F

2010 Limited Sampling Event Laboratory and XRF Data

This page intentionally left blank

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	As	As +/-	Average As	Sb	Sb +/-	Average Sb	Hg	Hg +/-	Average Hg	Ti	Ti +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-
13-Sep-2010	10IP001	Dark brown, moist, organic rich, no signs of burnt ore. Grain size is silt to 1" minus gravel. Gravel is sub angular to angular. ~35% silt, 25% grave, 20% fine sand and 20% med-coarse sand. Sample collected in roadway to steamplant/generator.	No	None Noted	1	Grid	12:52:14	3273	41	3,851	4005	56	3,378	1114	25	1,044	2612	328	<LOD	103	435	39	28896	343	333	65	<LOD	45	47	10	93	7
13-Sep-2010	10IP001				2	Grid	12:57:25	4892	61		4032	59		1169	27		3360	360	118	38	422	41	31043	384	232	69	<LOD	47	65	11	90	8
13-Sep-2010	10IP001				3	Grid	12:59:21	3388	41		2098	38		850	21		1962	301	<LOD	100	506	39	27220	318	474	62	<LOD	41	44	9	87	7
13-Sep-2010	10IP002	Dark brown, moist, gravelly. ~35% silt, 20%coarse sand to pebbles, 30% gravel. Gravel is upto 4" diameter from rounded to angular, 15% fine-med sand. Lithology of gravel: Gravel contains variety of rock including baked ore, river rock, sandstone, siltston	Yes	None Noted	1	Grid	14:43:06	2311	33	3,583	2379	43	3,071	1051	25	1,067	3968	387	117	39	717	48	38226	449	368	76	<LOD	49	65	10	115	8
13-Sep-2010	10IP002				2	Grid	14:45:34	5236	62		3473	52		995	24		3780	389	119	39	710	47	36534	427	442	74	<LOD	49	64	10	107	8
13-Sep-2010	10IP002				3	Grid	14:47:43	3202	46		3360	57		1155	29		4688	445	<LOD	125	831	55	42457	541	491	88	<LOD	56	82	12	114	9
13-Sep-2010	10IP003	Light brown to grey, slightly moist, ~20% silt and fine sant, 65% pebbles to 4" gravel, 15%sand. Gravel consists largely of silt/sandstone. Angular to subangular. Some siltstone/sandstone is wx'd to rusty orange color,m but is grey to black on the inside	None Noted	None Noted	1	Grid	15:02:47	1821	27	3,786	2067	41	4,891	267	13	531	4370	411	156	41	1062	55	40081	471	263	77	91	18	71	10	119	8
13-Sep-2010	10IP003				2	Grid	15:06:03	1771	33		3027	60		302	16		3918	467	166	48	867	61	31847	474	537	87	<LOD	58	40	12	85	8
13-Sep-2010	10IP003				3	Grid	15:08:36	7767	97		9580	122		1025	28		4234	474	<LOD	139	757	55	42923	546	593	89	<LOD	60	78	13	117	9
13-Sep-2010	10IP004	Located on south side of RD Creek on cut bank. Lithology is wx'd shale and sandstone bedrock. Chunks of rock are angular and abundant on surface, less abundant at 6" bgs. Silt makes up 40% of matrix of soil/wx'd bedrock. Dry at surface, moist at 6" bgs.	None Noted	None Noted	1	Grid	16:17:50	200	7	228	<LOD	78	<LOD	26	5	24	5144	394	<LOD	108	1205	54	37311	421	405	72	69	16	100	10	127	7
13-Sep-2010	10IP004				2	Grid	16:20:21	171	8		<LOD	83		15	5		5773	450	<LOD	126	2344	78	54006	619	368	90	126	20	71	10	129	8
13-Sep-2010	10IP004				3	Grid	16:23:08	314	9		<LOD	78		30	5		4716	385	148	37	905	49	36661	415	525	72	49	16	99	10	105	7
13-Sep-2010	10IP005	Medium to light brown, dry to slightly moist gravelly silt. ~40% sily, 40% gravel up to 3", 20% med-coarse sand. Lithology is largely sedimentary sandstone and siltstone. Some pieces had an orangish rusty rind. Some fragments had white veins, no baked ore	No	Yes	1	Grid	16:31:41	2885	39	2,735	3584	54	4,475	361	15	559	4088	381	<LOD	112	890	51	33205	405	531	74	<LOD	50	79	11	83	7
13-Sep-2010	10IP005				2	Grid	16:34:06	2273	31		3985	57		352	14		4692	392	<LOD	112	712	47	36023	420	392	73	<LOD	49	48	10	102	7
13-Sep-2010	10IP005				3	Grid	16:37:48	3046	43		5857	82		963	26		5225	470	170	46	720	53	42172	529	438	86	<LOD	57	47	11	104	9
13-Sep-2010	10IP006	Dark brown, moist, gravelly silt. ~60% fine sand and silt, 10% medto coarse sand and 30% gravel up to 3". Gravel consists of one rounded stream stone, the rest of the gravel is angular to subrounded. Some is burnt ore, some white vein material within san	Yes	Yes	1	Grid	16:50:45	7862	89	7,730	6999	86	6,721	1204	28	1,043	4883	424	153	42	591	47	44528	512	548	82	<LOD	55	107	12	94	8
13-Sep-2010	10IP006				2	Grid	16:56:12	7954	113		7725	116		1055	32		4032	503	161	53	740	62	45405	649	471	102	<LOD	65	44	13	115	10
13-Sep-2010	10IP006				3	Grid	16:58:59	7374	89		5439	75		870	24		3730	426	197	46	749	53	47093	567	571	89	<LOD	57	95	12	90	8
13-Sep-2010	10IP007	Medium to dark brown, moist. ~50% silt, 30%gravel, 20% med sand to pebbles. Gravel is up to 2" and angular to subround. Lithology contains burnt ore (including burnt sandstone), sandstone, siltstone. No cinnabar or stibnite observed in sample.	Yes	No	1	Grid	17:13:19	5546	70	5,770	6373	85	6,721	583	20	631	3227	393	129	41	533	46	32067	407	367	74	<LOD	51	35	11	69	7
13-Sep-2010	10IP007				2	Grid	17:16:24	6253	77		6741	88		675	21		4192	424	156	43	608	48	35451	442	319	76	<LOD	52	70	11	83	8
13-Sep-2010	10IP007				3	Grid	17:20:42	5510	69		7049	91		636	21		3956	404	<LOD	119	667	49	34921	437	450	77	<LOD	53	69	11	99	8
13-Sep-2010	10IP008	Med-dark brown, moist, ~60% silt, 30% gravel and 10% med-coarse sand. Gravel is up to 2" and angular to subrounded. Lithology includes mudstone, sandstone. Some have white veins, some appear to be burnt ore, but not much. One round river rock observed	Yes	Yes	1	Grid	17:30:24	9124	128	8,108	19302	260	16,431	347	20	534	3693	526	<LOD	157	711	60	33146	493	376	88	<LOD	67	51	15	94	10
13-Sep-2010	10IP008				2	Grid	17:32:59	7703	88		13993	156		687	21		4294	422	157	42	519	44	31508	380	381	70	<LOD	52	95	12	86	8
14-Sep-2010	10IP008				3	Grid	9:49:34	7496	92		15998	189		569	20		4422	447	168	46	529	48	32599	420	444	76	61	20	94	13	81	8
14-Sep-2010	10IP009	Med-dark gray, moist. Floatation tailings; fine to med sand, poorly graded, little silt	None Noted	None Noted	1	Grid	10:01:16	7884	95	8,468	1710	40	1,646	162	13	159	3713	396	144	42	847	53	39405	488	394	81	<LOD	52	38	10	88	8
14-Sep-2010	10IP009				2	Grid	10:05:19	8962	107		1757	40		129	13		2458	376	<LOD	113	664	48	34686	437	449	77	<LOD	50	<LOD	30	67	7
