta-BHC	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Dieldrin	0.10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Endosulfan I	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Endosulfan II	0.10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Endosulfan sulfate	0.10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Endrin	0.10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Endrin aldehyde	0.10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Endrin ketone	0.10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	gamma-BHC (Lindane)	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	gamma-Chlordane	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Heptachlor	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Heptachlor epoxide	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Hexachlorobenzene	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Hexachlorobutadiene	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Methoxychlor	0.50	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Oxychlordane	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	Toxaphene	5.0	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL Pesticides	trans-Nonachlor	0.050	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	1,1'-Biphenyl	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	1,2,4-Trichlorobenzene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	1,2-Dichlorobenzene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	1,3-Dichlorobenzene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	1,4-Dichlorobenzene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2,4,5-Trichlorophenol	25	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2,4,6-Trichlorophenol	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2,4-Dichlorophenol	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2,4-Dimethylphenol	10	U	U		µg/L

TABLE B-2

Field Rinsate Blank Results

Upper Columbia River RI/FS

Sample ID	Collection Date	Sample Type	Method Type	Analyte	Result	Qualifier Code	Project Qualifier Code	Validation Qualifier Code	Units
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2,4-Dinitrophenol	25	U	UJ	UJ	µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2,4-Dinitrotoluene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2,6-Dinitrotoluene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2-Chloronaphthalene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2-Chlorophenol	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2-Methylnaphthalene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2-Methylphenol	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2-Nitroaniline	25	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	2-Nitrophenol	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	3,3'-Dichlorobenzidine	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	3-Nitroaniline	25	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	4,6-Dinitro-2-methylphenol	25	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	4-Bromophenyl-phenylether	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	4-Chloro-3-methylphenol	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	4-Chloroaniline	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	4-Chlorophenyl-phenyl ether	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	4-Methylphenol	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	4-Nitroaniline	25	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	4-Nitrophenol	25	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Acenaphthene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Acenaphthylene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Acetophenone	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Anthracene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Atrazine	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Benzaldehyde	10	U	UJ	UJ	µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Benzo(a)anthracene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Benzo(a)pyrene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Benzo(b)fluoranthene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Benzo(ghi)perylene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Benzo(k)fluoranthene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Benzoic acid	10	U	UR	R	µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Benzyl alcohol	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	bis(2-Chloroethoxy)methane	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Bis(2-chloroethyl)ether	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Butyl benzyl phthalate	10	U	U		µg/L

TABLE B-2

Field Rinsate Blank Results

Upper Columbia River RI/FS

Sample ID	Collection Date	Sample Type	Method Type	Analyte	Result	Qualifier Code	Project Qualifier Code	Validation Qualifier Code	Units
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Caprolactam	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Carbazole	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Chrysene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Dibenzo(a,h)anthracene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Dibenzofuran	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Diethyl phthalate	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Dimethyl phthalate	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Di-n-butyl phthalate	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Di-n-octylphthalate	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Fluoranthene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Fluorene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Hexachloroethane	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Indeno[1,2,3-cd]pyrene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Isophorone	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Naphthalene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Nitrobenzene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	N-Nitrosodi-n-propylamine	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	N-Nitrosodiphenylamine	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Pentachlorophenol	25	U	UJ	UJ	µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Perchlorocyclopentadiene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Phenanthrene	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Phenol	10	U	U		µg/L
J4J21	16-May-05	Field Rinsate Blank	CLP TCL SVOC	Pyrene	10	U	U		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Aluminum	56	J	U	U	µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Antimony	60	U	U		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Arsenic	10	U	U		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Barium	31	J	J		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Beryllium	5.0	U	U		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Cadmium	5.0	U	U		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Calcium	8,790				µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Chromium	2.1	J	J		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Cobalt	50	U	U	U	µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Copper	3.2	J	J		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Iron	96	J	U	U	µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Lead	2.6	J	J		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Magnesium	1,770	J	J		µg/L

TABLE B-2

Field Rinsate Blank Results

Upper Columbia River RI/FS

Sample ID	Collection Date	Sample Type	Method Type	Analyte	Result	Qualifier Code	Project Qualifier Code	Validation Qualifier Code	Units
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Manganese	8.0	J	J		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Mercury	0.20	U	UJ	UJ	µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Nickel	40	U	U		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Potassium	263	E	J	J	µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Selenium	35	U	U		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Silver	10	U	U		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Sodium	659	J	J		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Thallium	25	U	U		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Uranium	200	U	U		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Vanadium	50	U	U		µg/L
MJ4GY0	9-May-05	Field Rinsate Blank	CLP TAL TotMetals	Zinc	38	J	J		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Aluminum	52	J	U	U	µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Antimony	60	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Arsenic	10	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Barium	0.59	J	U	U	µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Beryllium	5.0	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Cadmium	5.0	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Calcium	247	J	U	U	µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Chromium	4.2	J	J		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Cobalt	50	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Copper	25	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Iron	61	J	J		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Lead	10	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Magnesium	42	J	J		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Manganese	5.6	J	J		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Mercury	0.20	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Nickel	40	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Potassium	5,000	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Selenium	35	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Silver	10	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Sodium	5,000	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Thallium	25	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Uranium	200	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Vanadium	50	U	U		µg/L
MJ4J08	13-May-05	Field Rinsate Blank	CLP TAL TotMetals	Zinc	24	J	J		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Aluminum	200	U	U		µg/L

TABLE B-2

Field Rinsate Blank Results

Upper Columbia River RI/FS

Sample ID	Collection Date	Sample Type	Method Type	Analyte	Result	Qualifier Code	Project Qualifier Code	Validation Qualifier Code	Units
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Antimony	60	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Arsenic	10	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Barium	200	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Beryllium	5.0	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Cadmium	5.0	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Calcium	199	J	U	U	µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Chromium	10	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Cobalt	50	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Copper	4.1	J	J		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Iron	30	J	J		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Lead	10	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Magnesium	40	J	J		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Manganese	1.2	J	J		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Mercury	0.20	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Nickel	40	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Potassium	5,000	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Selenium	35	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Silver	10	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Sodium	166	J	J		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Thallium	25	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Uranium	200	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Vanadium	50	U	U		µg/L
MJ4J21	16-May-05	Field Rinsate Blank	CLP TAL TotMetals	Zinc	60	U	U		µg/L

APPENDIX C

Summaries of Phase I Sediment Analytical Data and Listings of Sample Assignments

TABLE C-1

Summary of Phase I Sediment Analytical Data - River Group (Transect and Bioassay)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
River Group										
415.1	Total organic carbon	mg/Kg	245	246	0	100%	376	376	262	54,500
CLP TAL TotMetals	Aluminum	mg/Kg	246	246	0	100%	--	--	2,530	34,000
CLP TAL TotMetals	Antimony	mg/Kg	88	131	115	67%	0.27	19	0.35	63
CLP TAL TotMetals	Arsenic	mg/Kg	231	246	0	94%	0.73	4.5	0.65	74
CLP TAL TotMetals	Barium	mg/Kg	246	246	0	100%	--	--	29	2,280
CLP TAL TotMetals	Beryllium	mg/Kg	246	246	0	100%	--	--	0.22	2.7
CLP TAL TotMetals	Cadmium	mg/Kg	216	246	0	88%	0.047	0.62	0.036	16
CLP TAL TotMetals	Calcium	mg/Kg	246	246	0	100%	--	--	1,320	76,500
CLP TAL TotMetals	Chromium	mg/Kg	246	246	0	100%	--	--	1.2	156
CLP TAL TotMetals	Cobalt	mg/Kg	246	246	0	100%	--	--	2.5	75
CLP TAL TotMetals	Copper	mg/Kg	241	246	0	98%	6.0	8.7	3.0	3,030
CLP TAL TotMetals	Iron	mg/Kg	246	246	0	100%	--	--	5,140	248,000
CLP TAL TotMetals	Lead	mg/Kg	246	246	0	100%	--	--	2.6	2,760
CLP TAL TotMetals	Magnesium	mg/Kg	246	246	0	100%	--	--	1,760	23,000
CLP TAL TotMetals	Manganese	mg/Kg	246	246	0	100%	--	--	92	4,920
CLP TAL TotMetals	Mercury	mg/Kg	203	242	4	84%	0.0070	0.14	0.0040	2.4
CLP TAL TotMetals	Nickel	mg/Kg	246	246	0	100%	--	--	0.68	53
CLP TAL TotMetals	Potassium	mg/Kg	246	246	0	100%	--	--	372	5,260
CLP TAL TotMetals	Selenium	mg/Kg	95	149	97	64%	0.76	10	1.3	23
CLP TAL TotMetals	Silver	mg/Kg	7	220	26	3%	0.26	4.2	0.71	12
CLP TAL TotMetals	Sodium	mg/Kg	223	246	0	91%	45	251	20	2,840
CLP TAL TotMetals	Thallium	mg/Kg	6	246	0	2%	1.8	11	0.68	1.5
CLP TAL TotMetals	Uranium	mg/Kg	51	246	0	21%	6.4	84	4.6	127
CLP TAL TotMetals	Vanadium	mg/Kg	246	246	0	100%	--	--	7.7	71
CLP TAL TotMetals	Zinc	mg/Kg	246	246	0	100%	--	--	16	26,600
CLP TCL PAH	2-Methylnaphthalene	µg/Kg	187	246	0	76%	4.0	12	0.20	5.0
CLP TCL PAH	Acenaphthene	µg/Kg	8	246	0	3%	4.0	18	0.20	2.0
CLP TCL PAH	Acenaphthylene	µg/Kg	1	246	0	0%	4.0	18	3.0	3.0
CLP TCL PAH	Anthracene	µg/Kg	24	246	0	10%	4.0	18	0.20	7.0
CLP TCL PAH	Benzo(a)anthracene	µg/Kg	129	246	0	52%	4.0	17	0.20	32
CLP TCL PAH	Benzo(a)pyrene	µg/Kg	71	246	0	29%	4.0	18	0.20	16
CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	68	246	0	28%	4.0	18	0.20	38
CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	86	246	0	35%	4.0	18	0.20	8.0
CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	68	246	0	28%	4.0	18	0.20	30
CLP TCL PAH	Chrysene	µg/Kg	157	246	0	64%	4.0	16	0.20	77
CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	37	246	0	15%	4.0	18	0.20	4.0
CLP TCL PAH	Dibenzofuran	µg/Kg	51	246	0	21%	4.0	18	0.20	3.0

TABLE C-1

Summary of Phase I Sediment Analytical Data - River Group (Transect and Bioassay)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL PAH	Fluoranthene	µg/Kg	160	246	0	65%	4.0	14	0.20	200
CLP TCL PAH	Fluorene	µg/Kg	18	246	0	7%	4.0	18	0.20	4.0
CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	83	246	0	34%	4.0	16	0.20	13
CLP TCL PAH	Naphthalene	µg/Kg	118	246	0	48%	0.40	9.0	0.50	7.0
CLP TCL PAH	Phenanthrene	µg/Kg	164	246	0	67%	4.0	14	0.20	72
CLP TCL PAH	Pyrene	µg/Kg	152	246	0	62%	4.0	16	0.20	110
CLP TCL PCBs	Aroclor-1016	µg/Kg	1	243	3	0%	0.83	4.8	25	25
CLP TCL PCBs	Aroclor-1221	µg/Kg	--	243	3	0%	3.3	19	--	--
CLP TCL PCBs	Aroclor-1232	µg/Kg	--	243	3	0%	3.3	19	--	--
CLP TCL PCBs	Aroclor-1242	µg/Kg	--	243	3	0%	0.83	4.8	--	--
CLP TCL PCBs	Aroclor-1248	µg/Kg	--	243	3	0%	0.83	4.8	--	--
CLP TCL PCBs	Aroclor-1254	µg/Kg	--	243	3	0%	0.83	4.8	--	--
CLP TCL PCBs	Aroclor-1260	µg/Kg	1	243	3	0%	0.83	4.8	9.4	9.4
CLP TCL Pesticides	2,4'-DDD	µg/Kg	--	246	0	0%	0.67	2.8	--	--
CLP TCL Pesticides	2,4'-DDE	µg/Kg	4	246	0	2%	0.67	2.8	0.090	0.48
CLP TCL Pesticides	2,4'-DDT	µg/Kg	13	246	0	5%	0.67	2.8	0.090	6.5
CLP TCL Pesticides	4,4'-DDD	µg/Kg	2	246	0	1%	0.67	2.8	0.35	2.1
CLP TCL Pesticides	4,4'-DDE	µg/Kg	26	246	0	11%	0.67	2.8	0.072	5.2
CLP TCL Pesticides	4,4'-DDT	µg/Kg	54	246	0	22%	0.67	2.8	0.080	20
CLP TCL Pesticides	Aldrin	µg/Kg	1	246	0	0%	0.33	1.4	0.17	0.17
CLP TCL Pesticides	alpha-BHC	µg/Kg	1	246	0	0%	0.33	1.4	0.18	0.18
CLP TCL Pesticides	alpha-Chlordane	µg/Kg	1	246	0	0%	0.33	1.4	1.1	1.1
CLP TCL Pesticides	beta-BHC	µg/Kg	--	246	0	0%	0.33	1.4	--	--
CLP TCL Pesticides	cis-Nonachlor	µg/Kg	--	246	0	0%	0.33	1.4	--	--
CLP TCL Pesticides	delta-BHC	µg/Kg	--	246	0	0%	0.33	1.4	--	--
CLP TCL Pesticides	Dieldrin	µg/Kg	--	246	0	0%	0.67	2.8	--	--
CLP TCL Pesticides	Endosulfan I	µg/Kg	--	246	0	0%	0.33	1.4	--	--
CLP TCL Pesticides	Endosulfan II	µg/Kg	--	246	0	0%	0.67	2.8	--	--
CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	--	246	0	0%	0.67	2.8	--	--
CLP TCL Pesticides	Endrin	µg/Kg	--	246	0	0%	0.67	2.8	--	--
CLP TCL Pesticides	Endrin aldehyde	µg/Kg	--	246	0	0%	0.67	2.8	--	--
CLP TCL Pesticides	Endrin ketone	µg/Kg	--	246	0	0%	0.67	2.8	--	--
CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	--	246	0	0%	0.33	1.4	--	--
CLP TCL Pesticides	gamma-Chlordane	µg/Kg	2	246	0	1%	0.33	1.4	0.075	0.84
CLP TCL Pesticides	Heptachlor	µg/Kg	--	246	0	0%	0.33	1.4	--	--
CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	--	246	0	0%	0.33	1.4	--	--
CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	2	246	0	1%	0.33	1.4	0.096	0.30
CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	--	246	0	0%	0.33	1.4	--	--

TABLE C-1

Summary of Phase I Sediment Analytical Data - River Group (Transect and Bioassay)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL Pesticides	Methoxychlor	µg/Kg	4	246	0	2%	3.3	14	0.75	3.5
CLP TCL Pesticides	Oxychlordane	µg/Kg	--	246	0	0%	0.33	1.4	--	--
CLP TCL Pesticides	Toxaphene	µg/Kg	--	246	0	0%	33	140	--	--
CLP TCL Pesticides	trans-Nonachlor	µg/Kg	1	246	0	0%	0.33	1.4	1.0	1.0
CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	--	246	0	0%	210	880	--	--
CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	--	196	50	0%	130	880	--	--
CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	2-Chlorophenol	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	2-Methylphenol	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	2-Nitroaniline	µg/Kg	--	246	0	0%	130	880	--	--
CLP TCL SVOC	2-Nitrophenol	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	3-Nitroaniline	µg/Kg	--	246	0	0%	130	880	--	--
CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	--	246	0	0%	210	880	--	--
CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	4-Chloroaniline	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	4-Methylphenol	µg/Kg	1	246	0	0%	83	350	120	120
CLP TCL SVOC	4-Nitroaniline	µg/Kg	--	246	0	0%	130	880	--	--
CLP TCL SVOC	4-Nitrophenol	µg/Kg	--	246	0	0%	130	880	--	--
CLP TCL SVOC	Acetophenone	µg/Kg	1	246	0	0%	83	350	26	26
CLP TCL SVOC	Atrazine	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	Benzaldehyde	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	Benzoic acid	µg/Kg	--	101	145	0%	85	600	--	--
CLP TCL SVOC	Benzyl alcohol	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	--	246	0	0%	83	350	--	--

