LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL10862	217	130	22297.6	470	549.2	280	<LOD	270
LL10862	209.2	120	22092.8	450	719.2	270	<LOD	270
LL10869	<LOD	375	27392	650	<LOD	570	<LOD	255
LL10870	<LOD	360	25894.4	620	644.8	370	<LOD	240
LL10872	<LOD	375	27392	650	710	390	<LOD	255
LL11114	<LOD	390	29798.4	690	856.8	410	<LOD	270
LL10873	<LOD	390	30387.2	690	1400	420	<LOD	270
LL10874	<LOD	360	26777.6	640	672.8	380	<LOD	255
LL10876	<LOD	345	24588.8	590	879.2	360	<LOD	240
LL10877	<LOD	375	27980.8	650	1240	400	<LOD	270
LL10878	<LOD	360	27980.8	650	826.4	390	<LOD	255
LL10880	<LOD	390	32281.6	700	1289.6	420	<LOD	270
LL10881	<LOD	420	34995.2	750	1309.6	440	<LOD	285
LL10884	<LOD	300	21888	490	1849.6	430	<LOD	360
LL10885	<LOD	375	35097.6	630	2120	520	<LOD	420
LL10886	<LOD	390	29491.2	680	<LOD	585	<LOD	240
LL10888	<LOD	345	25996.8	610	<LOD	540	<LOD	240
LL10888	351.8	210	26496	520	1640	440	<LOD	345
LL10889	<LOD	360	25292.8	620	<LOD	555	<LOD	240
LL10890	<LOD	525	47795.2	980	1069.6	540	506	240
LL10891	<LOD	450	37376	840	1049.6	490	<LOD	330
LL10893	<LOD	315	27596.8	540	2009.6	460	<LOD	360

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-186	LL11110	REG	9/17/00	Field Duplicate	Surface Soil	22.7	15.1	379.4	41.5
LL1-187	LL10894	REG	9/17/00	Grab	Surface Soil	<LOD	22.95	295.8	37.6
LL1-188	LL10895	REG	9/28/00	Grab	Surface Soil	<LOD	54.45	363.4	78.3
LL1-189	LL10896	REG	9/28/00	Grab	Surface Soil	<LOD	50.1	378	82.1
LL1-190	LL11132	REG	9/28/00	Field Duplicate	Surface Soil	<LOD	47.7	396.2	76.6
LL1-190	LL10897	REG	9/28/00	Grab	Surface Soil	<LOD	51	421.6	83.3
LL1-191	LL10898	REG	9/28/00	Grab	Surface Soil	<LOD	62.55	436.8	87
LL1-192	LL10900	REG	9/28/00	Grab	Surface Soil	<LOD	42.9	403.8	65.1
LL1-193	LL10901	REG	9/28/00	Grab	Surface Soil	<LOD	53.4	446.4	87.8
LL1-194	LL10902	REG	9/28/00	Grab	Surface Soil	<LOD	49.5	391	70.5
LL1-195	LL10903	REG	9/28/00	Grab	Surface Soil	<LOD	51.9	436	76.2
LL1-195	LL11126	REG	9/28/00	Field Duplicate	Surface Soil	<LOD	57.75	433.2	80
LL1-196	LL10905	REG	9/28/00	Grab	Surface Soil	<LOD	57.45	463.6	87.2
LL1-196	LL11127	REG	9/28/00	Field Duplicate	Surface Soil	<LOD	53.1	469.6	85.9
LL1-197	LL10906	REG	9/28/00	Grab	Surface Soil	<LOD	49.35	440.8	74.1
LL1-198	LL10907	REG	9/26/00	Grab	Surface Soil	<LOD	54	343.2	71.4
LL1-199	LL10908	REG	9/27/00	Grab	Surface Soil	<LOD	49.95	386.6	82.6
LL1-199	LL11125	REG	9/27/00	Field Duplicate	Surface Soil	69.4	41.7	417.6	78.5
LL1-200	LL10910	REG	9/28/00	Grab	Surface Soil	<LOD	53.85	377.4	73.4
LL1-201	LL10911	REG	9/28/00	Grab	Surface Soil	<LOD	40.5	323.8	75.8
LL1-201	LL10911	DUP	9/28/00	Grab	Surface Soil	<LOD	65.25	372.2	80.8
LL1-202	LL10912	REG	9/14/00	Grab	Surface Soil	<LOD	37.2	375	60.5

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL11110	<LOD	35.85	<LOD	49.2	<LOD	36	<LOD	86.55	<LOD	27.3	<LOD	140.4
LL10894	<LOD	34.05	<LOD	49.2	<LOD	39.15	<LOD	89.7	<LOD	27.6	<LOD	144.15
LL10895	<LOD	61.5	<LOD	80.55	<LOD	58.8	<LOD	165	<LOD	46.2	<LOD	195
LL10896	<LOD	68.55	<LOD	84.75	<LOD	61.35	<LOD	165	<LOD	52.05	<LOD	210
LL11132	<LOD	68.55	<LOD	76.8	<LOD	52.35	<LOD	150	<LOD	44.85	<LOD	195
LL10897	<LOD	57.75	<LOD	77.4	<LOD	60.45	<LOD	165	<LOD	49.5	<LOD	210
LL10898	<LOD	71.4	<LOD	79.95	<LOD	56.85	<LOD	165	<LOD	42.3	<LOD	210
LL10900	<LOD	51.75	<LOD	64.8	<LOD	47.85	<LOD	131.1	<LOD	33.75	<LOD	165
LL10901	<LOD	59.1	<LOD	84.9	<LOD	48.75	<LOD	165	<LOD	41.55	<LOD	210
LL10902	<LOD	50.85	<LOD	72.45	<LOD	54.75	<LOD	139.8	<LOD	36.75	<LOD	180
LL10903	<LOD	54.45	<LOD	66.3	<LOD	51.45	<LOD	140.7	<LOD	46.65	<LOD	180
LL11126	<LOD	56.25	<LOD	71.1	<LOD	51.3	<LOD	165	<LOD	41.7	<LOD	195
LL10905	<LOD	55.5	<LOD	72.75	<LOD	52.05	<LOD	165	<LOD	43.5	<LOD	210
LL11127	<LOD	65.85	<LOD	78	<LOD	49.35	<LOD	165	<LOD	46.95	<LOD	210
LL10906	<LOD	56.55	<LOD	62.7	<LOD	47.55	<LOD	144.3	<LOD	38.7	<LOD	180
LL10907	<LOD	58.35	<LOD	69.3	<LOD	51.15	<LOD	150	<LOD	45	<LOD	195
LL10908	<LOD	62.25	<LOD	81.45	<LOD	67.35	<LOD	165	<LOD	48.75	<LOD	210
LL11125	<LOD	65.4	<LOD	65.4	<LOD	53.7	<LOD	150	<LOD	36.15	<LOD	195
LL10910	<LOD	62.4	<LOD	73.65	<LOD	51.9	<LOD	147.6	<LOD	43.95	<LOD	195
LL10911	<LOD	56.55	<LOD	81.3	<LOD	68.55	<LOD	165	<LOD	42	<LOD	210
LL10911	<LOD	67.35	<LOD	78	<LOD	59.85	<LOD	165	<LOD	46.05	<LOD	210
LL10912	<LOD	51.45	<LOD	67.5	<LOD	48.6	145.6	95.2	<LOD	46.05	<LOD	315

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL11110	<LOD	26.25	<LOD	7.95	305	7.3	69.9	5.2	97.2	6.9	174.8	16.4
LL10894	<LOD	27.9	<LOD	7.65	272.6	7	68.8	5.2	100.3	7.1	367.6	20.9
LL10895	<LOD	38.85	9.8	5.6	284	11.3	64.2	7.5	148.7	11.5	16.3	10.8
LL10896	<LOD	42.3	<LOD	8.25	297.6	11.4	60.2	7.3	114.6	10.2	<LOD	16.2
LL11132	<LOD	34.5	<LOD	8.7	301	11.8	75.3	8	106.9	10.4	33.8	12.7
LL10897	<LOD	43.8	10.3	5.7	286	11.5	76.7	7.9	110.2	10.2	27.5	12.1
LL10898	<LOD	41.25	<LOD	8.55	264.4	11.9	69.9	8.3	114.1	10.8	22.9	12.5
LL10900	<LOD	32.4	13.7	6.2	418.8	13.4	61.6	7.5	94.4	9.5	17.6	11
LL10901	<LOD	45	<LOD	9	361.6	12.9	57.2	7.6	103.5	10.1	19.9	11.5
LL10902	<LOD	34.8	12.2	5.9	316.2	12	62.2	7.6	117.1	10.6	19.7	11.5
LL10903	<LOD	34.5	9.1	5.7	275.8	11.6	62.4	7.8	119.6	10.8	32.7	12.7
LL11126	<LOD	35.55	12.4	6	300.4	12.1	58.6	7.7	123.1	11.1	18.4	11.8
LL10905	<LOD	40.95	19.5	6.2	336	12.4	62.9	7.6	110.9	10.4	<LOD	16.95
LL11127	<LOD	39.6	12.9	5.8	324.4	11.9	67.2	7.6	108.9	10	<LOD	16.35
LL10906	<LOD	37.2	12.1	5.6	330.8	11.5	57.7	7	90.5	8.9	41.2	12.1
LL10907	<LOD	33.3	12.6	5.8	321.6	12	56.6	7.3	102.2	9.8	23.6	11.6
LL10908	<LOD	40.5	10.7	6.1	251.4	12.3	76.7	8.9	154.7	12.9	30.5	13.6
LL11125	<LOD	39.15	12.5	6	275	12	72.1	8.3	136.7	11.9	21.6	12.5
LL10910	<LOD	35.25	15.8	6	302.6	11.9	65	7.8	128.2	11	27.9	12.3
LL10911	<LOD	37.95	9.9	6.1	379.8	13	62.2	7.6	97.8	9.8	19.4	11.5
LL10911	<LOD	47.7	12.9	6.1	363.2	12.5	59.7	7.4	95	9.6	19.9	11.2
LL10912	<LOD	38.1	13.3	5.1	314.2	10.4	67.3	6.8	96	8.8	<LOD	18.75

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL11110	ND	ND	<LOD	22.8	<LOD	10.95	197.5	27.2	<LOD	59.4	<LOD	118.5
LL10894	ND	ND	<LOD	29.25	<LOD	12.15	682.4	41.1	<LOD	75.3	<LOD	134.7
LL10895	<LOD	7.8	<LOD	12.9	<LOD	10.35	60.8	26.4	<LOD	59.55	<LOD	103.05
LL10896	<LOD	8.25	<LOD	13.2	<LOD	10.05	49.3	26.3	<LOD	62.55	<LOD	114.15
LL11132	<LOD	8.55	<LOD	14.4	<LOD	10.95	59.5	28.3	<LOD	67.5	<LOD	117.75
LL10897	<LOD	8.7	<LOD	14.25	<LOD	9.9	45.3	26.8	<LOD	64.65	<LOD	118.65
LL10898	<LOD	9.15	<LOD	15	<LOD	11.7	<LOD	41.1	<LOD	68.1	<LOD	134.7
LL10900	<LOD	8.1	<LOD	12.75	<LOD	10.05	52.2	26.7	<LOD	62.85	<LOD	104.1
LL10901	<LOD	8.1	<LOD	13.5	<LOD	10.65	87.7	29.1	<LOD	64.35	<LOD	113.25
LL10902	<LOD	8.1	17.5	9.5	<LOD	11.1	75.2	28.6	<LOD	66.3	<LOD	116.85
LL10903	<LOD	8.85	<LOD	13.8	<LOD	10.5	71.6	28.4	<LOD	64.65	<LOD	119.4
LL11126	<LOD	8.85	<LOD	14.25	<LOD	11.1	75.9	29.6	<LOD	69.45	<LOD	120.9
LL10905	<LOD	8.7	<LOD	13.65	<LOD	10.2	86.5	29	<LOD	64.05	<LOD	112.95
LL11127	<LOD	8.7	<LOD	13.2	<LOD	10.35	86.5	28.2	<LOD	63.6	<LOD	113.4
LL10906	<LOD	7.95	<LOD	13.2	<LOD	10.5	102.5	27.7	<LOD	60.45	<LOD	100.35
LL10907	<LOD	8.7	<LOD	13.35	<LOD	10.5	<LOD	38.7	<LOD	62.7	<LOD	103.95
LL10908	<LOD	9.3	<LOD	16.05	<LOD	11.85	81.4	31.7	<LOD	74.85	<LOD	143.1
LL11125	<LOD	8.7	<LOD	14.85	<LOD	12	76	30.1	<LOD	68.85	<LOD	139.2
LL10910	<LOD	8.85	<LOD	14.4	<LOD	11.25	99.7	29.7	<LOD	66.15	<LOD	115.5
LL10911	<LOD	8.4	<LOD	13.65	<LOD	10.65	87.9	28.9	<LOD	64.05	<LOD	111.75
LL10911	<LOD	7.65	<LOD	13.5	<LOD	11.1	54.9	27.3	<LOD	63.3	<LOD	110.1
LL10912	<LOD	8.55	23.4	11.2	<LOD	9.6	42.9	25.7	<LOD	73.05	<LOD	270

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL11110	347.2	220	27392	550	1929.6	460	<LOD	360
LL10894	521.2	250	35584	630	2459.2	530	<LOD	420
LL10895	<LOD	270	14796.8	440	<LOD	390	<LOD	180
LL10896	<LOD	300	20492.8	520	<LOD	465	<LOD	210
LL11132	<LOD	330	21990.4	560	536.4	340	<LOD	225
LL10897	<LOD	330	24691.2	590	528.4	350	<LOD	225
LL10898	<LOD	405	34483.2	740	<LOD	600	<LOD	240
LL10900	<LOD	270	15193.6	440	<LOD	420	<LOD	195
LL10901	<LOD	300	18099.2	500	<LOD	465	<LOD	210
LL10902	<LOD	330	22297.6	560	688	340	<LOD	225
LL10903	<LOD	345	23897.6	590	702.8	360	<LOD	225
LL11126	<LOD	345	23795.2	590	670.4	360	<LOD	240
LL10905	<LOD	300	18291.2	510	<LOD	465	<LOD	195
LL11127	<LOD	300	21491.2	530	<LOD	480	<LOD	210
LL10906	<LOD	285	18393.6	470	644.4	300	<LOD	195
LL10907	<LOD	270	15692.8	450	<LOD	420	<LOD	195
LL10908	<LOD	420	33075.2	760	662.8	430	<LOD	270
LL11125	<LOD	405	32691.2	730	<LOD	615	<LOD	255
LL10910	<LOD	330	22297.6	560	1069.6	350	<LOD	240
LL10911	<LOD	300	18892.8	510	<LOD	450	<LOD	195
LL10911	<LOD	300	19097.6	510	<LOD	465	<LOD	195
LL10912	254.6	130	21491.2	470	<LOD	420	<LOD	270

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-202	LL10912	DUP	9/14/00	Grab	Surface Soil	26.5	15.2	397	41
LL1-203	LL10913	REG	9/14/00	Grab	Surface Soil	38.8	23.5	444.4	59.7
LL1-204	LL10914	REG	9/13/00	Grab	Surface Soil	<LOD	35.4	467.2	67.5
LL1-205	LL10915	REG	9/27/00	Grab	Surface Soil	107.2	48.5	571.6	90.9
LL1-206	LL10917	REG	9/26/00	Grab	Surface Soil	<LOD	48.15	520	86.2
LL1-207	LL10918	REG	9/26/00	Grab	Surface Soil	<LOD	54.3	303.2	73.4
LL1-207	LL10918	DUP	9/26/00	Grab	Surface Soil	<LOD	56.4	435.2	81.5
LL1-198	LL11119	REG	9/26/00	Field Duplicate	Surface Soil	<LOD	50.55	362.8	76.9
LL1-208	LL10919	REG	9/27/00	Grab	Surface Soil	<LOD	47.25	485.2	86.4
LL1-209	LL10920	REG	9/15/00	Grab	Surface Soil	<LOD	20.4	451.2	42.8
LL1-210	LL10921	REG	9/27/00	Grab	Surface Soil	<LOD	56.7	459.2	81
LL1-210	LL11124	REG	9/27/00	Field Duplicate	Surface Soil	30.1	16.1	451.6	38.5
LL1-211	LL10924	REG	9/27/00	Grab	Surface Soil	<LOD	54.6	398.2	72.5
LL1-211	LL10924	DUP	9/27/00	Grab	Surface Soil	69	41.3	428.8	79.5
LL1-211	LL11231	REG	9/29/00	Grab	Subsurface soil	<LOD	48.9	504.4	84.8
LL1-212	LL10925	REG	9/27/00	Grab	Surface Soil	<LOD	57.75	462.4	86.2
LL1-213	LL10926	REG	9/27/00	Grab	Surface Soil	<LOD	56.1	510	80.9
LL1-213	LL11123	REG	9/27/00	Field Duplicate	Surface Soil	<LOD	50.1	481.2	78.7
LL1-214	LL10927	REG	9/27/00	Grab	Surface Soil	<LOD	53.4	470.4	79.8
LL1-215	LL10928	REG	9/27/00	Grab	Surface Soil	60.3	36.7	462	75.1
LL1-216	LL10929	REG	9/27/00	Grab	Surface Soil	<LOD	51.45	458.8	79
LL1-217	LL10930	REG	9/27/00	Grab	Surface Soil	<LOD	47.4	395.2	80.7

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL10912	<LOD	36.9	<LOD	42.75	<LOD	32.7	<LOD	82.2	<LOD	25.5	<LOD	134.1
LL10913	<LOD	48.45	<LOD	60.3	<LOD	40.5	<LOD	122.1	<LOD	33.45	<LOD	285
LL10914	<LOD	52.2	<LOD	65.25	<LOD	48	<LOD	142.5	<LOD	39	<LOD	330
LL10915	<LOD	60.75	<LOD	75.15	<LOD	52.35	<LOD	150	<LOD	31.8	<LOD	195
LL10917	<LOD	63.75	<LOD	84.15	<LOD	48.15	<LOD	143.1	<LOD	38.4	<LOD	180
LL10918	<LOD	63.45	<LOD	76.8	<LOD	63.45	<LOD	165	<LOD	51	<LOD	195
LL10918	<LOD	65.55	<LOD	74.55	<LOD	55.05	<LOD	150	<LOD	43.65	<LOD	210
LL11119	<LOD	60.9	<LOD	71.85	<LOD	56.1	<LOD	150	<LOD	46.65	<LOD	195
LL10919	<LOD	55.2	<LOD	76.5	<LOD	51.6	<LOD	165	<LOD	44.1	<LOD	210
LL10920	<LOD	34.8	<LOD	45.6	<LOD	35.1	<LOD	80.1	<LOD	25.95	<LOD	131.55
LL10921	<LOD	56.7	<LOD	76.65	<LOD	54.9	<LOD	165	<LOD	36.75	<LOD	210
LL11124	<LOD	27.45	<LOD	34.5	<LOD	25.5	<LOD	73.95	<LOD	18.45	<LOD	91.65
LL10924	<LOD	59.25	<LOD	73.2	<LOD	60.9	<LOD	144	<LOD	45.6	<LOD	180
LL10924	<LOD	58.2	<LOD	76.35	<LOD	56.4	<LOD	143.85	<LOD	42.3	<LOD	195
LL11231	<LOD	59.85	<LOD	72.6	<LOD	57.45	<LOD	150	<LOD	46.05	<LOD	195
LL10925	<LOD	65.85	<LOD	72.15	<LOD	55.35	<LOD	165	<LOD	36.15	<LOD	195
LL10926	<LOD	62.55	<LOD	67.8	<LOD	49.35	<LOD	143.1	<LOD	40.8	<LOD	180
LL11123	<LOD	57.15	<LOD	68.55	<LOD	46.5	<LOD	147.6	<LOD	38.1	<LOD	180
LL10927	<LOD	61.05	<LOD	76.35	<LOD	52.2	<LOD	148.5	<LOD	46.2	<LOD	180
LL10928	<LOD	57.3	<LOD	72.45	<LOD	52.35	<LOD	141	<LOD	35.85	<LOD	180
LL10929	<LOD	57.3	<LOD	67.05	<LOD	53.7	<LOD	150	<LOD	43.05	<LOD	180
LL10930	<LOD	71.25	<LOD	86.4	<LOD	63.3	<LOD	165	<LOD	46.05	<LOD	210

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL10912	<LOD	26.55	<LOD	7.65	304.4	6.9	49.3	4.5	105.1	6.8	42.7	12
LL10913	<LOD	37.35	<LOD	7.5	356.8	10.6	63.6	6.5	101.3	8.8	<LOD	17.1
LL10914	<LOD	39.15	12.6	4.9	341.4	10.2	64.3	6.3	98.4	8.4	<LOD	18.3
LL10915	<LOD	38.85	<LOD	9.45	200.5	12.6	208.2	12.8	62	10.1	70.5	17.8
LL10917	<LOD	38.55	15.9	5.9	304.4	12	70.7	7.9	115.4	10.5	<LOD	16.35
LL10918	<LOD	37.95	10.2	5.5	309	11.2	56	7	97.8	9.2	16.5	10.3
LL10918	<LOD	38.7	15.8	5.8	293.8	11.5	70.8	7.7	111.3	10.3	52.5	13.4
LL11119	<LOD	42.15	13	5.7	316.8	11.6	55	7.1	100.6	9.6	<LOD	16.2
LL10919	<LOD	38.25	15	5.9	316.8	11.9	65.9	7.6	119.3	10.6	27.7	11.9
LL10920	<LOD	26.25	<LOD	7.65	331.4	7.1	42.4	4.2	95.6	6.3	36.7	11.2
LL10921	<LOD	39.45	14.3	6.3	340	12.9	68.4	8.1	115.1	10.8	<LOD	17.55
LL11124	<LOD	16.8	<LOD	8.7	312.6	12	63	7.7	117	10.5	17.6	11.5
LL10924	<LOD	32.25	<LOD	9.15	266.6	12.3	74.1	8.7	156.6	12.9	<LOD	18.75
LL10924	<LOD	36.75	<LOD	8.7	328.4	12	63.1	7.5	127.7	10.9	23.3	11.7
LL11231	<LOD	40.2	13.1	6.2	324.2	12.7	63.7	8	126.3	11.3	21.5	12.2
LL10925	<LOD	39.15	11.1	5.8	330.2	11.9	63.3	7.4	113.8	10.2	19.6	11.1
LL10926	<LOD	34.2	14	6	392.6	12.8	71.9	7.6	96.3	9.4	20.4	11
LL11123	<LOD	37.95	<LOD	9.15	415.6	13.3	64.3	7.5	91.3	9.4	34.9	12.1
LL10927	<LOD	37.35	17.7	6.2	378.8	13	70.4	7.8	106.3	10.1	18.2	11.4
LL10928	<LOD	33	11	6	352.6	12.4	61.9	7.5	106.1	10.1	18.7	11.6
LL10929	<LOD	38.1	11.1	5.6	317.8	11.5	66.7	7.3	109.3	9.8	18.7	10.9
LL10930	<LOD	36.15	10.9	5.7	283.4	11.4	68.8	7.6	115.6	10.4	25.9	11.8

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL10912	ND	ND	<LOD	16.05	<LOD	8.85	52.8	20.1	<LOD	49.95	<LOD	103.65
LL10913	<LOD	8.55	28.2	10.5	<LOD	9.15	49.9	25.8	<LOD	73.2	<LOD	270
LL10914	<LOD	8.55	<LOD	15.75	<LOD	8.85	86.5	24.8	<LOD	62.55	<LOD	240
LL10915	<LOD	10.95	<LOD	19.95	<LOD	13.05	236.8	42.9	<LOD	88.35	<LOD	150
LL10917	<LOD	8.7	<LOD	13.05	<LOD	10.5	87.9	28.5	<LOD	62.7	<LOD	110.4
LL10918	<LOD	7.5	<LOD	12.15	<LOD	10.05	48.2	24.9	<LOD	57.45	<LOD	99.6
LL10918	<LOD	8.1	<LOD	15	<LOD	10.95	81.2	28.2	<LOD	63.15	<LOD	105.75
LL11119	<LOD	8.55	<LOD	13.2	<LOD	9.75	69.9	26.7	<LOD	59.25	<LOD	99.75
LL10919	<LOD	8.25	<LOD	12.9	<LOD	10.2	79	28	<LOD	62.1	<LOD	103.8
LL10920	ND	ND	<LOD	14.25	<LOD	8.25	70.4	20.1	<LOD	48.15	<LOD	94.05
LL10921	<LOD	8.85	<LOD	14.25	<LOD	10.95	107.6	31	<LOD	67.95	<LOD	122.55
LL11124	<LOD	8.7	<LOD	13.95	<LOD	10.5	81.1	28.9	<LOD	67.05	<LOD	122.7
LL10924	<LOD	9.15	20.3	10.5	<LOD	12.45	69.2	30.7	<LOD	73.05	<LOD	139.35
LL10924	<LOD	8.1	<LOD	13.5	<LOD	10.2	62.9	27.8	<LOD	65.25	<LOD	112.2
LL11231	<LOD	9	<LOD	14.85	<LOD	11.55	65.3	29	<LOD	68.1	<LOD	118.95
LL10925	<LOD	8.25	<LOD	12.75	<LOD	9.9	43.7	26	<LOD	61.5	<LOD	109.95
LL10926	<LOD	8.1	<LOD	12.9	<LOD	10.2	81.2	27.5	<LOD	60.75	<LOD	99.6
LL11123	<LOD	7.8	<LOD	13.05	<LOD	10.35	60.4	27.1	<LOD	62.4	<LOD	103.2
LL10927	<LOD	8.55	<LOD	13.65	<LOD	11.1	71.9	28	<LOD	62.85	<LOD	107.85
LL10928	<LOD	9.15	<LOD	13.5	<LOD	10.8	<LOD	38.7	<LOD	61.65	<LOD	108
LL10929	<LOD	8.25	<LOD	12.9	<LOD	10.05	79.8	27.3	<LOD	62.1	<LOD	103.8
LL10930	<LOD	8.7	<LOD	13.5	<LOD	10.65	50.1	26.6	<LOD	62.85	<LOD	107.25

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL10912	<LOD	285	20992	460	1828.8	400	<LOD	315
LL10913	<LOD	195	24396.8	490	<LOD	420	<LOD	270
LL10914	<LOD	180	21388.8	440	688.8	270	<LOD	255
LL10915	<LOD	450	32076.8	810	3769.6	550	<LOD	375
LL10917	<LOD	300	19788.8	520	662	320	<LOD	210
LL10918	<LOD	255	15488	430	<LOD	390	<LOD	180
LL10918	<LOD	285	18393.6	500	1209.6	330	<LOD	225
LL11119	<LOD	270	15692.8	450	<LOD	405	<LOD	195
LL10919	<LOD	285	18598.4	500	<LOD	450	<LOD	210
LL10920	<LOD	240	16396.8	390	1209.6	340	<LOD	270
LL10921	<LOD	345	23488	590	<LOD	525	<LOD	240
LL11124	<LOD	360	27084.8	620	<LOD	540	<LOD	225
LL10924	<LOD	420	32486.4	740	<LOD	630	<LOD	255
LL10924	<LOD	315	21990.4	550	<LOD	495	<LOD	225
LL11231	389.8	230	22195.2	580	875.2	360	<LOD	240
LL10925	<LOD	285	18598.4	490	781.6	310	<LOD	210
LL10926	<LOD	255	14796.8	430	<LOD	405	<LOD	195
LL11123	<LOD	255	15398.4	450	446	280	<LOD	195
LL10927	<LOD	285	17792	490	965.6	320	<LOD	210
LL10928	<LOD	285	17292.8	480	644.4	310	<LOD	210
LL10929	<LOD	285	18892.8	490	991.2	320	<LOD	225
LL10930	<LOD	300	17894.4	490	500.4	300	<LOD	210

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-221	LL10934	REG	9/26/00	Grab	Surface Soil	83.5	42.8	396	74.6
LL1-222	LL10936	REG	9/26/00	Grab	Surface Soil	55.1	31.4	309.8	56.2
LL1-223	LL10938	REG	9/26/00	Grab	Surface Soil	68.8	39.4	373	70.7
LL1-224	LL10939	REG	9/19/00	Grab	Surface Soil	<LOD	48	350.4	65.5
LL1-225	LL10940	REG	9/19/00	Grab	Surface Soil	53.6	33.9	290	59.9
LL1-226	LL10942	REG	9/19/00	Grab	Surface Soil	<LOD	49.2	316	63.9
LL1-227	LL10944	REG	9/14/00	Grab	Surface Soil	<LOD	35.1	374.2	59.2
LL1-227	LL10944	DUP	9/14/00	Grab	Surface Soil	<LOD	21.3	361	39.1
LL1-228	LL10946	REG	9/14/00	Grab	Surface Soil	35.1	15.8	382.8	39.2
LL1-229	LL10948	REG	9/14/00	Grab	Surface Soil	<LOD	31.35	408	59.2
LL1-229	LL10948	DUP	9/14/00	Grab	Surface Soil	44.9	16.9	400.2	40.4
LL1-230	LL10949	REG	9/14/00	Grab	Surface Soil	<LOD	37.35	389.4	61.7
LL1-230	LL10949	DUP	9/14/00	Grab	Surface Soil	34.6	15.9	372.4	39.5
LL1-231	LL10950	REG	9/14/00	Grab	Surface Soil	42.1	25.5	305.6	54.9
LL1-231	LL10951	REG	9/17/00	Grab	Surface Soil	35.3	16.3	333.8	38.1
LL1-232	LL10952	REG	9/14/00	Grab	Surface Soil	<LOD	33.6	351	57.4
LL1-232	LL10952	DUP	9/14/00	Grab	Surface Soil	52.8	18.2	342.8	38.8
LL1-233	LL10954	REG	9/16/00	Grab	Surface Soil	<LOD	38.85	369.2	68.6
LL1-234	LL10956	REG	9/16/00	Grab	Surface Soil	<LOD	47.4	384.4	65.1
LL1-235	LL10957	REG	9/16/00	Grab	Surface Soil	73.5	39	347.2	67
LL1-236	LL10959	REG	9/16/00	Grab	Surface Soil	<LOD	45.3	360.2	66.3
LL1-237	LL11343	REG	10/3/00	Grab	Subsurface soil	<LOD	51.45	308.8	69.8

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL10934	<LOD	56.85	<LOD	77.4	<LOD	54.15	<LOD	147.3	<LOD	42.6	<LOD	195
LL10936	<LOD	47.25	73.9	45.4	<LOD	46.65	<LOD	127.05	<LOD	33	<LOD	165
LL10938	<LOD	51	<LOD	69.6	<LOD	50.55	<LOD	143.4	<LOD	37.65	<LOD	195
LL10939	<LOD	55.35	<LOD	62.55	<LOD	46.5	<LOD	137.25	<LOD	39.15	<LOD	180
LL10940	<LOD	57.3	<LOD	68.55	<LOD	42.3	<LOD	135.6	<LOD	42.3	<LOD	180
LL10942	<LOD	57.3	<LOD	66.45	<LOD	50.1	<LOD	144.3	<LOD	42.9	<LOD	180
LL10944	<LOD	52.2	<LOD	63.6	<LOD	51	215.8	97	<LOD	40.8	<LOD	315
LL10944	<LOD	34.05	<LOD	44.85	<LOD	32.4	<LOD	84.45	<LOD	26.85	<LOD	136.65
LL10946	<LOD	34.95	<LOD	46.5	<LOD	33	107.4	55.6	<LOD	25.5	<LOD	130.95
LL10948	<LOD	52.05	<LOD	55.95	<LOD	44.85	<LOD	121.95	<LOD	32.4	<LOD	300
LL10948	<LOD	35.1	<LOD	47.25	<LOD	33.15	<LOD	81.6	<LOD	25.95	<LOD	132.15
LL10949	<LOD	48.75	<LOD	70.5	<LOD	51	147	96.4	<LOD	42.6	<LOD	330
LL10949	<LOD	35.55	<LOD	45.45	<LOD	33.9	125.8	56.8	<LOD	26.1	<LOD	132.15
LL10950	<LOD	53.4	<LOD	63.6	<LOD	49.05	<LOD	140.25	<LOD	39	<LOD	315
LL10951	<LOD	33.75	<LOD	49.8	<LOD	32.25	118.2	58	<LOD	25.2	<LOD	137.1
LL10952	<LOD	49.5	<LOD	59.85	<LOD	50.25	<LOD	142.8	<LOD	40.95	<LOD	330
LL10952	<LOD	35.7	<LOD	50.25	<LOD	36.3	<LOD	85.95	<LOD	23.7	<LOD	138.15
LL10954	<LOD	55.8	<LOD	70.65	<LOD	46.2	<LOD	141.9	<LOD	37.95	<LOD	180
LL10956	<LOD	52.2	<LOD	62.55	<LOD	50.55	<LOD	132.75	<LOD	29.25	<LOD	165
LL10957	<LOD	52.8	<LOD	76.2	<LOD	52.2	<LOD	141.45	<LOD	33.15	<LOD	180
LL10959	<LOD	52.35	<LOD	62.25	<LOD	42.6	<LOD	140.55	<LOD	36.15	<LOD	165
LL11343	<LOD	57.3	<LOD	70.8	<LOD	52.95	<LOD	150	<LOD	43.2	<LOD	195

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL10934	<LOD	35.7	<LOD	9.15	263.6	12.4	78.5	8.9	104.1	10.9	40	14.2
LL10936	<LOD	33.3	<LOD	8.7	289.8	11.8	59.5	7.8	115	10.7	32.9	13.1
LL10938	<LOD	33.45	11.1	6.1	273.6	12	66.4	8.2	123.1	11.4	18.8	12.4
LL10939	<LOD	30.45	<LOD	8.85	277.4	12	74	8.4	123.5	11.3	29.5	13.2
LL10940	<LOD	34.05	<LOD	9.15	261.6	12.3	74.4	8.8	119.9	11.7	43.1	14.6
LL10942	<LOD	30.45	10.6	6.2	291.4	12.5	68.3	8.4	100.1	10.6	29.9	13.5
LL10944	<LOD	35.7	11.7	5.2	287.4	10.3	67.6	7.1	105.8	9.6	<LOD	21
LL10944	<LOD	27.6	<LOD	7.8	286.2	7.1	56.9	4.9	110.3	7.3	38.9	13
LL10946	<LOD	26.55	<LOD	7.95	274.8	7	49.4	4.8	119.8	7.6	31.8	13
LL10948	<LOD	34.5	13.8	5.4	368	11.2	65.9	6.9	97.5	9.1	<LOD	19.35
LL10948	<LOD	24.6	<LOD	8.4	375.6	7.9	49.9	4.7	108.7	7.1	<LOD	17.85
LL10949	<LOD	40.8	9.6	5.1	252.2	10	70.5	7.3	121.1	10.2	<LOD	20.1
LL10949	<LOD	26.7	<LOD	7.8	257.4	6.8	54.3	4.9	126.4	7.8	39.2	13.5
LL10950	<LOD	38.4	16.6	6.1	522	13.6	71.6	7.4	96.6	9.4	<LOD	22.05
LL10951	<LOD	27.3	<LOD	9.3	500.4	9.4	52.7	4.9	95.8	6.9	54.5	13.2
LL10952	<LOD	37.05	<LOD	7.8	296.2	10.6	69.7	7.3	115.4	10	<LOD	20.25
LL10952	<LOD	26.4	<LOD	7.95	281	7.1	55.8	5	120.7	7.7	28.6	13.1
LL10954	<LOD	30.9	11.1	6.2	247	12.4	76.3	9.1	127.8	12.1	33.2	14.1
LL10956	<LOD	34.65	14.3	6.2	283.8	12.3	71.4	8.5	122	11.4	28.6	13.2
LL10957	<LOD	35.7	11.2	5.4	247.2	10.7	81.7	7.9	129	10.5	37.5	12.4
LL10959	<LOD	31.2	10.7	6	273	12.1	83.1	8.7	122	11.4	29.6	13.3
LL11343	<LOD	38.7	15.1	6.1	271	11.9	67.2	8.2	111.5	10.8	48.9	14.3

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL10934	<LOD	9.3	29.4	11.9	<LOD	12.6	136.2	34.2	<LOD	74.1	<LOD	144.15
LL10936	<LOD	9.45	19.3	10.6	<LOD	11.7	102.5	30.9	<LOD	70.8	<LOD	131.1
LL10938	<LOD	9.15	21.9	10.4	<LOD	10.95	67.7	30.1	<LOD	70.05	<LOD	133.65
LL10939	<LOD	9.3	<LOD	15.75	<LOD	11.85	99.4	31.6	<LOD	72.75	<LOD	135.9
LL10940	<LOD	9.3	22.4	11.7	<LOD	12.15	133.8	34.7	<LOD	76.8	<LOD	147.45
LL10942	<LOD	9.75	<LOD	15.75	<LOD	12.3	106.7	32.7	<LOD	73.95	<LOD	138.75
LL10944	<LOD	9.3	25	12.3	<LOD	9.6	100.4	31.3	<LOD	87.75	653.6	210
LL10944	ND	ND	<LOD	17.55	<LOD	9.6	89.4	23.3	<LOD	55.65	<LOD	123.6
LL10946	ND	ND	<LOD	16.95	<LOD	9.6	75.7	23	<LOD	56.4	<LOD	124.8
LL10948	<LOD	9	<LOD	16.5	<LOD	9.6	67.9	28.2	<LOD	79.5	428.8	200
LL10948	ND	ND	19.9	10.9	<LOD	9.15	69.8	22	<LOD	53.4	<LOD	116.7
LL10949	<LOD	9.45	25.5	11.8	<LOD	9.75	112.8	31.5	<LOD	86.1	409.2	210
LL10949	ND	ND	<LOD	18	<LOD	9.75	122.2	25.3	<LOD	59.85	<LOD	130.2
LL10950	<LOD	9.3	22.1	12.8	<LOD	10.35	81.5	32.1	<LOD	94.35	1640	230
LL10951	ND	ND	<LOD	18.15	<LOD	9.9	83.2	23.6	<LOD	56.55	<LOD	124.35
LL10952	<LOD	9.3	40.9	12.5	<LOD	10.95	110.1	32.5	<LOD	92.7	1360	230
LL10952	ND	ND	19.5	12	<LOD	10.05	109.4	24.5	<LOD	56.7	<LOD	130.5
LL10954	<LOD	9.3	37.4	12.2	<LOD	12.3	146.9	35.4	<LOD	75.75	<LOD	150
LL10956	<LOD	9.3	17.1	10.7	<LOD	11.85	121.5	33.3	<LOD	76.05	<LOD	140.4
LL10957	<LOD	8.25	18.4	10	<LOD	10.95	114.7	29.4	<LOD	66.6	<LOD	127.95
LL10959	<LOD	9.45	27	11.2	<LOD	12.15	125.7	33	<LOD	72.45	<LOD	140.55
LL11343	<LOD	9	<LOD	16.5	<LOD	10.95	126.8	32.9	<LOD	73.2	<LOD	135.15