14-Sep-2010	10IP009				3	Grid	10:07:05	8557	95		1472	35		186	13		2806	357	<LOD	115	1119	55	43852	496	617	81	<LOD	50	60	10	102	7
14-Sep-2010	10IP010	Med-light brown, moist gravelly silt/silty gravel, well graded. ~30% gravel, 20% sand, 35% silt. Gravel is upto 2", well rounded to subangular. All pieces were sandstone, some with orangish tint, did not appear baked. No burnt ore or mineralization obs	No	No	1	Grid	10:20:04	1697	22	2,070	1732	33	2,852	398	13	417	3033	288	<LOD	85	333	31	22494	249	271	51	<LOD	37	34	8	62	5
14-Sep-2010	10IP010				2	Grid	10:22:22	1401	20		2659	40		284	11		2913	299	<LOD	83	244	29	20893	240	318	51	<LOD	39	37	8	65	5
14-Sep-2010	10IP010				3	Grid	10:24:36	3111	41		4166	59		568	18		2932	328	<LOD	98	370	37	23088	295	451	62	<LOD	45	<LOD	28	100	7
14-Sep-2010	10IP011	Med-dark gray, gravelly silt. ~30% gravel up to 6", 15% pebbles, 20% sand and 35% silt. Gravel is angular to subangular and almost all is sandstone with a whiteish vein. One piece of mineralized gravel found in sample; it was subangular, rusty red curs	None Noted	Yes	1	Grid	10:40:02	1501	25	1,826	983	32	1,159	55	7	72	1905	301	<LOD	96	524	42	23479	310	317	63	<LOD	43	<LOD	26	65	6
14-Sep-2010	10IP011				2	Grid	10:42:36	2799	49		1545	47		101	12		1833	393	<LOD	116	458	49	20476	348	433	75	<LOD	52	<LOD	34	73	8
14-Sep-2010	10IP011				3	Grid	10:46:04	1178	19		950	29		60	7		2283	263	<LOD	83	447	34	17775	220	254	49	43	13	<LOD	23	66	5

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn	Sn +/-	I	I +/-	Ba	Ba +/-	Pb	Pb +/-	U	U +/-	Th
13-Sep-2010	10IP001	Dark brown, moist, organic rich, no signs of burnt ore. Grain size is silt to 1" minus gravel. Gravel is sub angular to angular. ~35% silt, 25% grave, 20% fine sand and 20% med-coarse sand. Sample collected in roadway to steamplant/generator.	No	None Noted	1	Grid	12:52:14	<LOD	6	53	2	182	4	107	3	10	3	<LOD	32	<LOD	43	<LOD	73	NA	NA	<LOD	557	21	4	NA	NA	NA
13-Sep-2010	10IP001				2	Grid	12:57:25	<LOD	8	57	2	188	4	86	3	<LOD	8	<LOD	34	<LOD	45	<LOD	77	NA	NA	<LOD	590	19	4	NA	NA	NA
13-Sep-2010	10IP001				3	Grid	12:59:21	<LOD	6	59	2	186	4	88	3	13	3	<LOD	31	<LOD	41	<LOD	68	NA	NA	640	177	10	3	NA	NA	NA
13-Sep-2010	10IP002	Dark brown, moist, gravelly. ~35% silt, 20%coarse sand to pebbles, 30% gravel. Gravel is upto 4" diameter from rounded to angular, 15% fine-med sand. Lithology of gravel: Gravel contains variety of rock including baked ore, river rock, sandstone, siltston	Yes	None Noted	1	Grid	14:43:06	<LOD	6	77	3	148	4	128	3	<LOD	8	<LOD	33	<LOD	44	<LOD	75	NA	NA	1000	217	117	6	NA	NA	NA
13-Sep-2010	10IP002				2	Grid	14:45:34	<LOD	8	69	3	216	5	133	3	<LOD	8	<LOD	33	<LOD	44	<LOD	75	NA	NA	1193	221	121	6	NA	NA	NA
13-Sep-2010	10IP002				3	Grid	14:47:43	<LOD	8	77	3	228	5	133	4	<LOD	9	<LOD	37	<LOD	49	<LOD	82	NA	NA	921	243	143	7	NA	NA	NA
13-Sep-2010	10IP003	Light brown to grey, slightly moist, ~20% silt and fine sant, 65% pebbles to 4" gravel, 15%sand. Gravel consists largely of silt/sandstone. Angular to subangular. Some siltstone/sandstone is wx'd to rusty orange color,m but is grey to black on the inside	None Noted	None Noted	1	Grid	15:02:47	<LOD	6	89	3	177	4	134	3	<LOD	8	<LOD	33	<LOD	44	<LOD	75	NA	NA	1433	232	12	4	NA	NA	NA
13-Sep-2010	10IP003				2	Grid	15:06:03	<LOD	7	83	3	162	5	114	4	<LOD	10	<LOD	41	<LOD	54	<LOD	91	NA	NA	944	260	<LOD	13	NA	NA	NA
13-Sep-2010	10IP003				3	Grid	15:08:36	<LOD	9	79	3	296	6	118	4	<LOD	9	<LOD	37	<LOD	49	<LOD	86	NA	NA	1446	268	20	5	NA	NA	NA
13-Sep-2010	10IP004	Located on south side of RD Creek on cut bank. Lithology is wx'd shale and sandstone bedrock. Chunks of rock are angular and abundant on surface, less abundant at 6" bgs. Silt makes up 40% of matrix of soil/wx'd bedrock. Dry at surface, moist at 6" bgs.	None Noted	None Noted	1	Grid	16:17:50	<LOD	4	108	3	105	3	147	3	<LOD	8	<LOD	32	<LOD	42	<LOD	70	NA	NA	1300	216	14	3	NA	NA	NA
13-Sep-2010	10IP004				2	Grid	16:20:21	<LOD	4	105	3	82	3	149	3	<LOD	8	<LOD	34	<LOD	45	<LOD	74	NA	NA	1610	249	27	4	NA	NA	NA
13-Sep-2010	10IP004				3	Grid	16:23:08	<LOD	4	105	3	124	3	145	3	<LOD	8	<LOD	32	<LOD	42	<LOD	70	NA	NA	1264	214	18	3	NA	NA	NA
13-Sep-2010	10IP005	Medium to light brown, dry to slightly moist gravelly silt. ~40% sily, 40% gravel up to 3", 20% med-coarse sand. Lithology is largely sedimentary sandstone and siltstone. Some pieces had an orangish rusty rind. Some fragments had white veins, no baked ore	No	Yes	1	Grid	16:31:41	<LOD	6	71	3	270	5	115	3	<LOD	8	<LOD	34	<LOD	45	<LOD	76	NA	NA	<LOD	617	<LOD	11	NA	NA	NA
13-Sep-2010	10IP005				2	Grid	16:34:06	6	2	64	2	158	4	142	3	<LOD	8	<LOD	33	<LOD	44	<LOD	75	NA	NA	754	211	<LOD	10	NA	NA	NA
13-Sep-2010	10IP005				3	Grid	16:37:48	<LOD	7	65	3	202	5	144	4	<LOD	8	<LOD	36	<LOD	49	<LOD	85	NA	NA	1300	258	23	4	NA	NA	NA
13-Sep-2010	10IP006	Dark brown, moist, gravelly silt. ~60% fine sand and silt, 10% medto coarse sand and 30% gravel up to 3". Gravel consists of one rounded stream stone, the rest of the gravel is angular to subrounded. Some is burnt ore, some white vein material within san	Yes	Yes	1	Grid	16:50:45	<LOD	9	65	2	261	5	119	3	<LOD	8	<LOD	33	<LOD	45	<LOD	77	NA	NA	920	232	66	5	NA	NA	NA
13-Sep-2010	10IP006				2	Grid	16:56:12	<LOD	11	67	3	255	6	103	4	12	3	<LOD	41	<LOD	55	<LOD	96	NA	NA	843	280	33	6	NA	NA	NA
13-Sep-2010	10IP006				3	Grid	16:58:59	<LOD	9	55	2	302	6	89	3	<LOD	8	<LOD	35	<LOD	47	<LOD	80	NA	NA	1187	244	84	6	NA	NA	NA
13-Sep-2010	10IP007	Medium to dark brown, moist. ~50% silt, 30%gravel, 20% med sand to pebbles. Gravel is up to 2" and angular to subround. Lithology contains burnt ore (including burnt sandstone), sandstone, siltstone. No cinnabar or stibnite observed in sample.	Yes	No	1	Grid	17:13:19	<LOD	8	57	2	241	5	118	3	<LOD	8	<LOD	35	<LOD	47	<LOD	81	NA	NA	765	221	26	4	NA	NA	NA
13-Sep-2010	10IP007				2	Grid	17:16:24	<LOD	8	59	2	256	5	129	4	<LOD	8	<LOD	35	<LOD	47	<LOD	81	NA	NA	965	235	26	4	NA	NA	NA