TABLE C-1

Summary of Phase I Sediment Analytical Data - River Group (Transect and Bioassay)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	1	246	0	0%	83	350	63	63
CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	4	246	0	2%	83	350	25	40
CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	Caprolactam	µg/Kg	3	246	0	1%	83	350	43	76
CLP TCL SVOC	Carbazole	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	Diethyl phthalate	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	Dimethyl phthalate	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	Hexachloroethane	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	Isophorone	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	Nitrobenzene	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	Pentachlorophenol	µg/Kg	--	246	0	0%	210	880	--	--
CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	--	246	0	0%	83	350	--	--
CLP TCL SVOC	Phenol	µg/Kg	--	246	0	0%	83	350	--	--

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
Beach Group										
415.1	Total organic carbon	mg/Kg	66	67	0	99%	286	286	357	23,200
415.1-Sieved<75um	Total organic carbon	mg/Kg	2	2	0	100%	--	--	12,200	12,600
415.1-Sieved>75um	Total organic carbon	mg/Kg	4	4	0	100%	--	--	569	5,680
CLP TAL TotMetals	Aluminum	mg/Kg	66	66	0	100%	--	--	2,760	23,100
CLP TAL TotMetals	Antimony	mg/Kg	35	57	9	61%	0.29	8.1	0.53	53
CLP TAL TotMetals	Arsenic	mg/Kg	64	66	0	97%	0.97	3.9	0.97	36
CLP TAL TotMetals	Barium	mg/Kg	66	66	0	100%	--	--	21	2,250
CLP TAL TotMetals	Beryllium	mg/Kg	66	66	0	100%	--	--	0.21	1.7
CLP TAL TotMetals	Cadmium	mg/Kg	57	66	0	86%	0.058	0.52	0.056	7.8
CLP TAL TotMetals	Calcium	mg/Kg	66	66	0	100%	--	--	879	80,300
CLP TAL TotMetals	Chromium	mg/Kg	66	66	0	100%	--	--	5.6	145
CLP TAL TotMetals	Cobalt	mg/Kg	66	66	0	100%	--	--	2.1	57
CLP TAL TotMetals	Copper	mg/Kg	66	66	0	100%	--	--	4.2	3,290
CLP TAL TotMetals	Iron	mg/Kg	66	66	0	100%	--	--	4,930	254,000
CLP TAL TotMetals	Lead	mg/Kg	66	66	0	100%	--	--	3.1	535
CLP TAL TotMetals	Magnesium	mg/Kg	66	66	0	100%	--	--	1,390	16,400
CLP TAL TotMetals	Manganese	mg/Kg	66	66	0	100%	--	--	95	4,780
CLP TAL TotMetals	Mercury	mg/Kg	45	66	0	68%	0.098	0.11	0.0040	0.81
CLP TAL TotMetals	Nickel	mg/Kg	66	66	0	100%	--	--	4.1	30
CLP TAL TotMetals	Potassium	mg/Kg	66	66	0	100%	--	--	317	4,730
CLP TAL TotMetals	Selenium	mg/Kg	5	19	47	26%	3.3	3.9	1.1	4.3
CLP TAL TotMetals	Silver	mg/Kg	--	66	0	0%	0.80	1.5	--	--
CLP TAL TotMetals	Sodium	mg/Kg	58	66	0	88%	91	124	49	2,780
CLP TAL TotMetals	Thallium	mg/Kg	3	66	0	5%	2.0	3.8	0.83	1.3
CLP TAL TotMetals	Uranium	mg/Kg	19	66	0	29%	9.8	30	4.6	84
CLP TAL TotMetals	Vanadium	mg/Kg	66	66	0	100%	--	--	8.4	50
CLP TAL TotMetals	Zinc	mg/Kg	66	66	0	100%	--	--	21	22,200
CLP TAL TotMetals-Sieved<75um	Aluminum-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	8,400	16,400
CLP TAL TotMetals-Sieved<75um	Antimony-Sieved <75 um	mg/Kg	1	1	2	100%	--	--	3.9	3.9
CLP TAL TotMetals-Sieved<75um	Arsenic-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	2.0	10
CLP TAL TotMetals-Sieved<75um	Barium-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	175	1,030
CLP TAL TotMetals-Sieved<75um	Beryllium-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	0.59	0.85
CLP TAL TotMetals-Sieved<75um	Cadmium-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	0.82	5.5
CLP TAL TotMetals-Sieved<75um	Calcium-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	3,900	27,700
CLP TAL TotMetals-Sieved<75um	Chromium-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	21	33
CLP TAL TotMetals-Sieved<75um	Cobalt-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	10	13
CLP TAL TotMetals-Sieved<75um	Copper-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	24	278

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TAL TotMetals-Sieved<75um	Iron-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	21,000	35,100
CLP TAL TotMetals-Sieved<75um	Lead-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	22	325
CLP TAL TotMetals-Sieved<75um	Magnesium-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	4,750	14,200
CLP TAL TotMetals-Sieved<75um	Manganese-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	389	690
CLP TAL TotMetals-Sieved<75um	Mercury-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	0.031	0.32
CLP TAL TotMetals-Sieved<75um	Nickel-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	19	27
CLP TAL TotMetals-Sieved<75um	Potassium-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	1,630	2,850
CLP TAL TotMetals-Sieved<75um	Selenium-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	1.5	3.9
CLP TAL TotMetals-Sieved<75um	Silver-Sieved <75 um	mg/Kg	--	0	3	0%	--	--	--	--
CLP TAL TotMetals-Sieved<75um	Sodium-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	214	355
CLP TAL TotMetals-Sieved<75um	Thallium-Sieved <75 um	mg/Kg	--	3	0	0%	2.4	2.6	--	--
CLP TAL TotMetals-Sieved<75um	Uranium-Sieved <75 um	mg/Kg	--	3	0	0%	19	20	--	--
CLP TAL TotMetals-Sieved<75um	Vanadium-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	32	47
CLP TAL TotMetals-Sieved<75um	Zinc-Sieved <75 um	mg/Kg	3	3	0	100%	--	--	106	1,860
CLP TAL TotMetals-Sieved>75um	Aluminum-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	6,430	12,300
CLP TAL TotMetals-Sieved>75um	Antimony-Sieved >75 um	mg/Kg	1	1	2	100%	--	--	47	47
CLP TAL TotMetals-Sieved>75um	Arsenic-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	1.2	10
CLP TAL TotMetals-Sieved>75um	Barium-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	59	1,230
CLP TAL TotMetals-Sieved>75um	Beryllium-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	0.33	0.71
CLP TAL TotMetals-Sieved>75um	Cadmium-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	0.34	4.8
CLP TAL TotMetals-Sieved>75um	Calcium-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	2,080	55,000
CLP TAL TotMetals-Sieved>75um	Chromium-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	13	80
CLP TAL TotMetals-Sieved>75um	Cobalt-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	5.3	34
CLP TAL TotMetals-Sieved>75um	Copper-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	9.8	1,530
CLP TAL TotMetals-Sieved>75um	Iron-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	12,800	126,000
CLP TAL TotMetals-Sieved>75um	Lead-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	7.5	267
CLP TAL TotMetals-Sieved>75um	Magnesium-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	3,670	13,100
CLP TAL TotMetals-Sieved>75um	Manganese-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	187	2,380
CLP TAL TotMetals-Sieved>75um	Mercury-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	0.0080	0.072
CLP TAL TotMetals-Sieved>75um	Nickel-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	11	15
CLP TAL TotMetals-Sieved>75um	Potassium-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	955	2,970
CLP TAL TotMetals-Sieved>75um	Selenium-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	0.94	8.0
CLP TAL TotMetals-Sieved>75um	Silver-Sieved >75 um	mg/Kg	--	0	3	0%	--	--	--	--
CLP TAL TotMetals-Sieved>75um	Sodium-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	77	1,210
CLP TAL TotMetals-Sieved>75um	Thallium-Sieved >75 um	mg/Kg	--	3	0	0%	1.9	2.3	--	--
CLP TAL TotMetals-Sieved>75um	Uranium-Sieved >75 um	mg/Kg	--	3	0	0%	16	19	--	--
CLP TAL TotMetals-Sieved>75um	Vanadium-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	20	39
CLP TAL TotMetals-Sieved>75um	Zinc-Sieved >75 um	mg/Kg	3	3	0	100%	--	--	45	10,100

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL PAH	2-Methylnaphthalene	µg/Kg	23	66	0	35%	4.0	8.0	0.20	30
CLP TCL PAH	Acenaphthene	µg/Kg	7	66	0	11%	4.0	9.0	0.20	3.0
CLP TCL PAH	Acenaphthylene	µg/Kg	9	66	0	14%	4.0	13	0.20	9.0
CLP TCL PAH	Anthracene	µg/Kg	8	66	0	12%	3.7	13	0.50	7.0
CLP TCL PAH	Benzo(a)anthracene	µg/Kg	20	66	0	30%	4.0	8.0	0.30	12
CLP TCL PAH	Benzo(a)pyrene	µg/Kg	17	66	0	26%	4.0	8.0	0.40	13
CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	16	66	0	24%	4.0	8.0	0.30	9.0
CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	22	66	0	33%	4.0	8.0	0.20	9.0
CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	9	66	0	14%	4.0	13	0.30	7.0
CLP TCL PAH	Chrysene	µg/Kg	37	66	0	56%	4.0	8.0	0.20	17
CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	12	66	0	18%	3.7	8.0	0.40	3.0
CLP TCL PAH	Dibenzofuran	µg/Kg	15	66	0	23%	4.0	8.0	0.20	10
CLP TCL PAH	Fluoranthene	µg/Kg	32	66	0	48%	4.0	13	0.20	36
CLP TCL PAH	Fluorene	µg/Kg	9	66	0	14%	4.0	8.0	0.20	3.0
CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	17	66	0	26%	4.0	8.0	0.20	11
CLP TCL PAH	Naphthalene	µg/Kg	10	66	0	15%	0.40	8.6	1.0	43
CLP TCL PAH	Phenanthrene	µg/Kg	29	66	0	44%	4.0	8.0	0.20	41
CLP TCL PAH	Pyrene	µg/Kg	32	66	0	48%	4.0	8.0	0.20	36
CLP TCL PAH-Sieved<75um	2-Methylnaphthalene-Sieved <75 um	µg/Kg	2	2	0	100%	--	--	0.90	1.0
CLP TCL PAH-Sieved<75um	Acenaphthene-Sieved <75 um	µg/Kg	1	2	0	50%	4.0	4.0	0.50	0.50
CLP TCL PAH-Sieved<75um	Acenaphthylene-Sieved <75 um	µg/Kg	--	2	0	0%	4.0	4.0	--	--
CLP TCL PAH-Sieved<75um	Anthracene-Sieved <75 um	µg/Kg	1	2	0	50%	4.0	4.0	1.0	1.0
CLP TCL PAH-Sieved<75um	Benzo(a)anthracene-Sieved <75 um	µg/Kg	2	2	0	100%	--	--	0.30	3.0
CLP TCL PAH-Sieved<75um	Benzo(a)pyrene-Sieved <75 um	µg/Kg	--	2	0	0%	4.0	4.0	--	--
CLP TCL PAH-Sieved<75um	Benzo(b)fluoranthene-Sieved <75 um	µg/Kg	--	2	0	0%	4.0	4.0	--	--
CLP TCL PAH-Sieved<75um	Benzo(ghi)perylene-Sieved <75 um	µg/Kg	--	2	0	0%	4.0	4.0	--	--
CLP TCL PAH-Sieved<75um	Benzo(k)fluoranthene-Sieved <75 um	µg/Kg	--	2	0	0%	4.0	4.0	--	--
CLP TCL PAH-Sieved<75um	Chrysene-Sieved <75 um	µg/Kg	2	2	0	100%	--	--	1.0	6.0
CLP TCL PAH-Sieved<75um	Dibenzo(a,h)anthracene-Sieved <75 um	µg/Kg	--	2	0	0%	4.0	4.0	--	--
CLP TCL PAH-Sieved<75um	Dibenzofuran-Sieved <75 um	µg/Kg	2	2	0	100%	--	--	2.0	2.0
CLP TCL PAH-Sieved<75um	Fluoranthene-Sieved <75 um	µg/Kg	2	2	0	100%	--	--	2.0	12
CLP TCL PAH-Sieved<75um	Fluorene-Sieved <75 um	µg/Kg	2	2	0	100%	--	--	2.0	3.0
CLP TCL PAH-Sieved<75um	Indeno[1,2,3-cd]pyrene-Sieved <75 um	µg/Kg	--	2	0	0%	4.0	4.0	--	--
CLP TCL PAH-Sieved<75um	Naphthalene-Sieved <75 um	µg/Kg	2	2	0	100%	--	--	2.0	3.0
CLP TCL PAH-Sieved<75um	Phenanthrene-Sieved <75 um	µg/Kg	2	2	0	100%	--	--	5.0	12
CLP TCL PAH-Sieved<75um	Pyrene-Sieved <75 um	µg/Kg	1	2	0	50%	4.0	4.0	8.0	8.0
CLP TCL PAH-Sieved>75um	2-Methylnaphthalene-Sieved >75 um	µg/Kg	3	3	0	100%	--	--	0.30	0.80
CLP TCL PAH-Sieved>75um	Acenaphthene-Sieved >75 um	µg/Kg	--	3	0	0%	4.0	4.0	--	--