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL10934	<LOD	420	33792	760	1129.6	450	<LOD	285
LL10936	<LOD	390	31795.2	690	<LOD	585	<LOD	255
LL10938	<LOD	405	31283.2	720	<LOD	615	<LOD	255
LL10939	<LOD	405	33587.2	740	948	430	<LOD	255
LL10940	<LOD	435	34278.4	780	796	450	<LOD	285
LL10942	<LOD	390	30080	710	<LOD	615	<LOD	255
LL10944	<LOD	240	30080	590	838.4	340	<LOD	315
LL10944	<LOD	345	30796.8	590	2929.6	510	<LOD	405
LL10946	<LOD	360	32384	610	3059.2	520	<LOD	405
LL10948	238.6	150	26777.6	540	600.4	310	<LOD	300
LL10948	366.6	220	27596.8	540	2449.6	470	<LOD	360
LL10949	<LOD	255	33484.8	630	693.2	360	<LOD	330
LL10949	<LOD	375	34099.2	630	3497.6	540	<LOD	420
LL10950	<LOD	240	31488	610	1049.6	360	<LOD	330
LL10951	<LOD	345	31385.6	600	2579.2	510	<LOD	405
LL10952	266.6	170	36198.4	660	832	370	<LOD	330
LL10952	<LOD	375	35686.4	650	3619.2	560	<LOD	435
LL10954	<LOD	450	37299.2	829.6	1140	480	<LOD	300
LL10956	<LOD	420	33075.2	740	740.4	430	<LOD	270
LL10957	400	260	35200	690	878.4	400	<LOD	255
LL10959	<LOD	405	32486.4	730	632.8	420	<LOD	270
LL11343	<LOD	405	32896	730	887.2	430	<LOD	270

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-238	LL11342	REG	10/3/00	Grab	Subsurface soil	<LOD	37.8	300.4	61.5
LL1-239	LL11341	REG	10/3/00	Grab	Subsurface soil	<LOD	57.75	373.2	77.8
LL1-240	LL11340	REG	10/3/00	Grab	Subsurface soil	<LOD	50.85	313.8	69
LL1-241	LL11293	REG	10/3/00	Field Duplicate	Subsurface soil	<LOD	41.55	293.4	66.4
LL1-241	LL11339	REG	10/3/00	Grab	Subsurface soil	<LOD	47.55	342.2	77.3
LL1-242	LL11294	REG	10/3/00	Field Duplicate	Subsurface soil	<LOD	53.1	181.9	59.4
LL1-242	LL11338	REG	10/3/00	Grab	Subsurface soil	<LOD	53.85	330.2	85.6
LL1-243	LL11292	REG	10/3/00	Field Duplicate	Subsurface soil	<LOD	51	338	77.3
LL1-243	LL11337	REG	10/3/00	Grab	Subsurface soil	<LOD	54.6	292.4	72.8
LL1-244	LL11336	REG	10/3/00	Grab	Subsurface soil	<LOD	54.9	237.4	66.6
LL1-245	LL11326	REG	10/2/00	Grab	Surface Soil	<LOD	46.8	318.2	79.8
LL1-246	LL11327	REG	10/2/00	Grab	Surface Soil	63.4	42.1	327.8	75.8
LL1-247	LL10972	REG	9/27/00	Grab	Surface Soil	<LOD	52.2	356	72.7
LL1-248	LL10973	REG	9/27/00	Grab	Surface Soil	<LOD	46.2	340.6	72.9
LL1-249	LL10974	REG	9/27/00	Grab	Surface Soil	<LOD	49.05	352.6	70.9
LL1-250	LL10977	REG	9/29/00	Grab	Surface Soil	<LOD	45.75	357.4	78.1
LL1-250	LL10977	DUP	9/29/00	Grab	Surface Soil	<LOD	46.95	405	73.2
LL1-251	LL10978	REG	9/29/00	Grab	Surface Soil	62.8	37.3	363.8	69.7
LL1-252	LL10979	REG	9/17/00	Grab	Sediment	58.9	38.2	456.4	78.2
LL1-253	LL10980	REG	9/20/00	Grab	Sediment	<LOD	40.95	265.8	64.5
LL1-254	LL10982	REG	9/18/00	Grab	Surface Soil	<LOD	49.8	384.8	68.2
LL1-255	LL10983	REG	9/17/00	Grab	Surface Soil	<LOD	47.4	460.4	71.3

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL11342	<LOD	53.25	<LOD	66.6	<LOD	41.25	<LOD	136.95	<LOD	32.55	<LOD	165
LL11341	<LOD	62.55	<LOD	78.9	<LOD	57.15	<LOD	150	<LOD	39.45	<LOD	195
LL11340	<LOD	58.5	<LOD	67.8	<LOD	49.65	<LOD	165	<LOD	33.9	<LOD	195
LL11293	<LOD	54.3	<LOD	70.05	<LOD	57.3	<LOD	150	<LOD	39.3	<LOD	195
LL11339	<LOD	60.75	<LOD	74.85	<LOD	49.65	<LOD	165	<LOD	42.6	<LOD	210
LL11294	<LOD	51.15	<LOD	68.4	<LOD	54.45	<LOD	148.95	<LOD	41.1	<LOD	195
LL11338	<LOD	62.55	<LOD	97.65	<LOD	70.5	<LOD	180	<LOD	56.25	<LOD	225
LL11292	<LOD	62.4	<LOD	85.65	<LOD	55.2	<LOD	165	<LOD	48.6	<LOD	210
LL11337	<LOD	56.7	<LOD	78.75	<LOD	54.75	<LOD	165	<LOD	40.8	<LOD	210
LL11336	<LOD	62.4	<LOD	72.9	<LOD	56.7	<LOD	165	<LOD	40.95	<LOD	210
LL11326	<LOD	62.25	<LOD	88.05	<LOD	67.8	<LOD	180	<LOD	42.45	<LOD	210
LL11327	<LOD	55.95	<LOD	74.4	<LOD	56.1	<LOD	165	<LOD	46.95	<LOD	195
LL10972	<LOD	59.1	<LOD	72.45	<LOD	57.75	<LOD	165	<LOD	41.25	<LOD	195
LL10973	<LOD	58.65	<LOD	72.15	<LOD	43.95	<LOD	165	<LOD	53.55	<LOD	195
LL10974	<LOD	54.15	<LOD	74.55	<LOD	52.2	<LOD	147.6	<LOD	40.65	<LOD	180
LL10977	<LOD	63.3	<LOD	76.8	<LOD	59.4	<LOD	150	<LOD	43.5	<LOD	210
LL10977	<LOD	53.85	<LOD	70.05	<LOD	52.65	<LOD	143.25	<LOD	41.4	<LOD	180
LL10978	<LOD	56.55	<LOD	63.9	<LOD	50.1	<LOD	141.75	<LOD	41.25	<LOD	180
LL10979	<LOD	58.95	<LOD	72	<LOD	49.65	<LOD	150	<LOD	32.25	<LOD	195
LL10980	<LOD	60.15	<LOD	80.4	<LOD	63.9	<LOD	165	<LOD	53.1	<LOD	195
LL10982	<LOD	56.25	<LOD	60.9	<LOD	45.6	<LOD	137.85	<LOD	36.15	<LOD	180
LL10983	<LOD	52.95	<LOD	60.15	<LOD	50.25	<LOD	131.1	<LOD	34.2	<LOD	165

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL11342	<LOD	33.3	29.4	7.7	723.6	17.5	58.3	7.5	68.2	8.5	<LOD	16.95
LL11341	<LOD	42.45	19.5	7.4	578	16.5	75.5	8.4	89.8	10	22	12.5
LL11340	<LOD	37.8	<LOD	11.4	558.4	17.5	66.4	9.1	75.9	9.8	22.8	14
LL11293	<LOD	34.95	19.4	7.2	561.6	16.2	69.8	8.3	90.3	9.8	20.6	12.1
LL11339	<LOD	41.25	15.8	7.2	520.4	16	78.4	8.7	86.4	9.9	32.8	13.4
LL11294	<LOD	38.25	19.9	7.8	688	18	61	8.1	87.7	9.9	23.7	12.8
LL11338	<LOD	46.65	17.4	8.1	780	19.6	76.6	8.7	87.5	9.9	35.4	13.5
LL11292	<LOD	35.1	18.4	8	732	18.8	59.2	8.2	90.4	10.1	29.1	13.5
LL11337	<LOD	40.05	24.5	7.9	664.4	18	67.4	8.5	91	10.2	24.2	13.1
LL11336	<LOD	38.85	29.4	8.7	854.4	20.7	60.5	8.4	73.8	9.4	25.7	13.3
LL11326	<LOD	40.95	20.3	7.5	564.4	16.6	95.9	9.1	86.3	10	46	14.3
LL11327	<LOD	32.1	21.9	7.2	546.8	15.7	68.7	8.1	110.1	10.6	26.9	12.7
LL10972	<LOD	34.65	14.7	6.8	472.4	14.9	66.9	8.2	100.7	10.3	104.3	17.3
LL10973	<LOD	37.2	12.1	6.9	548.8	15.7	70.8	8.2	103.3	10.3	292.4	24.7
LL10974	<LOD	36.45	11.8	6.5	426.4	14.1	73.6	8.3	93.1	9.9	242.4	23.1
LL10977	<LOD	40.95	12.8	6.3	369.2	13.1	62.5	7.8	102.5	10.3	19.5	11.8
LL10977	<LOD	31.35	10.5	6	383.2	12.8	65.4	7.6	97.1	9.6	27.2	11.8
LL10978	<LOD	32.85	<LOD	8.55	397	12.4	66.2	7.2	102.8	9.4	33.1	11.5
LL10979	<LOD	43.05	12.8	5.9	334.4	12.1	61.8	7.5	130.7	10.9	35.3	12.3
LL10980	<LOD	38.25	<LOD	7.5	144.5	9.9	69.5	8.5	61.4	8.4	817.6	39.4
LL10982	<LOD	30.9	13.3	6.1	379	12.8	57.2	7.5	102.3	10	49.4	13.6
LL10983	<LOD	31.8	12.8	6	385.6	12.7	62.9	7.4	108.2	9.9	20.5	11.2

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL11342	<LOD	9.45	<LOD	13.2	<LOD	10.65	<LOD	40.5	<LOD	63.15	<LOD	111.15
LL11341	<LOD	9.3	<LOD	15.3	<LOD	11.55	106	31.9	<LOD	68.25	<LOD	124.5
LL11340	<LOD	10.05	<LOD	16.65	<LOD	12.6	109.8	35.5	<LOD	83.1	<LOD	180
LL11293	<LOD	8.7	<LOD	14.1	<LOD	10.65	148.6	33.6	<LOD	71.1	<LOD	121.65
LL11339	<LOD	9.45	<LOD	15.15	<LOD	11.55	122.1	33.1	<LOD	71.85	<LOD	129.75
LL11294	<LOD	9.6	17.1	10.6	<LOD	12.45	62.3	30.5	<LOD	70.8	<LOD	125.55
LL11338	<LOD	8.85	<LOD	15.15	<LOD	11.7	73.5	31.3	<LOD	72.9	<LOD	128.55
LL11292	<LOD	9.6	<LOD	15.6	<LOD	12.9	96	32.7	<LOD	73.05	<LOD	139.95
LL11337	<LOD	9.3	<LOD	15.9	<LOD	12.15	121.3	34.1	<LOD	76.35	<LOD	137.7
LL11336	<LOD	9.45	<LOD	15.45	<LOD	12	184.1	37	<LOD	76.05	<LOD	144.9
LL11326	<LOD	9.15	<LOD	16.35	<LOD	12	98.8	32.4	<LOD	71.4	<LOD	131.1
LL11327	<LOD	9.3	<LOD	14.85	<LOD	11.55	90.2	30.7	<LOD	68.7	<LOD	123.45
LL10972	<LOD	9.3	<LOD	18.3	<LOD	11.7	173.8	34.4	<LOD	70.05	<LOD	128.7
LL10973	<LOD	9.45	<LOD	25.35	<LOD	11.85	357	41.4	<LOD	76.5	<LOD	127.05
LL10974	<LOD	9.6	28.4	16.6	<LOD	13.2	441.6	44.3	<LOD	77.1	<LOD	126
LL10977	<LOD	8.85	15.3	9.7	<LOD	10.95	78.6	29.6	<LOD	68.1	<LOD	121.65
LL10977	<LOD	8.1	<LOD	13.5	<LOD	10.8	70.6	27.9	<LOD	65.55	<LOD	113.85
LL10978	<LOD	7.95	<LOD	12.75	<LOD	9.75	64.8	25.7	<LOD	57.6	<LOD	95.55
LL10979	<LOD	8.4	<LOD	14.1	<LOD	10.35	142.9	30.7	<LOD	64.2	<LOD	113.85
LL10980	<LOD	10.35	<LOD	39.75	<LOD	16.2	3068.8	100	472.4	93.1	<LOD	165
LL10982	<LOD	8.85	<LOD	15.15	<LOD	11.25	93	29.7	<LOD	68.55	<LOD	118.8
LL10983	<LOD	7.95	<LOD	13.65	<LOD	10.8	79.2	27.4	<LOD	60.45	<LOD	108.6

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL11342	<LOD	300	18892.8	510	916.8	330	<LOD	225
LL11341	<LOD	345	24499.2	620	1269.6	390	<LOD	270
LL11340	<LOD	540	53964.8	1100	2259.2	590	<LOD	375
LL11293	<LOD	345	24793.6	620	1300	390	<LOD	255
LL11339	<LOD	360	24896	630	1340	400	<LOD	270
LL11294	<LOD	360	25088	630	860.8	380	<LOD	270
LL11338	<LOD	375	26982.4	660	983.2	400	288.8	190
LL11292	<LOD	390	30899.2	710	1200	430	<LOD	270
LL11337	<LOD	405	31897.6	730	1260	440	<LOD	285
LL11336	<LOD	420	34892.8	770	1720	470	<LOD	300
LL11326	<LOD	360	26393.6	650	1659.2	420	<LOD	270
LL11327	<LOD	360	25395.2	620	1380	390	<LOD	255
LL10972	<LOD	375	29798.4	680	762	400	<LOD	255
LL10973	<LOD	360	25689.6	610	572.4	370	<LOD	240
LL10974	<LOD	360	27980.8	650	1609.6	410	<LOD	270
LL10977	<LOD	330	21593.6	560	<LOD	495	<LOD	225
LL10977	<LOD	315	21094.4	530	<LOD	480	<LOD	210
LL10978	<LOD	255	14988.8	420	<LOD	390	<LOD	180
LL10979	<LOD	300	20992	530	1080	340	<LOD	225
LL10980	<LOD	465	46284.8	880	967.2	480	<LOD	300
LL10982	<LOD	330	24588.8	590	<LOD	525	<LOD	225
LL10983	<LOD	315	21990.4	540	686.8	330	<LOD	210

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-256	LL10984	REG	9/17/00	Grab	Surface Soil	<LOD	43.65	436	79.2
LL1-256	LL10984	DUP	9/17/00	Grab	Surface Soil	<LOD	50.4	384	68
LL1-257	LL10985	REG	9/17/00	Grab	Surface Soil	<LOD	46.95	500	75.6
LL1-258	LL10986	REG	9/17/00	Grab	Surface Soil	<LOD	22.05	422	42.8
LL1-259	LL10987	REG	9/17/00	Grab	Surface Soil	<LOD	37.2	419.6	74.8
LL1-260	LL10988	REG	9/16/00	Grab	Surface Soil	<LOD	47.1	432	75
LL1-261	LL10989	REG	9/16/00	Grab	Surface Soil	<LOD	43.8	358.6	62.9
LL1-262	LL10990	REG	9/17/00	Grab	Surface Soil	<LOD	50.4	492.8	75.8
LL1-263	LL10991	REG	9/17/00	Grab	Surface Soil	40.7	16.5	342.6	37.9
LL1-264	LL10992	REG	9/18/00	Grab	Surface Soil	<LOD	36.6	433.2	71
LL1-264	LL10992	DUP	9/18/00	Grab	Surface Soil	<LOD	45.3	401	72.8
LL1-264	LL11232	REG	9/30/00	Grab	Subsurface soil	<LOD	72	422	95.5
LL1-265	LL10993	REG	9/18/00	Grab	Surface Soil	<LOD	46.65	491.2	84.3
LL1-265	LL11233	REG	9/30/00	Grab	Subsurface soil	<LOD	52.2	410.4	75.7
LL1-265	LL11279	REG	9/30/00	Field Duplicate	Subsurface soil	<LOD	50.25	371	70.9
LL1-266	LL10994	REG	9/17/00	Grab	Surface Soil	27.3	15.3	450.4	43.8
LL1-266	LL11247	REG	9/30/00	Grab	Subsurface soil	<LOD	59.25	504.8	92
LL1-267	LL10995	REG	9/25/00	Grab	Surface Soil	55.6	36.4	434	74.5
LL1-267	LL10995	DUP	9/25/00	Grab	Surface Soil	<LOD	47.7	376.6	73.5
LL1-268	LL10996	REG	9/18/00	Grab	Surface Soil	<LOD	51.15	399.8	69
LL1-268	LL11246	REG	9/30/00	Grab	Subsurface soil	<LOD	51.45	368.8	76.8
LL1-269	LL10997	REG	9/25/00	Grab	Surface Soil	<LOD	47.4	490.4	80.4

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL10984	<LOD	66	<LOD	70.35	<LOD	58.95	<LOD	147.3	<LOD	39.45	<LOD	195
LL10984	<LOD	54.3	<LOD	64.2	<LOD	55.2	<LOD	138.75	<LOD	32.25	<LOD	165
LL10985	<LOD	57.45	<LOD	62.25	<LOD	46.5	<LOD	137.55	<LOD	39.15	<LOD	165
LL10986	<LOD	37.8	<LOD	45.6	<LOD	34.95	99	57.9	<LOD	27.3	<LOD	136.8
LL10987	<LOD	62.1	<LOD	73.65	<LOD	48.15	<LOD	147.45	<LOD	36.3	<LOD	195
LL10988	<LOD	54	<LOD	72.6	<LOD	47.55	<LOD	137.7	<LOD	37.35	<LOD	180
LL10989	<LOD	49.65	<LOD	61.8	<LOD	49.05	<LOD	132.9	<LOD	31.35	<LOD	165
LL10990	<LOD	59.1	<LOD	69.9	<LOD	44.25	<LOD	135.45	<LOD	35.55	<LOD	180
LL10991	<LOD	35.7	<LOD	42.75	<LOD	33.3	95.3	55.6	<LOD	27.9	<LOD	131.55
LL10992	<LOD	52.5	<LOD	64.2	<LOD	48.3	<LOD	131.85	<LOD	34.2	<LOD	180
LL10992	<LOD	55.35	<LOD	69.3	<LOD	44.25	<LOD	144.45	<LOD	41.55	<LOD	180
LL11232	<LOD	81.75	<LOD	94.05	<LOD	72	<LOD	165	<LOD	53.55	<LOD	255
LL10993	<LOD	65.25	<LOD	72.3	<LOD	57.15	<LOD	165	<LOD	39.3	<LOD	195
LL11233	<LOD	54.45	<LOD	75.9	<LOD	53.7	<LOD	146.85	<LOD	36.6	<LOD	180
LL11279	<LOD	64.2	<LOD	64.65	<LOD	48.6	<LOD	150	<LOD	40.2	<LOD	180
LL10994	<LOD	36.45	<LOD	47.4	<LOD	34.95	<LOD	80.85	<LOD	27.6	<LOD	132.6
LL11247	<LOD	55.65	<LOD	74.25	<LOD	60	<LOD	165	<LOD	44.55	<LOD	210
LL10995	<LOD	60.15	<LOD	67.65	<LOD	48.45	<LOD	138.3	<LOD	37.35	<LOD	180
LL10995	<LOD	62.85	<LOD	78	<LOD	51.15	<LOD	147.75	<LOD	37.05	<LOD	195
LL10996	<LOD	57.6	<LOD	66.45	<LOD	49.95	<LOD	138.45	<LOD	33.6	<LOD	180
LL11246	<LOD	56.55	<LOD	76.5	<LOD	58.5	<LOD	150	<LOD	37.5	<LOD	210
LL10997	<LOD	56.85	<LOD	67.2	<LOD	47.4	<LOD	144	<LOD	34.35	<LOD	195

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL10984	<LOD	36.3	<LOD	8.85	340	12.5	67.9	7.9	108.1	10.3	35.7	13
LL10984	<LOD	29.7	12.6	6.1	332.4	12.5	56.3	7.7	100.6	10.1	34.6	13
LL10985	<LOD	34.65	16.4	6.1	313.6	12.3	62.6	7.8	112.1	10.6	30.1	12.5
LL10986	<LOD	27.3	<LOD	7.5	269.2	6.6	40.3	4.4	118.5	7.2	30.2	12.2
LL10987	<LOD	33	11.7	6	349.2	12.3	58.1	7.4	111.9	10.3	<LOD	16.5
LL10988	<LOD	31.8	19.7	6.6	449.6	14.1	58.2	7.6	111.8	10.5	22.2	11.9
LL10989	<LOD	29.55	13.2	6.5	426.8	14	61.8	7.9	103.1	10.3	21.9	12.2
LL10990	<LOD	30.3	19.8	6.7	445.6	14.2	71.7	8	113.5	10.7	<LOD	16.8
LL10991	<LOD	26.85	<LOD	7.8	350.2	7.4	43.2	4.3	105	6.7	21.1	11.2
LL10992	<LOD	30.3	10.5	6.1	379.6	13	70.5	7.8	114.1	10.5	21.3	11.6
LL10992	<LOD	33.45	12	6.2	381.8	13.2	72.3	8	102.9	10.1	27.1	12
LL11232	<LOD	43.05	17.4	6.5	331	13.2	65	8.4	121.3	11.5	<LOD	17.85
LL10993	<LOD	40.35	14.6	6.2	325.6	12.8	72.7	8.3	105.4	10.5	<LOD	17.55
LL11233	<LOD	34.2	14.9	6.4	330.8	13.3	71.2	8.6	122.9	11.5	19.4	12.8
LL11279	<LOD	35.7	12.7	6.4	359.6	13.4	56.8	8	123.2	11.4	<LOD	17.7
LL10994	<LOD	25.05	<LOD	7.95	325.2	7.4	69.5	5	108.5	7.1	23.6	12.1
LL11247	<LOD	36.15	<LOD	9.15	329.4	12.7	91	8.6	97.7	10.1	29.1	12.6
LL10995	<LOD	32.7	15.5	6.2	335	12.6	75.3	8.2	106.1	10.4	34.1	12.9
LL10995	<LOD	33.75	17.7	6.3	333	13	88.7	8.7	96.6	10.1	31.8	12.9
LL10996	<LOD	31.8	13.2	6.2	385	13.1	63.1	7.7	114.6	10.6	27.1	12.2
LL11246	<LOD	44.4	12.3	6.3	370.2	13.1	70.2	8	106.5	10.4	31	12.6
LL10997	<LOD	34.2	9.8	6.1	361.6	12.9	68.1	7.9	103	10.1	20.3	11.9

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL10984	<LOD	9.15	<LOD	14.7	<LOD	10.65	94.6	29.9	<LOD	68.4	<LOD	125.55
LL10984	<LOD	8.85	<LOD	15.45	<LOD	11.55	81.9	29.8	<LOD	68.55	<LOD	128.25
LL10985	<LOD	8.55	<LOD	14.4	<LOD	10.2	86.2	29.8	<LOD	68.25	<LOD	122.85
LL10986	ND	ND	<LOD	15.9	<LOD	9.45	61.3	20.8	<LOD	50.85	<LOD	114.75
LL10987	<LOD	8.1	<LOD	12.6	<LOD	9.75	61.1	27.5	<LOD	65.25	<LOD	112.35
LL10988	<LOD	8.4	<LOD	14.25	<LOD	11.4	102.3	30.2	<LOD	66.15	<LOD	115.8
LL10989	<LOD	9	19.1	10.1	<LOD	11.25	206.6	35.9	<LOD	74.85	<LOD	127.65
LL10990	<LOD	8.7	<LOD	13.5	<LOD	10.95	77.2	29.7	<LOD	69	<LOD	122.7
LL10991	ND	ND	<LOD	14.7	<LOD	8.7	66.4	20.5	<LOD	49.5	<LOD	103.5
LL10992	<LOD	8.25	<LOD	14.1	<LOD	10.95	76.3	28.4	<LOD	63.75	<LOD	110.1
LL10992	<LOD	8.25	<LOD	14.25	<LOD	11.1	104	29.8	<LOD	63.9	<LOD	114.75
LL11232	<LOD	9.9	17.5	10	<LOD	11.4	87.2	31.9	<LOD	75	<LOD	141.15
LL10993	<LOD	9.3	<LOD	14.1	<LOD	11.1	69.5	29.1	<LOD	66.6	<LOD	124.95
LL11233	<LOD	9.75	<LOD	15.3	<LOD	12.3	80.6	31.4	<LOD	74.25	<LOD	144.15
LL11279	<LOD	9.15	15.1	9.8	<LOD	11.55	102.2	31.5	<LOD	68.4	<LOD	138.15
LL10994	ND	ND	<LOD	16.2	<LOD	9.75	73.3	22.2	<LOD	54.75	<LOD	120
LL11247	<LOD	8.85	<LOD	14.7	<LOD	10.35	81.3	30.5	<LOD	73.5	<LOD	126.3
LL10995	<LOD	8.7	<LOD	14.7	<LOD	10.5	97.8	30.6	<LOD	70.5	<LOD	126.15
LL10995	<LOD	8.7	<LOD	14.85	<LOD	11.55	92.2	30.3	<LOD	66.9	<LOD	130.2
LL10996	<LOD	8.4	<LOD	14.55	<LOD	10.5	95.3	30.1	<LOD	69	<LOD	118.35
LL11246	<LOD	8.55	15.3	10	<LOD	10.5	109	31.2	<LOD	71.4	<LOD	122.4
LL10997	<LOD	9	15.2	9.7	<LOD	10.95	103.5	30.3	<LOD	68.55	<LOD	120

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL10984	<LOD	360	27187.2	630	<LOD	540	<LOD	240
LL10984	<LOD	360	26675.2	630	618.8	370	<LOD	240
LL10985	<LOD	345	24896	610	556	360	<LOD	240
LL10986	386.2	220	27776	540	2668.8	470	<LOD	390
LL10987	309.6	200	18188.8	490	<LOD	450	<LOD	195
LL10988	<LOD	330	22988.8	570	<LOD	510	<LOD	225
LL10989	<LOD	360	26598.4	630	<LOD	555	<LOD	240
LL10990	<LOD	330	22796.8	580	<LOD	510	<LOD	225
LL10991	<LOD	270	21094.4	450	1440	390	<LOD	315
LL10992	<LOD	315	20595.2	540	576	330	<LOD	225
LL10992	<LOD	315	21388.8	550	553.6	330	<LOD	210
LL11232	<LOD	420	31590.4	730	<LOD	630	<LOD	255
LL10993	<LOD	360	26099.2	630	<LOD	540	<LOD	225
LL11233	<LOD	420	35379.2	770	<LOD	645	<LOD	255
LL11279	<LOD	420	34892.8	760	<LOD	630	<LOD	255
LL10994	409.6	220	28288	550	2828.8	480	<LOD	390
LL11247	<LOD	360	26393.6	630	1240	390	<LOD	255
LL10995	<LOD	360	27289.6	640	592.4	380	<LOD	240
LL10995	<LOD	360	26598.4	640	620.4	380	<LOD	240
LL10996	<LOD	330	23590.4	580	561.2	350	<LOD	240
LL11246	<LOD	345	24588.8	600	678.4	360	<LOD	240
LL10997	<LOD	345	25497.6	610	<LOD	540	<LOD	240

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-270	LL10998	REG	9/25/00	Grab	Surface Soil	<LOD	41.1	369	69.2
LL1-271	LL10999	REG	9/25/00	Grab	Surface Soil	<LOD	50.55	450.4	72.2
LL1-272	LL11000	REG	9/25/00	Grab	Surface Soil	<LOD	52.8	497.2	82.6
LL1-273	LL11001	REG	9/26/00	Grab	Surface Soil	<LOD	52.5	390.6	71.4
LL1-274	LL11002	REG	9/15/00	Grab	Surface Soil	<LOD	32.85	411.2	61.1
LL1-274	LL11002	DUP	9/15/00	Grab	Surface Soil	30.1	15.8	486.8	45.2
LL1-275	LL11003	REG	9/15/00	Grab	Surface Soil	<LOD	41.55	436.4	69.5
LL1-275	LL11003	DUP	9/15/00	Grab	Surface Soil	34.8	17.3	416.4	45
LL1-276	LL11004	REG	9/15/00	Grab	Surface Soil	<LOD	36	444	65.8
LL1-276	LL11004	DUP	9/15/00	Grab	Surface Soil	<LOD	33.45	394.2	58.5
LL1-276	LL11107	REG	9/15/00	Field Duplicate	Surface Soil	27.3	12.3	434	34.4
LL1-276	LL11107	DUP	9/15/00	Field Duplicate	Surface Soil	36.5	15.9	428.8	41.4
LL1-277	LL11005	REG	9/15/00	Grab	Surface Soil	<LOD	30	426	63
LL1-277	LL11005	DUP	9/15/00	Grab	Surface Soil	30.9	16.1	418.4	43
LL1-278	LL11006	REG	9/15/00	Grab	Surface Soil	<LOD	29.55	402.2	61.9
LL1-278	LL11006	DUP	9/15/00	Grab	Surface Soil	30.2	15.9	404.8	42.3
LL1-279	LL11007	REG	9/15/00	Grab	Surface Soil	<LOD	33.6	449.2	61.7
LL1-279	LL11007	DUP	9/15/00	Grab	Surface Soil	36.1	16.5	406.8	42
LL1-280	LL11008	REG	9/15/00	Grab	Surface Soil	<LOD	32.1	452.4	64.5
LL1-280	LL11008	DUP	9/15/00	Grab	Surface Soil	28.6	15.7	453.6	44
LL1-281	LL11009	REG	9/15/00	Grab	Surface Soil	42.9	26.1	412.4	61.9
LL1-281	LL11009	DUP	9/15/00	Grab	Surface Soil	23.6	15	399	41.7

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL10998	<LOD	52.5	<LOD	71.25	<LOD	50.7	<LOD	139.8	<LOD	41.85	<LOD	165
LL10999	<LOD	51.3	<LOD	63.75	<LOD	52.2	<LOD	137.7	<LOD	35.85	<LOD	180
LL11000	<LOD	63.15	<LOD	63.75	<LOD	45.3	<LOD	139.8	<LOD	39.45	<LOD	180
LL11001	<LOD	56.7	<LOD	72.45	<LOD	51.75	<LOD	148.2	<LOD	36.6	<LOD	180
LL11002	<LOD	49.35	<LOD	66.3	<LOD	48.15	167.3	95.1	<LOD	41.7	<LOD	315
LL11002	<LOD	35.4	<LOD	45.6	<LOD	35.25	<LOD	81.3	<LOD	27.15	<LOD	136.65
LL11003	<LOD	58.05	<LOD	63.45	<LOD	52.95	286.6	110	<LOD	42.9	<LOD	360
LL11003	<LOD	37.8	<LOD	51.45	<LOD	39.75	<LOD	90.15	<LOD	31.5	<LOD	143.4
LL11004	<LOD	57.6	<LOD	62.4	<LOD	49.05	<LOD	145.35	<LOD	43.35	<LOD	330
LL11004	<LOD	49.8	<LOD	59.85	<LOD	52.95	<LOD	138.45	<LOD	34.35	<LOD	315
LL11107	<LOD	27.3	<LOD	36.9	<LOD	26.7	<LOD	66.9	<LOD	21.75	<LOD	108.9
LL11107	<LOD	36.75	<LOD	46.65	<LOD	34.35	<LOD	81.3	<LOD	26.1	<LOD	131.1
LL11005	<LOD	52.5	<LOD	61.65	<LOD	52.65	215.6	99.5	<LOD	47.1	<LOD	330
LL11005	<LOD	37.5	<LOD	49.35	<LOD	35.4	<LOD	85.2	<LOD	26.1	<LOD	136.5
LL11006	<LOD	53.7	<LOD	58.8	<LOD	49.5	<LOD	143.4	<LOD	40.05	<LOD	330
LL11006	<LOD	36.9	<LOD	45.9	<LOD	34.8	<LOD	82.05	<LOD	28.65	<LOD	138
LL11007	<LOD	49.35	<LOD	60.6	<LOD	50.7	223	93.3	<LOD	39	<LOD	300
LL11007	<LOD	36.45	<LOD	45.45	<LOD	31.65	<LOD	83.4	<LOD	26.55	<LOD	137.1
LL11008	<LOD	48.3	<LOD	60	<LOD	50.25	<LOD	139.05	<LOD	38.55	<LOD	315
LL11008	<LOD	38.1	<LOD	46.2	<LOD	37.2	135.2	58.3	<LOD	30.45	<LOD	134.85
LL11009	<LOD	55.5	<LOD	59.85	<LOD	46.65	<LOD	137.7	<LOD	41.7	<LOD	315
LL11009	<LOD	35.4	<LOD	44.85	<LOD	34.8	111	58.2	<LOD	27.6	<LOD	138.45

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL10998	<LOD	37.35	15.3	6.4	338.4	13.2	77	8.5	120.1	11.2	<LOD	18
LL10999	<LOD	30.15	<LOD	9	336	12.6	67.2	7.9	103.2	10.2	32	12.8
LL11000	<LOD	35.4	<LOD	9.3	344.8	13	74.5	8.3	114.9	11	19.1	12.3
LL11001	<LOD	35.25	14.4	6.2	352	12.6	63.1	7.7	107	10.3	30.2	12.3
LL11002	<LOD	34.5	8.1	4.7	319.6	9.8	63.6	6.3	109	8.7	<LOD	17.1
LL11002	<LOD	25.05	<LOD	7.8	308.2	7.1	47.7	4.5	117.8	7.2	35.3	12.3
LL11003	<LOD	49.8	7.7	5	276.6	10.2	63.9	7	135.1	10.4	<LOD	20.85
LL11003	<LOD	28.95	<LOD	7.5	266.6	6.7	41.1	4.5	139.6	7.8	26.2	12.8
LL11004	<LOD	53.1	<LOD	7.2	298.6	9.9	65.6	6.6	116	9.3	<LOD	19.2
LL11004	<LOD	37.95	<LOD	7.2	295.2	9.8	64.9	6.5	121.6	9.4	<LOD	18.6
LL11107	<LOD	20.55	<LOD	7.35	278.4	6.7	47.5	4.5	125	7.3	32.6	12.2
LL11107	<LOD	27.3	<LOD	7.5	293	6.9	45.3	4.4	124.1	7.3	34.8	12.3
LL11005	<LOD	39.6	7.6	4.9	272.2	9.9	54.4	6.7	134.4	10.2	<LOD	20.4
LL11005	<LOD	28.2	<LOD	7.65	271	6.7	43.4	4.5	130.6	7.6	37.3	12.8
LL11006	<LOD	42.3	8	5	299.4	10.2	63.1	6.8	112.3	9.5	<LOD	19.95
LL11006	<LOD	25.5	<LOD	7.5	285.4	6.8	47.3	4.5	124.4	7.3	45.9	12.7
LL11007	<LOD	38.55	9.4	5	293	10.2	70.4	7	127.1	10	45.2	14.8
LL11007	<LOD	26.7	<LOD	7.65	293.4	7	44.2	4.5	123.5	7.4	81.8	13.9
LL11008	<LOD	36.15	9.5	5	311	10.3	71.8	6.9	112.8	9.3	<LOD	19.5
LL11008	<LOD	27.3	<LOD	7.5	296.8	6.9	48.6	4.5	123	7.3	36	12.4
LL11009	<LOD	36.15	<LOD	7.35	290.2	10.2	66	6.9	129.3	10	118.2	17.6
LL11009	<LOD	28.05	<LOD	7.5	282.6	6.8	48.9	4.6	123.5	7.4	124.4	15.1

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL10998	<LOD	8.55	<LOD	14.85	<LOD	11.85	85	30.6	<LOD	70.2	<LOD	130.95
LL10999	<LOD	9.15	<LOD	14.55	<LOD	10.8	73.8	29.1	<LOD	67.2	<LOD	121.65
LL11000	<LOD	9.3	15.1	10	<LOD	11.1	75.9	30.1	<LOD	68.1	<LOD	123.3
LL11001	<LOD	8.1	<LOD	14.7	<LOD	10.8	74.1	29	<LOD	66.9	<LOD	120.45
LL11002	<LOD	8.25	21.2	10.1	<LOD	8.85	55.9	25.4	<LOD	73.05	599.2	180
LL11002	ND	ND	<LOD	15.9	<LOD	9.3	52.4	20.7	<LOD	52.05	<LOD	110.4
LL11003	<LOD	9.45	<LOD	17.55	<LOD	10.35	56.9	27.2	<LOD	73.8	<LOD	285
LL11003	ND	ND	<LOD	16.5	<LOD	9.6	68.7	21.7	<LOD	52.65	<LOD	115.05
LL11004	<LOD	9.15	<LOD	16.65	<LOD	9.45	62.4	28	<LOD	83.55	1589.6	210
LL11004	<LOD	8.25	16.8	10.8	<LOD	9.75	63.1	24.9	<LOD	65.1	<LOD	255
LL11107	ND	ND	<LOD	15.9	<LOD	8.85	69.5	21	<LOD	51.45	<LOD	106.95
LL11107	ND	ND	<LOD	16.05	<LOD	8.7	93.3	22	<LOD	51.9	<LOD	106.8
LL11005	<LOD	8.85	<LOD	17.25	<LOD	9.9	52.7	28.1	<LOD	81.9	512.4	200
LL11005	ND	ND	<LOD	16.5	<LOD	9	74.8	21.6	<LOD	52.2	<LOD	115.05
LL11006	<LOD	8.7	<LOD	17.1	<LOD	9.3	74.6	29.3	<LOD	85.8	1380	210
LL11006	ND	ND	<LOD	16.35	<LOD	9.15	82.9	21.6	<LOD	51.45	<LOD	108.3
LL11007	<LOD	9.15	<LOD	18.75	<LOD	9.45	128.8	30.4	<LOD	81.6	681.2	200
LL11007	ND	ND	<LOD	18.15	<LOD	9.15	111.6	23.2	<LOD	53.7	<LOD	114.15
LL11008	<LOD	8.85	<LOD	16.8	<LOD	10.05	62.8	26.9	<LOD	75	459.2	190
LL11008	ND	ND	<LOD	15.75	<LOD	9.15	73.4	21.4	<LOD	51.6	<LOD	108.9
LL11009	<LOD	9.15	<LOD	21.75	<LOD	9.9	85.9	28.9	<LOD	81.15	567.6	200
LL11009	ND	ND	<LOD	19.95	<LOD	9.75	108.2	23.3	<LOD	55.2	<LOD	115.2