13-Sep-2010	10IP007				3	Grid	17:20:42	<LOD	8	60	3	332	6	113	3	<LOD	8	<LOD	35	<LOD	47	<LOD	81	NA	NA	<LOD	656	25	4	NA	NA	NA
13-Sep-2010	10IP008	Med-dark brown, moist, ~60% silt, 30% gravel and 10% med-coarse sand. Gravel is up to 2" and angular to subrounded. Lithology includes mudstone, sandstone. Some have white veins, some appear to be burnt ore, but not much. One round river rock observed	Yes	Yes	1	Grid	17:30:24	<LOD	11	63	3	328	7	92	4	<LOD	10	<LOD	41	<LOD	54	<LOD	102	NA	NA	<LOD	866	33	6	NA	NA	NA
13-Sep-2010	10IP008				2	Grid	17:32:59	<LOD	9	57	2	277	5	89	3	<LOD	8	<LOD	33	<LOD	45	<LOD	82	NA	NA	807	229	19	4	NA	NA	NA
14-Sep-2010	10IP008				3	Grid	9:49:34	11	3	62	3	366	7	108	3	<LOD	9	<LOD	36	<LOD	49	<LOD	88	NA	NA	<LOD	710	23	5	NA	NA	NA
14-Sep-2010	10IP009	Med-dark gray, moist. Floatation tailings; fine to med sand, poorly graded, little silt	None Noted	None Noted	1	Grid	10:01:16	<LOD	8	70	3	301	6	97	3	11	3	<LOD	35	<LOD	46	<LOD	77	NA	NA	800	223	104	6	NA	NA	NA
14-Sep-2010	10IP009				2	Grid	10:05:19	<LOD	9	61	3	282	6	87	3	<LOD	8	<LOD	35	<LOD	46	<LOD	77	NA	NA	1195	223	130	7	NA	NA	NA
14-Sep-2010	10IP009				3	Grid	10:07:05	<LOD	8	69	2	266	5	97	3	11	3	<LOD	32	<LOD	43	<LOD	72	NA	NA	990	210	121	6	NA	NA	NA
14-Sep-2010	10IP010	Med-light brown, moist gravelly silt/silty gravel, well graded. ~30% gravel, 20% sand, 35% silt. Gravel is upto 2", well rounded to subangular. All pieces were sandstone, some with orangish tint, did not appear baked. No burnt ore or mineralization obs	No	No	1	Grid	10:20:04	<LOD	5	55	2	139	3	146	3	<LOD	7	<LOD	29	<LOD	38	<LOD	64	NA	NA	<LOD	476	17	3	NA	NA	NA
14-Sep-2010	10IP010				2	Grid	10:22:22	<LOD	5	47	2	134	3	158	3	<LOD	7	<LOD	29	<LOD	39	<LOD	65	NA	NA	645	167	13	3	NA	NA	NA
14-Sep-2010	10IP010				3	Grid	10:24:36	<LOD	6	57	2	191	4	116	3	12	3	<LOD	33	<LOD	43	<LOD	72	NA	NA	<LOD	531	15	4	NA	NA	NA
14-Sep-2010	10IP011	Med-dark gray, gravelly silt. ~30% gravel up to 6", 15% pebbles, 20% sand and 35% silt. Gravel is angular to subangular and almost all is sandstone with a whiteish vein. One piece of mineralized gravel found in sample; it was subangular, rusty red curs	None Noted	Yes	1	Grid	10:40:02	<LOD	5	48	2	80	3	89	3	11	3	<LOD	34	<LOD	44	<LOD	73	NA	NA	<LOD	518	16	4	NA	NA	NA
14-Sep-2010	10IP011				2	Grid	10:42:36	<LOD	8	57	3	88	4	84	4	15	4	<LOD	43	<LOD	56	<LOD	92	NA	NA	<LOD	691	<LOD	13	NA	NA	NA
14-Sep-2010	10IP011				3	Grid	10:46:04	<LOD	4	48	2	83	3	101	3	10	2	<LOD	30	<LOD	40	<LOD	65	NA	NA	<LOD	429	17	3	NA	NA	NA

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Th +/-	W	W +/-	V	V +/-	Sc	Sc +/-	Ca	Ca +/-	K	K +/-	S	S +/-	Cs	Cs +/-	Te	Te +/-	Pd	Pd +/-
13-Sep-2010	10IP001	Dark brown, moist, organic rich, no signs of burnt ore. Grain size is silt to 1" minus gravel. Gravel is sub angular to angular. ~35% silt, 25% grave, 20% fine sand and 20% med-coarse sand. Sample collected in roadway to steamplant/generator.	No	None Noted	1	Grid	12:52:14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP001				2	Grid	12:57:25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP001				3	Grid	12:59:21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP002	Dark brown, moist, gravelly. ~35% silt, 20%coarse sand to pebbles, 30% gravel. Gravel is upto 4" diameter from rounded to angular, 15% fine-med sand. Lithology of gravel: Gravel contains variety of rock including baked ore, river rock, sandstone, siltston	Yes	None Noted	1	Grid	14:43:06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP002				2	Grid	14:45:34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP002				3	Grid	14:47:43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP003	Light brown to grey, slightly moist, ~20% silt and fine sant, 65% pebbles to 4" gravel, 15%sand. Gravel consists largely of silt/sandstone. Angular to subangular. Some siltstone/sandstone is wx'd to rusty orange color,m but is grey to black on the inside	None Noted	None Noted	1	Grid	15:02:47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP003				2	Grid	15:06:03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP003				3	Grid	15:08:36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP004	Located on south side of RD Creek on cut bank. Lithology is wx'd shale and sandstone bedrock. Chunks of rock are angular and abundant on surface, less abundant at 6" bgs. Silt makes up 40% of matrix of soil/wx'd bedrock. Dry at surface, moist at 6" bgs.	None Noted	None Noted	1	Grid	16:17:50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP004				2	Grid	16:20:21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP004				3	Grid	16:23:08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP005	Medium to light brown, dry to slightly moist gravelly silt. ~40% sily, 40% gravel up to 3", 20% med-coarse sand. Lithology is largely sedimentary sandstone and siltstone. Some pieces had an orangish rusty rind. Some fragments had white veins, no baked ore	No	Yes	1	Grid	16:31:41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP005				2	Grid	16:34:06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP005				3	Grid	16:37:48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP006	Dark brown, moist, gravelly silt. ~60% fine sand and silt, 10% medto coarse sand and 30% gravel up to 3". Gravel consists of one rounded stream stone, the rest of the gravel is angular to subrounded. Some is burnt ore, some white vein material within san	Yes	Yes	1	Grid	16:50:45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP006				2	Grid	16:56:12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP006				3	Grid	16:58:59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP007	Medium to dark brown, moist. ~50% silt, 30%gravel, 20% med sand to pebbles. Gravel is up to 2" and angular to subround. Lithology contains burnt ore (including burnt sandstone), sandstone, siltstone. No cinnabar or stibnite observed in sample.	