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL PAH-Sieved>75um	Acenaphthylene-Sieved >75 um	µg/Kg	--	3	0	0%	4.0	4.0	--	--
CLP TCL PAH-Sieved>75um	Anthracene-Sieved >75 um	µg/Kg	--	3	0	0%	4.0	4.0	--	--
CLP TCL PAH-Sieved>75um	Benzo(a)anthracene-Sieved >75 um	µg/Kg	1	3	0	33%	4.0	4.0	1.0	1.0
CLP TCL PAH-Sieved>75um	Benzo(a)pyrene-Sieved >75 um	µg/Kg	1	3	0	33%	4.0	4.0	2.0	2.0
CLP TCL PAH-Sieved>75um	Benzo(b)fluoranthene-Sieved >75 um	µg/Kg	1	3	0	33%	4.0	4.0	2.0	2.0
CLP TCL PAH-Sieved>75um	Benzo(ghi)perylene-Sieved >75 um	µg/Kg	--	3	0	0%	4.0	4.0	--	--
CLP TCL PAH-Sieved>75um	Benzo(k)fluoranthene-Sieved >75 um	µg/Kg	1	3	0	33%	4.0	4.0	2.0	2.0
CLP TCL PAH-Sieved>75um	Chrysene-Sieved >75 um	µg/Kg	3	3	0	100%	--	--	0.20	2.0
CLP TCL PAH-Sieved>75um	Dibenzo(a,h)anthracene-Sieved >75 um	µg/Kg	--	3	0	0%	4.0	4.0	--	--
CLP TCL PAH-Sieved>75um	Dibenzofuran-Sieved >75 um	µg/Kg	3	3	0	100%	--	--	0.30	0.70
CLP TCL PAH-Sieved>75um	Fluoranthene-Sieved >75 um	µg/Kg	3	3	0	100%	--	--	0.30	4.0
CLP TCL PAH-Sieved>75um	Fluorene-Sieved >75 um	µg/Kg	1	3	0	33%	4.0	4.0	0.80	0.80
CLP TCL PAH-Sieved>75um	Indeno[1,2,3-cd]pyrene-Sieved >75 um	µg/Kg	--	3	0	0%	4.0	4.0	--	--
CLP TCL PAH-Sieved>75um	Naphthalene-Sieved >75 um	µg/Kg	3	3	0	100%	--	--	1.0	2.0
CLP TCL PAH-Sieved>75um	Phenanthrene-Sieved >75 um	µg/Kg	3	3	0	100%	--	--	1.0	3.0
CLP TCL PAH-Sieved>75um	Pyrene-Sieved >75 um	µg/Kg	--	3	0	0%	4.0	4.0	--	--
CLP TCL PCBs	Aroclor-1016	µg/Kg	--	66	0	0%	0.84	6.3	--	--
CLP TCL PCBs	Aroclor-1221	µg/Kg	--	66	0	0%	3.4	25	--	--
CLP TCL PCBs	Aroclor-1232	µg/Kg	--	66	0	0%	3.4	25	--	--
CLP TCL PCBs	Aroclor-1242	µg/Kg	--	66	0	0%	0.84	6.3	--	--
CLP TCL PCBs	Aroclor-1248	µg/Kg	--	66	0	0%	0.84	6.3	--	--
CLP TCL PCBs	Aroclor-1254	µg/Kg	--	66	0	0%	0.84	6.3	--	--
CLP TCL PCBs	Aroclor-1260	µg/Kg	--	66	0	0%	0.84	6.3	--	--
CLP TCL PCBs-Sieved<75um	Aroclor-1016-Sieved <75 um	µg/Kg	--	2	0	0%	1.7	1.7	--	--
CLP TCL PCBs-Sieved<75um	Aroclor-1221-Sieved <75 um	µg/Kg	--	2	0	0%	6.9	6.9	--	--
CLP TCL PCBs-Sieved<75um	Aroclor-1232-Sieved <75 um	µg/Kg	--	2	0	0%	6.9	6.9	--	--
CLP TCL PCBs-Sieved<75um	Aroclor-1242-Sieved <75 um	µg/Kg	--	2	0	0%	1.7	1.7	--	--
CLP TCL PCBs-Sieved<75um	Aroclor-1248-Sieved <75 um	µg/Kg	--	2	0	0%	1.7	1.7	--	--
CLP TCL PCBs-Sieved<75um	Aroclor-1254-Sieved <75 um	µg/Kg	--	2	0	0%	1.7	1.7	--	--
CLP TCL PCBs-Sieved<75um	Aroclor-1260-Sieved <75 um	µg/Kg	--	2	0	0%	1.7	1.7	--	--
CLP TCL PCBs-Sieved>75um	Aroclor-1016-Sieved >75 um	µg/Kg	--	3	0	0%	1.7	1.7	--	--
CLP TCL PCBs-Sieved>75um	Aroclor-1221-Sieved >75 um	µg/Kg	--	3	0	0%	6.8	6.9	--	--
CLP TCL PCBs-Sieved>75um	Aroclor-1232-Sieved >75 um	µg/Kg	--	3	0	0%	6.8	6.9	--	--
CLP TCL PCBs-Sieved>75um	Aroclor-1242-Sieved >75 um	µg/Kg	--	3	0	0%	1.7	1.7	--	--
CLP TCL PCBs-Sieved>75um	Aroclor-1248-Sieved >75 um	µg/Kg	--	3	0	0%	1.7	1.7	--	--
CLP TCL PCBs-Sieved>75um	Aroclor-1254-Sieved >75 um	µg/Kg	--	3	0	0%	1.7	1.7	--	--
CLP TCL PCBs-Sieved>75um	Aroclor-1260-Sieved >75 um	µg/Kg	--	3	0	0%	1.7	1.7	--	--
CLP TCL Pesticides	2,4'-DDD	µg/Kg	--	66	0	0%	0.68	5.1	--	--

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL Pesticides	2,4'-DDE	µg/Kg	4	66	0	6%	0.68	1.3	0.32	17
CLP TCL Pesticides	2,4'-DDT	µg/Kg	8	66	0	12%	0.68	1.3	0.33	57
CLP TCL Pesticides	4,4'-DDD	µg/Kg	1	66	0	2%	0.68	1.3	2.1	2.1
CLP TCL Pesticides	4,4'-DDE	µg/Kg	8	66	0	12%	0.68	1.3	0.12	63
CLP TCL Pesticides	4,4'-DDT	µg/Kg	22	66	0	33%	0.68	1.1	0.12	200
CLP TCL Pesticides	Aldrin	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides	alpha-BHC	µg/Kg	1	66	0	2%	0.34	2.6	0.23	0.23
CLP TCL Pesticides	alpha-Chlordane	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides	beta-BHC	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides	cis-Nonachlor	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides	delta-BHC	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides	Dieldrin	µg/Kg	--	66	0	0%	0.68	5.1	--	--
CLP TCL Pesticides	Endosulfan I	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides	Endosulfan II	µg/Kg	--	66	0	0%	0.68	5.1	--	--
CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	--	66	0	0%	0.68	5.1	--	--
CLP TCL Pesticides	Endrin	µg/Kg	--	66	0	0%	0.68	5.1	--	--
CLP TCL Pesticides	Endrin aldehyde	µg/Kg	--	66	0	0%	0.68	5.1	--	--
CLP TCL Pesticides	Endrin ketone	µg/Kg	--	66	0	0%	0.68	5.1	--	--
CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides	gamma-Chlordane	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides	Heptachlor	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	5	66	0	8%	0.34	2.6	0.092	8.5
CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides	Methoxychlor	µg/Kg	3	66	0	5%	3.4	25	0.75	3.4
CLP TCL Pesticides	Oxychlordane	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides	Toxaphene	µg/Kg	--	66	0	0%	34	250	--	--
CLP TCL Pesticides	trans-Nonachlor	µg/Kg	--	66	0	0%	0.34	2.6	--	--
CLP TCL Pesticides-Sieved<75um	2,4'-DDD-Sieved <75 um	µg/Kg	--	2	0	0%	0.69	0.69	--	--
CLP TCL Pesticides-Sieved<75um	2,4'-DDE-Sieved <75 um	µg/Kg	--	2	0	0%	0.69	0.69	--	--
CLP TCL Pesticides-Sieved<75um	2,4'-DDT-Sieved <75 um	µg/Kg	--	2	0	0%	0.69	0.69	--	--
CLP TCL Pesticides-Sieved<75um	4,4'-DDD-Sieved <75 um	µg/Kg	--	2	0	0%	0.69	0.69	--	--
CLP TCL Pesticides-Sieved<75um	4,4'-DDE-Sieved <75 um	µg/Kg	2	2	0	100%	--	--	0.22	0.74
CLP TCL Pesticides-Sieved<75um	4,4'-DDT-Sieved <75 um	µg/Kg	1	2	0	50%	0.69	0.69	3.5	3.5
CLP TCL Pesticides-Sieved<75um	Aldrin-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved<75um	alpha-BHC-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved<75um	alpha-Chlordane-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved<75um	beta-BHC-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL Pesticides-Sieved<75um	cis-Nonachlor-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved<75um	delta-BHC-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved<75um	Dieldrin-Sieved <75 um	µg/Kg	--	2	0	0%	0.69	0.69	--	--
CLP TCL Pesticides-Sieved<75um	Endosulfan I-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved<75um	Endosulfan II-Sieved <75 um	µg/Kg	--	2	0	0%	0.69	0.69	--	--
CLP TCL Pesticides-Sieved<75um	Endosulfan sulfate-Sieved <75 um	µg/Kg	--	2	0	0%	0.69	0.69	--	--
CLP TCL Pesticides-Sieved<75um	Endrin aldehyde-Sieved <75 um	µg/Kg	--	2	0	0%	0.69	0.69	--	--
CLP TCL Pesticides-Sieved<75um	Endrin ketone-Sieved <75 um	µg/Kg	--	2	0	0%	0.69	0.69	--	--
CLP TCL Pesticides-Sieved<75um	Endrin-Sieved <75 um	µg/Kg	--	2	0	0%	0.69	0.69	--	--
CLP TCL Pesticides-Sieved<75um	gamma-BHC (Lindane)-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved<75um	gamma-Chlordane-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved<75um	Heptachlor epoxide-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved<75um	Heptachlor-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved<75um	Hexachlorobenzene-Sieved <75 um	µg/Kg	1	2	0	50%	0.34	0.34	6.5	6.5
CLP TCL Pesticides-Sieved<75um	Hexachlorobutadiene-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved<75um	Methoxychlor-Sieved <75 um	µg/Kg	--	2	0	0%	3.4	3.4	--	--
CLP TCL Pesticides-Sieved<75um	Oxychlordane-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved<75um	Toxaphene-Sieved <75 um	µg/Kg	--	2	0	0%	34	34	--	--
CLP TCL Pesticides-Sieved<75um	trans-Nonachlor-Sieved <75 um	µg/Kg	--	2	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	2,4'-DDD-Sieved >75 um	µg/Kg	--	3	0	0%	0.68	0.69	--	--
CLP TCL Pesticides-Sieved>75um	2,4'-DDE-Sieved >75 um	µg/Kg	--	3	0	0%	0.68	0.69	--	--
CLP TCL Pesticides-Sieved>75um	2,4'-DDT-Sieved >75 um	µg/Kg	2	3	0	67%	0.68	0.68	0.19	0.54
CLP TCL Pesticides-Sieved>75um	4,4'-DDD-Sieved >75 um	µg/Kg	--	3	0	0%	0.68	0.69	--	--
CLP TCL Pesticides-Sieved>75um	4,4'-DDE-Sieved >75 um	µg/Kg	--	3	0	0%	0.68	0.69	--	--
CLP TCL Pesticides-Sieved>75um	4,4'-DDT-Sieved >75 um	µg/Kg	2	3	0	67%	0.68	0.68	0.98	1.9
CLP TCL Pesticides-Sieved>75um	Aldrin-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	alpha-BHC-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	alpha-Chlordane-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	beta-BHC-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	cis-Nonachlor-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	delta-BHC-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	Dieldrin-Sieved >75 um	µg/Kg	--	3	0	0%	0.68	0.69	--	--
CLP TCL Pesticides-Sieved>75um	Endosulfan I-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	Endosulfan II-Sieved >75 um	µg/Kg	--	3	0	0%	0.68	0.69	--	--
CLP TCL Pesticides-Sieved>75um	Endosulfan sulfate-Sieved >75 um	µg/Kg	--	3	0	0%	0.68	0.69	--	--
CLP TCL Pesticides-Sieved>75um	Endrin aldehyde-Sieved >75 um	µg/Kg	--	3	0	0%	0.68	0.69	--	--
CLP TCL Pesticides-Sieved>75um	Endrin ketone-Sieved >75 um	µg/Kg	--	3	0	0%	0.68	0.69	--	--
CLP TCL Pesticides-Sieved>75um	Endrin-Sieved >75 um	µg/Kg	--	3	0	0%	0.68	0.69	--	--

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL Pesticides-Sieved>75um	gamma-BHC (Lindane)-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	gamma-Chlordane-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	Heptachlor epoxide-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	Heptachlor-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	Hexachlorobenzene-Sieved >75 um	µg/Kg	1	3	0	33%	0.34	0.34	3.6	3.6
CLP TCL Pesticides-Sieved>75um	Hexachlorobutadiene-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	Methoxychlor-Sieved >75 um	µg/Kg	--	3	0	0%	3.4	3.4	--	--
CLP TCL Pesticides-Sieved>75um	Oxychlordane-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL Pesticides-Sieved>75um	Toxaphene-Sieved >75 um	µg/Kg	--	3	0	0%	34	34	--	--
CLP TCL Pesticides-Sieved>75um	trans-Nonachlor-Sieved >75 um	µg/Kg	--	3	0	0%	0.34	0.34	--	--
CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	--	66	0	0%	210	400	--	--
CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	--	56	10	0%	210	400	--	--
CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	2-Chlorophenol	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	2-Methylphenol	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	2-Nitroaniline	µg/Kg	--	66	0	0%	210	400	--	--
CLP TCL SVOC	2-Nitrophenol	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	3-Nitroaniline	µg/Kg	--	66	0	0%	210	400	--	--
CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	--	66	0	0%	210	400	--	--
CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	4-Chloroaniline	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	4-Methylphenol	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	4-Nitroaniline	µg/Kg	--	66	0	0%	210	400	--	--
CLP TCL SVOC	4-Nitrophenol	µg/Kg	--	66	0	0%	210	400	--	--