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL10998	<LOD	405	31385.6	710	706.8	410	<LOD	255
LL10999	<LOD	360	26099.2	620	<LOD	540	<LOD	225
LL11000	<LOD	360	25395.2	630	<LOD	555	<LOD	240
LL11001	<LOD	345	23897.6	590	<LOD	510	<LOD	225
LL11002	206.2	130	24192	470	453.6	270	<LOD	255
LL11002	<LOD	300	24396.8	500	2268.8	440	<LOD	345
LL11003	<LOD	225	28979.2	570	558.4	330	<LOD	300
LL11003	<LOD	330	28083.2	550	2680	480	<LOD	375
LL11004	<LOD	195	23488	480	492.8	280	<LOD	285
LL11004	<LOD	195	23897.6	480	707.6	290	<LOD	270
LL11107	318.4	190	22796.8	480	2129.6	420	<LOD	345
LL11107	320.6	200	23590.4	490	2369.6	430	<LOD	345
LL11005	287.6	150	26598.4	540	822.4	320	<LOD	285
LL11005	454	220	26982.4	530	2200	460	<LOD	360
LL11006	220.2	140	22796.8	490	622	290	<LOD	285
LL11006	<LOD	300	23296	490	1760	420	<LOD	330
LL11007	<LOD	210	25395.2	520	964	310	<LOD	300
LL11007	<LOD	300	25689.6	520	2299.2	450	<LOD	360
LL11008	<LOD	210	25088	510	530.4	300	<LOD	285
LL11008	300.8	200	24691.2	500	2468.8	440	<LOD	345
LL11009	<LOD	225	27980.8	550	548	310	<LOD	300
LL11009	<LOD	315	27980.8	540	1708.8	450	<LOD	360

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-286	LL11016	REG	9/16/00	Grab	Sediment	<LOD	21	369.8	39.3
LL1-287	LL11017	REG	9/16/00	Grab	Sediment	<LOD	43.2	381.4	66.3
LL1-288	LL11018	REG	9/16/00	Grab	Sediment	<LOD	46.5	477.2	74.8
LL1-289	LL11019	REG	9/16/00	Grab	Sediment	28.9	16.2	374.6	41.6
LL1-295	LL11025	REG	9/18/00	Grab	Sediment	<LOD	49.35	699.2	120
LL1-300	LL11030	REG	9/25/00	Grab	Sediment	<LOD	46.05	269.6	61.6
LL1-301	LL11031	REG	9/25/00	Grab	Sediment	74.5	44.9	263.8	69.2
LL1-301	LL11031	DUP	9/25/00	Grab	Sediment	<LOD	59.1	208	71.3
LL1-304	LL11034	REG	9/18/00	Grab	Sediment	<LOD	50.55	426	74.3
LL1-306	LL11036	REG	9/19/00	Grab	Sediment	<LOD	66.15	331.6	76.8
LL1-308	LL11038	REG	9/19/00	Grab	Sediment	<LOD	44.55	282.8	75.3
LL1-310	LL11040	REG	9/19/00	Grab	Sediment	<LOD	46.35	341.6	69.7
LL1-318	LL11057	REG	9/15/00	Grab	Sediment	<LOD	33.9	360.4	56.9
LL1-318	LL11098	REG	11/6/00	Grab	Sediment	24.2	14.7	396.8	40.6
LL1-319	LL11058	REG	9/14/00	Grab	Sediment	<LOD	30.6	352.2	58
LL1-319	LL11099	REG	11/6/00	Grab	Sediment	29.1	15.1	327.4	36.6
LL1-320	LL11059	REG	9/14/00	Grab	Sediment	<LOD	35.1	325.4	58.2
LL1-320	LL11100	REG	11/6/00	Grab	Sediment	<LOD	19.95	292.4	38.2
LL1-321	LL11060	REG	9/14/00	Grab	Sediment	<LOD	34.35	342.2	59
LL1-321	LL11060	DUP	9/14/00	Grab	Sediment	27.7	15.5	289.2	36.3
LL1-321	LL11101	REG	11/6/00	Grab	Sediment	28.3	15.1	299.2	35.8
LL1-322	LL11061	REG	9/13/00	Grab	Sediment	44.7	27.1	302	55.2

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL11016	<LOD	34.65	<LOD	43.35	<LOD	32.85	<LOD	82.5	<LOD	27.75	<LOD	134.25
LL11017	<LOD	52.05	<LOD	61.5	<LOD	53.25	<LOD	135	<LOD	39.75	<LOD	165
LL11018	<LOD	58.05	<LOD	60.75	<LOD	44.1	<LOD	135.6	<LOD	33.6	<LOD	180
LL11019	<LOD	38.55	<LOD	48	<LOD	33.15	125	60.2	<LOD	29.25	<LOD	141.75
LL11025	<LOD	79.5	<LOD	87	<LOD	75	<LOD	195	<LOD	49.05	<LOD	240
LL11030	<LOD	55.35	<LOD	67.65	<LOD	61.65	<LOD	146.7	<LOD	36.9	<LOD	180
LL11031	<LOD	58.5	<LOD	81	<LOD	63.45	<LOD	165	<LOD	43.2	<LOD	195
LL11031	<LOD	57.9	<LOD	84.15	<LOD	57.75	<LOD	195	<LOD	57	<LOD	240
LL11034	<LOD	53.25	<LOD	65.7	<LOD	53.4	<LOD	144	<LOD	39.15	<LOD	180
LL11036	<LOD	67.2	<LOD	80.1	<LOD	58.2	<LOD	165	<LOD	45.6	<LOD	210
LL11038	<LOD	60	<LOD	85.8	<LOD	68.1	<LOD	180	<LOD	44.4	<LOD	225
LL11040	<LOD	80.1	<LOD	75	648	100	<LOD	150	<LOD	47.25	<LOD	195
LL11057	<LOD	48.6	<LOD	60.9	<LOD	51.75	296.6	98.1	<LOD	36.9	<LOD	315
LL11098	<LOD	34.8	<LOD	46.05	<LOD	31.95	<LOD	79.5	<LOD	25.5	<LOD	132.9
LL11058	<LOD	45.6	<LOD	62.25	<LOD	52.2	262.4	97.1	<LOD	36.75	<LOD	300
LL11099	<LOD	33.75	<LOD	43.5	<LOD	32.25	<LOD	79.95	<LOD	27.6	<LOD	134.55
LL11059	<LOD	47.1	<LOD	68.1	<LOD	53.55	<LOD	147.6	<LOD	41.1	<LOD	345
LL11100	<LOD	36.6	<LOD	48	<LOD	39	133.9	62.7	<LOD	27.3	<LOD	148.05
LL11060	<LOD	47.55	<LOD	63.15	<LOD	53.85	<LOD	146.4	<LOD	44.85	<LOD	345
LL11060	<LOD	36.6	<LOD	48.15	<LOD	33.9	<LOD	84	<LOD	26.4	<LOD	138.6
LL11101	<LOD	34.65	<LOD	45.3	<LOD	33.75	155.5	57.9	<LOD	26.4	<LOD	134.1
LL11061	<LOD	44.7	<LOD	68.55	<LOD	49.5	171.7	100	<LOD	40.8	<LOD	345

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL11016	<LOD	25.65	<LOD	7.65	347.6	7.2	58.7	4.5	86.6	6.1	50.9	11.6
LL11017	<LOD	32.7	11	6.2	420.8	13.3	72.9	7.7	100.1	9.8	48.2	13.2
LL11018	<LOD	33	11.5	5.8	286.6	11.5	66.3	7.7	108.6	10.3	26.1	12.1
LL11019	<LOD	28.35	<LOD	7.5	333	7	39.6	4.1	91.7	6.2	44.4	11.3
LL11025	<LOD	43.05	35.8	11	146.4	23.5	164.9	23.1	87.2	17.1	640.4	63.4
LL11030	<LOD	40.05	22.6	7.2	590	16.3	62.6	7.9	77.8	9.1	71.9	15.2
LL11031	<LOD	38.7	<LOD	11.1	292.6	16.1	88.7	12	85.9	12.1	65.3	20.6
LL11031	<LOD	48	<LOD	10.5	251.6	14.7	85.9	11.4	93	12	68.7	20.1
LL11034	<LOD	35.7	<LOD	7.8	199.7	10.2	81.3	8	116.1	10.4	84.1	15.3
LL11036	<LOD	34.8	<LOD	8.85	314	12.6	101.4	9	89.2	9.9	280.4	24.7
LL11038	<LOD	45.75	<LOD	7.5	214.6	10.1	110.9	8.5	74.3	8.6	214.2	20.5
LL11040	<LOD	31.95	<LOD	8.25	266.4	11.2	117.8	9	66	8.6	566.4	32.2
LL11057	<LOD	37.05	13	5	311.4	10	54.8	6.3	84.7	8.3	<LOD	17.4
LL11098	<LOD	25.8	<LOD	7.65	324.4	7.1	46	4.4	95.2	6.5	29.2	11.4
LL11058	<LOD	29.25	17.6	6	580.4	13.7	63.2	6.9	92.5	8.9	<LOD	20.4
LL11099	<LOD	24.6	<LOD	9.3	523.6	9.5	48.6	4.7	88.1	6.6	31.1	12
LL11059	<LOD	35.85	55.6	6.4	328	11.5	64.9	7.6	91.5	9.6	<LOD	23.1
LL11100	<LOD	29.1	69.1	6.6	301.6	7.6	55.5	5.1	82.6	6.9	21.9	12.9
LL11060	<LOD	33	15.1	5.2	306.8	10.3	48.5	6.5	76.9	8.4	<LOD	17.85
LL11060	<LOD	28.2	<LOD	7.65	293	6.9	35.2	4.2	85.1	6.3	20.7	11.2
LL11101	<LOD	26.1	<LOD	7.65	287.8	6.9	40.8	4.4	92.1	6.5	20.9	11.5
LL11061	<LOD	56.25	<LOD	7.8	353.6	11	57.9	6.8	75.1	8.4	<LOD	18

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL11016	ND	ND	<LOD	15.75	<LOD	8.55	83.1	21	<LOD	50.85	<LOD	100.65
LL11017	<LOD	8.7	<LOD	15	<LOD	10.8	148.6	31.3	<LOD	65.4	<LOD	111.9
LL11018	<LOD	8.7	14.7	9.7	<LOD	10.65	158.7	32.4	<LOD	67.8	<LOD	123.6
LL11019	ND	ND	<LOD	15.6	<LOD	8.4	252.6	26.4	<LOD	53.85	<LOD	95.85
LL11025	<LOD	24.15	103	44.8	<LOD	36	5920	250	1300	240	<LOD	690
LL11030	<LOD	9.3	<LOD	16.8	<LOD	10.8	155.5	33.5	<LOD	72.9	<LOD	129
LL11031	<LOD	11.85	<LOD	23.4	<LOD	15.6	428.4	57.6	<LOD	115.95	<LOD	285
LL11031	<LOD	11.85	<LOD	22.8	<LOD	15.45	416.4	54.6	<LOD	107.55	<LOD	270
LL11034	<LOD	8.55	<LOD	16.65	<LOD	10.5	326.4	38.4	<LOD	71.85	<LOD	123.75
LL11036	<LOD	9.45	<LOD	25.5	<LOD	12.6	434.8	44.5	<LOD	78.3	<LOD	121.95
LL11038	<LOD	8.1	<LOD	21.45	<LOD	10.5	297	36.6	<LOD	71.25	<LOD	130.65
LL11040	<LOD	9.45	<LOD	32.85	<LOD	14.55	2228.8	84.4	<LOD	108.45	<LOD	127.5
LL11057	<LOD	8.55	15.7	10.2	<LOD	9.15	106.3	28.9	<LOD	81.45	1069.6	190
LL11098	ND	ND	<LOD	15	<LOD	8.85	116.1	22.6	<LOD	51.6	<LOD	108
LL11058	<LOD	9.6	<LOD	17.4	<LOD	10.2	61.9	29.4	<LOD	86.7	1200	210
LL11099	ND	ND	<LOD	16.35	<LOD	9.45	81.1	22.9	<LOD	54.9	<LOD	119.55
LL11059	<LOD	9.75	74.3	14.8	<LOD	11.25	405	43.3	<LOD	100.05	<LOD	345
LL11100	ND	ND	60.3	13.7	<LOD	11.55	431.6	37.3	<LOD	75.75	<LOD	165
LL11060	<LOD	8.85	36.2	11.2	<LOD	10.05	71.6	29.2	<LOD	83.85	928	210
LL11060	ND	ND	17.5	10.5	<LOD	8.85	65.6	21.4	<LOD	52.65	<LOD	115.2
LL11101	ND	ND	20.5	10.7	<LOD	9.15	68.1	21.7	<LOD	53.25	<LOD	115.95
LL11061	<LOD	9.15	34.2	11.1	<LOD	9.75	97.3	29.7	<LOD	80.85	<LOD	300

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL11016	298.2	180	20198.4	440	1828.8	380	<LOD	315
LL11017	<LOD	315	21196.8	530	927.2	340	<LOD	225
LL11018	<LOD	345	23590.4	580	1880	390	<LOD	270
LL11019	<LOD	255	19097.6	420	2369.6	380	<LOD	330
LL11025	<LOD	2400	476774.41	9094.4	3648	2400	1549.6	869.6
LL11030	<LOD	375	29798.4	670	<LOD	570	<LOD	240
LL11031	<LOD	945	120934.4	2099.2	2009.6	960	<LOD	540
LL11031	<LOD	900	119910.4	2000	1668.8	909.6	<LOD	525
LL11034	<LOD	345	26598.4	610	1889.6	400	<LOD	270
LL11036	<LOD	360	24691.2	610	863.2	380	<LOD	255
LL11038	<LOD	390	36889.6	720	1069.6	420	<LOD	255
LL11040	<LOD	360	29286.4	650	1200	400	294	180
LL11057	203.1	130	22592	470	<LOD	405	<LOD	270
LL11098	<LOD	285	23398.4	480	2099.2	420	<LOD	330
LL11058	<LOD	225	29491.2	560	<LOD	480	<LOD	285
LL11099	392.2	220	28800	560	1849.6	470	<LOD	375
LL11059	<LOD	315	54681.6	889.6	932.8	460	<LOD	390
LL11100	<LOD	480	54169.6	849.6	3760	680	<LOD	510
LL11060	225.8	150	27596.8	550	<LOD	465	<LOD	300
LL11060	<LOD	315	27289.6	540	2440	460	<LOD	360
LL11101	<LOD	315	28697.6	550	1680	460	<LOD	360
LL11061	<LOD	240	32998.4	610	588	340	<LOD	315

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-323	LL11062	REG	9/13/00	Grab	Sediment	37.6	24.1	293.2	52
LL1-324	LL11195	REG	9/15/00	Grab	Surface Soil	<LOD	38.25	417.2	64.4
LL1-324	LL11195	DUP	9/15/00	Grab	Surface Soil	24.9	15.3	403.2	41.8
LL1-325	LL11133	REG	9/29/00	Field Duplicate	Subsurface soil	41.8	18	433.6	45.2
LL1-325	LL11197	REG	9/17/00	Grab	Surface Soil	<LOD	55.65	509.6	88
LL1-325	LL11245	REG	9/29/00	Grab	Subsurface soil	93.1	47.3	476	85.4
LL1-326	LL11198	REG	9/17/00	Grab	Surface Soil	36.4	16	366.6	38.7
LL1-327	LL11109	REG	9/16/00	Field Duplicate	Surface Soil	55	36.5	480.8	77.3
LL1-327	LL11199	REG	9/16/00	Grab	Surface Soil	54.3	35.7	453.6	73.6
LL1-328	LL11200	REG	9/16/00	Grab	Surface Soil	<LOD	45.3	379.4	70.9
LL1-329	LL11201	REG	9/16/00	Grab	Surface Soil	<LOD	48.3	441.6	77.7
LL1-330	LL11202	REG	9/16/00	Grab	Surface Soil	63.8	38.4	362.6	69.7
LL1-331	LL11203	REG	9/16/00	Grab	Surface Soil	<LOD	46.05	412	69.3
LL1-332	LL11204	REG	9/16/00	Grab	Surface Soil	<LOD	47.1	462.4	78.3
LL1-332	LL11204	DUP	9/16/00	Grab	Surface Soil	56.6	37.5	390.6	72.7
LL1-333	LL11205	REG	9/16/00	Grab	Surface Soil	55.6	34.1	372.6	65.2
LL1-335	LL11207	REG	9/16/00	Grab	Surface Soil	<LOD	44.55	382.4	67.9
LL1-335	LL11208	REG	9/19/00	Grab	Subsurface soil	<LOD	50.4	400.2	71.9
LL1-336	LL11244	REG	9/29/00	Grab	Surface Soil	<LOD	50.1	338.6	72.1
LL1-337	LL11226	REG	9/29/00	Grab	Surface Soil	<LOD	47.25	317.2	61.9
LL1-338	LL11227	REG	9/29/00	Grab	Surface Soil	<LOD	40.65	257.4	67.5
LL1-339	LL11241	REG	9/29/00	Grab	Surface Soil	<LOD	43.8	361.4	89.2

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL11062	<LOD	44.4	<LOD	59.1	<LOD	47.85	245.8	96.3	<LOD	37.8	<LOD	315
LL11195	<LOD	54.6	<LOD	60.3	<LOD	53.7	248.4	100	<LOD	42.75	<LOD	330
LL11195	<LOD	37.2	<LOD	47.25	<LOD	35.1	109.3	57.9	<LOD	26.4	<LOD	134.7
LL11133	<LOD	37.5	<LOD	45.9	<LOD	36.6	105.7	60.7	<LOD	28.05	<LOD	145.2
LL11197	<LOD	67.35	<LOD	67.05	<LOD	54.45	<LOD	150	<LOD	37.2	<LOD	195
LL11245	<LOD	66.6	<LOD	83.1	<LOD	59.4	<LOD	165	<LOD	37.65	<LOD	210
LL11198	<LOD	34.8	<LOD	46.65	<LOD	34.35	106.1	56.1	<LOD	29.4	<LOD	133.2
LL11109	<LOD	60.45	<LOD	70.95	<LOD	48.6	<LOD	141.9	<LOD	37.35	<LOD	180
LL11199	<LOD	52.05	<LOD	64.8	<LOD	47.1	<LOD	139.8	<LOD	27.75	<LOD	180
LL11200	<LOD	50.7	<LOD	63.75	<LOD	52.05	<LOD	143.7	<LOD	37.65	<LOD	180
LL11201	<LOD	60.45	<LOD	64.05	<LOD	52.35	<LOD	148.35	<LOD	28.8	<LOD	195
LL11202	<LOD	57.45	<LOD	66.3	<LOD	42.15	<LOD	149.4	<LOD	36.75	<LOD	180
LL11203	<LOD	53.7	<LOD	72.6	<LOD	48	<LOD	134.1	<LOD	37.35	<LOD	165
LL11204	<LOD	60.15	<LOD	66.6	<LOD	51.9	<LOD	143.7	<LOD	39.9	<LOD	180
LL11204	<LOD	51.15	<LOD	75.6	<LOD	56.85	<LOD	148.8	<LOD	40.65	<LOD	180
LL11205	<LOD	51.15	<LOD	67.05	<LOD	45.3	<LOD	132.6	<LOD	34.8	<LOD	165
LL11207	<LOD	47.85	<LOD	64.95	<LOD	52.35	<LOD	131.1	<LOD	28.65	<LOD	180
LL11208	<LOD	55.35	<LOD	70.65	<LOD	47.25	<LOD	137.1	<LOD	32.55	<LOD	195
LL11244	<LOD	67.65	<LOD	77.85	<LOD	60.75	<LOD	150	<LOD	33	<LOD	195
LL11226	<LOD	49.35	<LOD	70.2	<LOD	52.5	<LOD	137.1	<LOD	33.3	<LOD	165
LL11227	<LOD	53.85	<LOD	81.75	<LOD	56.7	<LOD	165	<LOD	39.9	<LOD	195
LL11241	<LOD	68.1	<LOD	94.2	<LOD	62.85	<LOD	180	<LOD	62.4	<LOD	240

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL11062	<LOD	38.1	9.3	5.2	338.4	10.8	55.2	6.7	69.2	8.1	<LOD	18.6
LL11195	<LOD	44.4	10.3	5.2	273	10.4	69.2	7.3	120	10.2	<LOD	20.55
LL11195	<LOD	27.6	<LOD	7.65	273	6.9	48.7	4.7	137.1	7.9	35.5	13.3
LL11133	<LOD	27.6	<LOD	7.65	254.8	6.7	55.3	4.9	131	7.8	111.6	15.4
LL11197	<LOD	36.75	<LOD	8.55	250.2	11.6	80.4	8.5	154.6	12.3	31.4	13.2
LL11245	<LOD	36.3	11.6	6.2	268.8	12.4	77.4	8.8	146.3	12.6	22.8	13.1
LL11198	<LOD	27	<LOD	8.7	434	8.6	43.8	4.6	116	7.4	35.7	12.9
LL11109	<LOD	38.4	21	6.7	385.6	14	77.5	8.7	105.6	10.7	106.1	17.8
LL11199	<LOD	35.7	9.5	6.2	287.4	12.4	70.1	8.5	140.6	12.3	92.1	17.2
LL11200	<LOD	34.05	11.1	6.1	281.8	12.5	78.5	8.7	128.4	11.7	20.5	12.5
LL11201	<LOD	36.45	13.4	5.9	285.6	11.9	73.5	8.2	141.3	11.7	38.5	13.3
LL11202	<LOD	36.75	10.5	6	289.8	12.4	83.3	8.6	112.3	10.8	82.2	16
LL11203	<LOD	32.7	20.2	7	499.6	15.2	64.5	8	106.4	10.4	40.5	13.6
LL11204	<LOD	37.2	10.7	6	257.8	12.1	74.7	8.7	139.1	12.1	57.7	15.2
LL11204	<LOD	31.8	15	6.1	260.4	11.9	72.5	8.5	141.4	12.2	53.5	14.9
LL11205	<LOD	30.45	21.4	6.7	404.6	14.1	68	8.3	113.8	10.9	37.5	13.5
LL11207	<LOD	33.15	<LOD	9	296	12.6	70.4	8.5	137.7	12	134.2	19.1
LL11208	<LOD	39.3	10.9	6.2	266.4	12.7	82.4	9.1	137	12.4	95.7	17.9
LL11244	<LOD	33.75	10.8	6.4	345	13.4	70.6	8.5	116	11.2	21.3	12.5
LL11226	<LOD	32.85	22.6	7	453.2	15.3	82.8	9	99	10.4	338	27.2
LL11227	<LOD	38.25	21.4	8.7	738.4	20.5	77.3	9.6	86.6	10.7	39	15.6
LL11241	<LOD	43.8	11.9	6.5	434	14	61.1	7.7	59.4	8.4	147.2	18.9

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL11062	<LOD	9.15	45.1	11.7	<LOD	9.6	118.2	29.1	<LOD	72	<LOD	285
LL11195	<LOD	9.15	<LOD	17.7	<LOD	10.35	91	32.5	<LOD	96.3	1809.6	240
LL11195	ND	ND	<LOD	17.25	<LOD	9.6	97.4	23.5	<LOD	55.8	<LOD	122.1
LL11133	ND	ND	<LOD	20.85	<LOD	9.75	152.2	26	<LOD	60.45	<LOD	129.3
LL11197	<LOD	9.3	<LOD	15.3	<LOD	10.8	88.6	30.4	<LOD	70.05	<LOD	140.4
LL11245	<LOD	9	<LOD	15.75	<LOD	12.45	90.3	31.9	<LOD	72.9	<LOD	146.55
LL11198	ND	ND	<LOD	17.4	<LOD	9.75	81.7	23.3	<LOD	57	<LOD	129
LL11109	<LOD	9.45	<LOD	19.65	<LOD	12.9	219.8	37.6	<LOD	77.4	<LOD	138.75
LL11199	<LOD	9.15	<LOD	19.35	<LOD	12.3	188.7	36.6	<LOD	76.5	<LOD	142.5
LL11200	<LOD	8.85	<LOD	14.55	<LOD	11.7	116.8	32.5	<LOD	72.15	<LOD	139.05
LL11201	<LOD	9.3	<LOD	15.45	<LOD	10.8	143.8	32.2	<LOD	68.7	<LOD	129.3
LL11202	<LOD	8.7	<LOD	17.85	<LOD	11.25	131.8	32.3	<LOD	69.15	<LOD	126.3
LL11203	<LOD	9.3	<LOD	15.75	<LOD	11.55	145.5	33.1	<LOD	70.5	<LOD	124.8
LL11204	<LOD	9.3	<LOD	17.55	<LOD	12	168.8	35.1	<LOD	74.1	<LOD	140.55
LL11204	<LOD	9.45	21.1	11.7	<LOD	11.55	146.6	33.9	<LOD	71.85	<LOD	141.15
LL11205	<LOD	9.15	<LOD	15.6	<LOD	11.55	101.6	31.5	<LOD	70.8	<LOD	126.15
LL11207	<LOD	9	<LOD	20.4	<LOD	11.85	230	37.8	<LOD	76.05	<LOD	143.85
LL11208	<LOD	10.05	<LOD	19.35	<LOD	12.9	196.9	37.8	<LOD	80.1	<LOD	147
LL11244	<LOD	8.85	<LOD	15.15	<LOD	11.25	120.9	32.8	<LOD	70.8	<LOD	134.55
LL11226	<LOD	10.2	34.7	19.3	<LOD	13.65	276.8	39.9	<LOD	79.05	<LOD	136.2
LL11227	<LOD	11.1	32.2	13.1	<LOD	13.35	216.8	41.4	<LOD	86.25	<LOD	165
LL11241	<LOD	8.1	<LOD	20.25	<LOD	11.4	198.2	35.7	<LOD	73.5	<LOD	118.5

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL11062	<LOD	255	36992	650	<LOD	540	<LOD	330
LL11195	337.2	160	30080	600	1020	350	<LOD	315
LL11195	<LOD	345	30976	590	2508.8	500	<LOD	390
LL11133	456.8	250	34176	620	1979.2	510	<LOD	405
LL11197	<LOD	420	35097.6	750	<LOD	630	<LOD	255
LL11245	<LOD	435	35379.2	780	<LOD	660	<LOD	270
LL11198	431.2	240	33484.8	610	2929.6	520	<LOD	405
LL11109	<LOD	405	32179.2	730	<LOD	615	<LOD	270
LL11199	<LOD	420	33894.4	760	<LOD	630	<LOD	270
LL11200	<LOD	405	31078.4	720	<LOD	615	<LOD	270
LL11201	<LOD	375	29977.6	670	<LOD	585	<LOD	255
LL11202	<LOD	375	27494.4	650	1160	400	<LOD	270
LL11203	<LOD	360	26188.8	630	<LOD	555	<LOD	240
LL11204	<LOD	420	33689.6	750	<LOD	645	<LOD	270
LL11204	<LOD	420	33075.2	740	<LOD	630	<LOD	270
LL11205	<LOD	360	25792	630	<LOD	555	<LOD	240
LL11207	<LOD	420	33382.4	750	<LOD	630	<LOD	270
LL11208	<LOD	435	35276.8	790	<LOD	660	297	190
LL11244	<LOD	390	29286.4	690	768.8	410	<LOD	270
LL11226	<LOD	390	30080	700	828.8	410	<LOD	270
LL11227	<LOD	510	45286.4	969.6	<LOD	795	<LOD	315
LL11241	<LOD	330	21388.8	560	<LOD	510	248.4	160

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-340	LL11328	REG	10/2/00	Grab	Surface Soil	<LOD	50.4	389.4	79.4
LL1-341	LL11329	REG	10/2/00	Grab	Surface Soil	<LOD	55.05	530.4	95
LL1-342	LL11243	REG	9/29/00	Grab	Surface Soil	<LOD	63.75	574.4	110
LL1-343	LL11298	REG	9/29/00	Grab	Surface Soil	<LOD	60.9	457.2	87.3
LL1-344	LL11300	REG	9/29/00	Grab	Surface Soil	<LOD	52.95	382.4	70.9
LL1-344	LL11300	DUP	9/29/00	Grab	Surface Soil	<LOD	43.2	380.6	74.8
LL1-345	LL11130	REG	9/29/00	Field Duplicate	Surface Soil	<LOD	56.4	413.2	78.1
LL1-345	LL11242	REG	9/29/00	Grab	Surface Soil	<LOD	47.85	485.6	83.6
LL1-346	LL11210	REG	9/29/00	Grab	Surface Soil	<LOD	46.35	484.8	86.5
LL1-347	LL11299	REG	9/29/00	Grab	Surface Soil	<LOD	44.1	300.8	62.4
LL1-348	LL11330	REG	10/2/00	Grab	Surface Soil	53.7	35.8	347.8	69
LL1-349	LL11331	REG	10/2/00	Grab	Surface Soil	<LOD	58.8	409.4	81
LL1-350	LL11304	REG	9/29/00	Grab	Surface Soil	<LOD	48.3	467.6	79.7
LL1-351	LL11305	REG	9/29/00	Grab	Surface Soil	<LOD	57.15	433.2	77.7
LL1-352	LL11301	REG	9/29/00	Grab	Surface Soil	<LOD	46.2	380.6	71.5
LL1-353	LL11311	REG	9/30/00	Grab	Surface Soil	<LOD	48.6	421.6	75
LL1-354	LL11303	REG	9/29/00	Grab	Surface Soil	<LOD	51	221.2	58.3
LL1-355	LL11302	REG	9/29/00	Grab	Surface Soil	<LOD	41.55	324.4	58.9
LL1-356	LL11312	REG	9/30/00	Grab	Surface Soil	<LOD	53.85	313	70.4
LL1-357	LL11313	REG	9/30/00	Grab	Surface Soil	<LOD	52.5	317	69.7
LL1-357	LL11313	DUP	9/30/00	Grab	Surface Soil	<LOD	43.65	356.8	74.4
LL1-358	LL11129	REG	9/30/00	Field Duplicate	Surface Soil	<LOD	47.4	297.8	62

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL11328	<LOD	60.9	<LOD	78.75	<LOD	60.3	<LOD	165	<LOD	44.85	<LOD	210
LL11329	<LOD	66	<LOD	76.5	<LOD	51.75	<LOD	165	<LOD	43.8	<LOD	210
LL11243	<LOD	66.45	<LOD	82.5	<LOD	62.85	<LOD	180	<LOD	53.25	<LOD	240
LL11298	<LOD	64.35	<LOD	72.3	<LOD	62.7	<LOD	165	<LOD	47.85	<LOD	210
LL11300	<LOD	54.3	<LOD	65.55	<LOD	49.5	<LOD	138.75	<LOD	40.2	<LOD	180
LL11300	<LOD	61.95	<LOD	72.15	<LOD	58.95	<LOD	150	<LOD	38.4	<LOD	195
LL11130	<LOD	56.25	<LOD	76.8	<LOD	52.95	<LOD	150	<LOD	41.55	<LOD	195
LL11242	<LOD	62.7	<LOD	68.1	<LOD	47.4	<LOD	149.7	<LOD	41.55	<LOD	195
LL11210	<LOD	63.3	<LOD	74.7	<LOD	61.8	<LOD	165	<LOD	43.8	<LOD	210
LL11299	<LOD	52.5	<LOD	63.15	<LOD	44.55	<LOD	139.5	<LOD	36.9	<LOD	180
LL11330	<LOD	58.2	<LOD	64.8	<LOD	47.1	<LOD	142.35	<LOD	41.55	<LOD	180
LL11331	<LOD	57	<LOD	80.4	<LOD	60.3	<LOD	165	<LOD	40.5	<LOD	210
LL11304	<LOD	57.9	<LOD	71.55	<LOD	47.1	<LOD	145.05	<LOD	25.95	<LOD	180
LL11305	<LOD	54.75	<LOD	72.75	<LOD	55.95	<LOD	150	<LOD	43.65	<LOD	195
LL11301	<LOD	59.1	<LOD	69.9	<LOD	55.05	<LOD	138.9	<LOD	43.5	<LOD	180
LL11311	<LOD	51.15	<LOD	72.15	<LOD	49.65	<LOD	145.2	<LOD	30	<LOD	180
LL11303	<LOD	54.6	<LOD	69.75	<LOD	54.45	<LOD	150	<LOD	43.05	<LOD	195
LL11302	<LOD	48.6	<LOD	61.8	<LOD	46.65	<LOD	132	<LOD	29.25	<LOD	165
LL11312	<LOD	55.65	<LOD	81	<LOD	56.7	<LOD	165	<LOD	41.7	<LOD	195
LL11313	<LOD	58.2	<LOD	70.8	<LOD	59.85	<LOD	150	<LOD	45	<LOD	195
LL11313	<LOD	55.35	<LOD	64.65	<LOD	60.3	<LOD	148.5	<LOD	54.75	<LOD	195
LL11129	<LOD	56.1	<LOD	67.35	<LOD	41.7	<LOD	139.2	<LOD	40.5	<LOD	180

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL11328	<LOD	36.3	21.9	7.9	617.6	18.1	84.7	9.6	70.5	9.7	849.6	43.1
LL11329	<LOD	41.55	<LOD	10.95	498.4	16.4	104.4	9.9	103	11.3	367.4	29.7
LL11243	<LOD	48.45	12.8	7.3	513.6	16.7	406.4	15.4	71.3	10.4	241.8	24.5
LL11298	<LOD	37.95	37.5	9.7	1029.6	23.9	118.5	10.5	74.7	10.1	826.4	43
LL11300	<LOD	32.1	10.2	6.1	288.4	12.4	71.1	8.4	114.8	11.1	37.3	13.7
LL11300	<LOD	38.1	16.9	7.1	532	15.9	82.3	8.7	101.2	10.5	121.7	18.3
LL11130	<LOD	36.9	11.9	6.2	395.2	13.3	90.8	8.3	106.4	10.2	45.2	13.2
LL11242	<LOD	33.9	12.1	6.1	379.6	12.8	83.9	8	103.6	10	53.5	13.7
LL11210	<LOD	42	15.7	6.1	333	12.5	69.7	7.9	111.6	10.4	25.9	12.1
LL11299	<LOD	32.1	13.9	6.5	422.8	14.1	66.3	8.1	107.2	10.5	42.9	13.7
LL11330	<LOD	30.9	10.2	6.3	420.4	13.7	69	8	98.8	9.8	70	14.7
LL11331	<LOD	36.15	<LOD	8.4	283.6	11.8	69.5	8	131.3	11.2	32.2	12.6
LL11304	<LOD	32.1	14.4	6.1	350.4	12.4	54.3	7.3	102.9	10.1	28.6	12.2
LL11305	<LOD	39.15	10.2	5.5	317	11.5	59.3	7.1	102	9.4	23.7	11.1
LL11301	<LOD	36.9	12.3	5.8	318.8	11.8	60.3	7.4	102.3	9.8	<LOD	16.35
LL11311	<LOD	33.3	13.3	6.2	361.2	13.1	63.9	7.9	115.4	10.7	<LOD	17.55
LL11303	<LOD	38.7	30.5	9.9	1100	25	88.7	9.8	73.1	9.9	94.2	18.6
LL11302	<LOD	31.95	18	7	502	15.3	69.6	8.2	77	9.3	138.5	18.9
LL11312	<LOD	46.95	22.8	7.9	572.8	17.6	96.6	9.8	89.6	10.8	563.6	36.1
LL11313	<LOD	35.85	14.8	6.9	505.6	15.3	74.4	8.3	91.2	9.9	146.9	19.2
LL11313	<LOD	33.9	16.4	7	499.2	15.4	74.2	8.4	94.2	10.1	158.4	19.9
LL11129	<LOD	35.25	13.5	7	600.8	16.1	79.1	8.2	85	9.3	121.2	17.5

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL11328	<LOD	10.8	51.5	29.2	<LOD	17.1	1369.6	74.6	<LOD	105.9	<LOD	165
LL11329	<LOD	10.65	<LOD	30.9	<LOD	15	495.6	50.7	<LOD	91.65	<LOD	150
LL11243	<LOD	10.2	<LOD	25.35	<LOD	12.9	285	41.9	<LOD	83.7	<LOD	128.4
LL11298	<LOD	11.7	49.3	29.2	<LOD	16.95	888	63.3	<LOD	99.45	<LOD	149.1
LL11300	<LOD	9.15	<LOD	15.75	<LOD	12.15	87.7	30.8	<LOD	69.6	<LOD	133.65
LL11300	<LOD	9.15	<LOD	19.5	<LOD	12.15	275.2	39.6	<LOD	79.65	<LOD	125.25
LL11130	<LOD	8.7	<LOD	15	<LOD	10.95	89.8	29.2	<LOD	66.3	<LOD	115.05
LL11242	<LOD	9	<LOD	14.7	<LOD	9.9	99.7	29.5	<LOD	66.45	<LOD	114.75
LL11210	<LOD	8.55	<LOD	14.25	<LOD	10.5	77.5	28.9	<LOD	67.2	<LOD	121.5
LL11299	<LOD	9.3	<LOD	16.2	<LOD	11.85	91.4	30.6	<LOD	70.05	<LOD	127.95
LL11330	<LOD	8.1	<LOD	16.95	<LOD	11.4	123.4	31.3	<LOD	68.7	<LOD	125.4
LL11331	<LOD	8.4	<LOD	14.7	<LOD	11.4	92.6	29.6	<LOD	67.05	<LOD	118.65
LL11304	<LOD	8.7	<LOD	13.5	<LOD	10.8	80.2	28.7	<LOD	64.35	<LOD	114.75
LL11305	<LOD	8.1	<LOD	12.9	<LOD	10.2	60.9	25.9	<LOD	58.95	<LOD	102.9
LL11301	<LOD	8.7	18.6	9.2	<LOD	10.2	53	26.5	<LOD	61.65	<LOD	107.55
LL11311	<LOD	8.55	<LOD	13.95	<LOD	11.4	84.8	29.6	<LOD	67.95	<LOD	122.55
LL11303	<LOD	10.8	33.7	14.8	<LOD	13.8	268.8	43.7	<LOD	89.85	<LOD	165
LL11302	<LOD	9.45	<LOD	20.25	<LOD	12.3	215.2	36.6	<LOD	73.95	<LOD	121.8
LL11312	<LOD	10.2	<LOD	36	<LOD	14.55	317.2	44.7	<LOD	87.15	<LOD	165
LL11313	<LOD	9.15	<LOD	20.25	<LOD	12.3	313.2	40.3	<LOD	75.45	<LOD	128.85
LL11313	<LOD	8.85	<LOD	21.15	<LOD	12	291.8	40.3	<LOD	79.5	<LOD	129.45
LL11129	<LOD	9.15	<LOD	18.3	<LOD	10.8	141.2	32.3	<LOD	68.55	<LOD	123