Yes	No	1	Grid	17:13:19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP007				2	Grid	17:16:24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP007				3	Grid	17:20:42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP008	Med-dark brown, moist, ~60% silt, 30% gravel and 10% med-coarse sand. Gravel is up to 2" and angular to subrounded. Lithology includes mudstone, sandstone. Some have white veins, some appear to be burnt ore, but not much. One round river rock observed	Yes	Yes	1	Grid	17:30:24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Sep-2010	10IP008				2	Grid	17:32:59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP008				3	Grid	9:49:34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP009	Med-dark gray, moist. Floatation tailings; fine to med sand, poorly graded, little silt	None Noted	None Noted	1	Grid	10:01:16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP009				2	Grid	10:05:19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP009				3	Grid	10:07:05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP010	Med-light brown, moist gravelly silt/silty gravel, well graded. ~30% gravel, 20% sand, 35% silt. Gravel is upto 2", well rounded to subangular. All pieces were sandstone, some with orangish tint, did not appear baked. No burnt ore or mineralization obs	No	No	1	Grid	10:20:04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP010				2	Grid	10:22:22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP010				3	Grid	10:24:36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP011	Med-dark gray, gravelly silt. ~30% gravel up to 6", 15% pebbles, 20% sand and 35% silt. Gravel is angular to subangular and almost all is sandstone with a whiteish vein. One piece of mineralized gravel found in sample; it was subangular, rusty red curs	None Noted	Yes	1	Grid	10:40:02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP011				2	Grid	10:42:36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP011				3	Grid	10:46:04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	As	As +/-	Average As	Sb	Sb +/-	Average Sb	Hg	Hg +/-	Average Hg	Ti	Ti +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-
14-Sep-2010	10IP012	Medium brown to gray, moist, gravelly silt. ~20% gravel up to 4", 10% pebbles, 25% med to fine sand, 45% silt. Gravel is subround to subangular sand and siltsone. One piece was orangish yellow through but did not appear burnt. No mineralizatoin or burnt ore	No	No	1	Grid	11:02:38	762	14	914	466	27	572	71	7	70	1917	272	<LOD	84	384	32	16126	202	213	46	<LOD	36	24	8	64	5
14-Sep-2010	10IP012				2	Grid	11:06:43	718	12		502	22		36	5		588	187	<LOD	70	778	35	11306	135	297	36	<LOD	30	<LOD	19	98	5
14-Sep-2010	10IP012				3	Grid	11:11:03	1261	18		748	26		103	7		2246	255	<LOD	85	424	32	23826	258	394	53	<LOD	35	<LOD	21	75	5
14-Sep-2010	10IP013	Med to dark brown, moist, flotation tailing; medium to very fine sand, some silt. No gravel.	Not Noted	Not noted	1	Grid	11:44:24	6709	67	5,045	2498	37	1,790	332	13	238	2355	290	123	33	601	38	33014	341	425	62	<LOD	41	73	9	60	6
14-Sep-2010	10IP013				2	Grid	11:47:00	5028	55		1297	31		139	10		2222	285	166	34	603	39	29152	320	489	61	<LOD	42	51	9	63	6
14-Sep-2010	10IP013				3	Grid	11:55:14	3397	38		1576	31		242	11		1319	242	<LOD	84	669	37	18913	216	232	47	<LOD	36	55	8	59	5
14-Sep-2010	10IP014	Med-dark brown, moist, gravelly silt. ~20% angular to subangular gravel, 30% pebbles, 15% med-fine sand, 35% silt. Gravel is all brown-gray sandstone. No mineralization or cooked ore observed.	No	no	1	Grid	12:12:11	42	3	31	<LOD	63	<LOD	<LOD	9	<LOD	2830	243	<LOD	71	494	31	16710	185	208	42	<LOD	30	21	7	46	4
14-Sep-2010	10IP014				2	Grid	12:15:02	21	3		<LOD	65		<LOD	10		1637	211	<LOD	74	288	27	8925	127	<LOD	100	<LOD	29	<LOD	20	38	4
14-Sep-2010	10IP014				3	Grid	12:19:02	29	4		<LOD	78		<LOD	12		1963	283	<LOD	89	305	32	13917	198	296	48	<LOD	37	<LOD	23	38	5
14-Sep-2010	10IP015	Med-dark brown, moist, gravelly silt. ~25% gravel, angular to subrounded, 40% silt, 25% med-fine sand and 10fff coarse sand-pebbles. Gravel comprised mostly of sand and siltstone with 3 pieces of possibly cooked ore. One piece had a white vein. One piece, 5" of dike (andecitic) rock.	yes	yes	1	Grid	12:37:31	661	12	887	629	26	1,062	91	7	72	1580	265	<LOD	83	407	32	17924	210	301	47	<LOD	34	<LOD	21	63	5
14-Sep-2010	10IP015				2	Grid	12:39:36	999	15		1417	31		80	7		3449	291	<LOD	82	298	29	21587	239	258	50	<LOD	36	35	8	58	5
14-Sep-2010	10IP015				3	Grid	12:46:21	1002	18		1141	33		45	6		1296	290	<LOD	91	228	31	18878	248	296	54	<LOD	40	<LOD	25	59	6
14-Sep-2010	10IP016	Dark gray to black consisting mostly of wx'd shale ranging in fragment size from silt to gravel up to 3"; angular to subangular. ~40% silt, 30 pebbles, 30% gravel. 2 subround to rounded pieces found in sample, 1" or less. No sign of mineralization or baking	no	no	1	Grid	12:56:51	6505	81	6,350	12777	154	11,816	1646	35	1,576	3212	416	<LOD	120	468	44	27392	361	260	69	<LOD	54	62	12	87	9
14-Sep-2010	10IP016				2	Grid	13:00:12	7092	84		13626	156		1925	37		3496	409	<LOD	119	407	42	28219	355	328	68	<LOD	53	52	12	82	9
14-Sep-2010	10IP016				3	Grid	13:02:10	5452	71		9045	116		1156	29		3226	423	148	44	353	43	30474	403	244	73	<LOD	55	52	12	95	9
14-Sep-2010	10IP017	Med gray to brown gravelly silt. ~15% gravel up to 3", subround to subangular, 50% silt, 20% fine-med sand, 15% coarse sand. Gravel consists of: Sandstone and siltstone, no baked ore or mineralized veins found in sample.	no	no	1	Grid	15:25:20	248	7	203	430	25	402	25	4	28	2791	272	<LOD	76	471	32	15429	182	261	43	<LOD	34	27	7	43	4
14-Sep-2010	10IP017				2	Grid	15:27:53	89	4		194	19		<LOD	9		<LOD	425	<LOD	50	459	25	3345	58	73	19	<LOD	24	<LOD	16	55	4
14-Sep-2010	10IP017				3	Grid	15:30:33	272	9		582	29		30	5		2355	302	<LOD	87	240	31	16993	227	246	51	<LOD	38	<LOD	22	50	5