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL SVOC	Acetophenone	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Atrazine	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Benzaldehyde	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Benzoic acid	µg/Kg	--	49	17	0%	85	160	--	--
CLP TCL SVOC	Benzyl alcohol	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Caprolactam	µg/Kg	2	66	0	3%	85	160	55	150
CLP TCL SVOC	Carbazole	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Diethyl phthalate	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Dimethyl phthalate	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Hexachloroethane	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Isophorone	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Nitrobenzene	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Pentachlorophenol	µg/Kg	--	66	0	0%	210	400	--	--
CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC	Phenol	µg/Kg	--	66	0	0%	85	160	--	--
CLP TCL SVOC-Sieved<75um	1,1'-Biphenyl-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	1,2,4-Trichlorobenzene-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	1,2-Dichlorobenzene-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	1,3-Dichlorobenzene-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	1,4-Dichlorobenzene-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	2,2'-Oxybis(1-Chloropropane)-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	2,4,5-Trichlorophenol-Sieved <75 um	µg/Kg	--	2	0	0%	220	220	--	--
CLP TCL SVOC-Sieved<75um	2,4,6-Trichlorophenol-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	2,4-Dichlorophenol-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	2,4-Dimethylphenol-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	2,4-Dinitrophenol-Sieved <75 um	µg/Kg	--	2	0	0%	220	220	--	--
CLP TCL SVOC-Sieved<75um	2,4-Dinitrotoluene-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	2,6-Dinitrotoluene-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	2-Chloronaphthalene-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	2-Chlorophenol-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL SVOC-Sieved<75um	2-Methylphenol-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	2-Nitroaniline-Sieved <75 um	µg/Kg	--	2	0	0%	220	220	--	--
CLP TCL SVOC-Sieved<75um	2-Nitrophenol-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	3,3-Dichlorobenzidine-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	3-Nitroaniline-Sieved <75 um	µg/Kg	--	2	0	0%	220	220	--	--
CLP TCL SVOC-Sieved<75um	4,6-Dinitro-2-methylphenol-Sieved <75 um	µg/Kg	--	2	0	0%	220	220	--	--
CLP TCL SVOC-Sieved<75um	4-Bromophenyl-phenylether-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	4-Chloro-3-methylphenol-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	4-Chloroaniline-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	4-Chlorophenyl-phenyl ether-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	4-Methylphenol-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	4-Nitroaniline-Sieved <75 um	µg/Kg	--	2	0	0%	220	220	--	--
CLP TCL SVOC-Sieved<75um	4-Nitrophenol-Sieved <75 um	µg/Kg	--	2	0	0%	220	220	--	--
CLP TCL SVOC-Sieved<75um	Acetophenone-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Atrazine-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Benzaldehyde-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Benzoic acid-Sieved <75 um	µg/Kg	--	0	2	0%	--	--	--	--
CLP TCL SVOC-Sieved<75um	Benzyl alcohol-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Bis(2-Chloroethoxy)methane-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Bis(2-Chloroethyl)ether-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Bis(2-ethylhexyl)phthalate-Sieved <75 um	µg/Kg	1	2	0	50%	85	85	45	45
CLP TCL SVOC-Sieved<75um	Butyl benzyl phthalate-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Caprolactam-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Carbazole-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Di-n-butyl phthalate-Sieved <75 um	µg/Kg	1	2	0	50%	85	85	25	25
CLP TCL SVOC-Sieved<75um	Di-n-octylphthalate-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Diethyl phthalate-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Dimethyl phthalate-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Hexachloroethane-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Isophorone-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	N-Nitrosodi-n-propylamine-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	N-Nitrosodiphenylamine-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Nitrobenzene-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Pentachlorophenol-Sieved <75 um	µg/Kg	--	2	0	0%	220	220	--	--
CLP TCL SVOC-Sieved<75um	Perchlorocyclopentadiene-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved<75um	Phenol-Sieved <75 um	µg/Kg	--	2	0	0%	85	85	--	--
CLP TCL SVOC-Sieved>75um	1,1'-Biphenyl-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	1,2,4-Trichlorobenzene-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL SVOC-Sieved>75um	1,2-Dichlorobenzene-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	1,3-Dichlorobenzene-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	1,4-Dichlorobenzene-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	2,2'-Oxybis(1-Chloropropane)-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	2,4,5-Trichlorophenol-Sieved >75 um	µg/Kg	--	3	0	0%	210	210	--	--
CLP TCL SVOC-Sieved>75um	2,4,6-Trichlorophenol-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	2,4-Dichlorophenol-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	2,4-Dimethylphenol-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	2,4-Dinitrophenol-Sieved >75 um	µg/Kg	--	3	0	0%	210	210	--	--
CLP TCL SVOC-Sieved>75um	2,4-Dinitrotoluene-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	2,6-Dinitrotoluene-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	2-Chloronaphthalene-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	2-Chlorophenol-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	2-Methylphenol-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	2-Nitroaniline-Sieved >75 um	µg/Kg	--	3	0	0%	210	210	--	--
CLP TCL SVOC-Sieved>75um	2-Nitrophenol-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	3,3-Dichlorobenzidine-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	3-Nitroaniline-Sieved >75 um	µg/Kg	--	3	0	0%	210	210	--	--
CLP TCL SVOC-Sieved>75um	4,6-Dinitro-2-methylphenol-Sieved >75 um	µg/Kg	--	3	0	0%	210	210	--	--
CLP TCL SVOC-Sieved>75um	4-Bromophenyl-phenylether-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	4-Chloro-3-methylphenol-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	4-Chloroaniline-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	4-Chlorophenyl-phenyl ether-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	4-Methylphenol-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	4-Nitroaniline-Sieved >75 um	µg/Kg	--	3	0	0%	210	210	--	--
CLP TCL SVOC-Sieved>75um	4-Nitrophenol-Sieved >75 um	µg/Kg	--	3	0	0%	210	210	--	--
CLP TCL SVOC-Sieved>75um	Acetophenone-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Atrazine-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Benzaldehyde-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Benzoic acid-Sieved >75 um	µg/Kg	--	0	3	0%	--	--	--	--
CLP TCL SVOC-Sieved>75um	Benzyl alcohol-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Bis(2-Chloroethoxy)methane-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Bis(2-Chloroethyl)ether-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Bis(2-ethylhexyl)phthalate-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Butyl benzyl phthalate-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Caprolactam-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Carbazole-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Di-n-butyl phthalate-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL SVOC-Sieved>75um	Di-n-octylphthalate-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Diethyl phthalate-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Dimethyl phthalate-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Hexachloroethane-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Isophorone-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	N-Nitrosodi-n-propylamine-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	N-Nitrosodiphenylamine-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Nitrobenzene-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Pentachlorophenol-Sieved >75 um	µg/Kg	--	3	0	0%	210	210	--	--
CLP TCL SVOC-Sieved>75um	Perchlorocyclopentadiene-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
CLP TCL SVOC-Sieved>75um	Phenol-Sieved >75 um	µg/Kg	--	3	0	0%	84	85	--	--
Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	25	49	0	51%	0.10	2.0	0.95	11
Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	26	49	0	53%	0.047	0.42	0.076	11
Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	1	49	0	2%	0.034	0.21	0.062	0.062
Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	20	49	0	41%	0.034	0.16	0.026	0.23
Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	6	49	0	12%	0.018	0.28	0.022	0.24
Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	24	49	0	49%	0.035	0.67	0.051	0.84
Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	10	49	0	20%	0.027	0.20	0.019	0.19
Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	20	49	0	41%	0.034	0.51	0.036	0.60
Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	3	49	0	6%	0.025	0.21	0.024	0.10
Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	13	49	0	27%	0.024	0.17	0.022	0.26
Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	10	49	0	20%	0.019	0.27	0.026	0.33
Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	7	49	0	14%	0.018	0.24	0.016	0.079
Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	16	49	0	33%	0.024	0.19	0.028	0.61
Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	7	49	0	14%	0.032	0.11	0.094	0.28
Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	PG/G	33	49	0	67%	0.057	0.20	0.072	24
Dioxins and Furans	Heptachlorodibenzodioxin (Total)	PG/G	41	49	0	84%	0.39	2.3	0.28	25
Dioxins and Furans	Heptachlorodibenzofuran (Total)	PG/G	34	49	0	69%	0.056	1.2	0.078	17
Dioxins and Furans	Hexachlorodibenzodioxin (Total)	PG/G	41	49	0	84%	0.034	0.083	0.053	7.2
Dioxins and Furans	Hexachlorodibenzofuran (Total)	PG/G	44	49	0	90%	0.029	0.12	0.018	5.8
Dioxins and Furans	Octachlorodibenzodioxin	PG/G	30	49	0	61%	1.3	7.9	4.0	87
Dioxins and Furans	Octachlorodibenzofuran	PG/G	29	49	0	59%	0.097	0.68	0.16	5.5
Dioxins and Furans	Pentachlorodibenzodioxin (Total)	PG/G	25	49	0	51%	0.024	0.13	0.022	1.8
Dioxins and Furans	Pentachlorodibenzofuran (Total)	PG/G	29	49	0	59%	0.017	0.25	0.032	4.2
Dioxins and Furans	TEQ WHO-98	PG/G	46	49	0	94%	0	0	0.0010	3.5
Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	PG/G	22	49	0	45%	0.032	0.076	0.037	0.93
Dioxins and Furans	Tetrachlorodibenzofuran (Total)	PG/G	40	49	0	82%	0.052	0.14	0.14	47
Dioxins and Furans-Sieved<75um	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	2	2	0	100%	--	--	4.6	10.0

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
Dioxins and Furans-Sieved<75um	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	2	2	0	100%	--	--	0.71	4.4
Dioxins and Furans-Sieved<75um	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	1	2	0	50%	0.13	0.13	0.24	0.24
Dioxins and Furans-Sieved<75um	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	2	2	0	100%	--	--	0.19	0.29
Dioxins and Furans-Sieved<75um	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	1	2	0	50%	0.083	0.083	0.30	0.30
Dioxins and Furans-Sieved<75um	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	2	2	0	100%	--	--	0.34	0.72
Dioxins and Furans-Sieved<75um	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	1	2	0	50%	0.095	0.095	0.29	0.29
Dioxins and Furans-Sieved<75um	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	2	2	0	100%	--	--	0.30	0.50
Dioxins and Furans-Sieved<75um	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	--	2	0	0%	0.14	0.19	--	--
Dioxins and Furans-Sieved<75um	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	1	2	0	50%	0.13	0.13	0.30	0.30
Dioxins and Furans-Sieved<75um	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	1	2	0	50%	0.14	0.14	0.20	0.20
Dioxins and Furans-Sieved<75um	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	1	2	0	50%	0.13	0.13	0.27	0.27
Dioxins and Furans-Sieved<75um	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	1	2	0	50%	0.24	0.24	0.29	0.29
Dioxins and Furans-Sieved<75um	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	--	2	0	0%	0.089	0.15	--	--
Dioxins and Furans-Sieved<75um	2,3,7,8-Tetrachlorodibenzofuran	PG/G	2	2	0	100%	--	--	1.6	4.0
Dioxins and Furans-Sieved<75um	Heptachlorodibenzodioxin (Total)	PG/G	2	2	0	100%	--	--	12	22
Dioxins and Furans-Sieved<75um	Heptachlorodibenzofuran (Total)	PG/G	2	2	0	100%	--	--	0.71	8.5
Dioxins and Furans-Sieved<75um	Hexachlorodibenzodioxin (Total)	PG/G	2	2	0	100%	--	--	3.2	5.5
Dioxins and Furans-Sieved<75um	Hexachlorodibenzofuran (Total)	PG/G	1	2	0	50%	0.67	0.67	4.0	4.0
Dioxins and Furans-Sieved<75um	Octachlorodibenzodioxin	PG/G	2	2	0	100%	--	--	37	76
Dioxins and Furans-Sieved<75um	Octachlorodibenzofuran	PG/G	2	2	0	100%	--	--	2.5	4.9
Dioxins and Furans-Sieved<75um	Pentachlorodibenzodioxin (Total)	PG/G	2	2	0	100%	--	--	0.20	0.92
Dioxins and Furans-Sieved<75um	Pentachlorodibenzofuran (Total)	PG/G	2	2	0	100%	--	--	1.3	1.7
Dioxins and Furans-Sieved<75um	TEQ WHO-98	PG/G	2	2	0	100%	--	--	0.54	1.0
Dioxins and Furans-Sieved<75um	Tetrachlorodibenzodioxin (Total)	PG/G	2	2	0	100%	--	--	0.30	0.48
Dioxins and Furans-Sieved<75um	Tetrachlorodibenzofuran (Total)	PG/G	2	2	0	100%	--	--	3.4	8.0
Dioxins and Furans-Sieved>75um	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	4	4	0	100%	--	--	0.54	2.3
Dioxins and Furans-Sieved>75um	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	4	4	0	100%	--	--	0.067	0.85
Dioxins and Furans-Sieved>75um	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	--	4	0	0%	0.14	0.18	--	--
Dioxins and Furans-Sieved>75um	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	--	4	0	0%	0.085	0.12	--	--
Dioxins and Furans-Sieved>75um	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	--	4	0	0%	0.061	0.094	--	--
Dioxins and Furans-Sieved>75um	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	2	4	0	50%	0.084	0.17	0.15	0.17
Dioxins and Furans-Sieved>75um	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	--	4	0	0%	0.063	0.087	--	--
Dioxins and Furans-Sieved>75um	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	1	4	0	25%	0.085	0.16	0.13	0.13
Dioxins and Furans-Sieved>75um	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	--	4	0	0%	0.090	0.13	--	--
Dioxins and Furans-Sieved>75um	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	1	4	0	25%	0.11	0.15	0.073	0.073
Dioxins and Furans-Sieved>75um	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	--	4	0	0%	0.084	0.11	--	--
Dioxins and Furans-Sieved>75um	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	2	4	0	50%	0.060	0.086	0.059	0.081
Dioxins and Furans-Sieved>75um	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	--	4	0	0%	0.074	0.13	--	--

TABLE C-2

Summary of Phase I Sediment Analytical Data - Beach Group (Composites, Discrete Grabs, Size Fractionation)

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
Dioxins and Furans-Sieved>75um	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	--	4	0	0%	0.077	0.11	--	--
Dioxins and Furans-Sieved>75um	2,3,7,8-Tetrachlorodibenzofuran	PG/G	4	4	0	100%	--	--	0.12	1.2
Dioxins and Furans-Sieved>75um	Heptachlorodibenzodioxin (Total)	PG/G	4	4	0	100%	--	--	0.93	5.1
Dioxins and Furans-Sieved>75um	Heptachlorodibenzofuran (Total)	PG/G	4	4	0	100%	--	--	0.067	1.9
Dioxins and Furans-Sieved>75um	Hexachlorodibenzodioxin (Total)	PG/G	3	4	0	75%	0.084	0.084	0.24	0.42
Dioxins and Furans-Sieved>75um	Hexachlorodibenzofuran (Total)	PG/G	3	4	0	75%	0.17	0.17	0.33	0.88
Dioxins and Furans-Sieved>75um	Octachlorodibenzodioxin	PG/G	4	4	0	100%	--	--	3.7	23
Dioxins and Furans-Sieved>75um	Octachlorodibenzofuran	PG/G	3	4	0	75%	0.32	0.32	0.70	1.6
Dioxins and Furans-Sieved>75um	Pentachlorodibenzodioxin (Total)	PG/G	1	4	0	25%	0.11	0.15	0.073	0.073
Dioxins and Furans-Sieved>75um	Pentachlorodibenzofuran (Total)	PG/G	3	4	0	75%	0.074	0.074	0.25	0.41
Dioxins and Furans-Sieved>75um	TEQ WHO-98	PG/G	4	4	0	100%	--	--	0.018	0.18
Dioxins and Furans-Sieved>75um	Tetrachlorodibenzodioxin (Total)	PG/G	1	4	0	25%	0.077	0.096	0.18	0.18
Dioxins and Furans-Sieved>75um	Tetrachlorodibenzofuran (Total)	PG/G	4	4	0	100%	--	--	0.12	1.7

TABLE C-3

Summary of Phase I Sediment Analytical Data - Core Samples

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
Core Samples										
415.1	Total organic carbon	mg/Kg	44	44	0	100%	--	--	261	32,200
CLP TAL TotMetals	Aluminum	mg/Kg	44	44	0	100%	--	--	6,390	23,000
CLP TAL TotMetals	Antimony	mg/Kg	13	28	16	46%	0.82	15	0.71	43
CLP TAL TotMetals	Arsenic	mg/Kg	40	44	0	91%	1.2	1.9	0.95	18
CLP TAL TotMetals	Barium	mg/Kg	44	44	0	100%	--	--	39	1,610
CLP TAL TotMetals	Beryllium	mg/Kg	44	44	0	100%	--	--	0.49	1.9
CLP TAL TotMetals	Cadmium	mg/Kg	39	44	0	89%	0.48	0.52	0.050	18
CLP TAL TotMetals	Calcium	mg/Kg	44	44	0	100%	--	--	2,000	68,700
CLP TAL TotMetals	Chromium	mg/Kg	44	44	0	100%	--	--	9.0	109
CLP TAL TotMetals	Cobalt	mg/Kg	44	44	0	100%	--	--	4.1	42
CLP TAL TotMetals	Copper	mg/Kg	44	44	0	100%	--	--	9.2	2,240
CLP TAL TotMetals	Iron	mg/Kg	44	44	0	100%	--	--	12,500	266,000
CLP TAL TotMetals	Lead	mg/Kg	44	44	0	100%	--	--	4.4	1,230
CLP TAL TotMetals	Magnesium	mg/Kg	44	44	0	100%	--	--	2,920	23,100
CLP TAL TotMetals	Manganese	mg/Kg	44	44	0	100%	--	--	189	4,690
CLP TAL TotMetals	Mercury	mg/Kg	37	44	0	84%	0.0040	0.014	0.0050	3.2
CLP TAL TotMetals	Nickel	mg/Kg	44	44	0	100%	--	--	6.6	33
CLP TAL TotMetals	Potassium	mg/Kg	44	44	0	100%	--	--	1,150	4,660
CLP TAL TotMetals	Selenium	mg/Kg	34	44	0	77%	2.0	3.5	0.93	9.5
CLP TAL TotMetals	Silver	mg/Kg	--	33	11	0%	0.86	2.6	--	--
CLP TAL TotMetals	Sodium	mg/Kg	42	44	0	95%	219	260	62	2,270
CLP TAL TotMetals	Thallium	mg/Kg	1	44	0	2%	2.1	6.6	0.69	0.69
CLP TAL TotMetals	Uranium	mg/Kg	6	44	0	14%	17	53	20	90
CLP TAL TotMetals	Vanadium	mg/Kg	44	44	0	100%	--	--	13	49
CLP TAL TotMetals	Zinc	mg/Kg	44	44	0	100%	--	--	30	24,800
CLP TCL PAH	2-Methylnaphthalene	µg/Kg	42	44	0	95%	4.0	5.0	0.20	11
CLP TCL PAH	Acenaphthene	µg/Kg	1	44	0	2%	4.0	12	0.40	0.40
CLP TCL PAH	Acenaphthylene	µg/Kg	--	44	0	0%	4.0	12	--	--
CLP TCL PAH	Anthracene	µg/Kg	3	44	0	7%	4.0	12	0.60	2.0
CLP TCL PAH	Benzo(a)anthracene	µg/Kg	15	44	0	34%	4.0	11	0.30	6.0
CLP TCL PAH	Benzo(a)pyrene	µg/Kg	14	44	0	32%	4.0	12	0.80	7.0
CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	1	44	0	2%	4.0	12	3.0	3.0
CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	13	44	0	30%	4.0	9.0	0.20	5.0
CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	1	44	0	2%	4.0	12	2.0	2.0
CLP TCL PAH	Chrysene	µg/Kg	21	44	0	48%	4.0	11	0.20	12
CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	3	44	0	7%	4.0	12	0.60	2.0
CLP TCL PAH	Dibenzofuran	µg/Kg	8	44	0	18%	4.0	12	0.20	6.0