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL11328	<LOD	480	42880	900	1309.6	510	<LOD	315
LL11329	<LOD	465	37683.2	840	791.6	470	<LOD	300
LL11243	<LOD	345	21593.6	600	761.2	370	<LOD	255
LL11298	<LOD	435	33484.8	780	876	450	<LOD	300
LL11300	<LOD	390	30976	710	630.4	410	<LOD	255
LL11300	<LOD	360	25190.4	620	887.2	380	<LOD	255
LL11130	<LOD	315	20492.8	530	<LOD	480	<LOD	225
LL11242	<LOD	315	21491.2	540	536.8	330	<LOD	225
LL11210	<LOD	345	24588.8	600	<LOD	525	<LOD	225
LL11299	<LOD	375	28697.6	660	<LOD	570	<LOD	240
LL11330	<LOD	360	28390.4	640	721.6	380	<LOD	240
LL11331	431.2	230	24000	590	<LOD	525	<LOD	225
LL11304	<LOD	300	19699.2	520	<LOD	465	<LOD	210
LL11305	<LOD	270	17792	470	<LOD	420	<LOD	180
LL11301	<LOD	285	18688	500	<LOD	450	<LOD	195
LL11311	<LOD	345	24089.6	590	526.4	350	<LOD	225
LL11303	<LOD	480	41088	889.6	888	500	<LOD	300
LL11302	<LOD	330	21299.2	560	<LOD	510	<LOD	225
LL11312	<LOD	480	40883.2	889.6	964.8	500	<LOD	315
LL11313	<LOD	360	26496	640	1020	390	<LOD	255
LL11313	<LOD	375	27980.8	660	910.4	400	<LOD	255
LL11129	<LOD	345	26291.2	610	936.8	370	<LOD	240

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-358	LL11314	REG	9/30/00	Grab	Surface Soil	<LOD	57	460.4	80.9
LL1-359	LL11315	REG	9/30/00	Grab	Surface Soil	<LOD	49.95	496.4	82.5
LL1-360	LL11316	REG	9/30/00	Grab	Surface Soil	<LOD	63.9	331.8	86.2
LL1-360	LL11316	DUP	9/30/00	Grab	Surface Soil	<LOD	41.85	414	77.8
LL1-361	LL11332	REG	10/2/00	Grab	Surface Soil	<LOD	43.65	394	79.6
LL1-362	LL11333	REG	10/2/00	Grab	Surface Soil	<LOD	49.2	333.6	75.9
LL1-362	LL11333	DUP	10/2/00	Grab	Surface Soil	<LOD	62.7	384.8	89.5
LL1-362	LL11281	REG	10/2/00	Field Duplicate	Surface Soil	<LOD	52.05	381	77.8
LL1-363	LL11250	REG	9/29/00	Grab	Surface Soil	<LOD	56.25	300.4	68.2
LL1-363	LL11250	DUP	9/29/00	Grab	Surface Soil	<LOD	58.5	374.2	85.4
LL1-364	LL11240	REG	9/29/00	Grab	Surface Soil	<LOD	62.7	424	84.1
LL1-365	LL11238	REG	9/29/00	Grab	Surface Soil	<LOD	49.95	262.2	60.2
LL1-366	LL11225	REG	9/29/00	Grab	Surface Soil	<LOD	45.75	292.4	68.1
LL1-367	LL11257	REG	9/28/00	Grab	Surface Soil	<LOD	58.2	445.6	82.4
LL1-368	LL11128	REG	9/28/00	Field Duplicate	Surface Soil	<LOD	60.45	344.4	75.7
LL1-368	LL11258	REG	9/28/00	Grab	Surface Soil	<LOD	58.35	448.4	90.9
LL1-369	LL11212	REG	9/28/00	Grab	Surface Soil	65	39.3	341.6	69.6
LL1-370	LL11219	REG	9/28/00	Grab	Surface Soil	69.3	40.5	375.6	73.7
LL1-371	LL11220	REG	9/28/00	Grab	Surface Soil	<LOD	52.65	381.8	74.9
LL1-372	LL11256	REG	9/28/00	Grab	Surface Soil	<LOD	44.55	391.8	71.8
LL1-373	LL11321	REG	9/30/00	Grab	Surface Soil	<LOD	48.45	396.6	84.8
LL1-373	LL11321	DUP	9/30/00	Grab	Surface Soil	<LOD	48.45	400.8	79

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL11314	<LOD	54	<LOD	63.75	<LOD	50.85	<LOD	150	<LOD	44.7	<LOD	180
LL11315	<LOD	59.1	<LOD	67.35	<LOD	56.1	<LOD	150	<LOD	44.85	<LOD	195
LL11316	<LOD	67.35	<LOD	89.7	<LOD	58.5	<LOD	195	<LOD	52.5	<LOD	240
LL11316	<LOD	60	<LOD	65.7	<LOD	48.15	<LOD	150	<LOD	43.8	<LOD	195
LL11332	<LOD	56.85	<LOD	73.35	<LOD	58.05	<LOD	150	<LOD	35.25	<LOD	195
LL11333	<LOD	71.1	<LOD	88.35	<LOD	54.15	<LOD	165	<LOD	37.95	<LOD	210
LL11333	<LOD	69.9	<LOD	87.6	<LOD	62.25	<LOD	180	<LOD	54	<LOD	240
LL11281	<LOD	56.25	<LOD	75.15	<LOD	46.2	<LOD	150	<LOD	48	<LOD	195
LL11250	<LOD	54	<LOD	72.3	<LOD	52.05	<LOD	148.8	<LOD	31.35	<LOD	195
LL11250	<LOD	65.25	<LOD	79.95	<LOD	66.3	<LOD	165	<LOD	50.55	<LOD	225
LL11240	<LOD	70.65	<LOD	83.25	<LOD	59.55	<LOD	150	<LOD	45.75	<LOD	195
LL11238	<LOD	44.1	<LOD	65.7	<LOD	44.4	<LOD	139.95	<LOD	37.95	<LOD	180
LL11225	<LOD	59.4	<LOD	74.55	<LOD	46.95	<LOD	150	<LOD	36	<LOD	195
LL11257	<LOD	62.55	<LOD	79.65	<LOD	43.2	<LOD	165	<LOD	45.45	<LOD	195
LL11128	<LOD	52.05	<LOD	72.3	<LOD	54.75	<LOD	150	<LOD	38.85	<LOD	195
LL11258	<LOD	64.05	<LOD	83.25	<LOD	60.15	<LOD	165	<LOD	51.3	<LOD	225
LL11212	<LOD	57.75	<LOD	71.85	<LOD	52.8	<LOD	149.7	<LOD	43.65	<LOD	195
LL11219	<LOD	56.55	<LOD	74.1	<LOD	52.8	<LOD	165	<LOD	34.2	<LOD	195
LL11220	<LOD	60.9	<LOD	78.3	<LOD	52.5	<LOD	148.8	<LOD	46.35	<LOD	195
LL11256	<LOD	54.45	<LOD	64.65	<LOD	53.1	<LOD	134.7	<LOD	39.75	<LOD	195
LL11321	<LOD	58.35	<LOD	78.9	<LOD	58.2	<LOD	165	<LOD	36.6	<LOD	210
LL11321	<LOD	56.7	<LOD	73.8	<LOD	52.8	<LOD	148.2	<LOD	41.25	<LOD	195

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL11314	<LOD	36.6	15.7	6.2	396.8	12.9	60.2	7.4	96.5	9.5	33.9	12.3
LL11315	<LOD	38.4	12.1	6.1	337.8	12.5	69.3	7.9	111.5	10.5	<LOD	17.25
LL11316	<LOD	51.9	10	5.8	327	12.2	68.7	7.8	116	10.5	102.7	16.2
LL11316	<LOD	35.1	13.3	5.9	313	11.9	66.2	7.7	112.8	10.3	111.6	16.7
LL11332	<LOD	41.85	13.7	6.2	323.4	12.8	62.2	8	125.1	11.3	19.5	11.9
LL11333	50	33.1	10.3	6.4	380.4	13.8	67.2	8.3	100.8	10.3	82.9	16.2
LL11333	<LOD	48.15	13.2	6	384.4	12.7	59.5	7.5	106.1	9.9	82.5	15
LL11281	<LOD	39.9	<LOD	9.6	413.2	13.9	69.1	8.1	99.4	10.1	99.7	16.8
LL11250	<LOD	35.55	9.6	5.7	279.8	11.6	50.6	7.4	104	10.1	74.8	15.1
LL11250	<LOD	43.95	<LOD	8.7	319	12.1	56.5	7.6	110	10.3	77.1	15.1
LL11240	<LOD	36.15	13	6.1	390.6	13	64.4	7.7	121.6	10.6	43.9	13.1
LL11238	<LOD	35.85	14.8	6.5	483.2	14.1	47.2	7.1	76.7	8.7	70.1	14.5
LL11225	<LOD	35.1	17.3	6.9	506.4	15.2	41.3	7.4	75.6	9	41.5	13.6
LL11257	<LOD	40.35	18.5	6.2	311	12.3	66.4	7.9	121.2	10.9	32.5	12.6
LL11128	<LOD	37.5	19.4	5.8	315.6	11.6	71.7	7.6	117.2	10	27.8	11.6
LL11258	<LOD	36.45	11.5	5.7	328.2	11.9	65.4	7.5	118.8	10.3	<LOD	16.2
LL11212	<LOD	37.65	11.3	6.1	375.2	12.7	49.5	7.2	114	10.5	38.9	12.8
LL11219	<LOD	40.8	12.6	6.5	395.6	14	73.3	8.4	105.1	10.6	25.3	12.8
LL11220	<LOD	38.7	13	6.6	466	14.5	60.7	7.8	92.4	9.8	136.6	18.5
LL11256	<LOD	32.85	15.8	6.4	482.4	14	73.2	7.7	99.4	9.6	45.7	13
LL11321	<LOD	37.05	<LOD	9.45	380.4	13.7	82.1	8.6	106.1	10.7	64.7	15.2
LL11321	<LOD	35.85	15.9	6.5	380.8	13.4	80.1	8.4	105.8	10.5	68.6	15.3

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL11314	<LOD	8.7	<LOD	13.8	<LOD	10.5	71	28	<LOD	65.4	<LOD	113.7
LL11315	<LOD	8.85	<LOD	13.95	<LOD	10.95	64.9	28.2	<LOD	64.8	<LOD	115.95
LL11316	<LOD	8.1	<LOD	17.55	<LOD	10.8	99.5	29.4	<LOD	65.1	<LOD	117
LL11316	<LOD	8.7	<LOD	18.3	<LOD	10.8	124	30.5	<LOD	65.4	<LOD	121.65
LL11332	<LOD	8.4	15.5	9.8	<LOD	10.95	50.4	27.8	<LOD	62.7	<LOD	122.25
LL11333	<LOD	9.15	<LOD	18	<LOD	11.7	119.4	32.3	<LOD	71.55	<LOD	135.45
LL11333	<LOD	8.1	<LOD	16.65	<LOD	10.65	81	28.4	<LOD	65.1	<LOD	122.7
LL11281	<LOD	9	<LOD	18.3	<LOD	10.8	83.4	30.2	<LOD	69.9	<LOD	130.95
LL11250	<LOD	8.7	<LOD	16.65	<LOD	10.35	147.1	32	<LOD	67.95	<LOD	121.8
LL11250	<LOD	8.55	<LOD	17.1	<LOD	11.1	123.4	31.3	<LOD	70.35	<LOD	125.85
LL11240	<LOD	8.1	<LOD	15.3	<LOD	11.4	101.3	29.5	<LOD	65.25	<LOD	123.3
LL11238	<LOD	8.85	<LOD	16.35	<LOD	11.1	123.9	30.6	<LOD	66.6	<LOD	119.4
LL11225	<LOD	9.3	<LOD	15.9	<LOD	11.4	100.3	30.9	<LOD	67.2	<LOD	124.35
LL11257	<LOD	8.7	<LOD	14.55	<LOD	10.65	74.2	28.8	<LOD	66	<LOD	114.15
LL11128	<LOD	8.25	<LOD	13.35	<LOD	10.2	96	28.1	<LOD	63.75	<LOD	114.45
LL11258	<LOD	8.85	<LOD	13.2	<LOD	10.2	64	27.1	<LOD	62.85	<LOD	115.8
LL11212	<LOD	8.4	25.2	10.6	<LOD	11.25	132.8	31.2	<LOD	66.15	<LOD	122.55
LL11219	<LOD	9.15	<LOD	15.15	<LOD	11.85	116	32.4	<LOD	70.95	<LOD	132.75
LL11220	<LOD	8.85	<LOD	20.25	<LOD	11.4	192.7	35.1	<LOD	72.45	<LOD	125.25
LL11256	<LOD	8.4	<LOD	15	<LOD	11.1	100.6	29.6	<LOD	67.35	<LOD	116.25
LL11321	<LOD	8.85	<LOD	17.4	<LOD	12.45	149.3	33.7	<LOD	71.1	<LOD	127.8
LL11321	<LOD	9.3	20.7	11.9	<LOD	11.55	148.5	33.3	<LOD	70.65	<LOD	124.05

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL11314	<LOD	315	23193.6	560	<LOD	495	<LOD	210
LL11315	<LOD	330	22694.4	570	<LOD	495	<LOD	225
LL11316	<LOD	345	24998.4	590	<LOD	525	<LOD	225
LL11316	<LOD	330	25088	590	<LOD	510	<LOD	210
LL11332	<LOD	345	24896	610	<LOD	510	<LOD	225
LL11333	<LOD	390	29798.4	690	1040	410	<LOD	255
LL11333	<LOD	360	29286.4	640	761.6	380	<LOD	240
LL11281	<LOD	375	30592	680	<LOD	600	<LOD	255
LL11250	<LOD	345	25600	610	658	360	<LOD	240
LL11250	<LOD	360	28288	640	1009.6	390	<LOD	240
LL11240	<LOD	360	29286.4	640	<LOD	555	<LOD	240
LL11238	<LOD	330	23296	560	916.8	350	<LOD	240
LL11225	<LOD	360	26099.2	630	658.8	370	<LOD	240
LL11257	<LOD	315	20595.2	540	512	330	<LOD	225
LL11128	372.6	210	23488	550	516	330	<LOD	225
LL11258	<LOD	330	24691.2	570	878.4	350	<LOD	225
LL11212	<LOD	345	25190.4	600	<LOD	525	<LOD	225
LL11219	<LOD	375	27494.4	660	1280	410	<LOD	255
LL11220	<LOD	360	26675.2	630	1029.6	390	<LOD	240
LL11256	<LOD	315	22899.2	550	752.8	340	<LOD	225
LL11321	<LOD	360	25600	630	840.8	380	<LOD	255
LL11321	<LOD	360	25190.4	620	<LOD	540	<LOD	240

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-374	LL11322	REG	9/30/00	Grab	Surface Soil	<LOD	42.6	446	76
LL1-375	LL11223	REG	9/28/00	Grab	Surface Soil	<LOD	55.65	433.6	81
LL1-375	LL11131	REG	9/28/00	Field Duplicate	Surface Soil	<LOD	44.55	441.2	83.2
LL1-376	LL11255	REG	9/28/00	Grab	Surface Soil	114.2	50.2	500.4	87.1
LL1-377	LL11254	REG	9/28/00	Grab	Surface Soil	<LOD	49.8	373	73.1
LL1-378	LL11253	REG	9/28/00	Grab	Surface Soil	<LOD	52.65	411.2	74.5
LL1-379	LL11221	REG	9/28/00	Grab	Surface Soil	<LOD	41.55	414.4	73.1
LL1-380	LL11222	REG	9/28/00	Grab	Surface Soil	<LOD	58.65	321.4	76.3
LL1-381	LL11252	REG	9/28/00	Grab	Surface Soil	<LOD	45.75	350.4	72.7
LL1-382	LL11211	REG	9/28/00	Grab	Surface Soil	<LOD	55.2	500.8	86.2
LL1-383	LL11239	REG	9/28/00	Grab	Surface Soil	<LOD	50.25	468	84.2
LL1-384	LL11236	REG	9/28/00	Grab	Surface Soil	<LOD	53.1	378.8	70.1
LL1-385	LL11237	REG	9/28/00	Grab	Surface Soil	<LOD	50.85	446.4	84
LL1-385	LL11278	REG	9/28/00	Field Duplicate	Surface Soil	<LOD	58.35	400.4	79.3
LL1-386	LL11224	REG	9/28/00	Grab	Surface Soil	<LOD	49.95	468	88.7
LL1-387	LL11251	REG	9/29/00	Grab	Surface Soil	<LOD	39.6	381.8	71.2
LL1-388	LL11306	REG	9/29/00	Grab	Surface Soil	<LOD	54.3	407	80.6
LL1-389	LL11307	REG	9/29/00	Grab	Surface Soil	<LOD	46.65	394	74.2
LL1-390	LL11308	REG	9/29/00	Grab	Surface Soil	<LOD	49.8	377	73.6
LL1-391	LL11271	REG	9/27/00	Grab	Sediment	<LOD	69.3	419.2	95.1
LL1-392	LL11272	REG	9/27/00	Grab	Sediment	<LOD	46.5	316.2	66.6
LL1-393	LL11273	REG	9/27/00	Grab	Sediment	<LOD	44.25	300.2	60.8

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL11322	<LOD	58.2	<LOD	71.85	<LOD	52.05	<LOD	143.55	<LOD	36.6	<LOD	195
LL11223	<LOD	59.7	<LOD	71.7	<LOD	57	<LOD	150	<LOD	44.7	<LOD	195
LL11131	<LOD	63.45	<LOD	72	<LOD	60.3	<LOD	165	<LOD	46.8	<LOD	195
LL11255	<LOD	55.35	<LOD	72.15	<LOD	46.8	<LOD	147.9	<LOD	35.1	<LOD	195
LL11254	<LOD	57.45	<LOD	72.45	<LOD	54.75	<LOD	148.5	<LOD	37.5	<LOD	195
LL11253	<LOD	55.05	<LOD	66	<LOD	51	<LOD	145.5	<LOD	38.55	<LOD	195
LL11221	<LOD	53.7	<LOD	73.05	<LOD	48.3	<LOD	146.1	<LOD	30.75	<LOD	180
LL11222	<LOD	52.95	<LOD	74.4	<LOD	63.15	<LOD	165	<LOD	43.05	<LOD	210
LL11252	<LOD	60.6	<LOD	69.15	<LOD	64.2	<LOD	150	<LOD	39.6	<LOD	195
LL11211	<LOD	65.4	<LOD	70.65	<LOD	54.9	<LOD	145.65	<LOD	39.3	<LOD	195
LL11239	<LOD	61.65	<LOD	74.25	<LOD	60.75	<LOD	150	<LOD	37.35	<LOD	195
LL11236	<LOD	53.1	<LOD	68.85	<LOD	48	<LOD	142.65	<LOD	36.45	<LOD	180
LL11237	<LOD	63.75	<LOD	76.05	<LOD	65.4	<LOD	165	<LOD	38.55	<LOD	210
LL11278	<LOD	56.85	<LOD	76.35	<LOD	60.3	<LOD	150	<LOD	42.6	<LOD	195
LL11224	<LOD	61.95	<LOD	83.1	<LOD	67.8	<LOD	180	<LOD	45.9	<LOD	210
LL11251	<LOD	55.2	<LOD	62.85	<LOD	49.95	<LOD	139.5	<LOD	42.75	<LOD	195
LL11306	<LOD	68.7	<LOD	79.8	<LOD	50.25	<LOD	150	<LOD	45.6	<LOD	195
LL11307	<LOD	61.35	<LOD	63.9	<LOD	52.5	<LOD	150	<LOD	41.1	<LOD	180
LL11308	<LOD	61.2	<LOD	68.85	<LOD	54.15	<LOD	145.95	<LOD	36.15	<LOD	195
LL11271	<LOD	75.9	<LOD	92.55	<LOD	75.45	<LOD	195	<LOD	45.3	<LOD	240
LL11272	<LOD	53.25	82.1	53.9	<LOD	50.4	<LOD	150	<LOD	36.45	<LOD	195
LL11273	<LOD	49.95	<LOD	71.7	<LOD	48.75	<LOD	134.1	<LOD	40.5	<LOD	180

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL11322	<LOD	43.35	11.4	6	324.8	12.5	77	8.1	119.3	10.8	18	11.7
LL11223	<LOD	37.65	11.9	6.3	388.4	13.3	61.5	7.8	102.8	10.2	31.6	12.5
LL11131	<LOD	39.15	11.1	6.3	380	13.5	69.2	8.1	101.4	10.3	27.9	12.5
LL11255	<LOD	37.05	18.5	7.3	430.8	15.8	229.4	12.5	69.6	10.1	60.9	16.1
LL11254	<LOD	36.15	11.7	6.1	330.6	12.5	65.3	7.9	108.4	10.4	20.1	11.9
LL11253	<LOD	36.9	11.6	6.2	326.6	12.7	62.1	8	109.4	10.7	27.7	12.9
LL11221	<LOD	33.75	14.2	6	373	12.6	64.5	7.5	104.9	9.9	22.9	11.5
LL11222	<LOD	42.75	19.5	6.4	424	13.5	53.9	7.3	95.8	9.6	39.4	12.8
LL11252	<LOD	38.55	<LOD	9.45	450.4	13.9	51.8	7.4	118.4	10.7	29.5	12.5
LL11211	<LOD	37.2	12.1	5.8	282.8	11.6	73.2	8	134.6	11.2	<LOD	17.25
LL11239	<LOD	35.25	10.5	6	323	12.4	63.5	7.8	97.8	10	27.9	12.3
LL11236	<LOD	34.35	<LOD	9.75	457.2	14.4	65.9	7.9	93.8	9.8	62.2	14.5
LL11237	<LOD	41.25	11.8	5.9	257	11.7	76.7	8.4	110.5	10.7	46.4	13.9
LL11278	<LOD	38.25	14.2	5.9	251	11.4	56.4	7.8	117.6	10.9	40.6	13.4
LL11224	<LOD	38.7	13	6.1	261.6	12.3	73.2	9	105.3	10.9	1089.6	47.3
LL11251	<LOD	37.05	11.9	5.8	317.2	12.1	64.4	7.9	109.8	10.2	697.6	35.3
LL11306	<LOD	39.45	<LOD	9.15	297.6	12.7	100.6	9.2	122	11.5	216.8	22.7
LL11307	<LOD	33.75	<LOD	7.8	180.4	10	89.8	8.4	113.8	10.6	191.8	20.6
LL11308	<LOD	34.35	11.1	6.2	311.8	12.6	66.6	8.2	119.8	11.2	31.2	13.3
LL11271	<LOD	47.4	19.9	6.1	267.6	11.8	71	8.3	128.4	11.4	<LOD	18.15
LL11272	<LOD	37.05	15.3	6.5	437.6	13.8	61.8	7.7	86.1	9.3	23	11.9
LL11273	<LOD	33.45	15.4	6.5	384.2	13.6	70.8	8.2	80.5	9.5	31.8	13.3

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL11322	<LOD	9	<LOD	13.95	<LOD	11.1	100.3	29.8	<LOD	64.95	<LOD	119.1
LL11223	<LOD	8.4	<LOD	14.7	<LOD	11.4	87.5	29.9	<LOD	68.55	<LOD	118.5
LL11131	<LOD	8.7	<LOD	14.85	<LOD	10.2	85.2	30.1	<LOD	68.1	<LOD	118.65
LL11255	<LOD	10.05	<LOD	17.55	<LOD	12.15	<LOD	46.95	<LOD	74.1	<LOD	128.1
LL11254	<LOD	9.15	<LOD	13.95	<LOD	10.8	103	30.2	<LOD	66.3	<LOD	119.25
LL11253	<LOD	9.15	<LOD	14.85	<LOD	11.55	90.6	30.6	<LOD	68.7	<LOD	129.6
LL11221	<LOD	8.25	<LOD	13.35	<LOD	10.95	47.5	26.5	<LOD	63	<LOD	105.75
LL11222	<LOD	9.15	<LOD	14.55	<LOD	10.95	100.8	29.6	<LOD	66.3	<LOD	109.35
LL11252	<LOD	9.15	<LOD	14.25	<LOD	10.95	93.9	30	<LOD	68.4	<LOD	119.55
LL11211	<LOD	8.7	19	9.6	<LOD	10.65	76.8	29.1	<LOD	68.7	<LOD	126.6
LL11239	<LOD	8.7	<LOD	14.7	<LOD	10.95	95.2	29.8	<LOD	65.85	<LOD	115.95
LL11236	<LOD	8.55	<LOD	16.65	<LOD	11.55	120.4	31.3	<LOD	67.5	<LOD	114.6
LL11237	<LOD	9	19.9	11	<LOD	11.25	163.1	33.9	<LOD	73.05	<LOD	134.25
LL11278	<LOD	8.85	18.3	10.6	<LOD	10.5	119.2	31.5	<LOD	69.3	<LOD	129.15
LL11224	<LOD	11.7	50.7	31.4	<LOD	16.05	838.4	58.9	<LOD	93.6	<LOD	150
LL11251	<LOD	9.45	<LOD	35.25	<LOD	13.2	216.6	34.9	<LOD	69.45	<LOD	117.45
LL11306	<LOD	9.3	24.7	16.3	<LOD	12.9	343.2	43.5	239.4	61.5	<LOD	136.35
LL11307	<LOD	8.55	<LOD	21.6	<LOD	11.4	303.2	38.6	<LOD	73.5	<LOD	121.65
LL11308	<LOD	9.3	<LOD	15.45	<LOD	12	78.2	30.5	<LOD	70.8	<LOD	137.7
LL11271	<LOD	8.85	24.6	10.3	<LOD	11.25	130.5	32.7	<LOD	72	<LOD	142.35
LL11272	<LOD	8.4	21.5	9.9	<LOD	10.65	130.3	31.9	<LOD	72	<LOD	126.3
LL11273	<LOD	9.6	19.4	10.7	<LOD	11.4	118.9	32.3	<LOD	70.95	<LOD	126.6

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL11322	<LOD	330	23296	580	599.2	350	<LOD	225
LL11223	<LOD	330	23398.4	580	1009.6	360	<LOD	240
LL11131	<LOD	330	22899.2	590	879.2	360	<LOD	240
LL11255	<LOD	345	20096	590	1939.2	410	<LOD	300
LL11254	<LOD	330	23193.6	580	<LOD	510	<LOD	225
LL11253	<LOD	375	27289.6	650	<LOD	570	<LOD	240
LL11221	<LOD	285	17395.2	480	<LOD	435	<LOD	195
LL11222	<LOD	300	19392	510	493.6	320	<LOD	225
LL11252	<LOD	345	24793.6	590	<LOD	525	<LOD	225
LL11211	<LOD	375	30694.4	670	<LOD	570	<LOD	240
LL11239	<LOD	315	20992	550	<LOD	495	<LOD	210
LL11236	<LOD	330	22195.2	570	575.2	340	<LOD	225
LL11237	<LOD	390	31078.4	700	701.6	410	<LOD	270
LL11278	<LOD	390	30592	690	1269.6	420	<LOD	270
LL11224	<LOD	450	38988.8	820	777.6	460	<LOD	300
LL11251	<LOD	330	23296	560	593.2	340	<LOD	225
LL11306	<LOD	390	29081.6	690	872	410	<LOD	255
LL11307	<LOD	345	25996.8	620	808.8	370	<LOD	240
LL11308	<LOD	405	31897.6	720	<LOD	615	<LOD	255
LL11271	<LOD	420	36787.2	770	<LOD	630	<LOD	255
LL11272	<LOD	375	29388.8	660	612	380	<LOD	240
LL11273	<LOD	360	26291.2	640	596.4	380	<LOD	255

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-394	LL11276	REG	9/28/00	Grab	Sediment	<LOD	54.75	480.4	88.9
LL1-394	LL11276	DUP	9/28/00	Grab	Sediment	<LOD	57.15	384.8	76.7
LL1-395	LL11269	REG	9/26/00	Grab	Sediment	<LOD	55.35	309	71.2
LL1-396	LL11049	REG	9/17/00	Grab	Sediment	<LOD	39.3	385.6	75.3
LL1-397	LL11274	REG	9/27/00	Grab	Sediment	<LOD	75.45	418.8	99.5
LL1-398	LL11260	REG	9/28/00	Grab	Sediment	<LOD	46.65	291.2	65.5
LL1-399	LL11275	REG	9/28/00	Grab	Sediment	<LOD	55.8	485.2	86.6
LL1-400	LL11277	REG	9/28/00	Grab	Sediment	<LOD	49.95	416.8	72.4
LL1-401	LL11218	REG	9/28/00	Grab	Surface Soil	<LOD	46.65	429.6	82.3
LL1-402	LL11318	REG	9/30/00	Grab	Surface Soil	<LOD	48.9	428	81
LL1-403	LL11319	REG	9/30/00	Grab	Surface Soil	<LOD	50.4	396.6	76
LL1-404	LL11320	REG	9/30/00	Grab	Surface Soil	<LOD	53.4	413.6	80.7
LL1-405	LL11217	REG	9/30/00	Grab	Surface Soil	<LOD	51.45	336.8	78.7
LL1-406	LL11249	REG	10/1/00	Grab	Surface Soil	<LOD	57.6	375.4	75
LL1-407	LL11248	REG	10/1/00	Grab	Surface Soil	<LOD	47.7	353	72.5
LL1-407	LL11248	DUP	10/1/00	Grab	Surface Soil	66.8	42.1	376.4	78
LL1-408	LL11325	REG	10/1/00	Grab	Surface Soil	<LOD	56.85	410	81.3
LL1-409	LL11209	REG	9/29/00	Grab	Surface Soil	<LOD	53.7	362.8	70.3
LL1-410	LL11228	REG	9/29/00	Grab	Surface Soil	<LOD	48.3	380.4	75.7
LL1-411	LL11310	REG	9/29/00	Grab	Surface Soil	<LOD	49.8	427.2	75.9
LL1-412	LL11309	REG	9/29/00	Grab	Surface Soil	<LOD	52.35	402	74.9
LL1-413	LL11323	REG	9/30/00	Grab	Surface Soil	<LOD	52.2	397.8	74.4

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL11276	<LOD	60.9	<LOD	75.45	<LOD	58.2	<LOD	165	<LOD	35.85	<LOD	210
LL11276	<LOD	65.1	<LOD	70.5	<LOD	50.85	<LOD	150	<LOD	48	<LOD	195
LL11269	<LOD	55.8	<LOD	74.85	<LOD	57.3	<LOD	165	<LOD	37.65	<LOD	195
LL11049	<LOD	50.4	<LOD	67.35	<LOD	60.15	<LOD	147.15	<LOD	41.85	<LOD	195
LL11274	<LOD	72	<LOD	93.75	<LOD	69.45	<LOD	195	<LOD	54.6	<LOD	255
LL11260	<LOD	56.85	<LOD	73.65	<LOD	56.55	<LOD	147.6	<LOD	40.05	<LOD	180
LL11275	<LOD	64.8	<LOD	74.85	<LOD	52.05	<LOD	150	<LOD	47.1	<LOD	210
LL11277	<LOD	57.75	<LOD	59.4	<LOD	55.2	<LOD	143.4	<LOD	36.6	<LOD	180
LL11218	<LOD	54.9	<LOD	61.95	<LOD	58.2	<LOD	165	<LOD	45	<LOD	210
LL11318	<LOD	65.4	<LOD	74.55	<LOD	54	<LOD	150	<LOD	42.75	<LOD	195
LL11319	<LOD	60.75	<LOD	76.5	<LOD	63	<LOD	150	<LOD	40.5	<LOD	195
LL11320	<LOD	64.35	<LOD	76.5	<LOD	50.55	<LOD	150	<LOD	42	<LOD	195
LL11217	<LOD	65.7	<LOD	73.8	<LOD	59.25	<LOD	165	<LOD	44.85	<LOD	210
LL11249	<LOD	57.9	<LOD	73.65	<LOD	54.9	<LOD	150	<LOD	38.4	<LOD	195
LL11248	<LOD	61.8	<LOD	71.7	<LOD	50.4	<LOD	150	<LOD	43.05	<LOD	195
LL11248	<LOD	59.1	<LOD	76.35	<LOD	55.35	<LOD	150	<LOD	43.95	<LOD	210
LL11325	<LOD	62.7	<LOD	79.2	<LOD	47.85	<LOD	165	<LOD	31.8	<LOD	210
LL11209	<LOD	55.95	<LOD	74.4	<LOD	51.15	<LOD	150	<LOD	42.9	<LOD	180
LL11228	<LOD	57.9	<LOD	73.2	<LOD	57.75	<LOD	150	<LOD	46.95	<LOD	195
LL11310	<LOD	56.4	<LOD	62.85	<LOD	57.6	<LOD	147.9	<LOD	36	<LOD	195
LL11309	<LOD	57	<LOD	65.25	<LOD	48.6	<LOD	143.4	<LOD	38.25	<LOD	195
LL11323	<LOD	54.45	<LOD	62.4	<LOD	55.2	<LOD	150	<LOD	40.8	<LOD	195

J-216

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL11276	<LOD	36.3	12.3	6.2	302.4	12.5	69.2	8.4	89.1	10	124.5	18.6
LL11276	<LOD	37.95	16.6	6.1	298.2	12.2	75.2	8.3	98.6	10.2	145.3	19
LL11269	<LOD	39.6	13.3	5.2	237.2	10.1	78.3	7.5	113.9	9.9	73.7	13.9
LL11049	<LOD	39.45	18.6	8.2	514.8	18	60.9	9.9	79.1	10.8	90.1	20
LL11274	<LOD	43.5	9.9	5.9	278.2	11.9	63.8	8.1	112.2	10.7	242.6	23
LL11260	<LOD	33.9	10.6	5.5	326	11.2	59	6.9	76.7	8.3	51.6	12.5
LL11275	<LOD	36.45	<LOD	8.4	225	11.3	55.5	8.1	80.7	9.5	45.6	14.3
LL11277	<LOD	36.75	18.7	6.3	406.4	13.1	73.4	7.8	88.7	9.3	60.8	14.1
LL11218	<LOD	41.4	14.6	6.7	428	14.3	99.4	8.9	104	10.6	40.1	13.8
LL11318	<LOD	33.15	13.6	6.4	375.8	13.5	71.2	8.3	112.6	10.8	143.2	19.1
LL11319	<LOD	36.9	<LOD	9.45	394	13.5	62.8	7.9	108.4	10.5	38.5	13.3
LL11320	<LOD	37.65	15.9	6.2	378	13.1	63.5	7.8	114.5	10.5	17.7	11.7
LL11217	<LOD	36	11.5	6	291.8	12.3	69.6	8.3	122.8	11.3	78.8	16
LL11249	<LOD	36.45	18.9	6.4	321.4	12.8	70.2	8.3	118.8	11.3	21.5	12.6
LL11248	<LOD	28.35	15.7	5.9	326.8	11.8	54.1	7.2	88.4	9.2	28.7	11.9
LL11248	<LOD	38.1	17.1	5.9	303.4	11.9	82.5	8.1	106.3	10	32.5	12.4
LL11325	<LOD	41.4	<LOD	8.55	309.6	12.2	77.3	8.2	120.2	10.8	61	14.5
LL11209	<LOD	36	<LOD	9.45	249.2	13	194.1	12	88.3	11	265	26.4
LL11228	<LOD	35.1	<LOD	9.45	202.6	12.5	220	12.9	64.1	10.1	188.6	23.7
LL11310	<LOD	39.15	9.9	5.9	229.6	11.5	69.1	8.5	164.1	13.1	<LOD	19.05
LL11309	<LOD	36.6	11.2	6.4	273.6	13.1	82.9	9.9	123.3	12.4	1868.8	65.2
LL11323	<LOD	34.8	9.9	6.1	256.2	12.3	78.3	8.9	130.6	12	24.8	13.2

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL11276	<LOD	9.75	22.8	13.9	<LOD	12.6	790	60.2	783.2	84.7	<LOD	150
LL11276	<LOD	8.7	<LOD	20.7	<LOD	12	832.8	60.4	914.4	86.5	<LOD	147.6
LL11269	<LOD	7.8	<LOD	15.6	<LOD	10.35	366.2	37.9	<LOD	68.4	<LOD	109.65
LL11049	<LOD	11.85	46.6	16.1	<LOD	15	498.8	54.8	<LOD	98.55	<LOD	210
LL11274	<LOD	8.55	<LOD	23.25	<LOD	12.75	422.4	43.6	<LOD	76.5	<LOD	128.4
LL11260	<LOD	7.8	<LOD	14.4	<LOD	10.2	182	30.8	<LOD	61.65	<LOD	101.1
LL11275	<LOD	9.15	22.7	11.4	<LOD	12.3	690	53.5	<LOD	87.9	<LOD	165
LL11277	<LOD	8.85	20	11	<LOD	11.1	642.8	49.8	323.4	63.6	<LOD	130.35
LL11218	<LOD	9.75	27.4	11.4	<LOD	11.25	104	31.5	<LOD	69.45	<LOD	127.65
LL11318	<LOD	9.3	<LOD	20.85	<LOD	11.4	288	39.6	<LOD	80.1	<LOD	132.75
LL11319	<LOD	9	<LOD	15.6	<LOD	11.4	120.1	31.7	<LOD	69.6	<LOD	124.35
LL11320	<LOD	8.85	<LOD	13.35	<LOD	10.8	94.4	29.9	<LOD	68.1	<LOD	122.7
LL11217	<LOD	9.3	<LOD	18	<LOD	11.85	195.2	35.4	<LOD	71.4	<LOD	129.15
LL11249	<LOD	9.6	19.6	10.3	<LOD	10.65	105.6	31.6	<LOD	69.6	<LOD	126.15
LL11248	<LOD	8.7	<LOD	13.2	<LOD	10.35	58.6	27	<LOD	62.55	<LOD	108.15
LL11248	<LOD	8.7	<LOD	14.25	<LOD	11.1	62.3	27.5	<LOD	64.2	<LOD	117.3
LL11325	<LOD	9.15	19.5	11.3	<LOD	11.1	157.5	32.6	<LOD	67.35	<LOD	120.9
LL11209	<LOD	10.8	<LOD	27.6	<LOD	12.75	212.6	40.2	<LOD	82.2	<LOD	143.55
LL11228	<LOD	10.5	<LOD	25.35	<LOD	14.4	190.6	40	<LOD	82.5	<LOD	165
LL11310	<LOD	9.3	18.9	10.5	<LOD	12	82.2	31.3	<LOD	73.2	<LOD	145.5
LL11309	<LOD	13.8	105.5	42.5	<LOD	19.8	1169.6	70.8	<LOD	105	<LOD	165
LL11323	<LOD	9.6	16.8	10.7	<LOD	12	85.5	31.8	<LOD	74.25	<LOD	140.55