14-Sep-2010	10IP018	Med gray to brown, moist silty sand with gravel. ~60% silt, 30% fine to med sand, 10% gravel up to 1.5", round to angular, mostly subangular. Consists sandstone and siltstone. No baked ore or mineralized veins observed in sample.	no	no	1	Grid	15:43:23	445	9	549	939	25	1,074	38	5	78	797	191	<LOD	66	2053	54	11288	137	288	36	<LOD	30	<LOD	19	49	4
14-Sep-2010	10IP018				2	Grid	15:45:18	652	13		1264	31		105	7		2223	294	<LOD	83	750	40	19944	236	349	51	<LOD	37	24	8	55	5
14-Sep-2010	10IP018				3	Grid	15:48:42	549	12		1019	30		92	7		2466	287	<LOD	84	413	34	19211	234	222	50	<LOD	39	39	8	49	5
14-Sep-2010	10IP019	Med brown to gray, moist gravelly silt. ~70% silt, 20% gravel, 10% fine sand, trace coarse sand. Gravel is all sandstone and siltstone and subangular to angular. No burnt ore or mineralized veins found.	no	no	1	Grid	15:59:11	49	4	43	<LOD	70	<LOD	<LOD	11	<LOD	3309	273	<LOD	80	265	27	18262	203	282	45	<LOD	34	27	7	44	4
14-Sep-2010	10IP019				2	Grid	16:01:33	30	5		<LOD	88		<LOD	14		3205	338	<LOD	100	172	31	16740	246	195	55	<LOD	43	<LOD	26	41	5
14-Sep-2010	10IP019				3	Grid	16:05:22	49	5		<LOD	80		<LOD	12		2570	301	<LOD	87	193	29	15170	207	169	48	<LOD	34	<LOD	24	38	5
14-Sep-2010	10IP020	Med brown to gray, moist silt with sand and gravel. ~70% silt, 10% gravel, 20% fine to medium sand. Gravel is angular to subrounded and up to 3"; consists of sandstone and siltstone. No burnt ore, or mineralized veins observed in sample.	no	no	1	Grid	16:20:33	70	4	93	77	22	117	25	4	21	1922	235	<LOD	75	148	23	12976	163	182	40	<LOD	31	<LOD	20	50	5
14-Sep-2010	10IP020				2	Grid	16:22:24	118	5		149	23		21	4		2176	257	<LOD	75	186	25	15784	183	241	43	<LOD	34	<LOD	20	63	5
14-Sep-2010	10IP020				3	Grid	16:24:26	90	4		126	22		18	4		1945	223	<LOD	70	111	21	12026	144	211	36	<LOD	30	21	7	44	4
14-Sep-2010	10IP021	Med brown to gray gravel with sand. ~70% angular to subangular gravel, 15% silt, and 15% fine to coarse sand. Gravel up to 4" consists of sandstone and siltstone. One small (1/2") piece of rounded river rock was noted in sample. No burnt ore or minera	no	no	1	Grid	16:36:15	1203	21	770	1541	37	727	79	8	80	3751	370	<LOD	102	582	44	29087	362	297	68	<LOD	45	<LOD	26	79	6
14-Sep-2010	10IP021				2	Grid	16:38:19	553	13		196	29		62	7		4825	397	<LOD	107	866	49	30283	370	396	69	<LOD	47	60	10	97	7
14-Sep-2010	10IP021				3	Grid	16:40:26	554	12		443	28		98	8		5414	376	115	35	857	47	37227	417	423	71	77	16	56	9	80	6
14-Sep-2010	10IP022	Medium gray to brown, moist gravelly silt. ~60% silt, 15% sand and 25% gravel up to 2"; subrounded to subangular. All consisting of sandstone or siltstone.	Not Noted	Not noted	1	Grid	16:58:37	26	4	33	<LOD	68	<LOD	<LOD	10	<LOD	3214	282	<LOD	77	221	27	19764	218	304	47	<LOD	34	31	7	60	5
14-Sep-2010	10IP022				2	Grid	17:00:41	33	4		<LOD	72		<LOD	11		2831	285	<LOD	80	276	29	19714	224	168	47	63	13	29	7	69	5
14-Sep-2010	10IP022				3	Grid	17:05:26	39	4		<LOD	68		<LOD	11		3489	285	<LOD	82	465	32	21214	232	314	49	<LOD	35	44	7	70	5

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn	Sn +/-	I	I +/-	Ba	Ba +/-	Pb	Pb +/-	U	U +/-	Th
14-Sep-2010	10IP012	Medium brown to gray, moist, gravelly silt. ~20% gravel up to 4", 10% pebbles, 25% med to fine sand, 45% silt. Gravel is subround to subangular sand and siltsone. One piece was orangish yellow through but did not appear burnt. No mineralizatoin or burnt ore	No	No	1	Grid	11:02:38	<LOD	4	47	2	148	3	106	3	<LOD	7	<LOD	30	<LOD	40	<LOD	67	NA	NA	605	159	<LOD	8	NA	NA	NA
14-Sep-2010	10IP012				2	Grid	11:06:43	<LOD	4	27	1	125	3	58	2	21	2	<LOD	26	<LOD	34	<LOD	55	NA	NA	<LOD	350	13	3	NA	NA	NA
14-Sep-2010	10IP012				3	Grid	11:11:03	<LOD	4	41	2	264	4	88	3	7	2	<LOD	28	<LOD	37	<LOD	61	NA	NA	<LOD	430	12	3	NA	NA	NA
14-Sep-2010	10IP013	Med to dark brown, moist, flotation tailing; medium to very fine sand, some silt. No gravel.	Not Noted	Not noted	1	Grid	11:44:24	<LOD	7	41	2	179	4	82	2	11	2	<LOD	28	<LOD	37	<LOD	61	NA	NA	636	169	179	6	NA	NA	NA
14-Sep-2010	10IP013				2	Grid	11:47:00	<LOD	6	56	2	238	4	104	3	<LOD	7	<LOD	30	<LOD	39	<LOD	66	NA	NA	<LOD	495	128	6	NA	NA	NA
14-Sep-2010	10IP013				3	Grid	11:55:14	<LOD	6	40	2	124	3	80	2	<LOD	7	<LOD	28	<LOD	37	<LOD	62	NA	NA	<LOD	433	138	6	NA	NA	NA
14-Sep-2010	10IP014	Med-dark brown, moist, gravelly silt. ~20% angular to subangular gravel, 30% pebbles, 15% med-fine sand, 35% silt. Gravel is all brown-gray sandstone. No mineralization or cooked ore observed.	No	no	1	Grid	12:12:11	<LOD	3	44	2	84	2	144	3	<LOD	7	<LOD	27	<LOD	35	<LOD	56	NA	NA	<LOD	388	<LOD	7	NA	NA	NA
14-Sep-2010	10IP014				2	Grid	12:15:02	<LOD	3	32	2	64	2	94	3	12	2	<LOD	29	<LOD	37	<LOD	59	NA	NA	<LOD	343	<LOD	7	NA	NA	NA
14-Sep-2010	10IP014				3	Grid	12:19:02	<LOD	3	44	2	82	3	145	3	10	3	<LOD	33	<LOD	43	<LOD	71	NA	NA	<LOD	484	<LOD	9	NA	NA	NA
14-Sep-2010	10IP015	Med-dark brown, moist, gravelly silt. ~25% gravel, angular to subrounded, 40% silt, 25% med-fine sand and 10fff coarse sand-pebbles. Gravel comprised mostly of sand and siltstone with 3 pieces of possibly cooked ore. One piece had a white vein. One piece, 5" of dike (andecitic) rock.	yes	yes	1	Grid	12:37:31	<LOD	4	43	2	95	3	119	3	17	2	<LOD	29	<LOD	38	<LOD	63	NA	NA	876	160	10	3	NA	NA	NA
14-Sep-2010	10IP015				2	Grid	12:39:36	<LOD	4	55	2	123	3	144	3	<LOD	7	<LOD	28	<LOD	38	<LOD	64	NA	NA	<LOD	471	<LOD	8	NA	NA	NA
14-Sep-2010	10IP015				3	Grid	12:46:21	<LOD	5	44	2	99	3	113	3	<LOD	8	<LOD	33	<LOD	43	<LOD	72	NA	NA	783	176	<LOD	9	NA	NA	NA
14-Sep-2010	10IP016	Dark gray to black consisting mostly of wx'd shale ranging in fragment size from silt to gravel up to 3"; angular to subangular. ~40% silt, 30 pebbles, 30% gravel. 2 subround to rounded pieces found in sample, 1" or less. No sign of mineralization or baking	no	no	1	Grid	12:56:51	<LOD	10	59	3	285	6	79	3	<LOD	8	<LOD	36	<LOD	48	<LOD	86	NA	NA	706	230	19	5	NA	NA	NA