TABLE C-3

Summary of Phase I Sediment Analytical Data - Core Samples

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL PAH	Fluoranthene	µg/Kg	21	44	0	48%	4.0	6.0	0.20	15
CLP TCL PAH	Fluorene	µg/Kg	--	44	0	0%	4.0	12	--	--
CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	11	44	0	25%	4.0	9.0	0.20	3.0
CLP TCL PAH	Naphthalene	µg/Kg	30	44	0	68%	3.6	4.7	0.90	10
CLP TCL PAH	Phenanthrene	µg/Kg	25	44	0	57%	4.0	6.0	0.20	19
CLP TCL PAH	Pyrene	µg/Kg	17	44	0	39%	4.0	11	0.40	8.0
CLP TCL PCBs	Aroclor-1016	µg/Kg	--	43	0	0%	0.86	4.4	--	--
CLP TCL PCBs	Aroclor-1221	µg/Kg	--	43	0	0%	3.5	18	--	--
CLP TCL PCBs	Aroclor-1232	µg/Kg	--	43	0	0%	3.5	18	--	--
CLP TCL PCBs	Aroclor-1242	µg/Kg	--	43	0	0%	0.86	4.4	--	--
CLP TCL PCBs	Aroclor-1248	µg/Kg	--	43	0	0%	0.86	4.4	--	--
CLP TCL PCBs	Aroclor-1254	µg/Kg	--	43	0	0%	0.86	4.4	--	--
CLP TCL PCBs	Aroclor-1260	µg/Kg	--	43	0	0%	0.86	4.4	--	--
CLP TCL Pesticides	2,4'-DDD	µg/Kg	--	44	0	0%	0.69	1.9	--	--
CLP TCL Pesticides	2,4'-DDE	µg/Kg	1	44	0	2%	0.69	1.9	0.32	0.32
CLP TCL Pesticides	2,4'-DDT	µg/Kg	--	44	0	0%	0.69	1.9	--	--
CLP TCL Pesticides	4,4'-DDD	µg/Kg	--	44	0	0%	0.69	1.9	--	--
CLP TCL Pesticides	4,4'-DDE	µg/Kg	4	44	0	9%	0.70	1.9	0.16	0.81
CLP TCL Pesticides	4,4'-DDT	µg/Kg	2	44	0	5%	0.69	1.9	1.0	2.6
CLP TCL Pesticides	Aldrin	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL Pesticides	alpha-BHC	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL Pesticides	alpha-Chlordane	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL Pesticides	beta-BHC	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL Pesticides	cis-Nonachlor	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL Pesticides	delta-BHC	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL Pesticides	Dieldrin	µg/Kg	--	44	0	0%	0.69	1.9	--	--
CLP TCL Pesticides	Endosulfan I	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL Pesticides	Endosulfan II	µg/Kg	--	44	0	0%	0.69	1.9	--	--
CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	--	44	0	0%	0.69	1.9	--	--
CLP TCL Pesticides	Endrin	µg/Kg	--	44	0	0%	0.69	1.9	--	--
CLP TCL Pesticides	Endrin aldehyde	µg/Kg	1	44	0	2%	0.69	1.8	0.42	0.42
CLP TCL Pesticides	Endrin ketone	µg/Kg	--	44	0	0%	0.69	1.9	--	--
CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL Pesticides	gamma-Chlordane	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL Pesticides	Heptachlor	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	--	44	0	0%	0.34	0.93	--	--

TABLE C-3

Summary of Phase I Sediment Analytical Data - Core Samples

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL Pesticides	Methoxychlor	µg/Kg	--	44	0	0%	3.4	9.3	--	--
CLP TCL Pesticides	Oxychlordane	µg/Kg	1	44	0	2%	0.34	0.93	0.35	0.35
CLP TCL Pesticides	Toxaphene	µg/Kg	--	44	0	0%	34	93	--	--
CLP TCL Pesticides	trans-Nonachlor	µg/Kg	--	44	0	0%	0.34	0.93	--	--
CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	--	44	0	0%	220	580	--	--
CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	--	44	0	0%	220	580	--	--
CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	2-Chlorophenol	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	2-Methylphenol	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	2-Nitroaniline	µg/Kg	--	44	0	0%	220	580	--	--
CLP TCL SVOC	2-Nitrophenol	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	3-Nitroaniline	µg/Kg	--	44	0	0%	220	580	--	--
CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	--	44	0	0%	220	580	--	--
CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	4-Chloroaniline	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	4-Methylphenol	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	4-Nitroaniline	µg/Kg	--	44	0	0%	220	580	--	--
CLP TCL SVOC	4-Nitrophenol	µg/Kg	--	44	0	0%	220	580	--	--
CLP TCL SVOC	Acetophenone	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Atrazine	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Benzaldehyde	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Benzoic acid	µg/Kg	--	0	44	0%	--	--	--	--
CLP TCL SVOC	Benzyl alcohol	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	--	44	0	0%	86	230	--	--

TABLE C-3

Summary of Phase I Sediment Analytical Data - Core Samples

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	2	44	0	5%	86	230	37	71
CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Caprolactam	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Carbazole	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Diethyl phthalate	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Dimethyl phthalate	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Hexachloroethane	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Isophorone	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Nitrobenzene	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Pentachlorophenol	µg/Kg	--	44	0	0%	220	580	--	--
CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	--	44	0	0%	86	230	--	--
CLP TCL SVOC	Phenol	µg/Kg	--	44	0	0%	86	230	--	--
Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzodioxin	PG/G	17	23	0	74%	0.16	0.29	0.27	45
Dioxins and Furans	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	17	23	0	74%	0.052	0.081	0.076	12
Dioxins and Furans	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	13	23	0	57%	0.045	0.17	0.056	0.56
Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzodioxin	PG/G	11	23	0	48%	0.055	0.16	0.050	0.66
Dioxins and Furans	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	10	23	0	43%	0.020	0.24	0.12	0.94
Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzodioxin	PG/G	13	23	0	57%	0.051	0.10	0.12	2.6
Dioxins and Furans	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	6	23	0	26%	0.020	0.63	0.074	0.66
Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzodioxin	PG/G	13	23	0	57%	0.051	0.10	0.091	1.9
Dioxins and Furans	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	6	23	0	26%	0.019	0.23	0.049	0.34
Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	11	23	0	48%	0.032	0.12	0.060	0.67
Dioxins and Furans	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	6	23	0	26%	0.020	0.29	0.37	0.72
Dioxins and Furans	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	15	23	0	65%	0.022	0.16	0.021	0.94
Dioxins and Furans	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	10	23	0	43%	0.023	0.27	0.18	1.5
Dioxins and Furans	2,3,7,8-Tetrachlorodibenzodioxin	PG/G	11	23	0	48%	0.023	0.064	0.11	0.59
Dioxins and Furans	2,3,7,8-Tetrachlorodibenzofuran	PG/G	21	23	0	91%	0.089	0.10	0.076	53
Dioxins and Furans	Heptachlorodibenzodioxin (Total)	PG/G	17	23	0	74%	0.16	0.53	0.43	94
Dioxins and Furans	Heptachlorodibenzofuran (Total)	PG/G	19	23	0	83%	0.052	0.10	0.11	28
Dioxins and Furans	Hexachlorodibenzodioxin (Total)	PG/G	16	23	0	70%	0.036	0.10	0.10	26
Dioxins and Furans	Hexachlorodibenzofuran (Total)	PG/G	19	23	0	83%	0.046	0.093	0.048	15
Dioxins and Furans	Octachlorodibenzodioxin	PG/G	17	23	0	74%	0.94	2.7	1.5	338
Dioxins and Furans	Octachlorodibenzofuran	PG/G	18	23	0	78%	0.094	0.25	0.12	22

TABLE C-3

Summary of Phase I Sediment Analytical Data - Core Samples

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
Dioxins and Furans	Pentachlorodibenzodioxin (Total)	PG/G	15	23	0	65%	0.032	0.084	0.063	15
Dioxins and Furans	Pentachlorodibenzofuran (Total)	PG/G	18	23	0	78%	0.034	0.13	0.021	13
Dioxins and Furans	TEQ WHO-98	PG/G	23	23	0	100%	--	--	0.013	7.6
Dioxins and Furans	Tetrachlorodibenzodioxin (Total)	PG/G	11	23	0	48%	0.023	0.064	0.24	4.2
Dioxins and Furans	Tetrachlorodibenzofuran (Total)	PG/G	21	23	0	91%	0.049	0.72	0.15	106

TABLE C-4

Summary of Phase I Sediment Analytical Data - Reference Samples

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
Reference Samples										
415.1	Total organic carbon	mg/Kg	6	6	0	100%	--	--	15,200	39,100
CLP TAL TotMetals	Aluminum	mg/Kg	6	6	0	100%	--	--	3,170	8,840
CLP TAL TotMetals	Antimony	mg/Kg	--	6	0	0%	8.2	15	--	--
CLP TAL TotMetals	Arsenic	mg/Kg	3	6	0	50%	1.4	1.9	3.1	3.4
CLP TAL TotMetals	Barium	mg/Kg	6	6	0	100%	--	--	45	234
CLP TAL TotMetals	Beryllium	mg/Kg	5	6	0	83%	0.075	0.075	0.42	0.70
CLP TAL TotMetals	Cadmium	mg/Kg	6	6	0	100%	--	--	0.16	1.3
CLP TAL TotMetals	Calcium	mg/Kg	6	6	0	100%	--	--	3,450	229,000
CLP TAL TotMetals	Chromium	mg/Kg	6	6	0	100%	--	--	6.9	25
CLP TAL TotMetals	Cobalt	mg/Kg	6	6	0	100%	--	--	2.1	7.5
CLP TAL TotMetals	Copper	mg/Kg	6	6	0	100%	--	--	5.5	19
CLP TAL TotMetals	Iron	mg/Kg	6	6	0	100%	--	--	5,090	15,600
CLP TAL TotMetals	Lead	mg/Kg	6	6	0	100%	--	--	3.8	26
CLP TAL TotMetals	Magnesium	mg/Kg	6	6	0	100%	--	--	2,070	5,070
CLP TAL TotMetals	Manganese	mg/Kg	6	6	0	100%	--	--	138	625
CLP TAL TotMetals	Mercury	mg/Kg	5	5	1	100%	--	--	0.0080	0.062
CLP TAL TotMetals	Nickel	mg/Kg	6	6	0	100%	--	--	4.9	24
CLP TAL TotMetals	Potassium	mg/Kg	6	6	0	100%	--	--	675	1,590
CLP TAL TotMetals	Selenium	mg/Kg	6	6	0	100%	--	--	2.2	10
CLP TAL TotMetals	Silver	mg/Kg	--	6	0	0%	1.4	2.5	--	--
CLP TAL TotMetals	Sodium	mg/Kg	2	6	0	33%	163	199	61	92
CLP TAL TotMetals	Thallium	mg/Kg	--	6	0	0%	3.4	6.1	--	--
CLP TAL TotMetals	Uranium	mg/Kg	--	6	0	0%	27	49	--	--
CLP TAL TotMetals	Vanadium	mg/Kg	6	6	0	100%	--	--	8.5	34
CLP TAL TotMetals	Zinc	mg/Kg	6	6	0	100%	--	--	26	73
CLP TCL PAH	2-Methylnaphthalene	µg/Kg	6	6	0	100%	--	--	0.30	0.70
CLP TCL PAH	Acenaphthene	µg/Kg	--	6	0	0%	7.0	9.0	--	--
CLP TCL PAH	Acenaphthylene	µg/Kg	--	6	0	0%	7.0	9.0	--	--
CLP TCL PAH	Anthracene	µg/Kg	--	6	0	0%	7.0	9.0	--	--
CLP TCL PAH	Benzo(a)anthracene	µg/Kg	3	6	0	50%	7.0	9.0	0.30	1.0
CLP TCL PAH	Benzo(a)pyrene	µg/Kg	--	6	0	0%	7.0	9.0	--	--
CLP TCL PAH	Benzo(b)fluoranthene	µg/Kg	--	6	0	0%	7.0	9.0	--	--
CLP TCL PAH	Benzo(ghi)perylene	µg/Kg	--	6	0	0%	7.0	9.0	--	--
CLP TCL PAH	Benzo(k)fluoranthene	µg/Kg	--	6	0	0%	7.0	9.0	--	--
CLP TCL PAH	Chrysene	µg/Kg	2	6	0	33%	7.0	9.0	1.0	2.0
CLP TCL PAH	Dibenzo(a,h)anthracene	µg/Kg	--	6	0	0%	7.0	9.0	--	--
CLP TCL PAH	Dibenzofuran	µg/Kg	--	6	0	0%	7.0	9.0	--	--

TABLE C-4

Summary of Phase I Sediment Analytical Data - Reference Samples

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL PAH	Fluoranthene	µg/Kg	4	6	0	67%	7.0	9.0	0.60	16
CLP TCL PAH	Fluorene	µg/Kg	--	6	0	0%	7.0	9.0	--	--
CLP TCL PAH	Indeno[1,2,3-cd]pyrene	µg/Kg	--	6	0	0%	7.0	9.0	--	--
CLP TCL PAH	Naphthalene	µg/Kg	6	6	0	100%	--	--	0.90	3.0
CLP TCL PAH	Phenanthrene	µg/Kg	5	6	0	83%	7.0	7.0	0.30	22
CLP TCL PAH	Pyrene	µg/Kg	2	5	0	40%	7.0	9.0	1.0	3.0
CLP TCL PCBs	Aroclor-1016	µg/Kg	--	6	0	0%	1.4	1.8	--	--
CLP TCL PCBs	Aroclor-1221	µg/Kg	--	6	0	0%	5.6	7.2	--	--
CLP TCL PCBs	Aroclor-1232	µg/Kg	--	6	0	0%	5.6	7.2	--	--
CLP TCL PCBs	Aroclor-1242	µg/Kg	--	6	0	0%	1.4	1.8	--	--
CLP TCL PCBs	Aroclor-1248	µg/Kg	--	6	0	0%	1.4	1.8	--	--
CLP TCL PCBs	Aroclor-1254	µg/Kg	--	6	0	0%	1.4	1.8	--	--
CLP TCL PCBs	Aroclor-1260	µg/Kg	--	6	0	0%	1.4	1.8	--	--
CLP TCL Pesticides	2,4'-DDD	µg/Kg	--	6	0	0%	1.1	1.4	--	--
CLP TCL Pesticides	2,4'-DDE	µg/Kg	--	6	0	0%	1.1	1.4	--	--
CLP TCL Pesticides	2,4'-DDT	µg/Kg	--	6	0	0%	1.1	1.4	--	--
CLP TCL Pesticides	4,4'-DDD	µg/Kg	--	6	0	0%	1.1	1.4	--	--
CLP TCL Pesticides	4,4'-DDE	µg/Kg	--	6	0	0%	1.1	1.4	--	--
CLP TCL Pesticides	4,4'-DDT	µg/Kg	--	6	0	0%	1.1	1.4	--	--
CLP TCL Pesticides	Aldrin	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	alpha-BHC	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	alpha-Chlordane	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	beta-BHC	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	cis-Nonachlor	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	delta-BHC	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	Dieldrin	µg/Kg	--	6	0	0%	1.1	1.4	--	--
CLP TCL Pesticides	Endosulfan I	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	Endosulfan II	µg/Kg	--	6	0	0%	1.1	1.4	--	--
CLP TCL Pesticides	Endosulfan sulfate	µg/Kg	--	6	0	0%	1.1	1.4	--	--
CLP TCL Pesticides	Endrin	µg/Kg	--	6	0	0%	1.1	1.4	--	--
CLP TCL Pesticides	Endrin aldehyde	µg/Kg	--	6	0	0%	1.1	1.4	--	--
CLP TCL Pesticides	Endrin ketone	µg/Kg	--	6	0	0%	1.1	1.4	--	--
CLP TCL Pesticides	gamma-BHC (Lindane)	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	gamma-Chlordane	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	Heptachlor	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	Heptachlor epoxide	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	Hexachlorobenzene	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	Hexachlorobutadiene	µg/Kg	--	6	0	0%	0.54	0.71	--	--