J-218

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL11276	<LOD	405	32588.8	740	2588.8	470	<LOD	315
LL11276	<LOD	390	32486.4	720	2428.8	460	<LOD	300
LL11269	<LOD	315	24000	550	1649.6	360	<LOD	240
LL11049	<LOD	690	79872	1500	3868.8	770	<LOD	465
LL11274	<LOD	375	28492.8	660	<LOD	570	<LOD	240
LL11260	<LOD	270	18188.8	470	807.2	300	<LOD	210
LL11275	<LOD	495	50585.6	960	4697.6	600	<LOD	375
LL11277	<LOD	360	30694.4	660	1840	410	<LOD	270
LL11218	<LOD	360	25894.4	640	1469.6	400	<LOD	255
LL11318	<LOD	390	29696	680	604.4	400	<LOD	255
LL11319	<LOD	345	24588.8	610	1469.6	390	<LOD	255
LL11320	<LOD	345	26393.6	620	864	370	<LOD	240
LL11217	<LOD	360	27084.8	650	<LOD	570	<LOD	240
LL11249	<LOD	375	26982.4	660	<LOD	570	<LOD	255
LL11248	<LOD	285	18496	490	516.8	310	<LOD	210
LL11248	<LOD	330	25292.8	590	<LOD	525	<LOD	225
LL11325	<LOD	345	25792	610	888.8	370	<LOD	240
LL11209	<LOD	405	28185.6	720	2560	480	<LOD	315
LL11228	<LOD	495	41395.2	920	1389.6	530	<LOD	330
LL11310	<LOD	420	34380.8	770	<LOD	645	<LOD	255
LL11309	540.4	340	44185.6	929.6	1500	530	<LOD	330
LL11323	<LOD	420	31590.4	740	<LOD	630	<LOD	270

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Station	Sample ID	Result Type	Date Collected	Field Sample Type	Media Description	La	+/- 3SD	Ba	+/- 3SD
LL1-414	LL11334	REG	10/2/00	Grab	Surface Soil	<LOD	59.1	418.4	86.2
LL1-415	LL11335	REG	10/2/00	Grab	Surface Soil	<LOD	64.2	452.8	91.9
LL1-416	LL11349	REG	10/3/00	Grab	Surface Soil	<LOD	56.25	450.8	93.9
LL1-416	LL11349	DUP	10/3/00	Grab	Surface Soil	<LOD	40.2	413.6	82.2
LL1-417	LL11347	REG	10/3/00	Grab	Surface Soil	<LOD	41.7	378.6	72.6
LL1-418	LL11346	REG	10/3/00	Grab	Surface Soil	<LOD	44.85	437.6	76.2
LL1-419	LL11348	REG	10/3/00	Grab	Surface Soil	<LOD	52.5	467.6	87.9
LL1-310	LL11139	REG	9/19/00	Field Duplicate	Sediment	<LOD	39.3	303.2	66.1

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Cs	+/- 3SD	Te	+/- 3SD	Sb	+/- 3SD	Sn	+/- 3SD	Cd	+/- 3SD	Ag	+/- 3SD
LL11334	<LOD	70.5	<LOD	72.15	<LOD	52.65	<LOD	165	<LOD	48.45	<LOD	210
LL11335	<LOD	72.9	<LOD	63.9	<LOD	46.2	<LOD	180	<LOD	35.4	<LOD	210
LL11349	<LOD	74.85	<LOD	76.65	<LOD	51.6	<LOD	180	<LOD	53.7	<LOD	225
LL11349	<LOD	60.15	<LOD	74.1	<LOD	49.2	<LOD	165	<LOD	41.85	<LOD	210
LL11347	<LOD	60.45	<LOD	63.15	<LOD	57.45	<LOD	150	<LOD	43.5	<LOD	180
LL11346	<LOD	57.45	<LOD	73.8	<LOD	56.85	<LOD	147.3	<LOD	40.8	<LOD	180
LL11348	<LOD	60.6	<LOD	74.4	<LOD	57.15	<LOD	165	<LOD	42.45	<LOD	210
LL11139	<LOD	72.9	<LOD	66.3	653.6	100	<LOD	150	<LOD	37.65	<LOD	195

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Pd	+/- 3SD	Mo	+/- 3SD	Zr	+/- 3SD	Sr	+/- 3SD	Rb	+/- 3SD	Pb	+/- 3SD
LL11334	<LOD	38.85	<LOD	9	248.2	12	62.2	8.5	160.2	13.2	21.8	13.1
LL11335	<LOD	45.45	14.1	5.9	366.4	12.3	63.8	7.4	109.9	10	20.9	11.3
LL11349	<LOD	46.2	13.8	5.9	359.6	12.1	63.5	7.3	103.5	9.7	21.2	11.2
LL11349	<LOD	40.95	15	6.1	370.6	12.8	69.5	7.7	101.5	9.9	26.7	11.7
LL11347	<LOD	33.6	13.4	6.2	511.6	13.7	50.2	6.8	93.4	9	64.6	13.5
LL11346	<LOD	39.45	11.3	5.9	327	12.2	71.7	7.8	103.9	10	32.3	12.2
LL11348	<LOD	43.05	<LOD	8.55	353.8	12.3	61.4	7.3	87	9.1	32.7	11.9
LL11139	<LOD	31.05	<LOD	7.95	238.4	10.8	107.9	8.7	72.9	8.9	588.8	32.8

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Se	+/- 3SD	As	+/- 3SD	Hg	+/- 3SD	Zn	+/- 3SD	Cu	+/- 3SD	Ni	+/- 3SD
LL11334	<LOD	9	<LOD	15.6	<LOD	11.7	93.1	32.5	<LOD	73.95	<LOD	150
LL11335	<LOD	8.55	<LOD	13.5	<LOD	10.65	64.8	27.3	<LOD	63.75	<LOD	111
LL11349	<LOD	8.4	<LOD	12.75	<LOD	9.9	75.9	27.3	<LOD	61.5	<LOD	105.45
LL11349	<LOD	7.95	<LOD	13.2	<LOD	10.05	60.1	27.3	<LOD	63	<LOD	105.45
LL11347	<LOD	8.4	<LOD	15	<LOD	9.9	114.7	28.7	<LOD	62.85	<LOD	106.8
LL11346	<LOD	8.25	<LOD	14.55	<LOD	11.1	80.3	28.4	<LOD	65.55	<LOD	114
LL11348	<LOD	7.8	<LOD	13.35	<LOD	9.75	94.3	28.4	<LOD	62.4	<LOD	104.25
LL11139	<LOD	9.3	<LOD	33.15	<LOD	14.25	2360	86.8	122.9	74.2	<LOD	124.8

<LOD - below level of detection

LOAD LINE 1 EX-SITU X-RAY FLUORESCENCE ANALYSIS DATA FOR METALS

Sample ID	Co	+/- 3SD	Fe	+/- 3SD	Mn	+/- 3SD	Cr	+/- 3SD
LL11334	<LOD	465	38579.2	840	<LOD	675	<LOD	270
LL11335	<LOD	300	21388.8	530	630.8	320	<LOD	210
LL11349	<LOD	270	16998.4	470	<LOD	435	<LOD	195
LL11349	<LOD	285	17395.2	480	<LOD	450	<LOD	210
LL11347	<LOD	285	19596.8	490	1109.6	320	<LOD	225
LL11346	<LOD	315	21798.4	550	714.4	340	<LOD	225
LL11348	<LOD	285	16896	470	543.2	300	<LOD	210
LL11139	<LOD	360	28697.6	640	1569.6	400	<LOD	270

<LOD - below level of detection

5. QA/QC INFORMATION

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XRF Data Sheet

OEPA ANALYSIS

Project: SAIC - LOADS LINE #1 RAVENNA ARSENAL 10/3/00

Date: 10/3/00 **District:** NEDO

Project Contact(s):

Element:	Sample ID:	086	087	088	089	091	092	092(A)	093	094	095
		1	2	3	4	5	6	7	8	9	10
K		13670	14320	20580	20460	3940	15730	15800	13420	20950	17230
Ca		9690	15080	4808	3745	94170	42930	42190	5880	4290	15500
Ti		2495	3304	3396	3304	1247	3887	3806	2153	3966	3841
Cr		188	99	—	76	439	103	—	215	92	—
Mn		1010	1090	400	610	1540	2370	2200	380	390	590
Fe		18120	27140	24590	25890	16990	60520	61150	20700	25890	25220
Co		—	—	—	340	—	640	280	310	—	220
Ni		—	120	70	54	41	59	128	40	98	41
Cu		47	185	70	31	31	168	120	33	32	72
Zn		57	886	—	—	464	438	440	—	25	27
As		—	—	—	—	—	—	—	—	—	—
Se		—	—	—	—	9.1	8.3	10.3	—	—	—
Sr		56.4	76.6	84.7	77.0	267.9	149.3	138.4	64.1	83.1	98.5
Zr		237.4	237.8	204.1	193.6	112.6	253.3	256.5	198.4	310.1	302.7
Mo		5.2	2.5	5.8	4.4	1.8	2.8	5.4	2	2.7	—
Hg		—	—	—	—	—	—	—	—	—	—
Pb		121	571	24.1	30.1	285	184	206	26	34.0	38.2
Rb		48.9	55.7	71.8	66.6	11.1	43.5	53.3	63.7	88.9	106.7
Cd		—	—	—	—	—	—	—	41	42	—
Sn		—	58	—	—	—	—	25	—	—	—
Sb		—	—	20	—	16	—	30	—	—	24
Ba		151.1	303.2	216.8	228.9	266.3	230.7	231.0	175.3	273.4	338.0
Ag		38	—	—	—	—	47	33	—	—	
U		—	—	—	—	—	7.7	—	—	—	5.6
Th		—	—	—	—	—	—	—	—	—	

J-227

2 OF 2

XRF Data Sheet

OEPA ANALYSIS 10/3/00

Project: SAIC - LOAD LINE #1

Date: 10/3/00 District: NEDO

Project Contact(s):

Element:	Sample ID:	097 1	099 2	108 3	108(A) 4	5	6	7	8	9	10
K		17470	15880	18750	20040						
Ca		3806	3343	23470	26420						
Ti		4213	3428	3529	3579						
Cr		—	105	182	50						
Mn		350	340	680	890						
Fe		25010	23780	22390	23900						
Co		—	—	170	250						
Ni		77	49	54	47						
Cu		40	46	20	30						
Zn		—	37	98	65						
As		—	—	—	—						
Se		—	—	—	—						
Sr		82.0	76.3	123.5	137.1						
Zr		304.5	284.1	255.6	260						
Mo		—	—	—	—						
Hg		—	—	—	—						
Pb		25.6	17.1	44.6	44.4						
Rb		107.1	77.4	81.7	84.4						
Cd		—	—	—	—						
Sn		—	—	—	—						
Sb		—	24	17	26						
Ba		328.7	300	262.6	247.6						
Ag		—	—	44	—						
U		16.3	8.7	—	—						
Th		—	—	—	—						

J-228

XRF data - results in ppm

XRF Data Sheet

OEPA ANALYSIS

Project: MKM Engineers - RAVENNA ARSENAL 4OCT2000

Date: 10/4/00 **District:** ______

Project Contact(s): LLI - XRF SURVEY -

Element:	Sample ID:	008(A) ~~153~~ Dup	153	150	217	216	212	127	004	034	008
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
K		14760 ~~200~~ Dup	7630	9220	14390	15040	12440	5940	11150	13900	14760
Ca		6400	5450	6000	2625	2200	2067	11630	4222	5730	6320
Ti		3207	846	1675	3093	3205	3086	3176	2580	2558	3089
Cr		—	200	157	—	—	84	177	160	270	—
Mn		1900	590	610	860	1720	1260	1450	920	370	1880
Fe		25170	13420	16050	20100	21760	19610	27600	16950	15090	25060
Co		140	—	—	280	310	—	160	250	150	200
Ni		—	—	—	—	—	—	—	—	—	—
Cu		—	225	79	53	19	69	370	48	101	57
Zn		125	206	166	111	91	86	2334	116	129	114
As		30	65	—	51	22	—	—	20	—	32
Se		—	—	—	—	—	—	—	—	—	—
Sr		77.4	3289 *	52.8	84.7	83.6	66.2	63.5	59.5	47.1	70
Zr		280	166.2	195.2	330.7	324.6	336.5	188.4	266.4	AU ~~271~~ 274	284.5
Mo		—	—	3.8	—	—	—	4.0	—	3.3	~~15.5~~ A.1
Hg		—	—	—	—	+	—	—	—	—	—
Pb		26.4	76	135	...	13	19.1	1219 ⊗	16.8	44.3	15.5
Rb		100.6	17	27.2	92.2	91.3	77.6	27.4	47.8	50.3	107.3
Cd		—	—	—	—	—	—	—	—	—	—
Sn		—	—	—	—	—	—	—	—	—	—
Sb		34	15	—	—	—	—	71	14	16	—
Ba		310.4	2861 *	125.2	286.4	265.4	283.4	158.6	176.6	163.9	304.6
Ag		44	28	25	—	—	—	—	—	27	38
U		25.8	8.6	8.6	22.3	17.8	20.3	9.9	12.4	10.3	24.3
Th		20.7	42.2	13.9	30.4	18.4	26	19.2	17.3	17.5	15.7

J-229

MKM

MKM ENGINEERS INC.

DATE: 04 OCT 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 12 SEPTEMBER 2000

COC #1

CHECKED OFF ON MASTER LIST

Page # : 1 (one) OF 1 (One)

Cup No. C#	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	14[06] Analysis Cd / Am Reading # / Date	Comments
C01	01	0855	164 ✓	30.4	1220 / 1445	10-4-00	327-328 10/11/00	EXSITU SAMPLE ANALYSIS 11 OCT 00
C02	01	0856	165 ✓	30.4	1220 / 1445	10-4-00	329 330	STARTING AT 1406 HOURS
C03	01	0853	163 ✓	30.4	1220 / 1445	10-4-00	331 332	FOLLOWING CALIBRATION
C04	01	0839	014 ✓	30.4	1240 / 1445	10-4-00	333 334	OF NITON 700 GWS —
C05	01	0819	144 ✓	30.4	1240 / 1445	10-5-00	335 336	Complete Analysis
C06	01	0820	145 ✓	30.4	1250 / 1755	10-5-00	337 338	OF COC # 1 AT 14:47 HRS.
C07	01	0803	002 ✓	30.4	1250 / 1755	10-5-00	339 340	
C08	01	0821	146 ✓	30.4	1250 / 1755	10-5-00	341 342	
C09	01	0800	001 ✓	31.4	1300 / 1755	10-5-00	343 344	LOTS OF ROCKS # C800
C10	01	0839	014 ✓	DUPLICATE OF C4	1250 / 1445	10-4-00	345 346	DUPLICATE TEST NOS. ARE READING 333 & 334
→ RECHECK C08 w/ NITON XL-722S - Analytical Page Attached.						DATA DATED 10/16/00 GWS		14[06] — 14[47] START - FINISH
* Follow Calibration Sequence for NITON 700 using NIST STANDARDS ① LOW #2709 ② MEDIUM #2711 ③ HIGH #2710 ④ MEDIUM #2711 ⑤ BLANK 99.5% SiO_2 ⑥ EXSITU SAMPLES.								
* (RECALIBRATE EVERY 2 (two) HOURS W/ HIGH #2710 - NIST STANDARD & BLANK 99.5% of SiO_2								

Analyzed By: John W. Simpson 11 OCT 2000 QA/QC/Project Manager:

J-230

MKM

MKM ENGINEERS INC.

DATE: 05 OCT 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 12 SEPTEMBER 2000

COC #2

CHECKED OFF OF MASTER LIST

Page # : 1 (ONE) OF 1(one)

Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Cl / Am Reading # / Date	Comments
✓ C11	02	0822	147 ✓	35.4	1145 / 1445 ← 10/5/00	10-5-00	347 / 348 10-11-00	EXSITU SAMPLE ANALYSIS
✓ C12	02	0815	007 ✓	35.4	1145 / 1445	10-5-00	349 / 350	11 OCTOBER 2000
✓ C13	02	0859	166 ✓	35.4	1446 / 1759	10-5-00	351 / 352	START - 1450HRS FINISH - ~~1510~~ 1512HRS.
✓ C14	02	0841	015 ✓	35.4	1146 / 1446	10-5-00	353 / 354	
✓ C15	02	0861	167 ✓	32.4	DRY SAMPLE	10-5-00	355 / 356	
✓ C16	02	0837	011 ✓	35.4	1145 / 1446	10-5-00	357 / 358 10-11-00	
C12 - RECHECK* OF C12 W/ NITON XL 7225 - ANALYTICAL							DATA RESULTS ATTACHED.	
*C12	02	0815	007	35.4	1145 / 1445 10-5-00	10/5/00	09 / 10	RECHECK OF 10% (RANDOM) SAMPLES DATED 10/16/00

J-231

Analyzed By: John W. Smithpeter 11 OCT 2000

QA/QC/Project Manager:

MKM

MKM ENGINEERS INC.

DATE: 05 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 13 SEPTEMBER 2000 & 14 SEPTEMBER 2000

COC #3

Page # : 1 OF 2

CHECKED OFF OF MASTER LIST

Cup No. C #	COC # THREE	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Cd / Am Reading # / Date	Comments
C17	03	1106	* 148 ✓	32.0	0845 / 1320	6 OCTOBER 00 10/6/00	359 / 360	EX SITU SAMPLES ANALYZED
✓ C18	03	0843	154 ✓	35.8	1427 / 1758	10-3-00 10/6/00	361 / 362	11 OCTOBER 2000 COC NO. 3
✓ C19	03	0847	158 ✓	38.0	1427 / 1755	10-6-00	363 / 364	START 1513 FINISH 1716
* ✓ C20	03	0823	148 ✓	35.1	1427 / 1755	10-6-00	365 / 366	RECHECK READINGS 11 & 12
✓ C21	03	0846	157 ✓	35.0	1427 / 1755	10-6-00	367 / 368	
✓ C22	03	0845	156 ✓	36.1	1427 / 1755	10-6-00	369 / 370	
✓ C23	03	0844	155 ✓	39.3	1427 / 1755	10-6-00	371 / 372	CLAY
C24	03	1105	* 168 ✓	30.5	0845 / 1320	6 OCTOBER 2000 10-6-00	373 / 374	
✓ C25	03	0914	204 ✓	35.0	1427 / 1756	30 OCTOBER 2000 10-6-00	375 / 376	
✓ C26	03	~~0857~~ 1857	016 ✓	36.0	1427 / 1755	10-6-00	377 / 378	
✓ C27	03	0813	006 ✓	30.6	1427 / 1755	10-6-00	379 / 380	OEPA
* ✓ C28	03	0824	149 ✓	39.4	1446 / 1758	10-6-00	381 / 382	CLAY RECHECK READINGS 13 & 14
✓ C29	03	0862	168 ✓	35.4	1320 / 1755	10-6-00	383 / 384	
✓ C30	03	0805	003 ✓	35.4	1427 / 1755	10-6-00	385 / 386	
✓ C31	03	0817	008 ✓	36.4	1429 / 1755	10-6-00	387 / 388	OEPA

Analyzed By: John W. Sinkovic 11 OCT 2000

QA/QC/Project Manager: 10-11-00

J-232

MKM

MKM ENGINEERS INC.

DATE: 05 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 13 SEPTEMBER & 14 SEPTEMBER 2000

COC #3

Page #: 2 OF 2

← CHECKED OFF OF MASTER LIST

Cup No. C #	COC # THREE	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Reading # / Date (Cd / Am)	Comments
✓ C32	03	0810	005 ✓	30.1	1427 / 1755 ← 5 OCTOBER 2000	10-6-00	389 / 10-11-00 390	*RECHECK CALIBRATION AFTER C32 04H
✓ C33	03	0808	004 ✓	37.0	1427 / 1755	10-6-00	399 / 400	Pebbles DEPA
✓ C34	03	1062	323 ✓	50.0	1406 / 1755	10-6-00	401 / 402	W/ WATER
✓ C35	03	1061	322 ✓	50.2	1411 / 1755	10-6-00	403 / 404	W/ WATER
✓ C36	03	0828	153 ✓	45.0	1427 / 1755	10-6-00	405 / 406	Pebbles DEPA
✓ C37	03	0826	151 ✓	40.0	1427 / 1755	10-6-00	407 / 408	Pebbles DEPA
✓ C38	03	0912	202 ✓	35.3	1427 / 1755	10-6-00	409 / 410	Pebbles *RECHECK READINGS 15 & 16
✓ C39	03	0825	150 ✓	42.2	1427 / 1755	10-6-00	411 / 412	Pebbles
✓ C40	03	0913	203 ✓	35.1	1427 46 / 1755	10-6-00	413 / 414	
✓ C41	03	0827	152 ✓	46.3	1427 / 1755	10-6-00	415 / 10-11-00 416	Pebbles
						5 OCTOBER 2000	10-11-00	

J-233

*~~CALIBRATION~~ RECHECK OF C20 & C28 & C38 OR 10% OF COC #3 W/ NITON XL 722S - ANALYTICAL DATA PAGE ATTACHED DATED 10/6/00. PLUS

*CALIBRATION RECHECK FOLLOWING READINGS OF INSTRUMENT WITH NIST- C32 - READING NOS 391 + HRU 398 ARE CALIBRATION HIGH STANDARD & BLANK STANDARD.

*NOTE: SAMPLE NOS. LL1-1105 & 1106 HAVE NO STATION NOS ON MASTER LAST IN SAIC-SAP, ADDENDUM NO. 2, SEPT 2000 FINAL

Analyzed By: John Wm. Sinkevich 11 Oct 2000

QA/QC/Project Manager:

COC #1 & COC #2 & COC #3.

MKM

MKM ENGINEERS INC.

DATE: 16 OCTOBER 2000 GWS

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 12 SEPT 2000 - COC #1
12 SEPT 2000 - COC #2
13-14 SEPT 2000 - COC #3

Page #: 1 OF 1 / 10/16/00

CHECKED OFF OF MASTER LIST.

Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Cd / Am Reading # / Date	Comments
* C8	01	0821	146 ✓	30.4	1250 10-4-00 / 1755	10/5/00	07 / 08	RANDOM 10% RECHECK OF COC #1
* C12	02	0815	007 ✓	35.4	1145 10-5-00 / 1445	10/5/00	09 / 010	RANDOM 10% RECHECK OF COC #2
* C20	03	0823	148 ✓	35.1	1427 10-5-00 / 1755	10/6/00	011 / 012	RANDOM 10%
* C28	03	0824	149 ✓	39.4	1446 10-5-00 / 1755	10/6/00	013 / 014	RECHECK OF SAMPLE CUPS
* C38	03	0912	202 ✓	35.3	1427 10-5-00 / 1755	10/6/00	015 / 016	FROM COC #3

J-234

* REPRESENTS 10% RECHECK OF SAMPLE CUPS FROM CHAIN-OF-CUSTODY NOS. 1-2-3 USING NITON XL722S - XRF CONDUCTED 10/16/00

* INSTRUMENT CALIBRATION - READING NOS. 1&3 - INTERNAL INSTRUMENT CALIBRATION CHECKS, APPROX 1330 HOURS. - READING NOS. 2&4 - NIST-HIGH STANDARD - READING NOS. 5&6 - BLANK - 99.5% SiO_2 STANDARD

Analyzed By: John W. Simkonis

16 OCTOBER 2000 GWS

QA/QC/Project Manager:

DATE: 9 OCTOBER 2000

MKM

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 14 SEPTEMBER & 15 SEPTEMBER-2000

COC #4

Page #: 1 OF 3

Cd / Am 10/12/00

Cup No. C #	COC # FOUR	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Reading # / Date	Comments
C42	4	0834	013 ✓	40.2	1046 / 1329	9OCTOBER2000 10-10-00	425 / 426	EX SITU SAMPLE ANALYSIS
C43	4	1002	0274 ✓	36.0	1046 / 1329	-PEBBLES- 10-10-00	427 / 428	COC #4 12 OCTOBER 2000
C44	4	1007	279 ✓	41.4		10-10-00	429 / 430	START-0915
C45	4	1004	276 ✓	37.3		10-10-00	431 / 432	COMPLETE-
C46	4	1195	324 ✓	36.2	1046 / 1329	10-10-00	433 / 434	
C47	4	1006	278 ✓	35.3		10-10-00	435 / 436	
C48	4	0950	231 ✓	48.0		10-10-00	437 / 438	PEBBLES-
C49	4	1058	319 ✓	62.1	1046 / 1329	10-10-00	439 / 440	WATER W/ PEBBLES
C50	4	1005	277 ✓	39.0		10-10-00	441 / 442	
C51	4	0829	009 ✓	35.4		10-10-00	443 / 444	GRAVEL
C52	4	0796	141 ✓	51.5		10-10-00	445 / 446	CLAY WITH PEBBLES
C53	4	1059	320 ✓	76.8	1046 / 1329	10-10-00	447 / 448	WATER WITH Pebbles & ORGANICS
C54	4	1008	280 ✓	35.3	1125 / 1330	10-10-00	449 / 450	SANDY CLAY
C55	4	1009	281 ✓	50.8	1126 / 1330	10-10-00	451 / 452	SANDY CLAY
C56	4	1003	275 ✓	45.4	1125 / 1330	10-10-00	453 / 454	SANDY-CLAY

↑ CHECKED OFF OF MASTER LIST

Analyzed By: John D. Sukonnic 12OCT2000

QA/QC/Project Manager:

MKM ENGINEERS INC.

DATE: 9 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 14 SEPTEMBER & 15 SEPTEMBER - 2000

COC #4

CHECKED OFF ON MASTER LIST

Cd / Am 10/12/00

Cup No. C #	COC # FOUR	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Reading # / Date	Comments
C57	4	1107	* 276	41.0	1125 / 1330	9 OCTOBER 2000 10/10/00	455 / 456	Sandy clay
C58	4	0788	023	59.6	1125 / 1330	10/10/00	457 / 458	CLAY
C59	4	0851	161	35.2	1125 / 1330	10/10/00	459 / 460	Sand
C60	4	0792	137	57.1	1125 / 1330	10/10/00	461 / 462	Clay w/ Pebbles
C61	4	0850	160	35.9	1125 / 1330	10/10/00	463 / 464	Sandy Loam
C62	4	0849	159	109.2	1125 / 1330	10/10/00	465 / 466	WET GRAVEL w/ SAND
C63	4	0798	142	49.2	1125 / 1330	10/10/00	467 / 468	SANDY CLAY
C64	4	1057	318	63.2	1125 / 1637	10/10/00	469 / 470	WATER W/ MUCK SILT/ORGANICS
DUPLICATED *C65	4	1060	321	64.7	1125 / 1637	10/10/00	471 / 472	WATER W/ MUCK SILT/ORGANICS
C66	4	0952	232	61.1	1125 / 1330	10/10/00	473 / 474	Sandy Gravel
C67	4	0852	162	40.7	1125 / 1330	10/10/00	475 / 476	Sandy Gravel
C68	4	0832	010	51.1	1125 / 1535	10/10/00	477 / 478	Sand
C69	4	0948	229	57.5	1144 / 1535	10/10/00	479 / *480	SANDY GRAVEL w/ CLAY
C70	4	0949	230	52.9	1144 / 1535	10/10/00	482 / 483	Sandy Gravel
C71	4	0944	227	64.5	1144 / 1535	10/10/00	484 / 485	Sandy Gravel

* NOTE: READING No. 480 DELETED & SKIPPED TO No. 481.

Analyzed By: John Wm. Sinkevich 12 OCT 2000

QA/QC/Project Manager:

MKAI

MKM ENGINEERS INC.

DATE: 9 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 14 SEPTEMBER & 15 SEPTEMBER - 2000

COC #4

Page #: 3 OF 3

Cup No. C#	COC # FOUR	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Cd / Am Reading # / Date (12 OCTOBER 2000)	Comments
C72	4	0791	136	64.5	1144 / 1535	9 OCTOBER 2000 10/10/00	486 / 487	CLAY W/ PEBBLES OEPA
C73	4	0920	209	45.3	1144 / 1535	10/10/00		SAND W/ CLAY OEPA
C74	4	1108	* 159	95.5	1144 / 1535	10/10/00		WET GRAVEL W/ MINOR SAND
C75	4	0946	228	60.1	1144 / 1535	10/10/00		CLAY W/ Pebbles
C76	4	1055	060	50.8	1425 / 1637	10/10/00		MOIST CLAY
DUPLICATED C77	4	105	077	77.1	1144 / 1535	10/10/00		WATER W/ MUCK SILT/ORGANICS --
* END - CHAIN OF CUSTODY NO. 4, 36 (THIRTY-SIX) SAMPLES (+) PLUS 2 (TWO) DUPLICATES								
C78	4	1060	0321	DUPLICATE OF C65	1125 / 1330	10/10/00		DUPLICATE OF C65
C79	4	1015	077	DUPLICATE OF C77	1125 / 1330	10/10/00		DUPLICATE OF C77
				CHECKED OFF OF MASTER LIST				

* XRF, XL-700 CALIBRATION SEQUENCE ON 12 OCTOBER 2000; (1) INTERNAL CALIBRATION READING No. 421

(2) READING No. 422 - MIST HIGH STANDARD (3) Reading No. 423 & 424, BLANK STANDARD

* XRF, XL-700 CALIBRATION CHECK - READING NOS. 486 THRU

Analyzed By: John W. Simkins 12 OCT 2000 QA/QC/Project Manager:

J-237

COC #4

MKM

MKM ENGINI RS INC.

DATE: 16 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 14 SEPT & 15 SEPT - 2000

↓ CHECKED OFF OF MASTER LIST.

Cup No. / C #	COC # / FOUR	Sample #	Station #	Weight / grams	Oven Time / In / Out	Sieved/Mounted / Date	Analysis (Cd / Am) / Reading # / Date	Comments
C42	04	0834	013 ✓	40.2	1046 10-9-00 / 1329	10/10/00	017 10-16-00 / 018	INITIAL CALIBRATION SEQUENCE OF INSTRUMENT AT APPROX 14:00 HOURS READING NOS. 01-06
C43	04	1002	0274 ✓	36.0	1046 / 1329	PEBBLES 10-10-00	019 / 020	
C44	04	1007	279 ✓	41.4		10/10/00	021 / 022	
C45	04	1004	276 ✓	37.3		10/10/00	023 / 024	
C46	04	1195	324 ✓	36.2		10/10/00	025 / 026	
C47	04	1006	278 ✓	35.3		10/10/00	027 / 028	
C48	04	0950	231 ✓	48.0		PEBBLES 10/10/00	032 * 033 ~~037~~	* NOTE: READING NOS 029/031 RECHECK INSTRUMENT CALIBRATION AT 16 00 HOURS.
C49	04	1058	319 ✓	62.1	1046 / 1329	WATER W/ PEBBLES 10/10/00	034 / 036	
C50	04	1005	277 ✓	39.0		10/10/00	036 / 037	RESUME ANALYSIS AT 16 20 HOURS
C51	04	0829	009 ✓	35.4		10/10/00	038 / 039	GRAVEL -
C52	04	0796	141 ✓	51.5		10/10/00	040 / 041	CLAY W/ PEBBLES
C53	04	1059	320 ✓	76.8	1046 / 1329	10/10/00	042 / 043	WATER W/ PEBBLES AND ORGANIC DEBRIS
C54	04	1008	280 ✓	35.3	1125 / 1330	10/10/00	044 / 045	SANDY CLAY
C55	04	1009	281 ✓	50.8	1125 / 1330	10/10/00	046 / 047	SANDY CLAY
C56	04	1003	275 ✓	45.4	1125 10-9-00 / 1330	10/10/00	* 056 * 057	SANDY CLAY

Analyzed By: John Wm. Smeaton

16 October 2000

QA/QC/Project Manager:

* READING NOS. 48-50 RECHECK RECALIBRATION OF INSTRUMENT 16 OCT 2000 17 55

* READING NOS. 51-55 CALIBRATION RECHECKS OF INSTRUMENT - 0731 17 OCT 2000

J-238

COC#4

MKM

MKM ENGINEERS INC.

DATE: 17 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 14 SEPT & 15 SEPT. - 2000

CHECKED OFF OF MASTER LIST

Cup No. C #	COC # FOUR	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Cd / Am 17 OCT 2000 Analysis Reading # / Date	Comments
C57	04	1107	* 276	41.0	1125 9 OCT 2000 / 1330	10/10/00	058 / 059	SANDY CLAY
C58	04	0788	023 ✓	59.6		10/10/00	060 / 061	CLAY
C59	04	0851	161 ✓	35.2		10/10/00	062 / 063	SAND
C60	04	0792	137 ✓	57.1		10/10/00	064 / 065	CLAY W/ PEBBLES
C61	04	0850	160 ✓	35.9		10/10/00	066 / 067	SANDY LOAM
C62	04	0849	159 ✓	109.2		10/10/00	068 / 069	WET GRAVEL W/ SAND.
C63	04	0798	142 ✓	49.2		10/10/00	070 / 071	SANDY CLAY
C64	04	1057	318 ✓	63.2	1125 / 1330	10/10/00	072 / 073	WATER W/ MUCK, SILT & ORGANICS.
C65	04	1060	321 ✓	64.7		10/10/00	079 / 080	WATER W/ MUCK, SILT, AND ORGANICS
C66	04	0952	232 ✓	61.1		10/10/00	081 / 082	Sandy Gravel
C67	04	0852	162 ✓	40.7		10/10/00	083 / 084	Sandy Gravel
C68	04	0832	010 ✓	51.1	1125 / 1330	10/10/00	085 / 086	SAND
C69	04	0948	229 ✓	57.5	1144 / 1535	10/10/00	087 / 088	SANDY GRAVEL W/ CLAY
C70	04	0949	230 ✓	52.9	1144 / 1535	10/10/00	089 / 090	Sandy GRAVEL
C71	04	0944	227 ✓	64.5	1144 / 1535	10/10/00	074 / 075	Sandy Gravel

9 OCT 2000

ANALYZED 17 OCT 00

Analyzed By: John Wm. Simkonis 16 OCT 2000 - C57/C64; 17 OCT 2000 - C65/C71 QA/QC/Project Manager: [signature]

* READING NOS. 76-78 CALIBRATION RECHECK OF INSTRUMENT 17 OCT 2000 1030

J-239

COC #4

DATE: 17 OCTOBER 2000

MKM

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 14 SEPT. & 15 SEPT. - 2000

← CHECKED OFF OF MASTER LIST

Cup No. C #	COC # FOUR	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
C72	04	0791	136	64.5	1144 09 OCT 2000 / 1535	10/10/00	091 / 092	OEPA CLAY w/ Pebbles
C73	04	0920	209	45.3	1144 / 1535	10/10/00	093 / 094	OEPA SAND w/ CLAY
C74	04	1108	*159	95.5	1144 / 1535	10/10/00	095 / 096	WET GRAVEL w/ MINOR SAND
C75	04	0946	228	60.1	1144 / 1535	10/10/00	097 / 098	CLAY w/ Pebbles
C76	04	1055	060	50.8	1425 / 1637	10/10/00	099 / 100	MOIST clay
C77	04	1015	077	77.1	1144 / 1535	10/10/00	101 / 102	WATER w/ MUCK, SILT AND ORGANIC DEBRIS
* END CHAIN OF CUSTODY			No. 4, 36 (THIRTY-SIX)		SAMPLES plus(+) Two (2) DUPLICATES. C78 & C79.			
C78	04	1060	0321	DUPLICATE OF C65	1125 / 1330	10/10/00	107 / 108	DUPLICATE OF C65
C79	04	1015	077	DUPLICATE OF C77	1125 / 1330	10/10/00	109 / 110	DUPLICATE OF C77
					09 OCT 2000	All Samples Analyzed - 17 OCTOBER 2000		
*NOTE Reading Number Changes at C65 AND AT C71 AND AT C72 AND AT C78								

Analyzed By: John Wm. Sinkovic 17 OCTOBER 2000 QA/QC/Project Manager:

J-240

MKM

MKM ENGINEERS INC.

COC #5-1 DATE: 9 OCT 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 16 & 17 SEPT 2000

Page # : 1 (one) OF 4 (four)

Cup No. C #	COC # FIVE(5)	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Reading # / Date	Comments
C80	05	0884 ✓	179	40.1	10-4-00 1525 / 1800	11 OCT 00	17 OCT 2000 111 / 112	
C81	05	0991 ✓	263	47.9	1525 / 1800	10/11/00	113 / 114	
C82	05	0894 ✓	187	39.5	1525 / 1800	10/11/00	115 / 116	
C83	05	1197 ✓	325	53.7	1525 / 1800	10/11/00	117 / 118	
*C84	05	0888 ✓	182	75.0	1525 / 1800	10/11/00	119 / 120	*DUPLICATE OF C84 P124 NOTE:
C85	05	1019 ✓	289	37.8	1525 / 1800	10/11/00	*125 / 126	CALIBRATION CHECK READING NOS 121 - 124
C86	05	1198 ✓	326	56.5	1525 / 1800	10/11/00	127 / 128	
C87	05	0893 ✓	186	57.5	1525 / 1800	10/11/00	129 / 130	
C88	05	0994 ✓	266	70.4	1525 / 1800	10/11/00	131 / 132	
C89	05	1016 ✓	286	52.6	1525 / 1800	10/11/00	133 / 134	
C90	05	1051 ✓	049	44.4	1525 / 1800	10/11/00	135 / 136	
C91	05	0986 ✓	258	59.3	1525 / 1800	10/11/00	137 / 138	
C92	05	1052 ✓	~~SAME~~ 050	47.8	1525 / 1800	10/11/00	139 / 140	
C93	05	1110	SAME 186	52.6	1525 / 1800	10/11/00	141 / 142	note:
C94	05	0885 ✓	180	52.2	1525 / 1800	10/11/00	143 / 17OCT2000 144	CALIBRATION CHECK AFTER C94 - Reading Nos. 145 thru 14

✓ CHECKED OFF OF MASTER LIST.