14-Sep-2010	10IP016				2	Grid	13:00:12	11	3	60	3	345	6	86	3	<LOD	8	<LOD	34	<LOD	46	<LOD	83	NA	NA	683	224	<LOD	13	NA	NA	NA
14-Sep-2010	10IP016				3	Grid	13:02:10	<LOD	8	82	3	250	5	92	3	<LOD	9	<LOD	36	<LOD	49	<LOD	85	NA	NA	986	239	<LOD	12	NA	NA	NA
14-Sep-2010	10IP017	Med gray to brown gravelly silt. ~15% gravel up to 3", subround to subangular, 50% silt, 20% fine-med sand, 15% coarse sand. Gravel consists of: Sandstone and siltstone, no baked ore or mineralized veins found in sample.	no	no	1	Grid	15:25:20	<LOD	3	59	2	91	2	142	3	<LOD	7	<LOD	28	<LOD	38	<LOD	63	NA	NA	576	151	<LOD	8	NA	NA	NA
14-Sep-2010	10IP017				2	Grid	15:27:53	<LOD	3	29	1	67	2	77	2	26	2	<LOD	25	<LOD	32	<LOD	50	NA	NA	<LOD	275	<LOD	6	NA	NA	NA
14-Sep-2010	10IP017				3	Grid	15:30:33	<LOD	4	49	2	87	3	126	3	<LOD	8	<LOD	33	<LOD	43	<LOD	72	NA	NA	517	171	11	3	NA	NA	NA
14-Sep-2010	10IP018	Med gray to brown, moist silty sand with gravel. ~60% silt, 30% fine to med sand, 10% gravel up to 1.5", round to angular, mostly subangular. Consists sandstone and siltstone. No baked ore or mineralized veins observed in sample.	no	no	1	Grid	15:43:23	<LOD	3	40	2	133	3	103	2	14	2	<LOD	27	<LOD	35	<LOD	57	NA	NA	<LOD	346	9	3	NA	NA	NA
14-Sep-2010	10IP018				2	Grid	15:45:18	<LOD	4	56	2	105	3	135	3	9	2	<LOD	30	<LOD	40	<LOD	66	NA	NA	944	172	15	3	NA	NA	NA
14-Sep-2010	10IP018				3	Grid	15:48:42	<LOD	4	46	2	107	3	160	3	<LOD	7	<LOD	31	<LOD	41	<LOD	67	NA	NA	<LOD	483	<LOD	9	NA	NA	NA
14-Sep-2010	10IP019	Med brown to gray, moist gravelly silt. ~70% silt, 20% gravel, 10% fine sand, trace coarse sand. Gravel is all sandstone and siltstone and subangular to angular. No burnt ore or mineralized veins found.	no	no	1	Grid	15:59:11	<LOD	3	52	2	137	3	219	3	<LOD	7	<LOD	28	<LOD	37	<LOD	63	NA	NA	<LOD	442	<LOD	8	NA	NA	NA
14-Sep-2010	10IP019				2	Grid	16:01:33	<LOD	4	45	2	119	4	182	4	<LOD	9	<LOD	36	<LOD	48	<LOD	79	NA	NA	<LOD	539	12	4	NA	NA	NA
14-Sep-2010	10IP019				3	Grid	16:05:22	<LOD	4	44	2	114	3	191	4	<LOD	8	<LOD	33	<LOD	43	<LOD	72	NA	NA	<LOD	503	<LOD	9	NA	NA	NA
14-Sep-2010	10IP020	Med brown to gray, moist silt with sand and gravel. ~70% silt, 10% gravel, 20% fine to medium sand. Gravel is angular to subrounded and up to 3"; consists of sandstone and siltstone. No burnt ore, or mineralized veins observed in sample.	no	no	1	Grid	16:20:33	<LOD	3	42	2	89	2	119	3	10	2	<LOD	29	<LOD	37	<LOD	60	NA	NA	<LOD	396	8	3	NA	NA	NA
14-Sep-2010	10IP020				2	Grid	16:22:24	<LOD	3	49	2	101	3	142	3	<LOD	7	<LOD	28	<LOD	37	<LOD	61	NA	NA	647	148	<LOD	8	NA	NA	NA
14-Sep-2010	10IP020				3	Grid	16:24:26	<LOD	3	41	2	94	2	139	3	<LOD	7	<LOD	27	<LOD	36	<LOD	58	NA	NA	<LOD	376	8	2	NA	NA	NA
14-Sep-2010	10IP021	Med brown to gray gravel with sand. ~70% angular to subangular gravel, 15% silt, and 15% fine to coarse sand. Gravel up to 4" consists of sandstone and siltstone. One small (1/2") piece of rounded river rock was noted in sample. No burnt ore or minera	no	no	1	Grid	16:36:15	<LOD	5	65	2	178	4	135	3	9	3	<LOD	34	<LOD	45	<LOD	76	NA	NA	749	203	17	4	NA	NA	NA
14-Sep-2010	10IP021				2	Grid	16:38:19	<LOD	4	81	3	171	4	136	3	<LOD	8	<LOD	33	<LOD	44	<LOD	75	NA	NA	1131	217	26	4	NA	NA	NA
14-Sep-2010	10IP021				3	Grid	16:40:26	<LOD	4	72	2	111	3	144	3	<LOD	8	<LOD	32	<LOD	42	<LOD	71	NA	NA	<LOD	588	15	3	NA	NA	NA
14-Sep-2010	10IP022	Medium gray to brown, moist gravelly silt. ~60% silt, 15% sand and 25% gravel up to 2"; subrounded to subangular. All consisting of sandstone or siltstone.	Not Noted	Not noted	1	Grid	16:58:37	<LOD	3	60	2	124	3	203	3	<LOD	7	<LOD	28	<LOD	37	<LOD	61	NA	NA	672	156	11	3	NA	NA	NA
14-Sep-2010	10IP022				2	Grid	17:00:41	<LOD	3	58	2	122	3	197	3	<LOD	7	<LOD	29	<LOD	39	<LOD	65	NA	NA	769	161	9	3	NA	NA	NA
14-Sep-2010	10IP022				3	Grid	17:05:26	<LOD	3	59	2	122	3	242	4	<LOD	7	<LOD	28	<LOD	37	<LOD	61	NA	NA	496	155	12	3	NA	NA	NA

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Th +/-	W	W +/-	V	V +/-	Sc	Sc +/-	Ca	Ca +/-	K	K +/-	S	S +/-	Cs	Cs +/-	Te	Te +/-	Pd	Pd +/-
14-Sep-2010	10IP012	Medium brown to gray, moist, gravelly silt. ~20% gravel up to 4", 10% pebbles, 25% med to fine sand, 45% silt. Gravel is subround to subangular sand and siltsone. One piece was orangish yellow through but did not appear burnt. No mineralizatoin or burnt ore	No	No	1	Grid	11:02:38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP012				2	Grid	11:06:43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP012				3	Grid	11:11:03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP013	Med to dark brown, moist, flotation tailing; medium to very fine sand, some silt. No gravel.	Not Noted	Not noted	1	Grid	11:44:24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP013				2	Grid	11:47:00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP013				3	Grid	11:55:14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP014	Med-dark brown, moist, gravelly silt. ~20% angular to subangular gravel, 30% pebbles, 15% med-fine sand, 35% silt. Gravel is all brown-gray sandstone. No mineralization or cooked ore observed.	No	no	1	Grid	12:12:11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP014				2	Grid	12:15:02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP014				3	Grid	12:19:02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP015	Med-dark brown, moist, gravelly silt. ~25% gravel, angular to subrounded, 40% silt, 25% med-fine sand and 10fff coarse sand-pebbles. Gravel comprised mostly of sand and siltstone with 3 pieces of possibly cooked ore. One piece had a white vein. One piece, 5" of dike (andecitic) rock.	yes	yes	1	Grid	12:37:31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP015				2	Grid	12:39:36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP015				3	Grid	12:46:21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP016	Dark gray to black consisting mostly of wx'd shale ranging in fragment size from silt to gravel up to 3"; angular to subangular. ~40% silt, 30 pebbles, 30% gravel. 