TABLE C-4

Summary of Phase I Sediment Analytical Data - Reference Samples

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL Pesticides	Methoxychlor	µg/Kg	--	6	0	0%	5.4	7.1	--	--
CLP TCL Pesticides	Oxychlordane	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL Pesticides	Toxaphene	µg/Kg	--	6	0	0%	54	71	--	--
CLP TCL Pesticides	trans-Nonachlor	µg/Kg	--	6	0	0%	0.54	0.71	--	--
CLP TCL SVOC	1,1'-Biphenyl	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	1,2,4-Trichlorobenzene	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	1,2-Dichlorobenzene	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	1,3-Dichlorobenzene	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	1,4-Dichlorobenzene	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	2,2'-oxybis(1-chloropropane)	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	2,4,5-Trichlorophenol	µg/Kg	--	6	0	0%	340	450	--	--
CLP TCL SVOC	2,4,6-Trichlorophenol	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	2,4-Dichlorophenol	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	2,4-Dimethylphenol	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	2,4-Dinitrophenol	µg/Kg	--	6	0	0%	340	450	--	--
CLP TCL SVOC	2,4-Dinitrotoluene	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	2,6-Dinitrotoluene	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	2-Chloronaphthalene	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	2-Chlorophenol	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	2-Methylphenol	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	2-Nitroaniline	µg/Kg	--	6	0	0%	340	450	--	--
CLP TCL SVOC	2-Nitrophenol	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	3,3'-Dichlorobenzidine	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	3-Nitroaniline	µg/Kg	--	6	0	0%	340	450	--	--
CLP TCL SVOC	4,6-Dinitro-2-methylphenol	µg/Kg	--	6	0	0%	340	450	--	--
CLP TCL SVOC	4-Bromophenyl-phenylether	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	4-Chloro-3-methylphenol	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	4-Chloroaniline	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	4-Chlorophenyl-phenyl ether	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	4-Methylphenol	µg/Kg	1	6	0	17%	140	180	200	200
CLP TCL SVOC	4-Nitroaniline	µg/Kg	--	6	0	0%	340	450	--	--
CLP TCL SVOC	4-Nitrophenol	µg/Kg	--	6	0	0%	340	450	--	--
CLP TCL SVOC	Acetophenone	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Atrazine	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Benzaldehyde	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Benzoic acid	µg/Kg	--	3	3	0%	140	170	--	--
CLP TCL SVOC	Benzyl alcohol	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	bis(2-Chloroethoxy)methane	µg/Kg	--	6	0	0%	140	180	--	--

TABLE C-4

Summary of Phase I Sediment Analytical Data - Reference Samples

Upper Columbia River RI/FS

Method	Analyte	Units	Number of Detects	Number of Samples	Number of Rejected Samples	Frequency of Detection	Minimum Nondetect Value	Maximum Nondetect Value	Minimum Detected Value	Maximum Detected Value
CLP TCL SVOC	Bis(2-chloroethyl)ether	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Bis(2-ethylhexyl)phthalate	µg/Kg	1	6	0	17%	140	180	82	82
CLP TCL SVOC	Butyl benzyl phthalate	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Caprolactam	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Carbazole	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Di-n-butyl phthalate	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Di-n-octylphthalate	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Diethyl phthalate	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Dimethyl phthalate	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Hexachloroethane	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Isophorone	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	N-Nitrosodi-n-propylamine	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	N-Nitrosodiphenylamine	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Nitrobenzene	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Pentachlorophenol	µg/Kg	--	6	0	0%	340	450	--	--
CLP TCL SVOC	Perchlorocyclopentadiene	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Phenol	µg/Kg	--	6	0	0%	140	180	--	--
CLP TCL SVOC	Pyrene	µg/Kg	1	1	0	100%	--	--	34	34

TABLE C-5

Samples Used for Constituent of Interest Identification

Upper Columbia River RI/FS

Grouping	Type	Sample Location	Collection Date	Top Depth	Base Depth	Depth Unit
Beach Group	Beach Subsample	RM642B1c	4/15/2005	0	6	inches
Beach Group	Beach Subsample	RM642B1L	4/15/2005	0	6	inches
Beach Group	Beach Subsample	RM642B1R	4/15/2005	0	6	inches
Beach Group	Beach Subsample	RM642B2c	4/15/2005	0	6	inches
Beach Group	Beach Subsample	RM642B2L	4/15/2005	0	6	inches
Beach Group	Beach Subsample	RM642B2R	4/15/2005	0	6	inches
Beach Group	Beach Subsample	RM642B3c	4/15/2005	0	6	inches
Beach Group	Beach Subsample	RM642B3L	4/15/2005	0	6	inches
Beach Group	Beach Subsample	RM642B3R	4/15/2005	0	6	inches
Beach Group	Beach Subsample	RM700B1c	4/12/2005	0	6	inches
Beach Group	Beach Subsample	RM700B1L	4/12/2005	0	6	inches
Beach Group	Beach Subsample	RM700B1R	4/12/2005	0	6	inches
Beach Group	Beach Subsample	RM700B2c	4/12/2005	0	6	inches
Beach Group	Beach Subsample	RM700B2L	4/12/2005	0	6	inches
Beach Group	Beach Subsample	RM700B2R	4/12/2005	0	6	inches
Beach Group	Beach Subsample	RM700B3c	4/12/2005	0	6	inches
Beach Group	Beach Subsample	RM700B3L	4/12/2005	0	6	inches
Beach Group	Beach Subsample	RM700B3R	4/12/2005	0	6	inches
Beach Group	Beach Subsample	RM735B1c	4/11/2005	0	6	inches
Beach Group	Beach Subsample	RM735B1L	4/11/2005	0	6	inches
Beach Group	Beach Subsample	RM735B1R	4/11/2005	0	6	inches
Beach Group	Beach Subsample	RM735B2c	4/11/2005	0	6	inches
Beach Group	Beach Subsample	RM735B2L	4/11/2005	0	6	inches
Beach Group	Beach Subsample	RM735B2R	4/11/2005	0	6	inches
Beach Group	Beach Subsample	RM735B3c	4/11/2005	0	6	inches
Beach Group	Beach Subsample	RM735B3L	4/11/2005	0	6	inches
Beach Group	Beach Subsample	RM735B3R	4/11/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM600B1	4/19/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM600B2	4/19/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM600B3	4/19/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM615B1	4/19/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM615B2	4/19/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM615B3	4/19/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM633B1	4/18/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM633B2	4/18/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM633B3	4/18/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM642B1	4/15/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM642B2	4/15/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM642B3	4/15/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM658B1	4/14/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM658B2	4/14/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM658B3	4/14/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM673B1	4/16/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM673B2	4/16/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM673B3	4/16/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM675B1	4/16/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM675B2	4/16/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM675B3	4/16/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM690B1	4/13/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM690B2	4/13/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM690B3	4/13/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM697B1	4/13/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM697B2	4/13/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM697B3	4/13/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM700B1	4/12/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM700B2	4/12/2005	0	6	inches

TABLE C-5

Samples Used for Constituent of Interest Identification

Upper Columbia River RI/FS

Grouping	Type	Sample Location	Collection Date	Top Depth	Base Depth	Depth Unit
Beach Group	Beach Subsample Composite	RM700B3	4/12/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM708B1	4/7/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM708B2	4/7/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM708B3	4/7/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM718B1	4/6/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM718B2	4/6/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM718B3	4/6/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM729B1	4/8/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM729B2	4/8/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM729B3	4/8/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM735B1	4/11/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM735B2	4/11/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM735B3	4/11/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM742B1	4/9/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM742B2	4/9/2005	0	6	inches
Beach Group	Beach Subsample Composite	RM742B3	4/9/2005	0	6	inches
Beach Group	Size Fractioned Sample	RM642BSF	4/15/2005	0	6	inches
Beach Group	Size Fractioned Sample	RM642BSF	5/11/2005	0	6	inches
Beach Group	Size Fractioned Sample	RM700BSF	4/12/2005	0	6	inches
Beach Group	Size Fractioned Sample	RM700BSF	5/13/2005	0	6	inches
Beach Group	Size Fractioned Sample	RM735BSF	4/11/2005	0	6	inches
Beach Group	Size Fractioned Sample	RM735BSF	5/10/2005	0	6	inches
Beach Group	Size Fractioned Sample	RM735BSF	5/16/2005	0	6	inches
Core Samples	Core Sample	RM605C1	5/3/2005	0	1	feet
Core Samples	Core Sample	RM605C1	5/3/2005	1	3	feet
Core Samples	Core Sample	RM605C1	5/3/2005	3	5	feet
Core Samples	Core Sample	RM622C1	5/2/2005	0	0.5	feet
Core Samples	Core Sample	RM622C1	5/2/2005	0	1	feet
Core Samples	Core Sample	RM622C1	5/2/2005	1	3	feet
Core Samples	Core Sample	RM622C1	5/2/2005	3	5	feet
Core Samples	Core Sample	RM622C1	5/2/2005	5	7	feet
Core Samples	Core Sample	RM622C1	5/2/2005	7	9	feet
Core Samples	Core Sample	RM637C1	4/29/2005	0	0.5	inches
Core Samples	Core Sample	RM637C1	4/29/2005	0	1	inches
Core Samples	Core Sample	RM637C1	4/29/2005	1	3	feet
Core Samples	Core Sample	RM637C1	4/29/2005	3	5	feet
Core Samples	Core Sample	RM644C1	4/26/2005	0	0.5	inches
Core Samples	Core Sample	RM644C1	4/26/2005	0	1	inches
Core Samples	Core Sample	RM644C1	4/26/2005	1	3	feet
Core Samples	Core Sample	RM644C1	4/26/2005	3	5	feet
Core Samples	Core Sample	RM644C1	4/26/2005	5	7	feet
Core Samples	Core Sample	RM661C1	4/29/2005	0	0.5	feet
Core Samples	Core Sample	RM661C1	4/29/2005	0	1	feet
Core Samples	Core Sample	RM661C1	4/29/2005	1	3	feet
Core Samples	Core Sample	RM661C1	4/29/2005	3	5	feet
Core Samples	Core Sample	RM661C1	4/29/2005	5	7	feet
Core Samples	Core Sample	RM676C1	4/25/2005	0	0.5	feet
Core Samples	Core Sample	RM676C1	4/25/2005	0	1	feet
Core Samples	Core Sample	RM676C1	4/25/2005	1	3	feet
Core Samples	Core Sample	RM676C1	4/25/2005	3	5	feet
Core Samples	Core Sample	RM676C1	4/25/2005	5	7	feet
Core Samples	Core Sample	RM692C1	4/23/2005	0	0.5	feet
Core Samples	Core Sample	RM692C1	4/23/2005	0	1	feet
Core Samples	Core Sample	RM692C1	4/23/2005	1	3	feet
Core Samples	Core Sample	RM692C1	4/23/2005	3	5	feet
Core Samples	Core Sample	RM692C1	4/23/2005	5	7	feet

TABLE C-5

Samples Used for Constituent of Interest Identification

Upper Columbia River RI/FS

Grouping	Type	Sample Location	Collection Date	Top Depth	Base Depth	Depth Unit
Core Samples	Core Sample	RM704C1	4/22/2005	0	0.5	feet
Core Samples	Core Sample	RM704C1	4/22/2005	0	1	feet
Core Samples	Core Sample	RM704C1	4/22/2005	1	3	feet
Core Samples	Core Sample	RM704C1	4/22/2005	3	5	feet
Core Samples	Core Sample	RM704C1	4/22/2005	5	7	feet
Core Samples	Core Sample	RM704C1	4/22/2005	7	9	feet
Core Samples	Core Sample	RM708C1	4/23/2005	0	0.5	feet
Core Samples	Core Sample	RM708C1	4/23/2005	0	1	feet
Core Samples	Core Sample	RM708C1	4/23/2005	1	3	feet
Core Samples	Core Sample	RM708C1	4/23/2005	3	5	feet
Core Samples	Core Sample	RM708C1	4/23/2005	5	7	feet
Reference Samples	Reference/Bioassay/Pore Water	RM685R1	4/23/2005	0	6	inches
Reference Samples	Reference/Bioassay/Pore Water	RM686R1	4/23/2005	0	6	inches
Reference Samples	Reference/Bioassay/Pore Water	RM705R1	4/23/2005	0	6	inches
Reference Samples	Reference/Bioassay/Pore Water	RM721R1	4/22/2005	0	6	inches
Reference Samples	Reference/Bioassay/Pore Water	RM726R1	4/22/2005	0	6	inches
Reference Samples	Reference/Bioassay/Pore Water	RM732R1	4/22/2005	0	6	inches
River Group	Bioassay/Pore Water Sample	RM687A1	4/20/2005	0	6	inches
River Group	Bioassay/Pore Water Sample	RM730A1	4/23/2005	0	6	inches
River Group	Bioassay/Pore Water Sample	RM734A1	4/22/2005	0	6	inches
River Group	Transect Sample	RM600X1	4/29/2005	0	6	inches
River Group	Transect Sample	RM600X2	4/29/2005	0	6	inches
River Group	Transect Sample	RM600X3	4/29/2005	0	6	inches
River Group	Transect Sample	RM603X2	4/28/2005	0	6	inches
River Group	Transect Sample	RM603X3	4/28/2005	0	6	inches
River Group	Transect Sample	RM604X1	4/28/2005	0	6	inches
River Group	Transect Sample	RM604X2	4/28/2005	0	6	inches
River Group	Transect Sample	RM604X3	4/29/2005	0	6	inches
River Group	Transect Sample	RM605X2	4/30/2005	0	6	inches
River Group	Transect Sample	RM605X3	4/29/2005	0	6	inches
River Group	Transect Sample	RM605X4	4/29/2005	0	6	inches
River Group	Transect Sample	RM605X5	4/29/2005	0	6	inches
River Group	Transect Sample	RM605X6	4/30/2005	0	6	inches
River Group	Transect Sample	RM605X7	4/30/2005	0	6	inches
River Group	Transect Sample	RM605X9	4/30/2005	0	6	inches
River Group	Transect Sample	RM606X1	4/30/2005	0	6	inches
River Group	Transect Sample	RM606X2	4/30/2005	0	6	inches
River Group	Transect Sample	RM607X1	4/30/2005	0	6	inches
River Group	Transect Sample	RM607X2	4/30/2005	0	6	inches
River Group	Transect Sample	RM607X3	4/30/2005	0	6	inches
River Group	Transect Sample	RM610X1	4/30/2005	0	6	inches
River Group	Transect Sample	RM610X2	4/30/2005	0	6	inches
River Group	Transect Sample	RM610X3	4/30/2005	0	6	inches
River Group	Transect Sample	RM613X1	4/30/2005	0	6	inches
River Group	Transect Sample	RM613X2	5/2/2005	0	6	inches
River Group	Transect Sample	RM613X3	5/2/2005	0	6	inches
River Group	Transect Sample	RM616X1	4/29/2005	0	6	inches
River Group	Transect Sample	RM616X2	4/29/2005	0	6	inches
River Group	Transect Sample	RM619X1	4/29/2005	0	6	inches
River Group	Transect Sample	RM619X2	4/29/2005	0	6	inches
River Group	Transect Sample	RM619X3	4/29/2005	0	6	inches
River Group	Transect Sample	RM622X1	4/28/2005	0	6	inches
River Group	Transect Sample	RM622X2	4/28/2005	0	6	inches
River Group	Transect Sample	RM625X1	4/28/2005	0	6	inches
River Group	Transect Sample	RM625X2	4/28/2005	0	6	inches
River Group	Transect Sample	RM625X3	4/28/2005	0	6	inches