Analyzed By: John Wm. Sanborn 17 OCTOBER 2000 QA/QC/Project Manager:

J-241

COC #5-2

DATE: 09 Oct 2000

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 16 & 17 SEPT 2000

Page # : 2 (Two) OF ~~(Two)~~ 4 (Four)

Cup No.	COC #	Sample #	Station #	Weight	Oven Time	Sieved/Mounted	Analysis		Comments
C #	FIVE-5	LLI-	LLI-	grams	In / Out	Date	Reading # / Date	Cd / Am	
*C95	5	1134	C50	42.7	1525 10/9 / 1800	10-11-00	05 10-19-00	06	*DUPLICATE IN CUP C125
C96	5	0989	261	49.2	10/9 1616 / 1800	10-11-00	07	08	
C97	5	C799	143	39.4	1616 / 1800	10-11-00	09	10	
C98	5	0795	140	66.3	1616 / 1800	10-18-00	11	12	
C99	5	1207	335	56.8	1616 / 1800	10-18-00	13	14	
C100	5	1205	333	56.4	1616 / 1800	10-18-00	15	16	
C101	5	1203	331	85.5	1616 / 1800	10-18-00	17	18	
*C102	5	1204	332	61.4	1616 / 1800	10-18-00	19	20	*DUPLICATE IN Cup C126
C103	5	0885	183	45.6	1616 / 1800	10-18-00	21	22	
C104	5	C882	027	60.8	1616 / 1800	10-18-00	23	24	
C105	5	C987	259	48.6	1616 / 1800	10-18-00	25	26	
C106	5	1053	051	67.2	10-9-00 1616 / 1800	10-18-00	27	28	
C107	5	0794	139	39.4	1616 / 1800	10-18-00	29	30	
C108	5	0988	260	51.8	1616 / 1800	10-18-00	31	32	
C109	5	1206	344	57.7	1637 / 1800	10-18-00	33 10-19-00	34	

CHECKED OFF OF MASTER LIST.

Analyzed By: John Wm. Sinkovic 18 October 2000

QA/QC/Project Manager:

COC #5-3

DATE: 9 OCT 2000

MKM

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 16-17 SEPT 2000

Page # : THREE (3) OF 4 (FOUR)

Cup No.	COC #	Sample #	Station #	Weight	Oven Time	Sieved/Mounted	Analysis	Comments
C#	FIVE - 5	4L-#	4L-#	grams	In / Out	Date	Reading # / Date	
110	05	0886	181	64.9	10-9-00 1637 / 1800	10-18-00	35 10-19-00 / 36	
111	5	0959	236	66.7	1637 / 1800	10-18-00	37 / 10-19-00 38	CALIBRATION OF INSTRUMENT
112	5	0957	235	60.5	1637 / 1800	10-18-00	52 10-20-00 / 53	
113	5	1202	330	45.8	1637 / 1800	10-18-00	54 / 55	
114	5	0954	233	49.1	1637 / 1800	10-18-00	56 / 57	
115	5	1200	328	46.0	1637 / 1800	10-18-00	58 / 59	
116	5	1111	S1111 143	75.7	1637 / 1800	10-18-00	60 / 61	
117	5	1201	329	62.7	1637 / 1800	10-18-00	62 / 63	
118	5	1018	288	54.7	1637 / 1800	10-19-00	64 / 65	
119	5	1017	287	51.8	1637 / 1800	10-19-00	66 / 67	
120	5	1199	327	66.5	1637 / 1800	10-19-00	68 / 69	
121	5	1109	S1109 327	60.5	1637 / 1800	10-19-00	70 / 71	
122	5	0956	234	86.2	1637 / 1800	10-19-00	72 / 73	
123	5	0793	138	66.5	1637 / 1800	10-19-00	74 / 75	
X 124	5	0888	182	DUPLICATE OF C84	1525 / 1800	10/11/00	76 / 10-20-00 77	DUPLICATE OF C84

* CHECKED OFF ON MASTER LIST.

Analyzed By: John Wm. Sullivan 20 OCTOBER 2000 (19 OCTOBER 2000) QA/QC/Project Manager:

COC #5-4

DATE: 18 OCTOBER 2000

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 16 SEPT & 17 SEPT-2000

Page # : 4 OF 4 PAGES

CHECKED OFF OF MASTER LIST

Cup No. C #	COC # FIVE	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
C125	05	1134	050	DUPLICATE	1525 10-9-00 / 10-9-00 1800	10-11-00	78 10-20-00 / 10-20-00 79	DUPLICATE OF C95
C126	05	1204	332	Duplicate	1616 10-9-00 / 10-9-00 1800	10-18-00	80 10-20-00 / 10-20-00 81	DUPLICATE OF C102

Analyzed By: John Wm. Sanborn 20 October 2000 QA/QC/Project Manager:

J-244

COC #6-1

DATE: 17 OCTOBER 2000

MKM

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 17 SEPT & 18 SEPT - 2000

Page #: 1 OF ~~2~~ 3 PAGES $2

	Cup No. C #	COC # 91X	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Reading # / Date (Cd / Am)	Comments
1.	C127	06	0869	169	39.1	1555-1755 10-17-0955 10-18-00 0719-0919	1405 10-19-00	82 10-20-00 / 83	
2.	C128	06	0873	172	38.8	1555-1755 0719-0919	10-19-00	84Am / 85Cd	NOTE - 84Am/85Cd SWITCHED
3.	C129	06	0881	178	37.5	1555-1755 0719-0919	10-19-00	86 / 87	
4.	C130	06	0872	171	38.8	1555-1755 0719-0919	10-19-00	88 / 89	
5.	C131	06	0876	174	37.5	1555-1755 0719-0919	10-19-00	90 / 91	
6.	C132	06	0891	185	39.3	1555-1755 0719-0919	10-19-00	92 / 93	
7.	C133	06	0880	177	38.8	1555-1755 0719-0919	10-19-00	94 / 95	
8.	C134	06	0996	268	38.8	1555-1755 0719-0919	10-19-00	96 / 97	
9.	C135	06	0992	264	37.5	1555-1755 0719-0919	10-19-00	98 / 99	DUPLICATE INC154
10.	C136	06	0982	254	40.3	1555-1755 0719-0919	10-19-00	100 / 101	
11.	C137	06	0877	175	41.3	1555-1755 0719-0919	10-19-00	102 / 103	
12.	C138	06	0878	176	39.5	1555-1755 0719-0919	10-19-00	104 / 105	
13.	C139	06	0890	184	39.4	1555-1755 0719-0919	10-19-00	106 10-20-00 / 107 10-20-00	CHECK CALIBRATION OF INSTRUMENT #105 THRU 110
14.	C140	06	0993	265	42.0	1555-1755 0719-0919	10-20-00	545 10-25-00 / 544	NOTE 545Cd/544Am SWITCHED
15.	C141	06	0870	170	38.3	1555-1755 10-17-00 0719-0919	10-20-00	546 10-25-00 / 547	

Analyzed By: John Wm. Sinkevich 25 October 2000

10-18-00 Reading 544 thru Reading No. 575 - Analyzed 10-25-00

QA/QC/Project Manager:

J-245

COC #6-2

DATE: 17 OCTOBER 2000

MKM

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 17 SEPT & 18 SEPT 2000

Page #: 2 OF 3 PAGES 2

	Cup No. C #	COC # SIX	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Cd / Am Reading # / Date	Comments
16.	C142	06	0874	173	39.3	16:55-17:55 10-17-00 10-18-00 CMW	10-20-00	548 10-25 549	
17.	C143	06	0865	029	42.0	1655-1755 0719-0919	10-20-00	550 551	
18.	C144	06	0984	256	42.9	1655-1755 0719-0919	10-20-00	552 553	DUPLICATE IN C-142 W/ RED
19.	C145	06	1048	046	43.2	1655-1755 0719-0919	10-20-00	554 555	
20.	C146	06	0983	255	44.8	1655-1755 0719-0919	10-20-00	556 557	
21.	C147	06	1135	048	42.4	1655-1755 0719-0919	10-20-00	558 559	
22.	C148	06	1050	048	38.4	1655-1755 0719-0919	10-20-00	560 561	
23.	C149	06	0999	262	44.0	1655-1755 0719-0919	10-20-00	562 563	
24.	C150	06	0985	257	41.5	1655-1755 0719-0919	10-20-00	564 565	
25.	C151	06	0979	252	43.0	1655-1755 0719-0919	10-20-00	566 567	
26.	C152	06	1054	070	41.6	1655-1755 0719-0919	10-20-00	568 569	
27.	C153	06	1049	047	40.1	1655-1755 10-17-00 10-18-00 0719-0919	10-20-00	570 571	
28.	C154	06	0992	264	DUPLICATE OF C135	1655-1755 10-17-00 10-18-00 0719-0919	10-19-00	572 573	DUPLICATE OF C135
29.	C144-2	06	0984	256	DUPLICATE OF C144	1655-1755 0719-919	10-20-00	574 10-25-00 575	DUPLICATE OF CUP-C144
	CALIBRATION CHECK - NIST-MEDIUM STANDARD - Reading #							576	576Cd

*READING NOS. 544 thru 575, ANALYZED 25 OCTOBER 2000

Analyzed By: John Wm. Sinkovic 25 October 2000 QA/QC/Project Manager:

J-246

COC #7-1

DATE: 18 OCTOBER 2000

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 18-19-20 SEPTEMBER 2000

Page #: 1 OF 3 PAGES

	Cup No. C #	COC # SEVEN	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
1.	C155	07	0747	104 ✓	42.9	0915 10-18-00 / 10-18-00 11:24	10-20-00	577 / 10/25/00 578	
2.	C156	07	0745	103 ✓	41.9	0915 / 11:24	10-20-00	579 / 580	DUPLICATE IN CUP #189
3	C157	07	0744	102 ✓	44.2	0915 / 11:24	10-20-00	581 / 582	
4	C158	07	1214	159	72.7	0915 / 11:24	10-20-00	583 / 584	
5	C159	07	1114	171	41.4	0915 / 11:24	10-20-00	585 / 586	
6	C160	07	1113	008	49.1	0915 / 11:24	10-20-00	587 / 588	
7.	C161	07	1215	164	71.3	0915 / 11:24	10-20-00	589 / 590	
8.	C162	07	1213	156	37.9	0915 / 11:24	10-20-00	591 / 592	
9.	C163	07	1115	011	43.8	0915 / 11:24	10-24-00	593 / 594	
10.	C164	07	0858	016 ✓	38.2	0915 / 11:24	10-24-00	595 / 596	
11.	C165	07	0814	006 ✓	64.5	0915 / 11:24	10-24-00	597 / 598	
12.	C166	07	0818	008 ✓	43.2	0915 / 11:24	10-24-00	599 / 600	
13.	C167	07	0838	011 ✓	41.3	0915 / 11:24	10-24-00	601 / 602	
14	C168	07	0835	015 013 ✓	37.2	0915 / 11:24	10-24-00	603 / 604	
15	C169	07	0809	004 ✓	43.3	0915 10-18-00 / 10-18-00 11:24	10-24-00	605 10-25-00 / 606	DUPLICATE IN CUP-C196

CHECKED OFF ON MASTER LIST.

Analyzed By: John W. Sinclair 25 oct 2000

QA/QC/Project Manager:

J-247

COC # 7-2

MKM

MKM ENGINEERS INC.

DATE: 18 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 18-19-20 SEPTEMBER 2000

Page # : 2 OF 3 PAGES

Cup No. C #	COC # SEVEN	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
C170	07	0840	014 ✓	73.2	1035 / 1250	10-24-00	607 / 608 (10-25-00)	
C171	07	1034	304 ✓	38.8	1035 / 1250	10-24-00	609 / 610	
C172	07	0789	023 ✓	46.4	1035 / 1250	10-24-00	611 / 612	DUPLICATE IN CUP - C~~A~~T191
C173	07	0804	002 ✓	42.2	1035 / 1250	10-24-00	613 / 614	
C174	07	1025	295 ✓	43.4	1035 / 1250	10-24-00	615 / 616	
C175	07	0816	007 ✓	39.3	1035 / 1250	10-24-00	617 / 618	
C176	07	0801	001 ✓	61.6	1035 / 1250	10-24-00	619 / 620	
C177	07	1139	SEDIMENT 07	40.3	1035 / 1250	10-24-00	621 / 622	
C178	07	1040	310 ✓	35.0	1035 / 1250	10-24-00	623 / 624	
C179	07	1038	308 ✓	37.8	1035 / 1250	10-24-00	625 / 626	
C180	07	1036	306 ✓	41.8	1035 / 1250	10-24-00	627 / 628	
C181	07	0940 ~~0940~~	225 ✓	41.5	1035 / 1250	10-24-00	629 / 630	
C182	07	1208	335 ✓	39.5	10:35 / 1250	10-24-00	631 / 632	
C183	07	0939	224 ✓	44.0	10:35 / 1250	10-24-00	633 / 634	
C184	07	0942	226 ✓	40.3	1035 (10-18-00) / 1250 (10-18-00)	10-24-00	635 (10-25-00) / 636	

↑ SAMPLES LOCATED ON MASTER LIST

Analyzed By: John Wm. Symonie 25 October 2000 QA/QC/Project Manager:

COC # 7-3

DATE: 18 OCTOBER 2000

MKM

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 18-19-20 September 2000

Cup No. C #	COC # seven	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
C185	07	0741 ✓	100	56.6	1035 10-18-00 / 10-18-00 1250	10-24-00	687 10-25-00 / 688	637Cd/638Am
C186	07	0735 ✓	038	40.9	1035 / 1250	10-24-00	689 / 690	
C187	07	0743 ✓	101	39.3	1035 / 1250	10-24-00	691 / 692	
C188	07	0980 ✓	253	40.1	10:35 10-18-00 / 10-18-00 1250	10-24-00	693 / 694	
C189	07	0745 ✓	103	DUPLICATE OF C156	0915 10-18-00 / 11:24	10/20/00	695 / 696	DUPLICATE OF C156
C190	07	0809 ✓	004	DUPLICATE OF C169	0915 10-18-00 / 1124	10/24/00	697 / 698	DUPLICATE OF C169
C191	07	0789 ✓	023	DUPLICATE OF C172	1035 10-18-00 / 1250	10-24-00	699 10-25-00 / 700	DUPLICATE OF CUP - C-172
		Samples located on MASTER LIST						
CALIBRATION CHECK - NIST - MEDIUM STANDARD							651 —	651Cd

Analyzed By: John Wm Sinkovic 25 October 2000

QA/QC/Project Manager: _____

COC #8-1

MIKAI

MKM ENGINEERS INC.

DATE: 18 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 25 SEPT & 26 SEPT 2000

	Cup No. C#	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Cd / Am Reading # / Date	Comments 1335 - 10/25/00
1.	C192	EIGHT 08	0731	093	45.0	1314 10-18-00 / 1826 10-18-00	10-24-00 m	652 10-25-00 / 653	651 Cd - CALIBRATION CHECK - NIST - MEDIUM STANDARD
2	C193	08	0728	091	65.7	1054 / 1442	10-24-00	654 / 655	
3.	C194	08	0722	086	41.3	1054 / 1442	10-24-00	656 / 657	
4.	C195	08	0723	087	61.1	1054 / 1442	10-24-00	658 / 659	
5.	C196	08	0720	092	60.3	1054 / 1442	10-24-00	660 / 661	
6.	C197	08	1030	300	64.8	1054 / 1442	10-24-00	662 / 663	
7.	C198	08	0724	088	44.2	1054 / 1442	10-24-00	664 / 665	
8.	C199	08	0732	094	40.2	1054 / 1442	10-24-00	666 / 667	1400/10-25-00
9.	C200	08	1031	301	70.4	1054 / 1442	10-24-00	668 / 669	DUPLICATE IN CUP-C228
10.	C201	08	1000	272	50.9	1054 / 1442	10-24-00	670 / 671	
11.	C202	08	0734	095	42.7	1054 / 1442	10-24-00	672 / 673	
12.	C203	08	0726	089	45.4	1054 / 1442	10-24-00	674 / 675	
13.	C204	08	0727	090	37.3	1054 / 1442	10-24-00	676 / 677	
14	C205	08	1117	088	43.3	1054 / 1442	10-24-00	678 / 679	
15.	C206	08	0995	267	41.9	1054 10-18-00 / 1442 10-18-00	10-24-00	680 10-25-00 / 681	DUPLICATE IN CUP - C229

J-250

Analyzed By: JWS

QA/QC/Project Manager:

COC #8-2

DATE: 18 OCTOBER 2000

MIKAI

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 25 SEPT & 26 SEPT 2000

Page # : 2 of 3 pages

	Cup No. C #	COC # EIGHT	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
16.	C207	08	0999	271	58.9	1054 10-18-00 / 1442 10-18-00	10-24-00	682 10-25-00 / 683	
17.	C208	08	0998	270	43.2	1418 / 1828	10-24-00	684 / 685	STOP 1445 - XRF READING MEMORY 75 70 Full w/ 684 Cd
18.	C209	08	0997	269	45.0	1418 / 1828	10-24-00	686 / 687	CONTINUE 1540 w/ Analysis of C208/685 Am
19.	C210	08	0738	097	43.0	1418 / 1828	10-24-00	688 / 689	
20.	C211	08	0740	099	39.1	1418 / 1828	10-24-00	690 / 691	
21.	C212	08	0981	024	52.9	1418 / 1828	10-24-00	692 / 693	
22.	C213	08	0934	221	39.6	1418 / 1828	10-24-00	694 / 695	
23.	C214	08	0740	135	43.0	1418 / 1828	10-24-00	696 / 697	
24.	C215	08	0753	108	45.0	1418 / 1828	10-24-00	698 / 699	
25.	C216	08	1120	108	41.5	1418 / 1828	10-24-00	700 / 701	
26.	C217	08	1001	273	42.9	1418 / 1828	10-24-00	702 / 703	
27.	C218	08	0739	098	39.0	1418 / 1828	10-24-00	704 / 705	
28.	C219	08	1112	024	40.0	1418 / 1828	10-24-00	706 / 707	
29.	C220	08	0752	107	39.4	1418 / 1828	10-24-00	708 / 709	
30.	C221	08	1118	099	40.8	1418 10-18-00 / 1828 10-18-00	10-24-00	710 10-25-00 / 711	DUPLICATE IN CUP C-220

Analyzed By: JWS

QA/QC/Project Manager:

J-251

COC #8-3

MKM

MKM ENGINEERS INC.

DATE: 18 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 25 SEPT & 26 SEPT 2000

	Cup No. C #	COC # EIGHT	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
31.	C222	08	0938	223	41.3	1418 10-18-00 / 10-16-00 1828	10-24-00	712 10-25-00 / 713	
32.	C223	08	0751	106	41.4	1418 / 1828	10-24-00	714 / 715	
33.	C224	08	0737	096	41.4	1418 / 1828	10-24-00	716 / 717	
34.	C225	08	0936	222	47.6	1418 / 1828	10-24-00	718 / 719	
35.	C226	08	0750	105	39.7	1418 / 1828	10-24-00	720 / 721	
36.	C227	08	0748	068	43.8	1418 10-18-00 / 10-18-00 1828	10-24-00	722 10-25-00 / 723	
37.	C228	08	1031	301	DUPLICATE OF C200	1054 10-18-00 / 1442	10-24-00	724 10/25/00 / 725	DUPLICATE OF CUP-C200
38.	C229	08	0995	267	DUPLICATE OF C206	1054 10-18-00 / 1442	10-24-00	726 10/25/00 / 727	DUPLICATE OF CUP-C206
39.	C230	08	1118	099	DUPLICATE OF C221	1418 10/18-00 / 1828	10-24-00	728 10/25/00 / 729	DUPLICATE OF CUP C221
*	CALIBRATION CHECK OF NITON-XRF USING NIST-MEDIUM STANDARD - 625 seconds								
	KEY FOUR ELEMENTS Pb, Zn, Cu, As PASSED WITHIN CALIBRATION RANGES —							730Cd	(730 Cd Reading Number)

Analyzed By: JWS

QA/QC/Project Manager:

J-252

COC 9-1

MKM ENGINEERS INC.

DATE: 25 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 27-28-29-30, SEPTEMBER 2000

Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
1. C 231	09	1303	354	40.8	10-19-00	10/25/10/25 JWS	03 10-29-00 04	1735/10-29-00 START
C 232	09	1302	355	41.7		10/25/00 JWS	05 06	
C 233	09	1231	211	42.5		10/25/00 JWS	07 08	
C 234	09	1301	352	40.8		10-26 00 JWS Mount 10-28 JWS	09 10	
C 235	09	1245	325	45.7		10-26-00 10-28 JWS	11 10-29-00 12	
C 236	09	0749	068	44.5		10-26-00	13 14	
C 237	09	1133	325	42.5		10-26-00	15 16	
C 238	09	1230	099	41.7	10-19-00	10-26-00	17 18	
C 239	09	1309	412	41.0		10-25-00	19 10-29-00 20	
C 240	09	1308	390	43.9		10-25-00 Mounted 10-28-00	21 22	
C 241	09	1310	411	40.3		10-25-00	23 24	
C 242	09	1307	389	41.2		10-25-00	25 10-29-00 26	
C 243	09	1228	410	45.1		10-25-00	27 28	
C 244	09	1305	351	408		10-25-00	29 30	
15. C 245	09	1299	347	41.5	10-19-00	10-25-00 Mounted 10-28 JWS	31 10-29-00 32	

Analyzed By: John W. Simkovic 30 OCTOBER 2000 QA/QC/Project Manager:

COC 9-2

DATE: 25 OCTOBER 2000

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 27-28-29-30 SEPTEMBER 2000

Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
16. C 246	09	1209	409	48.5	10-19-00	mounted 10-28-00	33 10-29-00 34	Analyzed Jws 10-29-00
C 247	09	1300	344	44.1			35 36	
C 248	09	1298	343	49.3			37 38	
C 249	09	1306	388	41.6			39 10-29-00 40	
C 250	09	1304	350	40.1			41 42	
C 251	09	1243	342	43.2			43 44	
J-254 C 252	09	1234	110	40.6			45 10-29-00 46	
C 253	09	1235	109	43.8	10-19-00	mounted 10-28-00	47 48	
C 254	09	0903	195	41.6			49 50	
C 255	09	1126	195	42.6			51 10-29-00 52	
C 256	09	1237	385	41.6			53 54	
C 257	09	1221	379	47.1			55 10-29-00 56	
C 258	09	1236	384	46.1			57 58	
C 259	09	1218	401	51.5			59 60	
30. C 260	09	0910	200	43.0	10-19-00	mounted 10-28-00	61 10-29-00 62	

Analyzed By: John W. Simpson 30 October 2000

QA/QC/Project Manager:

COC9-3

DATE: 25 OCTOBER 2000

AIKAI

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 27-28-29-30, SEPTEMBER 2000

	Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
31.	C 261	09	0902	194	43.4	10-19-00	10-28-00 Mounted	63 64	
	C 262	09	0911	201	39.3			65 66	DUPLICATE IN CUP-C 374
	C 263	09	1127	196	44.4			67 68	~~DUPLICATE IN CUP C 374~~
	C 264	09	1255	376	54.4			69 70	
	C 265	09	0900	192	43.6			71 72	
	C 266	09	1253	378	45.5	10-19-00		73 74	
J-255	C 267	09	1254	377	38.9			75 76	
	C 268	09	1278	385	38.8		10-28-00 Mounted	77 78	1935-10/29/00
	C 269	09	1216	087	48.5			79 80	
	C 270	09	1277	400	40.1	10-19-00	m/d 28 00	81 82	
	C 271	09	1222	380	40.7	1321 10-19-00 1741		83 84	
	C 272	09	1223	375	40.4	1331 1741		85 86	CANCEL Reading NUMBERS 87 & 90 (wrong) NOTE #SEQUENCE CHANGES
	C 273	09	1211	382	43.3	1331 1741	Reading Nos 93/94	~~87 90~~ 89	
	C 274	09	1131	375	46.0	1331 1741		91 92	87-88-89-90 CANCEL
45.	C 275	09	1252	381	42.4	1331 10-19-00 1741	10-28-00 mounted	95 96	

Analyzed By: John Wm. Sutherin 30 October, 2000

QA/QC/Project Manager:

COC 9-4

MKM

MKM ENGINEERS INC.

DATE: 25 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 27-28-29-30 SEPTEMBER 2000

Page # : 4 OF 10 PAGES

Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
46. C276	09	1258	368	41.0	1331 10-19-00 / 1741	mounted 10-28-00	97 / 98	
C277	09	1234	383	47.9	1331 / 1741		99 / 100	
C278	09	0787	134	39.3	1331 / 1741		88 101 102 89	NOTE NUMBERS ~~out of sequence~~ 88/ DUPLICATE in C375
C279	09	0784	131	43.7	1331 / 1741		103 / 104	
C280	09	0921	210	41.4	1331 / 1741		105 / 106	
C281	09	1124	210	41.5	1331 / 1741		107 / 108	
J-256 C282	09	0908	199	43.8	1331 / 1741	mounted 10-28-00	109 / 110	
C283	09	1224	386	42.8	1331 10-19-00 / 1741		111 / 112	
C284	09	1257	367	40.8	1331 / 1741		113 / 114	
C285	09	0786	133	42.4	1331 / 1741		115/116 / 117	NOTE 115 & 116 DUPLICATES —
C286	09	0919	208	40.5	1331 / 1741		118 / 119	
C287	09	1275	399	38.8	1331 / 1741		120 / 121	
C288	09	0785	132	54.0	1331 / 1741		122 / 123	
C289	09	1212	369	39.0	1331 / 1741		124 / 125	
60. C290	09	1220	371	40.2	1331 10-19-00 / 1741	mounted 10-28-00	126 / 127	

Analyzed By: John W. Sinkovic 30 October 2000

QA/QC/Project Manager:

COC9-5

MKM ENGINEERS INC.

DATE: 25 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 27-28-29-30 SEPTEMBER 2000

Page #: 5 OF 10 PAGES

	Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
61.	C 291	09	1128	368	38.8	1331 10-19-00 / 1741	Mounted 10-28-00	128 10-29 / 129	10-29-00 gws.
	C 292	09	1219	370	39.0	1331 / 1741		130 10-29-00 / 131	
	C 293	09	1256	372	43.6	1331 / 1741		132 / 133	
	C 294	09	1260	398	39.6	1331 / 1741		134 / 135	
	C 295	09	1276	397	36.7	1331 / 1741	Mounted 10-28-00	136 / 137	
	C 296	09	0915	205	40.8	1331 / 1741		138 / 139	
J-257	C 297	09	0929	216	36.8	1331 / 1741		140 10-29-00 / 141	
	C 298	09	1125	199	37.9	1331 10-19-00 / 1741	Mounted 10-28-00	142 / 143	
	C 299	09	0928	215	38.0	1331 / 1741		144 / 145	
	C 300	09	0781	128	37.2	1331 / 1741		146 / 147	DUPLICATE IN CUP - C376
	C 301	09	1171	130	48.9	1331 / 1741	Mounted 10-28-00	148 / 149	
	C 302	09	0769	035	43.3	1331 / 1741		150 / 151	NOTE:
	C 303	09	0766	~~129~~ 034	39.7	1331 / 1741		154 / 155	CANCEL READING
	C 304	09	1116	129	39.2	1831 / 1741		158 / 159	NOS. 152/153 * DUPLICATE OF 156/157
75.	C 305	09	0780	127	37.2	1331 10-19-00 / 1741	Mounted 10-28-00	198 10-29-00 / ~~159~~ 157	Note Numbers out of Sequence

Analyzed By: John Wm. Symonic 30 October 2000

QA/QC/Project Manager:

COC 9-6

MKM

MKM ENGINEERS INC.

DATE: 25 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 27-28-29-30, SEPTEMBER 2000

Page #: 6 OF 10 PAGES

	Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Cd / Am Analysis Reading # / Date	Comments
76.	C 306	09	0771	037	46.8	1331 10-19-00 / 1741	mounted 10-28-00	160 10-29-00 / 161	
77	C 307	09	0783	130	46.4	1331 10-19-00 / 1741	mounted 10-28-00	162 / 163	
78	C 308	09	1136	394	37.1 gms	1331 10-19-00 / 1741	gms 10-28-00 M	164 / 165	
79	C 309	09	1274	394	38.0	1701-2001 10-19-00 / 0615-1034 10-20-00	10-28-00 M	166 / 167	
80	C 310	09	0776	124	45.6	1701-2001 / 0615-1034	10-28-00 M	168 / 169	
81	C 311	09	1271	391	52.9	1701-2001 / 0615-1034	10-28-00 M	170 10-29 / 171	
82	C 312	09	1272	392	41.2	1701-2001 / 0615-1034	10-28-00 M	172 / 173	
83	C 313	09	0775	123	38.9	1701-2001 / 0615-1034	10-28-00 M	174 / 175	
84	C 314	09	0926	213	36.5	1701-2001 10-19-00 / 0615-1034 10-20-00	10-28-00 M	176 10-29 / 177	
85	C 315	09	0774	122	41.3	1701-2001 / 0615-1034	10-28-00 M	181 10-30-00 / 182	10-30-00 0439
86	C 316	09	0927	214	41.4	1701-2001 / 0615-1034	10-28-00 M	184 10-30 / 183	0647 RESUME XRF NOTE NOS. SWITCHED
87	C 317	09	0773	120	51.0	1701-2001 / 0615-1034	10-28-00 M	185 10-30-00 / 186	
88	C 318	09	1123	213	39.5	1701-2001 / 0615-1034	10-28-00 M	187 10-30-00 / 188	
89	C 319	09	1273	393	46.6	1701-2001 / 0615-1034	10-28-00 M	189 10-30-00 / 190	
90.	C 320	09	0779	126	60.7	1701-2001 10-19-00 / 0615-1034 10-20-00	10-28-00 M	191 10-30-00 / 192	

Analyzed By: John Wm. Sinkevich 30 October 2000

QA/QC/Project Manager:

COC 1

AIKAI

MKM ENGINEERS INC.

DATE: 25 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 27-28-29-30, September 2000

	Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
91	C 321	09	0777	125	37.5	1701-2001 10-19-00 10-20-00 0615-1034	10-28-00 M	193 10-30-00 / 194	
	C 322	09	0782	129	36.7	1701-2001 0615-1034	10-28-00 M	195 / 196	
	C 323	09	1122	125	37.7	1701-2001 0615-1034	10-28-00 M	197 / 198	
	C 324	09	1104	121	41.8	1701-2001 0615-1034	10-28-00 M	200 / 199	NOTE - NUMBERS SWITCHED -
	C 325	09	0763	117	41.3	1701-2001 0615-1034	10-28-00 M	201 / 202	
	C 326	09	0764	118	60.6	1701-2001 0615-1034	10-28-00 M	203 / 204	
J-259	C 327	09	1119	207	40.2	1701-2001 0615-1034	10-28-00 M	205 10-30-00 / 206	Duplicate in Cup-C 378
	C 328	09	0760	114	43.6	1701-2001 10-19-00 10-20-00 0615-1034	10-28-00 M	207 / 208	
	C 329	09	0909	198	43.5	1701-2001 0615-1034	10-28-00 M	209 / 210	
	C 330	09	0759	113	65.0	1701-2001 0615-1034	10-28-00 M	211 / 212	
	C 331	09	0972	247	40.3	1701-2001 0615-1034	10-28-00 M	213 / 214	
	C 332	09	0765	119	53.4	1701-2001 0615-1034	10-28-00 M	215 / 216	
	C 333	09	1233	265	43.0	1701-2001 0615-1034	10-28-00 M	217 / 218	
	C 334	09	1247	266	47.9	1701-2001 0615-1034	10-28-00 M	219 / 220	
105	C 335	09	1316	360	38.4	1701-2001 10-19-00 10-20-00 0615-1034	10-28-00 M	221 10-30-00 / 222	Duplicate in Cup-C 379

Analyzed By: John W. Sinfronie 30 October 2000

QA/QC/Project Manager:

COC 9-8

MKM

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

DATE: 25 OCTOBER 2000

Collection Dates: 27-28-29-30, SEPTEMBER 2000

Page #: 8 OF 10 PAGES

Analysis: Cd / Am

J-260

	Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Reading # / Date	Comments
106.	C 336	09	1312	356	40.0	1701-2001 10-19-00 / 10-20-00 0615-1034	10-28-00 M	223 10-30-00 / 224	mounted 9W4 ↓
	C 337	09	1246	268	50.3	1701-2001 / 0615-1034	10-28-00 M	225 / 226	
	C 338	09	1279	265	48.7	1701-2001 / 0615-1034	10-28-00 M	227 / 228	
	C 339	09	1315	359	40.1	1701-2001 / 0615-1034	10-28-00 M	229 10-30-00 / 230	
	C 340	09	1311	353	41.8	1701-2001 10-19-00 / 10-20-00 0615-1034	10-28-00-M	231 / 232	
	C 341	09	1129	358	40.2	1701-2001 / 0615-1034	10-28-00 M	233 / 234	
	C 342	09	0973	248	46.6	1701-2001 / 0615-1034	10-28-00 M	236 10-30-00 / 235	NOTE, ~~RUBO~~ Reading Numbers Switch
	C 343	09	1314	358	41.1	1701-2001 / 0615-1034	10-28-00 M	239 / 240	DELETE 237/238 Cd/Am - C3?
	C 344	09	1313	357	47.0	1701-2001 10-19-00 / 10-20-00 0615-1034	10-28-00-M	241 / 242	Duplicate of Cup C 380
	C 345	09	0918	207	39.9	1840-2019 10-19-00 / 10-20-00 0615-1134	10-28-00 M	243 / 244	
	C 346	09	0974	249	39.6	1840-2019 / 0615-1134	10-28-00 M	245 10-30-00 / 246	
	C 347	09	0925	212	42.5	1840-2019 / 0615-1134	10-28-00-M	247 / 248	mounted 9W5
	C 348	09	0758	112	40.5	1840-2019 / 0615-1134	10/28/00 M	249 10-30-00 / 250	↕
	C 349	09	0917	206	45.0	1840-2019 / 0615-1134	10/28/00 M	251 / 252	
120	C 350	09	0757	111	40.0	1840-2019 10-19-00 / 10-20-00 0615-1134	10/28/00 M	253 10-30-00 / 254	mounted 9W5

Analyzed By: John W. Sinkovi 30 October 2000 QA/QC/Project Manager: [signature]

COC9 - 4

MKM ENGINEERS INC.

DATE: 25 OCTOBER 2000

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 27-28-29-30 September 2000

Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Cd / Am Reading # / Date	Comments
121. C 351	09	0924	211	47.1	1840-2019 10-19-00 10-20-00 0615-1134	10-28-00 - 14 gws	255 10-30-00 256	DUPLICATE IN CUP C377
C 352	09	1269	395	~~39.4~~ ~~39.1~~ gws	1840-2019 0615-1134	READING NOS. 262/263	~~257~~ 262 10-30-00 263 ~~260~~	NOTE: Reading NOS. OUT OF SEQUENCE w/ CUP 352-353-354
C 353	09	0762	116	65.7	1840-2019 0615-1134		257 10-30-00 258	
C 354	09	0756	110	53.0	1840-2019 0615-1134	10-28-00 M	260 10-30-00 261	
C 355	09	0755	109	44.8	1840-2019 0615-1134		264 10-30-00 265	
C 356	09	0761	115	47.3 ~~47.8~~ gws	1840-2019 0615-1134		266 10-30-00 267	
J-261 C 357	09	1270	396	53.1	1840-2019 0615-1134	10-28-00 - M gws	268 10-30-00 269	
C 358	09	0930	217	42.0	1840-2019 10-19-00 10-20-00 0615-1134		270 10-30-00 271	
C 359	09	1232	264	51.1	1840-2019 0615-1134		272 10-30-00 273	
C 360	09	0906	197	39.9	1840-2019 0615-1134	10-28-00 M	274 10-30-00 275	
C 361	09	1132	190	55.5	1840-2019 0615-1134		276 10-30-00 277	
C 362	09	0897	190	47.7	1840-2019 0615-1134		278 10-30-00 279	
C 363	09	1238	365	45.7	1840-2019 0615-1134	10-28-00 M gws	280 10-30-00 281	
C 364	09	0905	196	42.8	1840-2019 0615-1134	10-28-00 M	282 10-30-00 283	
135. C 365	09	0898	191	43.7	1840-2019 10-19-00 10-20-00 0615-1134	10-28-00 M gws	284 10-30-00 285	

Analyzed By: John Wm. Sinkovich 30 October 2000

QA/QC/Project Manager: _____

COC 9-10

MKM

MKM ENGINEERS INC.

DATE: 25 OCTOBER 2000
LOADLINE No. 1

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 27-28-29-30 SEPTEMBER 2000

	Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Cd / Am Reading # / Date	Comments
136	C366	09	0901	193	40.7	1840-2019 / 10-19 10-30-00 / 0615-1134	M 10/28/00	286 / 10-30-00 Cd / 287	Analyzed 10-30-00 Cd's
	C367	09	1250	363	51.7	1840-2019 / 0615-1134	M 10-28-00	288 / 10-30-00 / 289	DUPLICATE IN CUP - C381
	C368	09	1228	366	47.6	1840-2019 / 0615-1134	M 10-28-00	290 / 10-30-00 / 291	
	C369	09	1240	364	41.6	1840-2019 / 0615-1134	M 10-28-00	292 / 10-30-00 / 293	
	C370	09	1229	145	49.8	1840-2019 / 0615-1134	M 10-28-00	294 / 10-30-00 / 295	
	C371	09	0895	188	40.4	1840-2019 / 0615-1134	M 10-28-00	296 / 10-30-00 / 297	
J-262	C372	09	1241	339	39.7	1840-2019 / 0615-1134	M 10-28-00	298 / 10-30-00 / 299	CANCEL/DELETE
143	C373	09	1251	387	40.8	1840-2019 / 0615-1134	M 10-28-00	302 / 10-30-00 / 303	Reading Nos. 300-301
144	C374	09	0911	201	DUPLICATE OF C262	1840-2019 / 0615-1134	M 10-28-00	304 / 10-30-00 / 305	DUPLICATE OF CUP - C262
145	C375	09	0784	131	DUPLICATE OF C279	1840-2019 / 0615-1134	M 10-28-00	306 / 10-30-00 / 307	DUPLICATE OF C279
146	C376	09	0781	128	DUPLICATE OF C300	1840-2019 / 0615-1134	M 10-28-00	308 / 10-30-00 / 309	DUPLICATE OF C300
147	C377	09	0924	211	DUPLICATE OF C351	1840-2019 / 0615-1134	M 10-28-00	310 / 10-30-00 / 311	DUPLICATE OF C351
148	C378	09	1119	207	DUPLICATE OF C327	1840-2019 / 0615-1134	M 10-28-00	312 / 10-30-00 / 313	DUPLICATE OF C327
149	C379	09	1316	360	DUPLICATE OF C335	1840-2019 / 0615-1134	M 10-28-00	314 / 10-30-00 / 315	DUPLICATE OF C335
150	C380	09	1313	357	DUPLICATE OF C344	1840-2019 / 0615-1134	M 10-28-00	316 / 10-30-00 / 317	DUPLICATE OF C344
151	C381	09	1250	363	DUPLICATE OF C367	1840-2019 / 0615-1134	M 10-28-00	318 / 10-30-00 / 319	DUPLICATE OF C367 1220 COMPLETE

Analyzed By: John Wm. Sinfronia — 30 October 2000

QA/QC/Project Manager:

* CALIBRATION Check w/ NIST - MEDIUM STANDARD Reading 320 Cd

COC # 10 - 1

MKM

MKM ENGINEERS INC.