2 subround to rounded pieces found in sample, 1" or less. No sign of mineralization or baking	no	no	1	Grid	12:56:51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP016				2	Grid	13:00:12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP016				3	Grid	13:02:10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP017	Med gray to brown gravelly silt. ~15% gravel up to 3", subround to subangular, 50% silt, 20% fine-med sand, 15% coarse sand. Gravel consists of: Sandstone and siltstone, no baked ore or mineralized veins found in sample.	no	no	1	Grid	15:25:20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP017				2	Grid	15:27:53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP017				3	Grid	15:30:33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP018	Med gray to brown, moist silty sand with gravel. ~60% silt, 30% fine to med sand, 10% gravel up to 1.5", round to angular, mostly subangular. Consists sandstone and siltstone. No baked ore or mineralized veins observed in sample.	no	no	1	Grid	15:43:23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP018				2	Grid	15:45:18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP018				3	Grid	15:48:42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP019	Med brown to gray, moist gravelly silt. ~70% silt, 20% gravel, 10% fine sand, trace coarse sand. Gravel is all sandstone and siltstone and subangular to angular. No burnt ore or mineralized veins found.	no	no	1	Grid	15:59:11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP019				2	Grid	16:01:33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP019				3	Grid	16:05:22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP020	Med brown to gray, moist silt with sand and gravel. ~70% silt, 10% gravel, 20% fine to medium sand. Gravel is angular to subrounded and up to 3"; consists of sandstone and siltstone. No burnt ore, or mineralized veins observed in sample.	no	no	1	Grid	16:20:33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP020				2	Grid	16:22:24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP020				3	Grid	16:24:26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP021	Med brown to gray gravel with sand. ~70% angular to subangular gravel, 15% silt, and 15% fine to coarse sand. Gravel up to 4" consists of sandstone and siltstone. One small (1/2") piece of rounded river rock was noted in sample. No burnt ore or minera	no	no	1	Grid	16:36:15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP021				2	Grid	16:38:19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP021				3	Grid	16:40:26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP022	Medium gray to brown, moist gravelly silt. ~60% silt, 15% sand and 25% gravel up to 2"; subrounded to subangular. All consisting of sandstone or siltstone.	Not Noted	Not noted	1	Grid	16:58:37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP022				2	Grid	17:00:41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP022				3	Grid	17:05:26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	As	As +/-	Average As	Sb	Sb +/-	Average Sb	Hg	Hg +/-	Average Hg	Ti	Ti +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-
14-Sep-2010	10IP023	Brown to gray silty gravel or gravelly silt, moist. ~35% silt, 35% gravel and 30% sand. Gravel is angular to subrounded and consists mainly of sand and siltstone. It is up to 4". Some siltstone exhibited a rusty rind, but may not have been baked. on	yes	yes	1	Grid	17:14:34	665	12	1,910	372	26	2,548	42	5	93	2572	273	<LOD	86	451	33	22514	251	211	51	<LOD	37	26	7	63	5
14-Sep-2010	10IP023				2	Grid	17:16:48	2328	30		3988	53		98	8		3647	343	173	37	538	40	32249	359	315	65	<LOD	45	44	9	87	6
14-Sep-2010	10IP023				3	Grid	17:19:56	2737	36		3284	50		140	10		3873	372	122	37	543	42	33445	388	436	70	<LOD	47	48	9	90	7
14-Sep-2010	10IP024	Gray to brown gravelly sand with silt. ~50% fine sand, 10% gravel, 15% med to coarse sand and 15% pebbles. Gravel is well rounded to subrounded and consists of intrusive igneous rocks, and sandstone. No cooked ore or mineralized veins observed in sample	no	no	1	Grid	17:31:29	33	4	68	<LOD	78	192	<LOD	11	<LOD	3088	308	100	32	394	35	19717	251	224	53	<LOD	40	<LOD	22	49	5
14-Sep-2010	10IP024				2	Grid	17:34:21	138	7		192	30		<LOD	14		2986	348	<LOD	105	393	39	17483	260	<LOD	170	<LOD	44	<LOD	26	47	6
14-Sep-2010	10IP024				3	Grid	17:37:17	32	4		<LOD	79		<LOD	11		2062	291	<LOD	96	320	33	17428	230	163	50	<LOD	38	<LOD	23	43	5
14-Sep-2010	10IP025	could not penetrate organic mat. Material between roots consisted of gray brown, very fine sand and silt. No gravel or pebbles or evidence of cooked ore.	no	not noted	1	Grid	17:53:31	54	5	71	<LOD	76	156	22	5	38	3073	328	<LOD	91	471	39	21682	286	269	59	<LOD	41	<LOD	25	82	6
14-Sep-2010	10IP025				2	Grid	17:56:34	88	5		156	22		53	5		3058	273	<LOD	79	344	30	28443	282	437	54	<LOD	36	27	7	66	5
14-Sep-2010	10IP025				3	Grid	17:58:29	<LOD	6		<LOD	46		<LOD	7		<LOD	324	<LOD	41	128	15	1061	30	<LOD	33	<LOD	18	<LOD	14	14	3
9/13/2010 12:28	10np001	Gravelly Sand: Rounded to subangular gravel; subangular sand grains; little silt; brown, moist, compacted, well graded. Calcines: Very little. Minerals: None noted	yes	no	1	Grid		837.98	31.19	1,471	984.68	26.19	1,745	63.84	12.46	153	1748.08	158.59	57.76	25.37	703.07	120.41	33743.3	547.71	< LOD	234.58	80.71	52.02	< LOD	37.48	249.17	28.35
9/13/2010 12:36	10np001				2	Grid		1088.13	37.36		1148.26	29.31		217.29	19.4		457.03	103.43	42.95	19.08	464.84	103.87	16898.81	406.89	< LOD	174.51	< LOD	76.57	< LOD	39.85	211.31	28.08
9/13/2010 12:40	10np001				3	Grid		2485.55	51.97		3101.75	42.08		176.73	17.46		2055.33	155.54	183.29	29.38	388.42	96.02	24379.24	454.44	242.31	131.94	< LOD	72.59	< LOD	35.34	253.52	28.5