TABLE C-5

Samples Used for Constituent of Interest Identification

Upper Columbia River RI/FS

Grouping	Type	Sample Location	Collection Date	Top Depth	Base Depth	Depth Unit
River Group	Transect Sample	RM628X2	5/2/2005	0	6	inches
River Group	Transect Sample	RM628X3	5/2/2005	0	6	inches
River Group	Transect Sample	RM631X1	4/30/2005	0	6	inches
River Group	Transect Sample	RM631X2	4/30/2005	0	6	inches
River Group	Transect Sample	RM631X3	4/30/2005	0	6	inches
River Group	Transect Sample	RM634X2	4/30/2005	0	6	inches
River Group	Transect Sample	RM634X3	4/30/2005	0	6	inches
River Group	Transect Sample	RM637X2	4/29/2005	0	6	inches
River Group	Transect Sample	RM637X3	4/29/2005	0	6	inches
River Group	Transect Sample	RM637X4	4/30/2005	0	6	inches
River Group	Transect Sample	RM637X5	4/30/2005	0	6	inches
River Group	Transect Sample	RM637X6	4/30/2005	0	6	inches
River Group	Transect Sample	RM637X7	4/30/2005	0	6	inches
River Group	Transect Sample	RM640X1	4/28/2005	0	6	inches
River Group	Transect Sample	RM640X2	4/28/2005	0	6	inches
River Group	Transect Sample	RM641X2	4/29/2005	0	6	inches
River Group	Transect Sample	RM641X3	4/29/2005	0	6	inches
River Group	Transect Sample	RM642X2	4/28/2005	0	6	inches
River Group	Transect Sample	RM642X3	4/28/2005	0	6	inches
River Group	Transect Sample	RM642X4	4/28/2005	0	6	inches
River Group	Transect Sample	RM642X5	4/28/2005	0	6	inches
River Group	Transect Sample	RM642X6	4/29/2005	0	6	inches
River Group	Transect Sample	RM642X7	4/29/2005	0	6	inches
River Group	Transect Sample	RM643X1	4/28/2005	0	6	inches
River Group	Transect Sample	RM643X2	4/28/2005	0	6	inches
River Group	Transect Sample	RM643X3	4/28/2005	0	6	inches
River Group	Transect Sample	RM644X1	4/23/2005	0	6	inches
River Group	Transect Sample	RM644X2	4/23/2005	0	6	inches
River Group	Transect Sample	RM646X1	4/23/2005	0	6	inches
River Group	Transect Sample	RM646X2	4/23/2005	0	6	inches
River Group	Transect Sample	RM646X3	4/23/2005	0	6	inches
River Group	Transect Sample	RM649X1	4/22/2005	0	6	inches
River Group	Transect Sample	RM649X2	4/22/2005	0	6	inches
River Group	Transect Sample	RM649X3	4/23/2005	0	6	inches
River Group	Transect Sample	RM652X1	4/22/2005	0	6	inches
River Group	Transect Sample	RM652X2	4/19/2005	0	6	inches
River Group	Transect Sample	RM652X3	4/19/2005	0	6	inches
River Group	Transect Sample	RM655X1	4/19/2005	0	6	inches
River Group	Transect Sample	RM655X2	4/19/2005	0	6	inches
River Group	Transect Sample	RM655X3	4/19/2005	0	6	inches
River Group	Transect Sample	RM658X1	4/19/2005	0	6	inches
River Group	Transect Sample	RM658X2	4/19/2005	0	6	inches
River Group	Transect Sample	RM661X2	4/19/2005	0	6	inches
River Group	Transect Sample	RM661X3	4/19/2005	0	6	inches
River Group	Transect Sample	RM664X1	4/19/2005	0	6	inches
River Group	Transect Sample	RM664X2	4/19/2005	0	6	inches
River Group	Transect Sample	RM664X3	4/19/2005	0	6	inches
River Group	Transect Sample	RM667X1	4/15/2005	0	6	inches
River Group	Transect Sample	RM667X2	4/15/2005	0	6	inches
River Group	Transect Sample	RM667X3	4/15/2005	0	6	inches
River Group	Transect Sample	RM670X1	4/14/2005	0	6	inches
River Group	Transect Sample	RM670X2	4/14/2005	0	6	inches
River Group	Transect Sample	RM670X3	4/15/2005	0	6	inches
River Group	Transect Sample	RM673X1	4/14/2005	0	6	inches
River Group	Transect Sample	RM673X2	4/14/2005	0	6	inches
River Group	Transect Sample	RM673X3	4/14/2005	0	6	inches

TABLE C-5

Samples Used for Constituent of Interest Identification

Upper Columbia River RI/FS

Grouping	Type	Sample Location	Collection Date	Top Depth	Base Depth	Depth Unit
River Group	Transect Sample	RM676X1	4/14/2005	0	6	inches
River Group	Transect Sample	RM676X2	4/14/2005	0	6	inches
River Group	Transect Sample	RM677X1	4/13/2005	0	6	inches
River Group	Transect Sample	RM677X2	4/13/2005	0	6	inches
River Group	Transect Sample	RM678X2	4/12/2005	0	6	inches
River Group	Transect Sample	RM678X3	4/13/2005	0	6	inches
River Group	Transect Sample	RM678X4	4/13/2005	0	6	inches
River Group	Transect Sample	RM678X5	4/13/2005	0	6	inches
River Group	Transect Sample	RM678X6	4/13/2005	0	6	inches
River Group	Transect Sample	RM678X7	4/13/2005	0	6	inches
River Group	Transect Sample	RM679X1	4/12/2005	0	6	inches
River Group	Transect Sample	RM679X2	4/12/2005	0	6	inches
River Group	Transect Sample	RM679X3	4/12/2005	0	6	inches
River Group	Transect Sample	RM680X2	4/12/2005	0	6	inches
River Group	Transect Sample	RM681X1	4/12/2005	0	6	inches
River Group	Transect Sample	RM683X1	4/11/2005	0	6	inches
River Group	Transect Sample	RM683X2	4/11/2005	0	6	inches
River Group	Transect Sample	RM683X3	4/11/2005	0	6	inches
River Group	Transect Sample	RM686X1	4/11/2005	0	6	inches
River Group	Transect Sample	RM686X2	4/11/2005	0	6	inches
River Group	Transect Sample	RM689X1	4/11/2005	0	6	inches
River Group	Transect Sample	RM689X2	4/11/2005	0	6	inches
River Group	Transect Sample	RM692X2	4/9/2005	0	6	inches
River Group	Transect Sample	RM693X1	4/12/2005	0	6	inches
River Group	Transect Sample	RM695X1	4/9/2005	0	6	inches
River Group	Transect Sample	RM695X2	4/9/2005	0	6	inches
River Group	Transect Sample	RM695X3	4/9/2005	0	6	inches
River Group	Transect Sample	RM698X2	4/9/2005	0	6	inches
River Group	Transect Sample	RM698X3	4/9/2005	0	6	inches
River Group	Transect Sample	RM701X1	4/8/2005	0	6	inches
River Group	Transect Sample	RM701X2	4/8/2005	0	6	inches
River Group	Transect Sample	RM701X3	4/8/2005	0	6	inches
River Group	Transect Sample	RM704X2	4/7/2005	0	6	inches
River Group	Transect Sample	RM704X3	4/8/2005	0	6	inches
River Group	Transect Sample	RM705X1	4/7/2005	0	6	inches
River Group	Transect Sample	RM705X2	4/7/2005	0	6	inches
River Group	Transect Sample	RM705X3	4/7/2005	0	6	inches
River Group	Transect Sample	RM706X2	4/15/2005	0	6	inches
River Group	Transect Sample	RM706X3	4/16/2005	0	6	inches
River Group	Transect Sample	RM706X4	4/16/2005	0	6	inches
River Group	Transect Sample	RM706X5	4/16/2005	0	6	inches
River Group	Transect Sample	RM706X6	4/16/2005	0	6	inches
River Group	Transect Sample	RM707X1	4/18/2005	0	6	inches
River Group	Transect Sample	RM707X2	4/18/2005	0	6	inches
River Group	Transect Sample	RM707X3	4/18/2005	0	6	inches
River Group	Transect Sample	RM708X1	4/16/2005	0	6	inches
River Group	Transect Sample	RM708X2	4/18/2005	0	6	inches
River Group	Transect Sample	RM710X1	4/16/2005	0	6	inches
River Group	Transect Sample	RM710X2	4/15/2005	0	6	inches
River Group	Transect Sample	RM710X3	4/16/2005	0	6	inches
River Group	Transect Sample	RM713X1	4/15/2005	0	6	inches
River Group	Transect Sample	RM715X1	4/15/2005	0	6	inches
River Group	Transect Sample	RM715X3	4/14/2005	0	6	inches
River Group	Transect Sample	RM718X1	4/14/2005	0	6	inches
River Group	Transect Sample	RM718X2	4/14/2005	0	6	inches
River Group	Transect Sample	RM718X3	4/14/2005	0	6	inches

TABLE C-5

Samples Used for Constituent of Interest Identification

Upper Columbia River RI/FS

Grouping	Type	Sample Location	Collection Date	Top Depth	Base Depth	Depth Unit
River Group	Transect Sample	RM721X1	4/14/2005	0	6	inches
River Group	Transect Sample	RM721X2	4/13/2005	0	6	inches
River Group	Transect Sample	RM721X3	4/14/2005	0	6	inches
River Group	Transect Sample	RM722X1	4/13/2005	0	6	inches
River Group	Transect Sample	RM722X2	4/13/2005	0	6	inches
River Group	Transect Sample	RM722X3	4/13/2005	0	6	inches
River Group	Transect Sample	RM723X4	4/12/2005	0	6	inches
River Group	Transect Sample	RM723X5	4/12/2005	0	6	inches
River Group	Transect Sample	RM724X2	4/11/2005	0	6	inches
River Group	Transect Sample	RM725X1	4/11/2005	0	6	inches
River Group	Transect Sample	RM725X3	4/11/2005	0	6	inches
River Group	Transect Sample	RM726X1	4/8/2005	0	6	inches
River Group	Transect Sample	RM726X2	4/9/2005	0	6	inches
River Group	Transect Sample	RM726X3	4/9/2005	0	6	inches
River Group	Transect Sample	RM727X3	4/8/2005	0	6	inches
River Group	Transect Sample	RM728X1	4/7/2005	0	6	inches
River Group	Transect Sample	RM728X3	4/7/2005	0	6	inches
River Group	Transect Sample	RM729X2	4/18/2005	0	6	inches
River Group	Transect Sample	RM729X3	4/18/2005	0	6	inches
River Group	Transect Sample	RM730X1	4/18/2005	0	6	inches
River Group	Transect Sample	RM731X1	4/18/2005	0	6	inches
River Group	Transect Sample	RM731X3	4/16/2005	0	6	inches
River Group	Transect Sample	RM732X1	4/16/2005	0	6	inches
River Group	Transect Sample	RM732X2	4/16/2005	0	6	inches
River Group	Transect Sample	RM732X3	4/16/2005	0	6	inches
River Group	Transect Sample	RM733X2	4/15/2005	0	6	inches
River Group	Transect Sample	RM733X3	4/15/2005	0	6	inches
River Group	Transect Sample	RM734X3	4/15/2005	0	6	inches
River Group	Transect Sample	RM735X1	4/14/2005	0	6	inches
River Group	Transect Sample	RM735X3	4/14/2005	0	6	inches
River Group	Transect Sample	RM736X3	4/13/2005	0	6	inches
River Group	Transect Sample	RM737X1	4/12/2005	0	6	inches
River Group	Transect Sample	RM737X2	4/12/2005	0	6	inches
River Group	Transect Sample	RM738X1	4/11/2005	0	6	inches
River Group	Transect Sample	RM739X1	4/11/2005	0	6	inches
River Group	Transect Sample	RM740X3	4/9/2005	0	6	inches
River Group	Transect Sample	RM741X1	4/9/2005	0	6	inches
River Group	Transect Sample	RM744X2	4/8/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM603A1(X1)	4/28/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM605A1(X1)	4/26/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM605A2(X8)	4/28/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM606A1(X3)	4/26/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM616A1(X3)	4/26/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM622A1(X3)	4/28/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM628A1(X1)	4/26/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM634A1(X1)	4/26/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM637A1(X1)	4/26/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM640A1(X3)	4/26/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM641A1(X1)	4/26/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM642A1(X1)	4/26/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM644A1(X3)	4/26/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM658A1(X3)	4/22/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM661A1(X1)	4/22/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM676A1(X3)	4/21/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM677A1(X3)	4/21/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM678A1(X1)	4/21/2005	0	6	inches

TABLE C-5

Samples Used for Constituent of Interest Identification

Upper Columbia River RI/FS

Grouping	Type	Sample Location	Collection Date	Top Depth	Base Depth	Depth Unit
River Group	Transect/Bioassay/Pore Water	RM680A1(X1)	4/21/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM686A1(X3)	4/21/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM689A1(X3)	4/20/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM692A1(X1)	4/20/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM698A1(X1)	4/20/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM704A1(X1)	4/20/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM706A1(X1)	4/20/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM706A2(X7)	4/20/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM708A1(X3)	4/21/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM713A1(X3)	4/23/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM723A1(X1)	4/22/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM723A2(X3)	4/22/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM724A1(X1)	4/21/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM724A2(X3)	4/22/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM727A1(X1)	4/23/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM729A1(X1)	4/23/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM733A1(X1)	4/23/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM736A1(X1)	4/22/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM737A1(X3)	4/22/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM738A1(X3)	4/22/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM739A1(X3)	4/22/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM740A1(X1)	4/21/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM741A1(X3)	4/21/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM742A1(X1)	4/21/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM742A2(X5)	4/21/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM743A1(X1)	4/21/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM743A2(X3)	4/20/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM744A1(X1)	4/20/2005	0	6	inches
River Group	Transect/Bioassay/Pore Water	RM744A2(X3)	4/20/2005	0	6	inches
River Group	Tributary Sample	RM616T1	4/29/2005	0	6	inches
River Group	Tributary Sample	RM616T2	5/2/2005	0	6	inches
River Group	Tributary Sample	RM639T1	4/29/2005	0	6	inches
River Group	Tributary Sample	RM639T2	4/29/2005	0	6	inches
River Group	Tributary Sample	RM699T1	4/8/2005	0	6	inches
River Group	Tributary Sample	RM706T1	4/16/2005	0	6	inches
River Group	Tributary Sample	RM706T2	4/16/2005	0	6	inches
River Group	Tributary Sample	RM729T2	4/18/2005	0	6	inches
River Group	Tributary Sample	RM730T1	4/18/2005	0	6	inches
River Group	Tributary Sample	RM736T1	4/13/2005	0	6	inches

TABLE C-6
Samples Used in Evaluation of Longitudinal Metals Distribution
Upper Columbia River RI/FS

Sample Location	River Mile	Longitudinal Evaluation Group	Top Depth	Base Depth	Depth Unit	Type
RM600B1	600	Left Beach	0	6	Inches	Beach Subsample Composite
RM600B2	600	Left Beach	0	6	Inches	Beach Subsample Composite
RM600B3	600	Left Beach	0	6	Inches	Beach Subsample Composite
RM600X1	600	Left	0	6	Inches	Transect Sample
RM600X2	600	Middle	0	6	Inches	Transect Sample
RM600X3	600	Right	0	6	Inches	Transect Sample
RM603A1(X1)	603	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM603X2	603	Middle	0	6	Inches	Transect Sample
RM603X3	603	Right	0	6	Inches	Transect Sample
RM604X1	604	Left	0	6	Inches	Transect Sample
RM604X2	604	Middle	0	6	Inches	Transect Sample
RM604X3	604	Right	0	6	Inches	Transect Sample
RM605A1(X1)	605	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM605X5	605	Middle	0	6	Inches	Transect Sample
RM605X9	605	Right	0	6	Inches	Transect Sample
RM606A1(X3)	606	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM606X1	606	Left	0	6	Inches	Transect Sample
RM606X2	606	Middle	0	6	Inches	Transect Sample
RM607X1	607	Left	0	6	Inches	Transect Sample
RM607X2	607	Middle	0	6	Inches	Transect Sample
RM607X3	607	Right	0	6	Inches	Transect Sample
RM610X1	610	Left	0	6	Inches	Transect Sample
RM610X2	610	Middle	0	6	Inches	Transect Sample
RM610X3	610	Right	0	6	Inches	Transect Sample
RM613X1	613	Left	0	6	Inches	Transect Sample
RM613X2	613	Middle	0	6	Inches	Transect Sample
RM613X3	613	Right	0	6	Inches	Transect Sample
RM615B1	615	Left Beach	0	6	Inches	Beach Subsample Composite
RM615B2	615	Left Beach	0	6	Inches	Beach Subsample Composite
RM615B3	615	Left Beach	0	6	Inches	Beach Subsample Composite
RM616A1(X3)	616	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM616T1	616	Right Trib	0	6	Inches	Tributary Sample
RM616T2	616	Right Trib	0	6	Inches	Tributary Sample
RM616X1	616	Left	0	6	Inches	Transect Sample
RM616X2	616	Middle	0	6	Inches	Transect Sample
RM619X1	619	Left	0	6	Inches	Transect Sample
RM619X2	619	Middle	0	6	Inches	Transect Sample
RM619X3	619	Right	0	6	Inches	Transect Sample
RM622A1(X3)	622	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM622X1	622	Left	0	6	Inches	Transect Sample
RM622X2	622	Middle	0	6	Inches	Transect Sample
RM625X1	625	Left	0	6	Inches	Transect Sample
RM625X2	625	Middle	0	6	Inches	Transect Sample
RM625X3	625	Right	0	6	Inches	Transect Sample
RM628A1(X1)	628	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM628X2	628	Middle	0	6	Inches	Transect Sample
RM628X3	628	Right	0	6	Inches	Transect Sample
RM631X1	631	Left	0	6	Inches	Transect Sample
RM631X2	631	Middle	0	6	Inches	Transect Sample
RM631X3	631	Right	0	6	Inches	Transect Sample
RM633B1	633	Right Beach	0	6	Inches	Beach Subsample Composite
RM633B2	633	Right Beach	0	6	Inches	Beach Subsample Composite
RM633B3	633	Right Beach	0	6	Inches	Beach Subsample Composite
RM634A1(X1)	634	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM634X2	634	Middle	0	6	Inches	Transect Sample
RM634X3	634	Right	0	6	Inches	Transect Sample
RM637A1(X1)	637	Left	0	6	Inches	Transect/Bioassay/Pore Water