DATE: 18 OCTOBER

Job # 2000 C00165

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 29-30SEPT-2000
01 OCTOBER-2000

LL #1 - XRF SURVEY

Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis Cd / Am Reading # / Date	Comments
C382	10	1249	407 ✓	37.3	1608 10-18-00 / 10-18-00 2025	S-10/27/00 gws M 10-24-00 gws	323 10-30-00 324	WEIGHED/DRIED 10/18/00 gws/gws
C383	10	1280	406	44.6	1608 / 2025		325 326	1346 MS, Internal #321 - Calibration ✓
C384	10	1244	336	42.5	1608 / 2025		327 328	#322Cd - NIST MEDIUM STANDARD
C385	10	1242	345	37.7	1608 / 2025		329 330	Analyzed 10-30 gws
C386	10	0975	039	41.7	1608 / 2025	S 10-27-00 gws M 10-24-00	331 332	
C387	10	1227	338 ✓	38.8	1608 / 2025		333 334	
C388	10	1325	408 ✓	50.0	1608 / 2025		335 336	
C389	10	1248	407	40.2	1608 / 2025	S-10/27/00 gws M 10-24-00 gws	337 10-30-00 338	
C390	10	0978	251	41.2	1608 / 2025		339 340	
C391	10	1323	413	41.4	1608 / 2025		341 342	
C392	10	1226	337	41.7	1608 / 2025		343 344	
C393	10	1130	345 ✓	43.1	1608 / 2025	S 10-27-00 gws M 10-29-00	345 346	
C394	10	0977	250 ✓	38.0	1608 / 2025		347 348	DUPLICATE IN CUP C-403
C395	10	1210	346	39.4	1608 / 2025		349 350	
C396	10	0896	189	42.2	1608 10-18-00 / 10-18-00 2025	S-10/27/00 gws M 10-24-00 gws	351 10-30-00 352	WEIGHED & DRIED 10/18/00 gws

Analyzed By: John Wm. Sinclair 30 October 2000

QA/QC/Project Manager: _____

COC #10-2

DATE: 18 OCTOBER 2000

MKM

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

JOB #100165

Collection Dates: 29-30 SEPTEMBER 2000
01 OCTOBER 2000

LL #1 - XRF SURVEY

Cup No. C #	COC #	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
C397	10	1322	374	39.0	1608 10-18-00 / 10-18-00 2025	S 10-27-00 JWS; M 10-29-00 JWS	353 10-30-00 354	WEIGHED & DRIED 10-18-00 MS/JWS
C398	10	1318	402	44.5	1608 / 2025	S 10-27-00; M 10-29-00	355 10-30 356	
C399	10	1217	405 ✓	42.3	1608 / 2025	S 10-27-00; M 10-29-00	357 10-30 358	
C400	10	1321	373 ✓	44.0	1608 / 2025	S 10-27-00; M 10-29-00	359 10-30-00 360	DUPLICATE IN CUP - C 404
C401	10	1320	404	45.0	1608 / 2025	S 10-27-00; M 10-29-00	361 10-30-00 362	
C402	10	1319	403	43.5	1608 10-18-00 / 10-18-00 2025	S 10-27-00 JWS; M 10-29-00	363 10-30-00 364	WEIGHED & DRIED 10-18-00 MS/JWS
C403	10	0977	250	DUPLICATE OF C 394	1608 10-18-00 / 2025	M 10-29-00	365 10-30-00 366	DUPLICATE OF CUP - C 394
C404	10	1321	373	DUPLICATE OF C 400	1608 / 2025	M 10-29-00	367 10-30-00 368	DUPLICATE OF CUP - C 400
								Completed Analysis - 1526
								STARTED ANALYSIS AT 1400 JWS -
								23 SAMPLES (21 + 2 Duplicates)

Analyzed By: John Wm. Sinkevics 30 OCTOBER 2000

QA/QC/Project Manager:

COC #11-1

DATE: 18 OCTOBER 2000

MKM

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 02 AND 03 OCTOBER 2000

Page # : 1 OF 2 PAGES

Cup No. C #	COC # ELEVEN	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
C405	011	1326	245	39.7	1825 / 2025 10-18-00	10-29-00 m	369 10-30-00 / 370	ALL SAMPLES COC #11 MOUNTED BY JWS
C406	011	1331	349	44.2	1825 / 2025		371 / 372	START ANALYSIS 1528 10-30-00 JWS
C407	011	1341	239	40.6	1825 / 2025		373 / 374	
C408	011	1338	242	45.0	1825 / 2025	10-29-00 m	375 / 376	
C409	011	1332	361	41.1	1825 / 2025		378 / 378	
C410	011	1334	414	44.4	1825 / 2025		379 / 380	
C411	011	1340	240	42.1	1825 / 2025	10-29-00 m	381 10-30-00 / 382	
C412	011	1294	342	45.1	1825 / 2025		383 / 384	NOTE — 16[10] Reading # 387 Cd CALIBRATION CHECK W/
C413	011	1333	362	41.7	1825 / 2025		385 / 386	
C414	011	1335	415	40.1	1825 / 2025	10-29-00 m	388 / 389	NIST-MEDIUM STANDARD
C415	011	1343	237	45.4	1825 / 2025		390 / 391	16[15] CONTINUE W/ ANALYSIS OF COC #11
C416	011	1337	243	41.1	1825 / 2025		392 / 393	
C417	011	1339	241	44.8	1825 / 2025	10-29-00 m	398 Cd 398 Am / 398	EX SITU SAMPLES CANCEL/DELETE
C418	011	1347	417	40.8	1825 / 2025		400 Cd / 400 Am	READING NOS 394 TO 399
C419	011	1349	416	41.6	1825 / 2025 10-18-00	10-29-00 m	402 10-30-00 / 404	DUPLICATE OF CUP C434

NOTE: NUMBERS MISSING & OUT OF SEQUENCE DELETE Reading # 4/20

Analyzed By: John Wm Sinkevich 30 October 2000

QA/QC/Project Manager:

J-265

COC #11-2

DATE: 18 OCTOBER 2000

MKM

MKM ENGINEERS INC.

EX-SITU SAMPLE PREPARATION AND ANALYSIS FORM FOR XRF ANALYSIS FOR METALS

Collection Dates: 02 & 03 OCTOBER 2000

Cup No. C #	COC # ELEVEN	Sample #	Station #	Weight grams	Oven Time In / Out	Sieved/Mounted Date	Analysis (Cd / Am) Reading # / Date	Comments
C420	011	1346	418	40.6	1825 10-18-00 / 2025 10-18	M 10-29-00	405 10-30-00 / 406	MOUNTED BY JWS STAND ANALYSIS 1528
C421	011	1348	419	41.0	1825 / 2025	M 10-29-00	411 / 412	10-30-00 JWS Reading Nos 411/412
C422	011	1292	243	42.7	1825 / 2025	M 10-29-00	407 / 408	Note Reading Numbers out of sequence/ order. # Cup Nos.
C423	011	1328	340	45.3	1825 / 2025	M 10-29-00	409 10-30-00 / 410	
C424	011	1329	341	47.9	1825 / 2025	M 10-29-00	413 / 414	
C425	011	1336	244	41.7	1825 / 2025	M 10-29-00	415 / 416	
C426	011	1342	238	43.6	1825 / 2025	M 10-29-00	417 10-30-00 / 418	
C427	011	1327	246	47.0	1825 / 2025	M 10-29-00	419 / 420	
C428	011	1330	348	45.0	1825 / 2025	M 10-29-00	421 / 422	
C429	011	1281	362	42.9	1825 / 2025	M 10-29-00	423 10-30-00 / 424	DUPLICATE OF Cup C434
C430	011	1345	118	40.0	1825 / 2025	M 10-29-00	425 / 426	
C431	011	1344	119	40.4	1825 / 2025	M 10-29-00	427 / 428	* READING # 435 Cd Calibration CHECK
C432	011	1293	241	47.9	1825 10-18-00 / 2025 10-18	M 10-29-00	429 10-30-00 / 430	W/ NIST MEDIUM STANDARD -
C433	011	1349	416	Duplicate of C419	1825 10-18-00 / 2025	M 10-29-00	431 / 432	DUPLICATE OF CUP - C 419
C434	011	1281	362	DUPLICATE OF C429	1825 10-18 / 2025	M 10-29-00	433 10-30-00 / 434	DUPLICATE OF CUP - C 429

Analysis Complete 10-30-00 1700

Analyzed By: John W. Simpson 30 October 2000

QA/QC/Project Manager:

J-266

6. CALIBRATION DATA

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NITON XRF - XL 700 SERIES INSTRUMENT CALIBRATION LOG

INSTRUMENT SERIAL NUMBER : U 2056

DATE: Oct 12, 2000

LOCATION: Ravenna Army Ammunition Plant, Ravenna, OH

JOB NUMBER: C 0012-1

TIME	READING #	STANDARD UTILIZED	ELEMENT	ACTUAL READINGS	CALIBRATION RANGE	PASS/RESET	OPERATOR INITIALS	COMMENTS
8:05 AM	422	NIST High	Lead - Pb	5540 ± 160	5900 ± 60	Pass	JMS	30 sec Read.
			Zinc - Zn	7140 ± 230	7500	Pass	JMS	Src. Sr. 9 mCi.
			Copper - Cu	3030 ± 230	3500	Pass	JMS	
			Arsenic - As	665 ± 120	750	Pass	JMS	
			BLANK	< LOD.				
10:10 AM	488	NIST High	Lead - Pb	5820 ± 160		Pass	JMS	
			Zinc - Zn	7100 ± 230		Pass	JMS	
			Copper - Cu	3110 ± 230		Pass	JMS	
			Arsenic - As	727 ± 120		Pass	JMS	
			BLANK					
12:30 PM	502	NIST High	Lead - Pb	5720 ± 160		Pass	JMS	
			Zinc - Zn	7300 ± 240		Pass	JMS	
			Copper - Cu	3070 ± 210		Pass	JMS	
			Arsenic - As	627 ± 120		Pass	JMS	
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					

NITON XRF - XL 700 SERIES INSTRUMENT CALIBRATION LOG

INSTRUMENT SERIAL NUMBER : U 2056

DATE: OCT 16, 200[illegible]

LOCATION: Ravenna Army Ammunition Plant, Ravenna, OH

JOB NUMBER:

TIME	READING #	STANDARD UTILIZED	ELEMENT	ACTUAL READINGS	CALIBRATION RANGE	PASS/RESET	OPERATOR INITIALS	COMMENTS
13:30	02	NIST High	Lead - Pb	5630 ± 120		P	[illegible]	
			Zinc - Zn	7050 ± 210		P	[illegible]	
			Copper - Cu	3410 ± 230		P	[illegible]	
			Arsenic - As	679 ± 110		P	[illegible]	
			BLANK	< LOD				
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					

J-270

NITON XRF - XL 700 SERIES INSTRUMENT CALIBRATION LOG

INSTRUMENT SERIAL NUMBER : U 2056

DATE: Oct. 17 2000

LOCATION: Ravenna Army Ammunition Plant, Ravenna, OH

JOB NUMBER: _____

TIME	READING #	STANDARD UTILIZED	ELEMENT	ACTUAL READINGS	CALIBRATION RANGE	PASS/RESET	OPERATOR INITIALS	COMMENTS
7:05	57	NIST 1141	Lead - Pb	5570 ± 170		P	JMS	399 eV: Resol.
			Zinc - Zn	7200 ± 210		P	JMS	5 MCi — Source Sr.
			Copper - Cu	3440 ± 240		P	JMS	
			Arsenic - As	639 ± 110		P	JMS	
			BLANK	< LOD				
10:30	76	NIST LOW	Lead - Pb	< 25.0	18.9 ± 1.5	P	JMS	
			Zinc - Zn	86.5 ± 31	101 ± 3.6	P	JMS	
			Copper - Cu	< 78.0	34.6 ± 1.7	P	JMS	
			Arsenic - As	< 22.0	11.7 ± 0.8	P	JMS	
			BLANK					
1:35	104	NIST MED	Lead - Pb	1190 ± 49	1162 ± 31	P	JMS	
			Zinc - Zn	305 ± 45	350.4 ± 4.8	P	JMS	
			Copper - Cu	< 92	114.0 ± 2	P	JMS	
			Arsenic - As	87.2 ± 46	105.0 ± 5	P	JMS	
			BLANK					
3:30 PM	121	NIST MED	Lead - Pb	1150 ± 48		P	JMS	
			Zinc - Zn	298 ± 45		P	JMS	
			Copper - Cu	< 94		P	JMS	
			Arsenic - As	87.9 ± 45		P	JMS	
			BLANK	Sr. 6c.				
5:35	145	NIST MED	Lead - Pb	1150 ± 49		P	JMS	
			Zinc - Zn	269 ± 44		P	JMS	
			Copper - Cu	< 95		P	JMS	
			Arsenic - As	86.6 ± 46		P	JMS	
			BLANK					

NITON XRF - XL 700 SERIES INSTRUMENT CALIBRATION LOG

INSTRUMENT SERIAL NUMBER : U 2056

DATE: Oct 19 2000

LOCATION: Ravenna Army Ammunition Plant, Ravenna, OH

JOB NUMBER:

TIME	READING #	STANDARD UTILIZED	ELEMENT	ACTUAL READINGS	CALIBRATION RANGE	PASS/RESET	OPERATOR INITIALS	COMMENTS
4.45	2	NIST MED	Lead - Pb	1060 ± 66		P	MS	310 eV · Resol.
			Zinc - Zn	302 ± 59		P	MS	8 mCi SRC · ST.
			Copper - Cu	< 120		P	MS	
			Arsenic - As	138.6 ± 46		P	MS	
			BLANK	Sr.				
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					

NITON XRF - XL 700 SERIES INSTRUMENT CALIBRATION LOG

INSTRUMENT SERIAL NUMBER : U 2056 DATE: Oct. 20, 2000

LOCATION: Ravenna Army Ammunition Plant, Ravenna, OH JOB NUMBER: ____________

TIME	READING #	STANDARD UTILIZED	ELEMENT	ACTUAL READINGS	CALIBRATION RANGE	PASS/RESET	OPERATOR INITIALS	COMMENTS
6.15	43	NIST MED	Lead - Pb	1120 ± 64		P	MS	30.3 ON RESOL
			Zinc - Zn	340 ± 55		P	MS	8 on Cu Src. St.
			Copper - Cu	< 110		P	MS	
			Arsenic - As	132 ± 44		P	MS	
			BLANK					
8.30	49	NIST MED	Lead - Pb	1150 ± 68		P	MS	
			Zinc - Zn	331 ± 60		P	MS	
			Copper - Cu	< 120		P	MS	
			Arsenic - As	103 ± 46		P	MS	
			BLANK					
11.20	108	NIST MED	Lead - Pb	1110 ± 67		P	MS	
			Zinc - Zn	364 ± 62		P	MS	
			Copper - Cu	< 120		P	MS	
			Arsenic - As	120 ± 46		P.	MS	
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					

NITON XRF - XL 700 SERIES INSTRUMENT CALIBRATION LOG

INSTRUMENT SERIAL NUMBER : U 2056 DATE: 21 OCTOBER 2020

LOCATION: Ravenna Army Ammunition Plant, Ravenna, OH JOB NUMBER: C00121

TIME	READING #	STANDARD UTILIZED	ELEMENT	ACTUAL READINGS	CALIBRATION RANGE	PASS/RESET	OPERATOR INITIALS	COMMENTS
0730	112 Cd	NIST-MEDIUM	Lead - Pb	1130/670	1162/31	P	GWS	Resolution 297 eV
	111 Cd	INTERNAL CHECK	Zinc - Zn	301/59.0	350.4/4.8	P	GWS	SRC Strength 8 mCi
	113 Cd	BLANK	Copper - Cu	< 120	114/2.0	P	GWS	NIST-MEDIUM & BLANK
	114 Am	BLANK	Arsenic - As	98.4/46	105/8.0	P	GWS	Readings taken 60 seconds
0929	115 Cd	Internal Check	BLANK	Sr 36.3/7.5 - All other elements		P		113 Cd/114 Am less than limits of detection
0929	115 Cd	INTERNAL CHECK	Lead - Pb					Resolution 303 eV SRC 8 mCi
			Zinc - Zn					Set up - Taking very long to get through
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					

NITON XRF - XL 700 SERIES INSTRUMENT CALIBRATION LOG

INSTRUMENT SERIAL NUMBER : U 2056

DATE: 23 OCT 2000

LOCATION: Ravenna Army Ammunition Plant, Ravenna, OH

JOB NUMBER: C00121

TIME	READING #	STANDARD UTILIZED	ELEMENT	ACTUAL READINGS	CALIBRATION RANGE	PASS/RESET	OPERATOR INITIALS	COMMENTS
0805	#324Cd	NIST-MEDIUM	Lead - Pb	1180/69.0	1162/31	P	JWS	Pb OK PER Dr. NERALLA
	#323Cd	INTERNAL CALIBRATION CHECK	Zinc - Zn	335/61.0	350.4/4.8	P	JWS	(Resolution 301 eV. #323Cd
	#325Cd	BLANK	Copper - Cu	< 120	114/2.0	P	JWS	Src Strength 8 mCi)
	#326Am	BLANK	Arsenic - As	< 68.0	105/8.0	P	JWS	325Cd-Sr 34.1/7.6/all others < LD
			BLANK					326Am-All elements < Limit of Detect
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					

NITON XRF - XL 700 SERIES INSTRUMENT CALIBRATION LOG

INSTRUMENT SERIAL NUMBER : U 2056

LOCATION: Ravenna Army Ammunition Plant, Ravenna, OH

Loadline No. 1
XRF Survey
~~Winkler~~ JWS

DATE: 25 OCTOBER 2000

JOB NUMBER: CCO ~~181~~ 165

TIME	READING #	STANDARD UTILIZED	ELEMENT	ACTUAL READINGS	CALIBRATION RANGE	PASS/RESET	OPERATOR INITIALS	COMMENTS
707	538Cd	INTERNAL CAL CHECK	Lead - Pb	1160/40.0	1162/31.0	P ✓	JWS	Resolution 301 eV
	539Cd	INTERNAL CAL CHECK	Zinc - Zn	330/36.0	350.4/4.8	P ✓	JWS	Src 8mCi #53Cd
182 seconds	540Cd	NIST-MEDIUM	Copper - Cu	108/47.0	114/2.0	P ✓	JWS	
62 seconds	541Cd	NIST MEDIUM	Arsenic - As	99.8/27.0	105/8.0	P ✓	JWS	
			BLANK					
815	541Cd	NIST Medium 62 seconds	Lead - Pb	1180/69	1162/31.0	P ✓	JWS	
			Zinc - Zn	217/16	35.4/4.8	P ✓	JWS	542Cd All other
			Copper - Cu	142/82	114/2.0	P ✓	JWS	543An elements less
	542Cd	Blank	Arsenic - As	75.5/46	105/8.0	P ✓	JWS	than limit of detection
	543An	BLANK	BLANK					542Cd - Sr 43.3/8.0
1015	576Cd	NIST-MEDIUM	Lead - Pb	1150/69	1162/31.0	P ✓	JWS	Calibration Check
			Zinc - Zn	318/60.0	350.4/4.8	P ✓	JWS	62 Seconds ~~[illegible]~~ JWS
			Copper - Cu	<120	114/2.0	P ✓	JWS	
			Arsenic - As	76.9/46.0	105/8.0	P ✓	JWS	
			BLANK					
1231	651Cd	NIST-MEDIUM	Lead - Pb	1150/68	1162/31.0	P ✓	JWS	CALIBRATION CHECK
			Zinc - Zn	320/60	350.4/4.8	P ✓	JWS	62 Seconds
			Copper - Cu	<120	114/2.0	P ✓	JWS	
			Arsenic - As	99.5/46.0	105/8.0	P ✓	JWS	
			BLANK					
1726	730Cd	NIST MEDIUM	Lead - Pb	1150/68.0		P ✓	JWS	Calibration Check
			Zinc - Zn	324/60.0		P ✓	JWS	of XRF 62 Seconds
			Copper - Cu	<120		P ✓	JWS	
			Arsenic - As	82.1/46.0		P ✓	JWS	
			BLANK					

NITON XRF - XL 700 SERIES INSTRUMENT CALIBRATION LOG

INSTRUMENT SERIAL NUMBER : U 2056

DATE: 29 OCTOBER 2000

LOCATION: Ravenna Army Ammunition Plant, Ravenna, OH

JOB NUMBER: C00165 - LL#1

TIME	READING #	STANDARD UTILIZED	ELEMENT	ACTUAL READINGS	CALIBRATION RANGE	PASS/RESET	OPERATOR INITIALS	COMMENTS
1729	001	INTERNAL CALIBRATION CHECK	Lead - Pb			Pass	gws	Resolution 301 eV
			Zinc - Zn					Src Strength 8 mCi
			Copper - Cu					
			Arsenic - As					START W/C231, COC#9
			BLANK					
1731	002Cd	NIST-MEDIUM	Lead - Pb	1150/68.0	1162/31.0	✓P	gws	60 Seconds -
			Zinc - Zn	289/58.0	350.4/4.8	✓P	gws	
			Copper - Cu	Cu <110	114/2.0	✓P	gws	Begin analysis of
			Arsenic - As	73.7/45.0	105/8.0	✓P	gws	COC#9 - LL#1-XRF Survey
			BLANK					
2239	179 Cd	NIST-Medium	Lead - Pb	1180/65	1162/31.0	✓P	gws	60 Seconds -
			Zinc - Zn	274/55	350.4/4.8	✓P	gws	
			Copper - Cu	142/76	114/2.0	✓P	gws	Finish w/ Cup C314 For
			Arsenic - As	<65	105/8.0	✓P	gws	Today - Resume 30 Oct. 00
			BLANK					Reading Nos 176/177-C314
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					

NITON XRF - XL 700 SERIES INSTRUMENT CALIBRATION LOG

INSTRUMENT SERIAL NUMBER : U 2056

DATE: 30 OCTOBER 2001

LOCATION: Ravenna Army Ammunition Plant, Ravenna, OH

PAGE 1 OF 2 JOB NUMBER: C00165-WBG

LL#1

TIME	READING #	STANDARD UTILIZED	ELEMENT	ACTUAL READINGS	CALIBRATION RANGE	PASS/RESET	OPERATOR INITIALS	COMMENTS
0435	179	INTERNAL CALIBRATION CHECK	Lead - Pb			PASS	JWS	RESOLUTION 312eV
			Zinc - Zn					Src Strength 8 mCi
			Copper - Cu					
			Arsenic - As					LL#1 - XRF SURVEY -
			BLANK					
0437	180Cd	NIST-MEDIUM	Lead - Pb	1090/64.0	1162/31.0	P ✓	JWS	66 SECONDS
			Zinc - Zn	302/57.0	350.4/4.8	P ✓	JWS	
			Copper - Cu	< 120	114/2.0	P ✓	JWS	Continue Analysis of COC #9
			Arsenic - As	103/440	105/8.0	P ✓	JWS	C315 - Reading # 181/182
			BLANK					
1220	320 Cd	NIST-MEDIUM	Lead - Pb	1140/69.0	1162/31.0	✓P	JWS	62 SECONDS -
			Zinc - Zn	339/62.0	350.4/4.8	✓P	JWS	
			Copper - Cu	<120	114/2.0	✓P	JWS	
			Arsenic - As	89.4/46.0	105/8.0	✓P	JWS	SHUT DOWN XRF
			BLANK					CHARGE BATTERY —
1348	321	INTERNAL CALIBRATION CHECK 306eV/8mCi	Lead - Pb	1150/68.0	1162/31	✓P	JWS 62secs	PRESS RESET BUTTON 1350
			Zinc - Zn	327/60.0	350.4/4.8	✓P	JWS	SHUT POWER OFF/ON 1357
1406	322Cd		Copper - Cu	<120	114/2.0	✓P	JWS	PRESS RESET BUTTON 1359
			Arsenic - As	106/46	105/8.0	✓P	JWS	PRESS RESET BUTTON 1403
			BLANK	— INSTRUMENT HOLDS UP IN APPLYING BIAS MODE - 1405 ON —				
1610	387Cd	NIST-MEDIUM	Lead - Pb	1130/65	1162/31	✓P	JWS 65 Seconds	—
			Zinc - Zn	349/60	350.4/4.8	✓P	JWS	
			Copper - Cu	141/79	114/2.0	✓P	JWS	— over Cal. Purge
			Arsenic - As	100/44	105/8.0	✓P	JWS	
			BLANK					Continue w/ Analysis of COC #11 EX SITU Samples

J-278

NITON XRF - XL 700 SERIES INSTRUMENT CALIBRATION LOG

INSTRUMENT SERIAL NUMBER : U 2056 DATE: 30 OCTOBER 2000

LOCATION: Ravenna Army Ammunition Plant, Ravenna, OH PAGE 2 OF 2 JOB NUMBER: C00165-LL#1

TIME	READING #	STANDARD UTILIZED	ELEMENT	ACTUAL READINGS	CALIBRATION RANGE	PASS/RESET	OPERATOR INITIALS	COMMENTS
1740	435 Cd	NIST-MEDIUM	Lead - Pb	1110/67.0	1162/31	✓P	JWS	62 Seconds
		STANDARD	Zinc - Zn	273/57.0	350.4/4.8	✓P	JWS	END OF
			Copper - Cu	<120	114/2.0	✓P	JWS	ANALYSIS OF LL#1
			Arsenic - As	88.6/45.0	105/8.0	✓P	JWS	EXSITU SAMPLES -
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					
			Lead - Pb					
			Zinc - Zn					
			Copper - Cu					
			Arsenic - As					
			BLANK					

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7. CHAIN OF CUSTODY

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COC NO.: MKM - 1
page 1 of 1

CHAIN OF CUSTODY RECORD

PROJECT NAME: Ravenna LL1 - Phase 2
DELIVERY ORDER NO:
PROJECT MANAGER:
Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME: MKM - Field XRF
LABORATORY ADDRESS: RVAAP On-Site
PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS.
LL1 0855	09-12-00	1130	SS	1	XRF Field Method
LL1 0856		1215		1	
LL1 0853		1040		1	
LL1 0839		1300		1	
LL1 0819		1112		1	
LL1 0820		1137		1	
LL1 0803		1300		1	
LL1 0821		1155		1	
LL1 0800		1230		1	

Yb 9-12-00

RELINQUISHED BY: Helen Brumbach	Date/Time 9-12-00 1600	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS: 9	Cooler Temperature: NA
COMPANY NAME: SAIC		COMPANY NAME: MKM		Cooler ID: NA	FEDEX NUMBER: NA
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time	SS = Surface Soil	
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM 2
page 1 of 1

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

OBSERVATIONS, COMMENTS,

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:
LLIØ822	9/12/00	1420	SS	1
LLIØ815		1555	SS	1
LLIØ859		1620		1
LLIØ841		1520		1
LLIØ861		1640		1
LLI 837		1545		1

J-284

9/13/00

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS: 6	Cooler Temperature:
COMPANY NAME: SAIC	9/13/00 07.40	COMPANY NAME: MKM	09/13/00	Cooler ID:	FEDEX NUMBER:
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM - 3
page 1 of 2

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)
Vicki Brumback Vicki Brumback

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS.
LL1 11 Ø6	9-13-ØØ	Ø932	SS	1	
LL1 Ø843	9-13-ØØ	1445	SS	1	
LL1 Ø847	9-13-ØØ	16ØØ	SS	1	
LL1 Ø823	9-13-ØØ	Ø932	SS	1	
LL1 Ø846	9-13-ØØ	152Ø	SS	1	
LL1 Ø845	9-13-ØØ	135Ø	SS	1	
LL1 Ø844	9-13-ØØ	141Ø	SS	1	
LL1 Ø85	9-13-ØØ	Ø845	SS	1	
LL1 Ø914	9-13-ØØ	1Ø12	SS	1	
LL1 Ø857	9-13-ØØ	Ø945	SS	1	
LL1 Ø813	9-13-ØØ	Ø85Ø	SS	1	
LL1 Ø824	9-13-ØØ	141Ø	SS	1	
LL1 Ø862	9-13-ØØ	Ø845	SS	1	

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
Vicki Brumback	9/14/ØØ 13:2Ø	[illegible]	9/14/ØØ 13:25	Cooler ID: See page 2 of 2	FEDEX NUMBER:
COMPANY NAME: SAIC		COMPANY NAME: MKM			
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM - 3
page 2 of 2

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	REQUESTED PARAMETERS	No. of Containers:	OBSERVATIONS, COMMENTS.
LL1Ø805	9-13-ØØ	1535	SS		1	
LL1Ø817	9-13-ØØ	1345	SS		1	
LL1Ø810	9-13-ØØ	1435	SS		1	
LL1Ø8Ø8	9-13-ØØ	1515	SS		1	
LL1Ø62	9-13-ØØ	Ø955	Sed		1	
LL 1Ø61	9-13-ØØ	145Ø	Sed		1	
LL J-286 Ø828	9-14-ØØ	1135	SS		1	
LL1Ø826	9-14-ØØ	1Ø45	SS		1	
LL1Ø912	9-14-ØØ	Ø91Ø	SS		1	
LL1Ø825	9-14-ØØ	1Ø17	SS		1	
LL1Ø913	9-14-ØØ	121Ø	SS		1	
LL1Ø827	9-14-ØØ	111Ø	SS		1	

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS: 25	Cooler Temperature:
Vrzln Brundach	9/14/ØØ 13:2Ø	[signature]	9/14/00 13:15	Cooler ID:	FEDEX NUMBER:
COMPANY NAME: SAIC		COMPANY NAME: MKM			
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM- 4
page 1 of 3

CHAIN OF CUSTODY RECORD

PROJECT NAME: .

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	REQUESTED PARAMETERS	No. of Containers:	OBSERVATIONS, COMMENTS.
LL1Φ834	9-15-ΦΦ	1Φ5Φ	SS		1	
LL11ΦΦ2	9-15-ΦΦ	1125	SS		1	
LL11ΦΦ7	9-15-ΦΦ	1355	SS		1	
LL11ΦΦ4	9-15-ΦΦ	122Φ	SS		1	
LL1195	9-15-ΦΦ	1515	SS		1	
LL11ΦΦ6	9-15-ΦΦ	133Φ	SS		1	
LL1295Φ	9-14-ΦΦ	1315	SS		1	
LL287Φ58	9-14-ΦΦ	1525	~~SS~~	sediment 9/15/00 VJB	1	
LL11ΦΦ5	9-15-ΦΦ	125Φ	SS		1	
LL1Φ829	9-14-ΦΦ	ΦΦ825	SS		1	
LL1Φ796	9-15-ΦΦ	1Φ55	SS		1	
LL11Φ59	9-14-ΦΦ	1345	~~SS~~	sediment 9/15/00 VJB	1	
LL11Φ08	9-15-ΦΦ	1422	SS		1	

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
Debi Brumbach	9/16/ΦΦ	[illegible]	09/16/00	Cooler ID:	FEDEX NUMBER:
COMPANY NAME: SAIC	9Φ8	COMPANY NAME: MKM	9:10 AM		
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM 4
page 2 of 3

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	Requested Parameters	No. of Containers	OBSERVATIONS, COMMENTS,
LL11009	9-15-00	1455	SS		1	
LL11003	9-15-00	1200	SS		1	
LL11107	9-15-00	1220	SS		1	
LL10788	9-15-00	1350	SS		1	
LL10851	9-14-00	1050	SS		1	
LL1[illegible]792	9-15-00	1310	SS		1	
LL1[illegible]850	9-14-00	1005	SS		1	
LL10849	9-14-00	0935	SS		1	
LL10798	9-15-00	1125	SS		1	
LL11057	9-15-00	1041	~~SS~~	sediment vjb 9/15/00	1	
LL11060	9-14-00	1057	sed		1	
LL10952	9-14-00	1335	SS		1	
LL10852	9-14-00	1500	SS		1	

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
[signature]	9-16-00	[signature]	09/16/00	Cooler ID:	FEDEX NUMBER:
COMPANY NAME: SAIC	0908	COMPANY NAME: MKM	9:10 AM		
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM - 4
page 3 of 3

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS.
LL1Ø832	9-14-ØØ	Ø91Ø	SS	1	
LL1 Ø948	9-14-ØØ	1515	SS	1	
LL1Ø949	9-14-ØØ	1345	SS	1	
LL1 Ø944	9-14-ØØ	145Ø	SS	1	
LL1Ø791	9-15-ØØ	14Ø5	SS	1	
LL1 Ø12Ø	9-15-ØØ	144Ø	SS	1	
LL11Ø88	9-14-ØØ	Ø935	SS	1	
LL1 Ø946	9-14-ØØ	143Ø	SS	1	
~~LL11Ø55~~	~~9-15-ØØ~~	1415	SS	1	
LL11Ø15	9-15-ØØ	1635	SS	1	

VOA 9/15/06

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
Erin Brumbach	9-16-ØØ Ø9Ø8		09/16/10 9:10 AM	Cooler ID:	FEDEX NUMBER:
COMPANY NAME: SAIC		COMPANY NAME: MKM			
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM - 5
page 1 of 4

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS,
LL1Φ0E4	9-17-ΦΦ	1Φ45	SS	1	
LL1Φ991	9-17-ΦΦ	113Φ	SS	1	
LL1Φ894	9-17-ΦΦ	1435	SS	1	
LL11197	9-17-ΦΦ	Φ945	SS	1	
LL1Φ888	9-17-ΦΦ	1345	SS	1	
LL J-290 Φ19	9-16-ΦΦ	1Φ15	sediment	1	
LL 198	9-17-ΦΦ	Φ915	SS	1	
LL1Φ893	9-17-ΦΦ	151Φ	SS	1	
LL1Φ994	9-17-ΦΦ	1Φ5Φ	SS	1	
LL11Φ16	9-16-ΦΦ	1Φ52	sediment	1	
LL11Φ51	9-16-ΦΦ	18Φ8	sediment	1	
LL1Φ986	9-17-ΦΦ	1155	SS	1	
LL11Φ52	9-16-ΦΦ	1628	sediment	1	

RELINQUISHED BY: Chris Brandt	Date/Time 9-18-Φ4 848	RECEIVED BY: [illegible]	Date/Time 09/18/Φ4 0840	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
COMPANY NAME: SAIC		COMPANY NAME: NKM		Cooler ID:	FEDEX NUMBER:
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time	SS = surface soil	
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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CHAIN OF CUSTODY RECORD

COC NO.: MKM - 5
page 2 of 4

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	REQUESTED PARAMETERS	No. of Containers:	OBSERVATIONS, COMMENTS.
LL111Ø	9-17-ØØ	1510	SS		1	
LL1Ø885	9-17-ØØ	12ØØ	SS		1	
LL11134	9-16-ØØ	1628	sediment		1	
LL1Ø989	9-16-ØØ	1615	SS		1	
LL1Ø799	9-16-ØØ	1Ø2Ø	SS		1	
LL1Ø795	9-16-ØØ	111Ø	SS		1	
LL112Ø7	9-16-ØØ	1ØØØ	SS		1	
LL112Ø5	9-16-ØØ	11ØØ	SS		1	
LL112Ø3	9-16-ØØ	1135	SS		1	
LL112Ø4	9-16-ØØ	1Ø4Ø	SS		1	
LL1Ø889	9-17-ØØ	1115	SS		1	
LL1Ø882	9-17-ØØ	141Ø	SS		1	
LL1Ø987	9-17-ØØ	121Ø	SS		1	

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
[illegible signature]	9-18-ØØ 8Ø8	[illegible signature]	09/18/00 0810
COMPANY NAME: SAIC		COMPANY NAME: MEM	
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS:

Cooler Temperature:

Cooler ID:

FEDEX NUMBER:

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COC NO.: MKM - 5
page 3 of 4

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS.
LL1 1Φ53	9-16-ΦΦ	13Φ5	sediment	1	
LL1Φ794	9-16-ΦΦ	11?Φ	SS	1	
LL1Φ988	9-16-ΦΦ	1545	SS	1	
LL11 2Φ6	9-16-ΦΦ	1Φ25	SS	1	
LL1Φ886	9-17-ΦΦ	114Φ	SS	1	
LL1Φ959	9-16-ΦΦ	143Φ	SS	1	
LL1Φ957	9-14-ΦΦ	141Φ	SS	1	
LL1 2Φ2	9-16-ΦΦ	135Φ	SS	1	
LL1Φ954	9-16-ΦΦ	144Φ	SS	1	
LL11 2ΦΦ	9-16-ΦΦ	1445	SS	1	
LL1111	9-16-ΦΦ	1Φ2Φ	SS	1	
LL11 2Φ1	9-16-ΦΦ	152Φ	SS	1	
LL11Φ18	9-16-ΦΦ	1148	sediment	1	

J-292

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
Urban Brumbach	9-18ΦΦ	[illegible]	09/18/Φ0		
COMPANY NAME: SAIC	808	COMPANY NAME: MKM	0810	Cooler ID:	FEDEX NUMBER:
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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CHAIN OF CUSTODY RECORD

COC NO.: MKM - 5

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS,
LL11ф17	9-16-фф	1118	sediment	1	
LL11199	9-16-фф	1545	SS	1	
LL111ф9	9-16-фф	1545	SS	1	
LL1ф956	9-16-фф	151ф	SS	1	
LL1ф793	9-16-фф	141ф	SS	1	

J-293

US 9-15-фф

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
[signature]	9-18-фф 8ф8	[signature]	09/18/00 08:10	Cooler ID:	FEDEX NUMBER:
COMPANY NAME: SAIC		COMPANY NAME: MKM			
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM - 6
page 1 of 2

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	REQUESTED PARAMETERS	No. of Containers:	OBSERVATIONS, COMMENTS,
LLI0869	9-18-00	1000	SS		1	
LLI0873	9-18-00	1350	SS		1	
LLI0881	9-18-00	1540	SS		1	
LLI0872	9-18-00	1040	SS		1	
LLI0876	9-18-00	1410	SS		1	
LLI[illegible]891	9-18-00	0845	SS		1	
LLI[illegible]380	9-18-00	1435	SS		1	
LLI[illegible]196	9-18-00	1305	SS		1	
LLI0992	9-18-00	1325	SS		1	
LLI0982	9-18-00	1400	SS		1	
LLI0877	9-18-00	1115	SS		1	
LLI0878	9-18-00	1425	SS		1	
LLI0590	9-18-00	0830	SS		1	

J-294

RELINQUISHED BY: [signature]	Date/Time 9-19-00 800	RECEIVED BY: [signature]	Date/Time 09.19.00 8.00	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
COMPANY NAME: SAIC		COMPANY NAME: MKM		Cooler ID:	FEDEX NUMBER:
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM - 6
page 2 of 2

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

v,h 9-19-00

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS,
LL1ϕ993	9-18-ϕϕ	1355 ~~55~~ ?	SS	1	
LL1ϕ57ϕ	9-18-ϕϕ	1ϕ25	SS	1	
LL1ϕ874	9-18-ϕϕ	114ϕ	SS	1	
LL1ϕ865	9-18-ϕϕ	ϕ92ϕ	SS	1	
LL1ϕ987	9-17-ϕϕ	16ϕϕ	SS	1	
LL1-295 ϕ48	9-17-ϕϕ	1118	Sediment	1	
LL1 903	9-17-ϕϕ	162ϕ	SS	1	
LL1135	9-17-ϕϕ	142ϕ	Sediment	1	
LL1ϕ5ϕ	9-17-ϕϕ	142ϕ	Sediment	1	
LL1ϕ99ϕ	9-17-ϕϕ	145ϕ	SS	1	
LL1ϕ985	9-17-ϕϕ	152ϕ	SS	1	
LL1ϕ979	9-17-ϕϕ	1645	SS	1	
LL1ϕ54	9-17-ϕϕ	16ϕϕ	Sediment	1	

~~RELINQUISHED BY:~~ LL11ϕ49	~~Date/Time~~ 9-14-ϕϕ ϕ947	~~RECEIVED BY:~~ Sediment 1	Date/Time	TOTAL NUMBER OF CONTAINERS: 27	Cooler Temperature:
COMPANY NAME:		COMPANY NAME:		Cooler ID:	FEDEX NUMBER:
RECEIVED BY:	Date/Time	RELINQUISHED BY: Erin Brumbaugh	Date/Time 9-19-ϕϕ		
COMPANY NAME:		COMPANY NAME: SAIC	8ϕϕ		
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time 09.19.00		
COMPANY NAME:		COMPANY NAME: MKM	8ϕ		

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COC NO.: MKM - 7
page 1 of 23 vjb

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS.
LL1ϕ747	9-19-ϕϕ	144ϕ	ss	1	
LL1ϕ745	9-19-ϕϕ	14ϕ5	ss	1	
LL1ϕ744	9-19-ϕϕ	1455	ss	1	
LL11214	9-19-ϕϕ	131ϕ	sbs	1	
LL11114	9-18-ϕϕ	1ϕ4ϕ	ss	1	
LL11113	~~9-18~~ 9-19-ϕϕ	1ϕ25	ss	1	
LL11215 J-296	9-19-ϕϕ	1325	sbs	1	
LL11213	9-19-ϕϕ	124ϕ	sbs	1	
LL11115	9-19-ϕϕ	ϕ91ϕϕ	ss	1	
LL1ϕ858	9-19-ϕϕ	1ϕ5ϕ	sbs	1	
LL1ϕ814	9-19-ϕϕ	1ϕϕ2	sbs	1	
LL1ϕ818	9-19-ϕϕ	1ϕ25	sbs	1	
LL1ϕ838	9-19-ϕϕ	ϕ9ϕϕ	sbs	1	

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
Wolfgang Brumbach	9-2ϕ-ϕϕ	John W. Sinkovic	ϕ9-2ϕ-ϕϕ	Cooler ID:	FEDEX NUMBER:
COMPANY NAME: SAIC	16ϕϕ	COMPANY NAME: MKM Engineers	16ϕϕ		
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM- 7

page 2 of ~~2~~ 3 [illegible]

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

REQUESTED PARAMETERS

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers	OBSERVATIONS, COMMENTS
LLIØ835	9-19-ØØ	Ø945	sbs	1	
LLIØ8Ø9	9-19-ØØ	1315	sbs	1	
LLIØ84Ø	9-19-ØØ	1Ø1Ø	sbs	1	
LLI1Ø34	9-18-ØØ	1656	sediment	1	
LLIØ789	9-19-ØØ	1343	sbs	1	
LLI [illegible]Ø4	9-19-ØØ	Ø935	sbs	1	
LLI Ø25	9-18-ØØ	1545	sediment	1	
LLIØ816	9-19-ØØ	Ø945	sbs	1	
LLIØ8Ø1	9-19-ØØ	Ø855	sbs	1	
LL11139	9-19-ØØ	1Ø33	sediment	1	
LL11Ø4Ø	9-19-ØØ	1Ø33	sediment	1	
LL11Ø38	9-19-ØØ	1447	sediment	1	
LL11Ø36	9-19-ØØ	1527	sediment	1	

J-297

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
[signature]	9-2Ø-ØØ 16ØØ	John Wm. Sinkovic	9-2Ø-ØØ 16ØØ
COMPANY NAME: SAIC		COMPANY NAME: MKM Engineers	
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS:

Cooler ID:

Cooler Temperature:

FEDEX NUMBER:

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CHAIN OF CUSTODY RECORD

COC NO.: MKM - 1
page 3 of 3

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

9/19/00 vjb

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

REQUESTED PARAMETERS

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS.
LLI0940	~~1600~~	1600	SS	1	
LLI1208	9-19-00	1510	~~Sb~~ S	1	
LLI0939	9-19-00	1610	SS	1	
LLI0942	9-19-00	1545	SS	1	
LLI0741	9-20-00	0855	SS	1	
LLI 1298 735	9-20-00	0837	SS	1	
LLI 743	9-20-00	0950	SS	1	
LLI0980	9-20-00	0819	sediment	1	

vjb 9/20/00

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
[signature] COMPANY NAME: SAIC	9-20-00 1600	John Wm. Simkonis [signature] COMPANY NAME: MKM Engineers	09-20-00 1600
RECEIVED BY: COMPANY NAME:	Date/Time	RELINQUISHED BY: COMPANY NAME:	Date/Time
RELINQUISHED BY: COMPANY NAME:	Date/Time	RECEIVED BY: COMPANY NAME:	Date/Time

TOTAL NUMBER OF CONTAINERS: 34

Cooler ID:

Cooler Temperature:

FEDEX NUMBER:

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COC NO.: MKM - 8
page 1 of 3

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS,
LL1 0731	9-25-00	1420	SS	1	
LL1 0728	9-25-00	1330	SS	1	
LL1 0722	9-25-00	0945	SS	1	
LL1 0723	9-25-00	1025	SS	1	
LL1 0730	9-25-00	1400	SS	1	
LL1 J-299 0730	9-25-00	1044	~~SS~~ sediment	1	
LL1 0724	9-25-00	1050	SS	1	
LL1 0732	9-25-00	1455	SS	1	
LL1 1031	9-25-00	1650	~~SS~~ sediment	1	
LL1 1000	9-25-00	1425	SS	1	
LL1 0734	9-25-00	1515	SS	1	
LL1 0726	9-25-00	1130	SS	1	
LL1 0727	9-25-00	1315	SS	1	

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
John Brumbach	9-27-00	[illegible]	9-27-00	Cooler ID:	FEDEX NUMBER:
COMPANY NAME: SAIC	745	COMPANY NAME: MKM	7:45		
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM - 8
page 2 of 3

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS.
LL1117	9-25-00	1050	SS	1	
LL1|0995	9-25-00	1623	SS	1	
LL1|0999	9-25-00	1550	SS	1	
LL1|0998	9-25-00	1515	SS	1	
LL1|0997	9-25-00	1400	SS	1	
LL1|0738	9-26-00	1250	SS	1	
LL1|0740	9-26-00	1330	SS	1	
LL1|0981	9-26-00	0955	SS	1	
LL1|0934	9-26-00	0805	SS	1	
LL1|0790	9-26-00	0915	SS	1	
LL1|0753	9-26-00	1000	SS	1	
LL1120	9-26-00	1000	SS	1	
LL1|001	9-26-00	0830	SS	1	

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
Robin Brumbach	9-27-00	[signature]	09.27.00	Cooler ID:	FEDEX NUMBER:
COMPANY NAME: SAIC	745	COMPANY NAME: MKM	745		
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM - c
page 3 of 3

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS,
LL1ϕ739	9-26-ϕϕ	13ϕ5	SS	1	
LL1112	9-26-ϕϕ	ϕ955	SS	1	
LL1ϕ752	9-26-ϕϕ	ϕ945	SS	1	
LL1118	9-26-ϕϕ	133ϕ	SS	1	
LL1ϕ938	9-26-ϕϕ	ϕ845	SS	1	
LL1ϕ751	9-26-ϕϕ	ϕ925	SS	1	
LL1ϕ737	9-26-ϕϕ	122ϕ	SS	1	
LL1ϕ936	9-26-ϕϕ	ϕ825	SS	1	
LL1ϕ75ϕ	9-26-ϕϕ	ϕ91ϕ	SS	1	
LL1ϕ748	9-26-ϕϕ	1ϕ5ϕ	SS	1	

MS/MSD

sh 9-27-ϕϕ

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
COMPANY NAME: SAIC	9-27-ϕϕ 745	COMPANY NAME: MEM	09-27-ϕϕ 745	Cooler ID:	FEDEX NUMBER:
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM - 9
page 1 of 11

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	XRF Field Metals	No. of Containers:	OBSERVATIONS, COMMENTS
LL1 13ϕ3	9-29-ϕϕ	1515	soil	1	1	LL1-354
LL1 13ϕ2	9-29-ϕϕ	1445	soil	1	1	LL1-355
LL1 1231	9-29-ϕϕ	183ϕ	soil	1	1	LL1-211
LL1 13ϕ1	9-29-ϕϕ	145ϕ	soil	1	1	LL1-352
LL1 1245	9-29-ϕϕ	172ϕ	soil	1	1	LL1-325
LL1 ϕ749	9-29-ϕϕ	15ϕϕ	soil	1	1	LL1-ϕ68
LL1 J-302 133	9-29-ϕϕ	172ϕ	soil	1	1	LL1-325 (duplicate)
LL1 123ϕ	9-29-ϕϕ	14ϕϕ	soil	1	1	LL1-ϕ99
LL1 13ϕ9	9-29-ϕϕ	16ϕ5	soil	1	1	LL1-412
LL1 13ϕ8	9-29-ϕϕ	1528	soil	1	1	LL1-39ϕ
LL1 131ϕ	9-29-ϕϕ	1625	soil	1	1	LL1-411
LL1 13ϕ7	9-29-ϕϕ	1458	soil	1	1	LL1-359
LL1 1228	9-29-ϕϕ	1345	soil	1	1	LL1-41ϕ

RELINQUISHED BY: Urban Brunbach	Date/Time 10/2/00 1050 AM	RECEIVED BY: Robert W. Sinkovic	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
COMPANY NAME: SAIC		COMPANY NAME: MKM Engineers		Cooler ID:	FEDEX NUMBER:
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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CHAIN OF CUSTODY RECORD

COC NO.: MKM - 5
page 2 of 11

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	No. of Containers:	OBSERVATIONS, COMMENTS,
LL1 1305	9-29-00	1540	soil	1	LL1 - 351
LL1 1299	9-29-00	1400	soil	1	LL1 - 347
LL1 1209	9-29-00	1410	soil	1	LL1 - 409
LL1 1300	9-29-00	1415	soil	1	LL1 - 344
LL1 1298	9-29-00	1350	soil	1	LL1 - 343
LL1 1306	9-29-00	1432	soil	1	LL1 - 388
LL1 1304	9-29-00	1530	soil	1	LL1 - 350
LL1 1243	9-29-00	1110	soil	1	LL1 - 342
LL1 1234	9-28-00	1405	soil	1	LL1 - 110
LL1 1235	9-28-00	1350	soil	1	LL1 - 109
LL1 0903	9-28-00	1130	soil	1	LL1 - 195
LL1 1126	9-28-00	1130	soil	1	↓ dup
LL1 1237	9-28-00	1525	soil	1	LL1 - 385

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
Linda Brumbaugh	10/2/00	[signature]		Cooler ID:	FEDEX NUMBER:
COMPANY NAME: SAIC	1050 hrs	COMPANY NAME: MKM Engineers			
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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COC NO.: MKM- 7
page 3 of 11

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	REQUESTED PARAMETERS	No. of Containers:	OBSERVATIONS, COMMENTS.
LLI 1221	9-28-ØØ	16ØØ	soil	1	1	LLI-379
LLI 1236	9-28-ØØ	1440	soil	1	1	LLI-384
LLI 1218	9-28-ØØ	1745	soil	1	1	LLI-4Ø1
LLI Ø91Ø	9-28-ØØ	Ø945	soil	1	1	LLI-2ØØ
LLI Ø9Ø2	9-28-ØØ	145Ø	soil	1	1	LLI-194
LLI Ø911	9-28-ØØ	Ø9ØØ	soil	1	1	LLI-2Ø1
LLI J-304 127	9-28-ØØ	1345	soil	1	1	
LLI 255	9-28-ØØ	15ØØ	soil	1	1	LLI-376
LLI Ø5ØØ	9-28-ØØ	1635	soil	1	1	LLI-192
LLI 1253	9-28-ØØ	153Ø	soil	1	1	LLI-378
LLI-1254	9-28-ØØ	1515	soil	1	1	LLI-377
LLI 1278	9-28-ØØ	1525	soil	1	1	LLI-385
LLI 1216	9-28-ØØ	173Ø	soil	1	1	LLI-Ø87

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
[signature]	1Ø/2/ØØ 1Ø5ØAM	[signature]	
COMPANY NAME: SAIC		COMPANY NAME: MKM Engineers	
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS:

Cooler ID:

Cooler Temperature:

FEDEX NUMBER:

SAIC. An Employee-Owned Company
Science Applications International Corporation
800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4600

COC NO.: MKM- 5
page 4 of 11

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

Sample ID	Date Collected	Time Collected	Matrix	REQUESTED PARAMETERS	No. of Containers:	OBSERVATIONS, COMMENTS,
LL1 1277	9-28-00	1311	sediment	1	1	LL1-400
LL1 1222	9-28-00	1610	soil	1	1	LL1-380
LL1 1223	9-28-00	1430	soil	1	1	LL1-375
LL1 1211	9-28-00	1630	soil	1	1	LL1-382
LL1 1131	9-28-00	1430	soil	1	1	LL1-375 (duplicate)
LL1 1252	9-28-00	1620	soil	1	1	LL1-381
LL1 1258	9-28-00	1015	soil	1	1	LL1-368
LL1 1239	9-28-00	1635	soil	1	1	LL1-383
LL1 0787	9-28-00	0915	soil	1	1	LL1-134
LL1 0784	9-28-00	0835	soil	1	1	LL1-131
LL1 0921	9-27-00	1645	soil	1	1	LL1-210
LL1 1124	9-27-00	1645	soil	1	1	LL1-210 (duplicate)
LL1 0508	9-27-00	1755	soil	1	1	LL1-199

J-305

RELINQUISHED BY: Vicki Brumbaugh	Date/Time 10/2/00 1050 AM	RECEIVED BY: John W. Sinkevich	Date/Time	TOTAL NUMBER OF CONTAINERS:	LABORATORY NAME:
COMPANY NAME: SAIC		COMPANY NAME: MKM Engineers		Cooler ID:	LABORATORY ADDRESS:
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		PHONE NO:
COMPANY NAME:		COMPANY NAME:			Cooler Temperature:
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		FEDEX NUMBER:
COMPANY NAME:		COMPANY NAME:			

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Science Applications International Corporation
800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481 4600

COC NO.: MKM - 5
page 5 of 11

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS

Sample ID	Date Collected	Time Collected	Matrix																						No. of Containers:
LL1224	9-28-ϕϕ	171ϕ	SS	1																					1
LL1257	9-28-ϕϕ	ϕ95ϕ	SS	1																					1
LL1ϕ786	9-28-ϕϕ	ϕ905	SS	1																					1
LL1ϕ919	9-27-ϕϕ	154ϕ	SS	1																					1
LL1275	9-28-ϕϕ	ϕ925	sediment	1																					1
LL1ϕ785	9-28-ϕϕ	ϕ85ϕ	SS	1																					1
LL1212	9-28-ϕϕ	11ϕϕ	SS	1																					1
LL1221ϕ	9-28-ϕϕ	1ϕ25	SS	1																					1
LL1128	9-28-ϕϕ	1ϕ15	SS	1																					1
LL1219	9-28-ϕϕ	ϕ955	SS	1																					1
LL1256	9-28-ϕϕ	111ϕ	SS	1																					1
LL1261ϕ	9-28-ϕϕ	1ϕϕ5	sediment	1																					1
LL1276	9-28-ϕϕ	1ϕ45	sediment	1																					1

J-306

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

OBSERVATIONS, COMMENTS:

LL1-386
LL1-367
LL1-133
LL1-208
LL1-399
LL1-132
LL1-369
LL1-371
LL1-368
LL1-370
LL1-372
LL1-393
LL1-397

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
Robin Brumbaugh	10/2/00	[signature]	
COMPANY NAME: SAIC	1050 AM	COMPANY NAME: MKM Engineers	
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS:

Cooler ID:

Cooler Temperature:

FEDEX NUMBER:

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CHAIN OF CUSTODY RECORD

COC NO.: MKM - ~~10~~ vjb
page 6 of 11

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	REQUESTED PARAMETERS	No. of Containers:	OBSERVATIONS, COMMENTS
LL1Ø915	9-27-ØØ	1725	soil	1	1	LL1 - 205
LL1Ø929	9-27-ØØ	135Ø	soil	1	1	LL1 - 216
LL11125	9-27-ØØ	1755	soil	1	1	
LL1Ø928	9-27-ØØ	145Ø	soil	1	1	
LL1Ø781	9-27-ØØ	153Ø	soil	1	1	LL1 - 215
LL1 1121	9-27-ØØ	1645	soil	1	1	LL1 - 128
L Ø769 J-307	9-27-ØØ	151Ø	soil	1	1	LL1 - 13Ø
L Ø766	9-27-ØØ	143Ø	soil	1	1	LL1 - Ø35
LL1 1116	9-27-ØØ	1545	soil	1	1	LL1 - Ø34
LL1Ø78Ø	9-27-ØØ	1455	soil	1	1	
LL1Ø771	9-27-ØØ	163Ø	soil	1	1	LL1 - 127
LL1Ø783	9-27-ØØ	1645	soil	1	1	LL1 - Ø37
LL11136	9-27-ØØ	1438	sediment	1	1	LL1 - 13Ø
						LL1

RELINQUISHED BY: [signature]	Date/Time 1Ø/2/ØØ 1Ø5Ø AM	RECEIVED BY: [signature]	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
COMPANY NAME: SAIC		COMPANY NAME: MKM Engineers		Cooler ID:	FEDEX NUMBER:
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

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CHAIN OF CUSTODY RECORD

COC NO.: MKM- 1
page 7 of 11

PROJECT NAME:
DELIVERY ORDER NO:
PROJECT MANAGER:
Sampler (Signature) (Printed Name)

LABORATORY NAME:
LABORATORY ADDRESS:
PHONE NO:

REQUESTED PARAMETERS

Sample ID	Date Collected	Time Collected	Matrix	Parameter	No. of Containers:	OBSERVATIONS, COMMENTS.
LLI 1274	9-27-ϕϕ	1438	sediment	1	1	LLI - 394
LLI ϕ776	9-27-ϕϕ	1325	soil	1	1	LLI - 124
LLI 1271	9-27-ϕϕ	1ϕ11	sediment	1	1	LLI - 391
LLI 1272	9-27-ϕϕ	1ϕ36	sediment	1	1	LLI - 392
LLI ϕ775	9-27-ϕϕ	1135	soil	1	1	LLI - 123
LLI ϕ926	9-27-ϕϕ	11ϕ5	soil	1	1	LLI - 213
LLI ϕ774	9-27-ϕϕ	112ϕ	soil	1	1	LLI - 122
LL 308 ϕ927	9-27-ϕϕ	1145	soil	1	1	LLI - 214
LLI ϕ773	9-27-ϕϕ	1ϕ35	soil	1	1	LLI - 12ϕ
LLI 1123	9-27-ϕϕ	1105	soil	1	1	LLI - 213 (duplicate)
LLI 1273	9-27-ϕϕ	1117	sediment	1	1	LLI - 393
LLI ϕ779	9-27-ϕϕ	1355	soil	1	1	LLI - 126
LLI ϕ777	9-27-ϕϕ	141ϕ	soil	1	1	LLI - 125

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
Vicki Brownsol [signature]	1ϕ/2/ϕϕ 1ϕ5ϕ AM	[signature]	
COMPANY NAME: SAIC		COMPANY NAME: MKM Engineers	
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS:
Cooler ID:
Cooler Temperature:
FEDEX NUMBER:

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Science Applications International Corporation
800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4600

COC NO.: MKM 2
page 8 of 11

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	REQUESTED PARAMETERS	No. of Containers:	OBSERVATIONS, COMMENTS.
LLIØ782	9-27-ØØ	1545	soil	1	1	LLI-129
LLI 1122	9-27-ØØ	141Ø	soil	1	1	LLI-125 (duplicate)
LLI11Ø4	9-27-ØØ	11ØØ	soil	1	1	LLI-121
LLIØ763	9-27-ØØ	Ø815	soil	1	1	LLI-117
LLIØ764	9-27-ØØ	Ø84Ø	soil	1	1	LLI-118
LLI1119	9-26-ØØ	152Ø	soil	1	1	LLI-
LLIØ76Ø J-309	9-26-ØØ	145Ø	soil	1	1	LLI-114
LLIØ9Ø7	9-26-ØØ	152Ø	soil	1	1	LLI-198
LLIØ759	9-26-ØØ	142Ø	soil	1	1	LLI-113
LLIØ972	9-27-ØØ	Ø94Ø	soil	1	1	LLI-247
LLIØ765	9-27-ØØ	Ø85Ø	soil	1	1	LLI-119
LLI1233	9-30-ØØ	1Ø2Ø	Sb soil	1	1	LLI-265
LLI1247	9-30-ØØ	1135	SS	1	1	LLI-266

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	
[signature]	1Ø/2/ØØ 1Ø5Ø AM	[signature]		TOTAL NUMBER OF CONTAINERS:
COMPANY NAME: SAIC		COMPANY NAME: MKM Engineers		Cooler ID:
				Cooler Temperature:
				FEDEX NUMBER:

RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

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Science Applications International Corporation

800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481 4600

COC NO.: MKM -

page 9 of 11

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	REQUESTED PARAMETERS	No. of Containers:	OBSERVATIONS, COMMENTS.
LLI 1316	9-30-00	1050	soil	1	1	LLI - 360
LLI 1312	9-30-00	0930	soil	1	1	LLI - 356
LLI 1246	9-30-00	1040	soil	1	1	LLI - 268
LLI 1279	9-30-00	1020	soil	1	1	LLI - 265 (duplicate)
LLI 1315	9-30-00	1030	soil	1	1	LLI - 359
LLI 1311	9-30-00	0910	soil	1	1	LLI - 353
LLI 1129	9-30-00	0955	soil	1	1	LLI - 358 (duplicate)
LLI 0973	9-27-00	0955	soil	1	1	LLI - 248
LLI 1314	9-30-00	0955	soil	1	1	LLI - 358 ([illegible])
LLI 1313	9-30-00	0950	soil	1	1	LLI - 357
LLI 0918	9-26-00	1625	soil	1	1	LLI - 207
LLI 0974	9-27-00	1015	soil	1	1	LLI - 249
LLI 0925	9-27-00	1025	soil	1	1	LLI - 212

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
Calvin Brumbach (signature)	10/2/00	Johnson Simpson (signature)	
COMPANY NAME: SAIC	1050 AM	COMPANY NAME: MKM Engineers	
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS:

Cooler ID:

Cooler Temperature:

FEDEX NUMBER:

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800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4600

COC NO.: MKM-

CHAIN OF CUSTODY RECORD

PROJECT NAME:

DELIVERY ORDER NO:

PROJECT MANAGER:

Sampler (Signature) (Printed Name)

LABORATORY NAME:

LABORATORY ADDRESS:

PHONE NO:

Sample ID	Date Collected	Time Collected	Matrix	REQUESTED PARAMETERS	No. of Containers:	OBSERVATIONS, COMMENTS.
LL10758	9-26-00	1400	soil	1	1	LL1-112
LL10917	9-26-00	1555	soil	1	1	LL1-206
LL10757	9-26-00	1340	soil	1	1	LL1-111
LL10924	9-27-00	0950	soil	1	1	LL1-211
LL11269	9-26-00	1615	sediment	1	1	LL1-335
LL10762	9-26-00	1525	soil	1	1	LL1-116
LL10756	9-26-00	1325	soil	1	1	LL1-110
LL10755	9-26-00	1255	soil	1	1	LL1-109
LL10761	9-26-00	1510	soil	1	1	LL1-115
LL11270	9-26-00	1441	sediment	1	1	LL1-396
LL10930	9-27-00	0855	soil	1	1	LL1-217
LL11232	9-30-00	1000	sbs	1	1	LL1-264
LL10906	9-28-00	1500	soil	1	1	LL1-197

RELINQUISHED BY: Walin Brumbaugh	Date/Time 10/2/00 1050 AM	RECEIVED BY: John W. Simkonis	Date/Time
COMPANY NAME: SAIC		COMPANY NAME: MKM Engineers	
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS:

Cooler ID:

Cooler Temperature:

FEDEX NUMBER:

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CHAIN OF CUSTODY RECORD

MK1 9
COC NO.: ~~LLR~~ —
page 11 of 11

PROJECT NAME: Load Line 1 Phase II RI

DELIVERY ORDER NO: 0003

PROJECT MANAGER: Steve Selecman 423-481-8761

Sampler (Signature) (Printed Name)

REQUESTED PARAMETERS: Grain Size; ~~Moisture~~; ~~Atterberg Limits~~; ~~USGS Classification~~; ~~Bulk Density~~; ~~Porosity~~; ~~Hydraulic Conductivity~~; ~~Specific Gravity~~; pH; No. of Bottles/ Vials:

Sample ID	Date Collected	Time Collected	Matrix	No. of Bottles/ Vials	OBSERVATIONS, COMMENTS
LL1132	9-28-00	1755	SS	1	LL1-190 (duplicate)
LL10897	9-28-00	1755	SS	1	LL1-190
LL1 1238	9-29-00	1010	SS	1	LL1-365
LL1 0905	9-28-00	1345	SS	1	LL1-196
LL1 0898	9-28-00	1715	SS	1	LL1-191
LL1 0901	9-28-00	1550	SS	1	LL1-193
LL1-312 1250	9-28-00	0928	SS	1	LL1-363
LL12 1225	9-29-00	0950	SS	1	LL1-366
LL1 1240	9-29-00	1030	SS	1	LL1-364
LL1 1229	9-29-00	1105	SS	1	LL1-145
LL1 0895	9-29-00	1000	SS	1	LL1-188
LL1 1241	9-29-00	1015	SS	1	LL1-339
LL1 1251	9-29-00	0850	SS	1	LL1-387

LABORATORY NAME: Catlin Engineers

LABORATORY ADDRESS: 1051 Johnnie Dodds Blvd. Suite C Mt. Pleasent, SC 29464

PHONE NO: 803-881-6000

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
Wade Brumbach	10/2/00	John W. Simkins	
COMPANY NAME: SAIC	1050 11/6	COMPANY NAME: MKM Engineers	
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

TOTAL NUMBER OF CONTAINERS: 144

Cooler ID:

Cooler Temperature:

FEDEX NUMBER:

SAIC An Employee Owned Company
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800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423)

COC NO.: ~~LL1GPL~~ MKM-16

CHAIN OF CUSTODY RECORD

PROJECT NAME: Load Line 1 Phase II RI

DELIVERY ORDER NUMBER: 0003

PROJECT MANAGER: Steve Selecman 423-481-8761

Sampler (Signature) (Printed Name)

LABORATORY NAME: ~~GPL Laboratories~~

LABORATORY ADDRESS: ~~202 Perry Parkway Gaithersburg, MD 20877~~

PHONE NO: ~~301-926-6802~~

REQUESTED PARAMETERS

Sample ID	Date Collected	Time Collected	Matrix	SOIL: VOCs a1	SOIL: SVOCs b1	SOIL: PCBs e1	SOIL: Explosives f1	SOIL: Propellants f1	SOIL: Metals c1, CN d1	SOIL: TOC g1	SOIL: Metals c1			WATER: VOCs n1,2	WATER: SVOCs j1	WATER: PCBs k1	WATER: Metals - filtered i1,3	WATER: Metals - total i1,3	WATER: CN h1,4	WATER: Explosives m1	WATER: Propellants m1	No. of Containers	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
LL1 1249	10-1-00	1600	soil																			1	LL1-407 (duplicate)
LL1 1280	↓	1534	soil																			1	LL1-406
LL1 1244	9-29-00	0930	soil																			1	LL1-336
LL1 1242	↓	1100	soil																			1	LL1-345
LL1 0975	↓	0830	soil																			1	LL1-039
LL1 1227	↓	1005	soil																			1	LL1-338
LL1 1325	10-1-00	1645	soil																			1	LL1-408
LL1 1248	↓	1534	soil																			1	LL1-407
LL1 0978	9-29-00	0910	soil																			1	LL1-251
LL1 1323	9-30-00	1600	soil																			1	LL1-413
LL1 1226	9-29-00	0950	soil																			1	LL1-337
LL1 1130	↓	1100	soil																			1	LL1-345 (duplicate)
LL1 0977	↓	0855	soil																			1	LL1-250

J-313

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
[signature]	10-3-00 850	[signature]	
COMPANY NAME: SAIC		COMPANY NAME: MKM Engineers	
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	

TOTAL NUMBER OF

Cooler Temperature:

Cooler ID:

FEDEX NUMBER:

SOIL/SEDIMENT METHODS
- a SW-846, 5035/8260B
- b SW-846, 8270C
- c SW-846, 6010B/7471
- d SW-846, 9011/9010
- e SW-846, 8082
- f SW-846, 8330
- g SW-846, 9060

WATER METHODS
- h SW-846, 9010
- i SW-846, 6010A/7470
- j SW-846, 8270C
- k SW-846, 8082
- m SW-846, 8330
- n SW-846, 8260B

1 Cool,4C 2 HCL, pH < 2 3 HNO3, pH < 2 4 NaOH, pH > 12

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800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423)

COC NO.: ~~LL1GPL~~ MKM-1

CHAIN OF CUSTODY RECORD

PROJECT NAME: Load Line 1 Phase II RI

DELIVERY ORDER NUMBER: 0003

PROJECT MANAGER: Steve Selecman 423-481-8761

Sampler (Signature) (Printed Name)

LABORATORY NAME: GPL Laboratories

LABORATORY ADDRESS: 202 Perry Parkway Gaithersburg, MD 20877

~~PHONE NO: 301-926-6802~~

REQUESTED PARAMETERS

Sample ID	Date Collected	Time Collected	Matrix	SOIL: VOCs a1	SVOCs b1	PCBs e1	Explosives f1	Propellants f1	Metals d1, CN d1	TOC g1	Metals c1			WATER:	VOCs n1,2	SVOCs j1	PCBs k1	Metals - filtered i1,3	Metals - total i1,3	CN h1,4	Explosives m1	Propellants m1	No. of Containers	OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
LL1 1210	9-29-00	1130	soil																				1	LL1-346
LL1 0896	↓	0905	soil																				1	LL1-189
LL1 1322	9-30-00	1455	soil																				1	LL1-374
LL1 1318	↓	1320	soil																				1	LL1-402
LL1 1217	↓	1530	soil																				1	LL1-405
LL1 1312	↓	1435	soil																				1	LL1-373
LL1 1320 (J-314)	↓	1350	soil																				1	LL1-404
LL1 1319	↓	1340	soil																				1	LL1 403

ljh 10-3-00

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF	Cooler Temperature:
Urslin Borvalsk	10-3-00 850	Jeffer Wm. Sikovic		Cooler ID:	FEDEX NUMBER:
COMPANY NAME: SAIC		COMPANY NAME: MKM Engineers			
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time		
COMPANY NAME:		COMPANY NAME:			

SOIL/SEDIMENT METHODS
- a SW-846, 5035/8260B
- b SW-846, 8270C
- c SW-846, 6010B/7471
- d SW-846, 9011/9010
- e SW-846, 8082
- f SW-846, 8330
- g SW-846, 9060

WATER METHODS
- h SW-846, 9010
- i SW-846, 6010A/7470
- j SW-846, 8270C
- k SW-846, 8082
- m SW-846, 8330
- n SW-846, 8260B

1 Cool,4C 2 HCL, pH < 2 3 HNO3, pH < 2 4 NaOH, pH > 12

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Science Applications International Corporation
800 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4600

COC NO.: ~~LL1CL~~ MK 11 MCC 10/4/00
page 1 of 3

CHAIN OF CUSTODY RECORD

PROJECT NAME: Load Line 1 Phase II RI

DELIVERY ORDER NO: 0003

PROJECT MANAGER: Steve Selecman 423-481-8761

Sampler (Signature) [signature] (Printed Name) Martha Clough

LABORATORY NAME: ~~Catlin Engineers~~ MKM MCC 10/4/00

LABORATORY ADDRESS: ~~1051 Johnnie Dodds Blvd. Suite C Mt. Pleasent, SC 29464~~ MCC 10/4/00

PHONE NO: ~~803-881-6000~~

REQUESTED PARAMETERS

Sample ID	Date Collected	Time Collected	Matrix	Grain Size	Moisture	Atterberg Limits	USCS Classification	Bulk Density	Porosity	Hydraulic Conductivity	Specific Gravity	pH	Field Metals										No. of Bottles/ Vials:	OBSERVATIONS, COMMENTS,
LL11326	10/2/00	1600	SOIL										1										1	LL1-245
LL11331	10/2/00	1059	↓										1										1	LL1-349
LL11341	10/3/00	1006											1										1	LL1-239
LL11338	10/3/00	0900											1										1	LL1-242
LL11332	10/2/00	1459											1										1	LL1-361
LL11334	10/2/00	0951											1										1	LL1-0414
LL11340	10/3/00	0938											1										1	LL1-240
LL11294	10/3/00	0900											1										1	LL1-242
LL11333	10/2/00	1424											1										1	LL1-362
LL11335	10/2/00	0907											1										1	LL1-415
LL11343	10/3/00	1035											1										1	LL1-237
LL11337	10/3/00	0833											1										1	LL1-243
LL11339	10/3/00	0921	↓										1										1	LL1-241

J-315

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time	TOTAL NUMBER OF CONTAINERS:	Cooler Temperature:
[signature] COMPANY NAME: SAIC	10/4/00 1258	[signature] COMPANY NAME: MKM	10/4/00 1258	Cooler ID:	FEDEX NUMBER:
RECEIVED BY: COMPANY NAME:	Date/Time	RELINQUISHED BY: COMPANY NAME:	Date/Time		
RELINQUISHED BY: COMPANY NAME:	Date/Time	RECEIVED BY: COMPANY NAME:	Date/Time		

MKM 11

COC NO.: ~~LLTC~~ MCC 10/4/00

page 2 of 3

SAIC An Employee-Owned Company
Science Applications International Corporation
00 Oak Ridge Turnpike, Oak Ridge, TN 37831 (423) 481-4600

CHAIN OF CUSTODY RECORD

PROJECT NAME: Load Line 1 Phase II RI

DELIVERY ORDER NO: 0003

PROJECT MANAGER: Steve Selecman 423-481-8761

Sampler (Signature): Martha Clough (Printed Name): Martha Clough

Sample ID	Date Collected	Time Collected	Matrix
LL11347	10/3/00	1415	Soil
LL11349	10/3/00	1541	
LL11346	10/3/00	1355	
LL11348	10/3/00	1449	
LL11292	10/3/00	0833	
LL11328	10/2/00	1027	
LL11329	10/2/00	1321	
LL11336	10/2/00	0823	
LL11342	10/3/00	1025	
LL11327	10/2/00	1533	
LL11330	10/2/00	1339	
LL11281	10/2/00	1424	
LL11345	10/3/00	1107	

REQUESTED PARAMETERS

Grain Size	Moisture	Atterberg Limits	USCS Classification	Bulk Density	Porosity	Hydraulic Conductivity	Specific Gravity	pH	Field Metals	No. of Bottles/ Vials:	OBSERVATIONS, COMMENTS.
									-	1	LL1-417
									-	1	LL1-416
									-	1	LL1-418
									-	1	LL1-419
									-	1	LL1-243
									-	1	LL1-340
									-	1	LL1-341
									-	1	LL1-244
									-	1	LL1-238
									-	1	LL1-246
									-	1	LL1-348
									-	1	LL1-342
									-	1	LL1-118

LABORATORY NAME: ~~Catlin Engineers~~ MKM MCC 10/4/00

LABORATORY ADDRESS: 1051 Johnnie Dodds Blvd. Suite C ~~Mt. Pleasant, SC 29464~~ MCC 10/4/00

PH: ~~VE NO: 803-881-0000~~ MCC 10/4/00

Cooler Temperature:

FEDEX NUMBER:

TOTAL NUMBER OF CONTAINERS:

Cooler ID:

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
Martha Clough	10/4/00	[signature]	10/4/00
COMPANY NAME: SAIC	1258	COMPANY NAME: MKM	1258
RECEIVED BY:	Date/Time	RELINQUISHED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	
RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
COMPANY NAME:		COMPANY NAME:	