TABLE C-6
Samples Used in Evaluation of Longitudinal Metals Distribution
Upper Columbia River RI/FS

Sample Location	River Mile	Longitudinal Evaluation Group	Top Depth	Base Depth	Depth Unit	Type
RM637X4	637	Middle	0	6	Inches	Transect Sample
RM637X7	637	Right	0	6	Inches	Transect Sample
RM639T1	639	Left Trib	0	6	Inches	Tributary Sample
RM639T2	639	Left Trib	0	6	Inches	Tributary Sample
RM640A1(X3)	640	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM640X1	640	Left	0	6	Inches	Transect Sample
RM640X2	640	Middle	0	6	Inches	Transect Sample
RM641A1(X1)	641	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM641X2	641	Middle	0	6	Inches	Transect Sample
RM641X3	641	Right	0	6	Inches	Transect Sample
RM642A1(X1)	642	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM642B1c	642	Left Beach	0	6	Inches	Beach Subsample
RM642B1L	642	Left Beach	0	6	Inches	Beach Subsample
RM642B1R	642	Left Beach	0	6	Inches	Beach Subsample
RM642B2c	642	Left Beach	0	6	Inches	Beach Subsample
RM642B2L	642	Left Beach	0	6	Inches	Beach Subsample
RM642B2R	642	Left Beach	0	6	Inches	Beach Subsample
RM642B3c	642	Left Beach	0	6	Inches	Beach Subsample
RM642B3L	642	Left Beach	0	6	Inches	Beach Subsample
RM642B3R	642	Left Beach	0	6	Inches	Beach Subsample
RM642BSF	642	Left Beach	0	6	Inches	Size Fractioned Sample
RM642X4	642	Middle	0	6	Inches	Transect Sample
RM642X7	642	Right	0	6	Inches	Transect Sample
RM643X1	643	Left	0	6	Inches	Transect Sample
RM643X2	643	Middle	0	6	Inches	Transect Sample
RM643X3	643	Right	0	6	Inches	Transect Sample
RM644X1	644	Left	0	6	Inches	Transect Sample
RM644X2	644	Middle	0	6	Inches	Transect Sample
RM646X1	646	Left	0	6	Inches	Transect Sample
RM646X2	646	Middle	0	6	Inches	Transect Sample
RM646X3	646	Right	0	6	Inches	Transect Sample
RM649X1	649	Left	0	6	Inches	Transect Sample
RM649X2	649	Middle	0	6	Inches	Transect Sample
RM649X3	649	Right	0	6	Inches	Transect Sample
RM652X1	652	Left	0	6	Inches	Transect Sample
RM652X2	652	Middle	0	6	Inches	Transect Sample
RM652X3	652	Right	0	6	Inches	Transect Sample
RM655X1	655	Left	0	6	Inches	Transect Sample
RM655X2	655	Middle	0	6	Inches	Transect Sample
RM655X3	655	Right	0	6	Inches	Transect Sample
RM658B1	658	Right Beach	0	6	Inches	Beach Subsample Composite
RM658B2	658	Right Beach	0	6	Inches	Beach Subsample Composite
RM658B3	658	Right Beach	0	6	Inches	Beach Subsample Composite
RM658X1	658	Left	0	6	Inches	Transect Sample
RM658X2	658	Middle	0	6	Inches	Transect Sample
RM661A1(X1)	661	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM661X2	661	Middle	0	6	Inches	Transect Sample
RM661X3	661	Right	0	6	Inches	Transect Sample
RM664X1	664	Left	0	6	Inches	Transect Sample
RM664X2	664	Middle	0	6	Inches	Transect Sample
RM664X3	664	Right	0	6	Inches	Transect Sample
RM667X1	667	Left	0	6	Inches	Transect Sample
RM667X2	667	Middle	0	6	Inches	Transect Sample
RM667X3	667	Right	0	6	Inches	Transect Sample
RM670X1	670	Left	0	6	Inches	Transect Sample
RM670X2	670	Middle	0	6	Inches	Transect Sample
RM670X3	670	Right	0	6	Inches	Transect Sample

TABLE C-6
Samples Used in Evaluation of Longitudinal Metals Distribution
Upper Columbia River RI/FS

Sample Location	River Mile	Longitudinal Evaluation Group	Top Depth	Base Depth	Depth Unit	Type
RM673B1	673	Right Beach	0	6	Inches	Beach Subsample Composite
RM673B2	673	Right Beach	0	6	Inches	Beach Subsample Composite
RM673B3	673	Right Beach	0	6	Inches	Beach Subsample Composite
RM673X1	673	Left	0	6	Inches	Transect Sample
RM673X2	673	Middle	0	6	Inches	Transect Sample
RM673X3	673	Right	0	6	Inches	Transect Sample
RM675B1	675	Left Beach	0	6	Inches	Beach Subsample Composite
RM675B2	675	Left Beach	0	6	Inches	Beach Subsample Composite
RM675B3	675	Left Beach	0	6	Inches	Beach Subsample Composite
RM676A1(X3)	676	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM676X1	676	Left	0	6	Inches	Transect Sample
RM676X2	676	Middle	0	6	Inches	Transect Sample
RM677A1(X3)	677	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM677X1	677	Left	0	6	Inches	Transect Sample
RM677X2	677	Middle	0	6	Inches	Transect Sample
RM678A1(X1)	678	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM678X4	678	Middle	0	6	Inches	Transect Sample
RM678X7	678	Right	0	6	Inches	Transect Sample
RM679X1	679	Left	0	6	Inches	Transect Sample
RM679X2	679	Middle	0	6	Inches	Transect Sample
RM679X3	679	Right	0	6	Inches	Transect Sample
RM680A1(X1)	680	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM680X2	680	Middle	0	6	Inches	Transect Sample
RM681X1	681	Left	0	6	Inches	Transect Sample
RM683X1	683	Left	0	6	Inches	Transect Sample
RM683X2	683	Middle	0	6	Inches	Transect Sample
RM683X3	683	Right	0	6	Inches	Transect Sample
RM686A1(X3)	686	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM686X1	686	Left	0	6	Inches	Transect Sample
RM686X2	686	Middle	0	6	Inches	Transect Sample
RM687A1	687	Left	0	6	Inches	Bioassay/Pore Water Sample
RM689A1(X3)	689	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM689X1	689	Left	0	6	Inches	Transect Sample
RM689X2	689	Middle	0	6	Inches	Transect Sample
RM690B1	690	Right Beach	0	6	Inches	Beach Subsample Composite
RM690B2	690	Right Beach	0	6	Inches	Beach Subsample Composite
RM690B3	690	Right Beach	0	6	Inches	Beach Subsample Composite
RM692A1(X1)	692	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM692X2	692	Middle	0	6	Inches	Transect Sample
RM693X1	693	Left	0	6	Inches	Transect Sample
RM695X1	694	Left	0	6	Inches	Transect Sample
RM695X2	694	Middle	0	6	Inches	Transect Sample
RM695X3	694	Right	0	6	Inches	Transect Sample
RM697B1	697	Right Beach	0	6	Inches	Beach Subsample Composite
RM697B2	697	Right Beach	0	6	Inches	Beach Subsample Composite
RM697B3	697	Right Beach	0	6	Inches	Beach Subsample Composite
RM698A1(X1)	698	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM698X2	698	Middle	0	6	Inches	Transect Sample
RM698X3	698	Right	0	6	Inches	Transect Sample
RM699T1	699	Left Trib	0	6	Inches	Tributary Sample
RM700B1c	700	Left Beach	0	6	Inches	Beach Subsample
RM700B1L	700	Left Beach	0	6	Inches	Beach Subsample
RM700B1R	700	Left Beach	0	6	Inches	Beach Subsample
RM700B2c	700	Left Beach	0	6	Inches	Beach Subsample
RM700B2L	700	Left Beach	0	6	Inches	Beach Subsample
RM700B2R	700	Left Beach	0	6	Inches	Beach Subsample
RM700B3c	700	Left Beach	0	6	Inches	Beach Subsample

TABLE C-6
Samples Used in Evaluation of Longitudinal Metals Distribution
Upper Columbia River RI/FS

Sample Location	River Mile	Longitudinal Evaluation Group	Top Depth	Base Depth	Depth Unit	Type
RM700B3L	700	Left Beach	0	6	Inches	Beach Subsample
RM700B3R	700	Left Beach	0	6	Inches	Beach Subsample
RM700BSF	700	Left Beach	0	6	Inches	Size Fractioned Sample
RM701X1	701	Left	0	6	Inches	Transect Sample
RM701X2	701	Middle	0	6	Inches	Transect Sample
RM701X3	701	Right	0	6	Inches	Transect Sample
RM704A1(X1)	704	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM704X2	704	Middle	0	6	Inches	Transect Sample
RM704X3	704	Right	0	6	Inches	Transect Sample
RM705X1	705	Left	0	6	Inches	Transect Sample
RM705X2	705	Middle	0	6	Inches	Transect Sample
RM705X3	705	Right	0	6	Inches	Transect Sample
RM706A1(X1)	706	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM706A2(X7)	706	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM706T1	706	Right Trib	0	6	Inches	Tributary Sample
RM706T2	706	Right Trib	0	6	Inches	Tributary Sample
RM706X4	706	Middle	0	6	Inches	Transect Sample
RM707X1	707	Left	0	6	Inches	Transect Sample
RM707X2	707	Middle	0	6	Inches	Transect Sample
RM707X3	707	Right	0	6	Inches	Transect Sample
RM708A1(X3)	708	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM708B1	708	Left Beach	0	6	Inches	Beach Subsample Composite
RM708B2	708	Left Beach	0	6	Inches	Beach Subsample Composite
RM708B3	708	Left Beach	0	6	Inches	Beach Subsample Composite
RM708X1	708	Left	0	6	Inches	Transect Sample
RM708X2	708	Middle	0	6	Inches	Transect Sample
RM710X1	710	Left	0	6	Inches	Transect Sample
RM710X2	710	Middle	0	6	Inches	Transect Sample
RM710X3	710	Right	0	6	Inches	Transect Sample
RM713A1(X3)	713	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM713X1	713	Left	0	6	Inches	Transect Sample
RM715X1	715	Left	0	6	Inches	Transect Sample
RM715X3	715	Right	0	6	Inches	Transect Sample
RM718B1	718	Left Beach	0	6	Inches	Beach Subsample Composite
RM718B2	718	Left Beach	0	6	Inches	Beach Subsample Composite
RM718B3	718	Left Beach	0	6	Inches	Beach Subsample Composite
RM718X1	718	Left	0	6	Inches	Transect Sample
RM718X2	718	Middle	0	6	Inches	Transect Sample
RM718X3	718	Right	0	6	Inches	Transect Sample
RM721X1	721	Left	0	6	Inches	Transect Sample
RM721X2	721	Middle	0	6	Inches	Transect Sample
RM721X3	721	Right	0	6	Inches	Transect Sample
RM722X1	722	Left	0	6	Inches	Transect Sample
RM722X2	722	Middle	0	6	Inches	Transect Sample
RM722X3	722	Right	0	6	Inches	Transect Sample
RM723A1(X1)	723	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM723X5	723	Right	0	6	Inches	Transect Sample
RM724A1(X1)	724	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM724A2(X3)	724	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM724X2	724	Middle	0	6	Inches	Transect Sample
RM725X1	725	Left	0	6	Inches	Transect Sample
RM725X3	725	Right	0	6	Inches	Transect Sample
RM726X1	726	Left	0	6	Inches	Transect Sample
RM726X2	726	Middle	0	6	Inches	Transect Sample
RM726X3	726	Right	0	6	Inches	Transect Sample
RM727A1(X1)	727	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM727X3	727	Right	0	6	Inches	Transect Sample

TABLE C-6
Samples Used in Evaluation of Longitudinal Metals Distribution
Upper Columbia River RI/FS

Sample Location	River Mile	Longitudinal Evaluation Group	Top Depth	Base Depth	Depth Unit	Type
RM728X1	728	Left	0	6	Inches	Transect Sample
RM728X3	728	Right	0	6	Inches	Transect Sample
RM729A1(X1)	729	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM729B1	729	Left Beach	0	6	Inches	Beach Subsample Composite
RM729B2	729	Left Beach	0	6	Inches	Beach Subsample Composite
RM729B3	729	Left Beach	0	6	Inches	Beach Subsample Composite
RM729T2	729	Left Trib	0	6	Inches	Tributary Sample
RM729X2	729	Middle	0	6	Inches	Transect Sample
RM729X3	729	Right	0	6	Inches	Transect Sample
RM730A1	730	Left	0	6	Inches	Bioassay/Pore Water Sample
RM730T1	730	Left Trib	0	6	Inches	Tributary Sample
RM730X1	730	Left	0	6	Inches	Transect Sample
RM731X1	731	Left	0	6	Inches	Transect Sample
RM731X3	731	Right	0	6	Inches	Transect Sample
RM732X1	732	Left	0	6	Inches	Transect Sample
RM732X2	732	Right	0	6	Inches	Transect Sample
RM732X3	732	Right	0	6	Inches	Transect Sample
RM733A1(X1)	733	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM733X2	733	Right	0	6	Inches	Transect Sample
RM733X3	733	Right	0	6	Inches	Transect Sample
RM734A1	734	Left	0	6	Inches	Bioassay/Pore Water Sample
RM734X3	734	Right	0	6	Inches	Transect Sample
RM735B1c	735	Left Beach	0	6	Inches	Beach Subsample
RM735B1L	735	Left Beach	0	6	Inches	Beach Subsample
RM735B1R	735	Left Beach	0	6	Inches	Beach Subsample
RM735B2c	735	Left Beach	0	6	Inches	Beach Subsample
RM735B2L	735	Left Beach	0	6	Inches	Beach Subsample
RM735B2R	735	Left Beach	0	6	Inches	Beach Subsample
RM735B3c	735	Left Beach	0	6	Inches	Beach Subsample
RM735B3L	735	Left Beach	0	6	Inches	Beach Subsample
RM735B3R	735	Left Beach	0	6	Inches	Beach Subsample
RM735BSF	735	Left Beach	0	6	Inches	Size Fractioned Sample
RM735X1	735	Left	0	6	Inches	Transect Sample
RM735X3	735	Right	0	6	Inches	Transect Sample
RM736A1(X1)	736	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM736T1	736	Left Trib	0	6	Inches	Tributary Sample
RM736X3	736	Right	0	6	Inches	Transect Sample
RM737A1(X3)	737	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM737X1	737	Left	0	6	Inches	Transect Sample
RM737X2	737	Left	0	6	Inches	Transect Sample
RM739A1(X3)	739	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM739X1	739	Left	0	6	Inches	Transect Sample
RM740A1(X1)	740	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM740X3	710	Right	0	6	Inches	Transect Sample
RM741A1(X3)	741	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM741X1	741	Left	0	6	Inches	Transect Sample
RM742A1(X1)	742	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM742A2(X5)	742	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM742B1	742	Left Beach	0	6	Inches	Beach Subsample Composite
RM742B2	742	Left Beach	0	6	Inches	Beach Subsample Composite
RM742B3	742	Left Beach	0	6	Inches	Beach Subsample Composite
RM743A1(X1)	743	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM743A2(X3)	743	Right	0	6	Inches	Transect/Bioassay/Pore Water
RM744A1(X1)	744	Left	0	6	Inches	Transect/Bioassay/Pore Water
RM744A2(X3)	744	Right	0	6	Inches	Transect/Bioassay/Pore Water