9/13/2010 13:30	10np002	Sand: Well graded silt through gravel; tightly compacted sand and gravel, subangular, moist, shale and graywacky at surface. Minerals: None noted. Calcines: Some in general area.	yes	no	1	Grid		990.4	32.09	1,042	1130.83	26.9	1,175	64.45	11.23	67	2568.39	181.44	124.54	29.5	478.56	99.29	31129.06	492.17	< LOD	211.35	< LOD	65.71	50.38	23.13	240.89	25.96
9/13/2010 13:35	10np002				2	Grid		1186.38	40.34		1426.11	30.35		79.07	14.9		1799.62	149.58	130.24	25.83	762.07	135.06	34610.94	598.92	< LOD	255.88	< LOD	81.51	53.41	29.59	249.94	31
9/13/2010 13:39	10np002				3	Grid		948.92	32.05		967.27	24.83		56.32	11.47		2106.85	165.18	108.92	27.59	604.11	108.7	29393.71	490.71	220.28	140.91	< LOD	68.74	66.1	25.33	265.82	27.91
9/13/2010 13:52	10np003	Gravel: Well graded grabel with silt through cobbles present, larger grains (cobbles are graywacke), smaller gravel is shale, organic silts present, brown to black, gravel and cobble very angular; likely waste rock dump, possible tailings. Calcines: Pres	yes	no	1	Grid		786.06	29.7	616	432.8	20.43	548	61.52	11.5	106	1760.62	146.72	105.81	26.05	593.68	108.86	30519.55	504.04	260.74	145.33	< LOD	71.57	65.64	25.68	288.78	29.08
9/13/2010 13:56	10np003				2	Grid		613.91	23.72		1049.27	21.93		204.47	15.4		1914.3	151.76	76.51	24.88	295.13	71.34	12379.81	284.47	< LOD	121.73	< LOD	54.53	100.08	23.38	170.1	21.01
9/13/2010 13:59	10np003				3	Grid		447.74	22.88		163.41	17.04		52.86	11.25		2068.44	164.12	171.59	30.1	673.54	110.06	26021.94	453.86	218.24	130.83	< LOD	68.91	124.99	28.46	382.39	32.26
9/13/2010 14:14	10np004	Gravelly Sand: Well graded sand; brown, somewhat moist; tightly compacted, subangular gravel to sub rounded gravel intermixed; some river rock in general area; little silt, gravel graywacke, shale and river rock, calcines. Calcines: Some present, coarse	yes	no	1	Grid		1747.21	44.69	1,664	1664.45	30.45	879	64.68	12.99	78	2105.06	162.32	97.52	26.39	334.29	95.83	31733.9	531.01	322.65	154.16	< LOD	75.31	60.24	26.74	269.4	29.52
9/13/2010 14:17	10np004				2	Grid		1840.31	45.56		364.21	20.04		96.84	14.22		2708.16	201.78	98.3	29.24	275.11	90.94	29589.58	509.78	289.02	147.82	< LOD	70.43	45.1	25.27	218.37	26.96
9/13/2010 14:20	10np004				3	Grid		1405.24	38.75		608.15	22.05		73.49	12.62		2409.17	177.51	70.36	26.96	412.66	96.47	27866.31	479.72	< LOD	201.68	< LOD	67.52	50.88	24.53	226.72	26.35
9/13/2010 14:40	10np005	Silt: Loess, little subabgular sand, gray to dark gray, some plasticity, somewhat cohesive, under 2" of plant material, moist. Calcines + Minerals: Not present	no	no	1	Grid		53.55	8.13	77	< LOD	21.35	24	< LOD	9.23	<LOD	1198.88	121.24	73.52	21.75	181.08	62.64	10172.51	262.89	< LOD	112.73	< LOD	53.2	< LOD	27.03	154.65	19.6
9/13/2010 14:44	10np005				2	Grid		94.28	11.1		< LOD	18.36		< LOD	10.72		5151.59	190.39	81.59	21.14	258.54	75.31	13268.71	321.74	< LOD	140.99	< LOD	62.3	< LOD	30.6	181.56	22.62
9/13/2010 14:47	10np005				3	Grid		83.13	9.09		23.51	12.21		< LOD	9.41		1266.43	123.82	72.87	24.13	305.91	64.69	7374.68	205.68	< LOD	88.52	< LOD	45.48	< LOD	23.49	133.53	16.92
9/13/2010 15:03	10np006	Silt: Loess, little subangular sand, gray to dark gray, some plasticity, somewhat cohesive; under 1" of plant material. Moist. Calcines + Minerals: Not present.	no	no	1	Grid		42.74	7.38	89	< LOD	19.65	<LOD	< LOD	8.75	<LOD	11914.29	287.89	92.45	23.54	234.64	63.22	7899.21	223.49	< LOD	96.34	< LOD	47.33	< LOD	25.75	127.75	17.41
9/13/2010 15:06	10np006				2	Grid		120.98	12.1		< LOD	22.79		< LOD	10.85		2053.86	146.95	55.68	22.72	450.38	90.83	19122.66	381.02	179.73	110.46	< LOD	61.16	52.06	22.86	212.24	24
9/13/2010 15:08	10np006				3	Grid		102.47	10.97		< LOD	21.05		< LOD	10.28		1715.52	150.44	69.72	25.05	471.05	86.93	15235.22	326.42	< LOD	136.37	< LOD	51.9	41.64	20.53	191.83	21.91
9/13/2010 16:22	10np007	Brown to dark brown, mostly silt with 1/4 inch to 1/2 inch gravel intermixed gravel composed of graywacke, moist, little sand, not well graded, gravel is subangular. Calcines: None noted. Minerals: None noted.	no	no	1	Grid		1201.75	34.95	1,248	2742.83	36.24	2,770	86.42	12.02	98	7599.57	240.71	83.51	23.59	198.59	72.63	15860.95	352.92	< LOD	151.49	< LOD	58.15	< LOD	32.33	245.28	26.14
9/13/2010 16:25	10np007				2	Grid		1161.96	42.21		2311.79	40.24		125.45	17.85		883.02	103.65	81.79	19.91	323.23	102.34	17858.5	458.87	< LOD	197	< LOD	89.04	< LOD	42.8	247.76	32.8
9/13/2010 16:27	10np007				3	Grid		1381.64	37.31		3256.13	39.93		80.81	12.48		1501.6	139.29	105.4	25.06	361.62	85.47	16922.51	364.11	233.43	107.48	< LOD	63.36	56.83	23.71	276.29	27.79
9/13/2010 16:40	10np008	Gray to dark gray, fines appear to be weathered argillaceous rock, large grabel mostly graywacke, some mineralization in graywacke: white mineral (possibly calcite) weathers to brown at exposed areas and has smaller clear crystals within that don't weathe	no	yes	1	Grid		100.87	11.7	282	< LOD	22.22	69	< LOD	11.88	21	2463.87	176.37	109.29	28.81	670.15	110.85	29892.75	490.85	443.01	145.01	109.64	51.02	93.5	27.06	287.17	28.41
9/13/2010 16:43	10np008				2	Grid		201	15.44		62.69	16.04		22.22	8.82		9328.46	282.4	122.19	27.39	466.33	95.91	22253.86	422.54	< LOD	180.3	< LOD	66.87	89.02	26.43	242.32	26.25
9/13/2010 16:45	10np008				3	Grid		544.11	24.87		75.24	17.02		19.81	9.83		2599.19	166.82	97.11	25.33	742.88	118.26	28050.43	489.51	< LOD	209.08	< LOD	71.18	78.98	27.11	225.58	26.55

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn	Sn +/-	I	I +/-	Ba	Ba +/-	Pb	Pb +/-	U	U +/-	Th
14-Sep-2010	10IP023	Brown to gray silty gravel or gravelly silt, moist. ~35% silt, 35% gravel and 30% sand. Gravel is angular to subrounded and consists mainly of sand and siltstone. It is up to 4". Some siltstone exhibited a rusty rind, but may not have been baked. on	yes	yes	1	Grid	17:14:34	<LOD	4	56	2	135	3	148	3	<LOD	7	<LOD	29	<LOD	39	<LOD	65	NA	NA	<LOD	461	14	3	NA	NA	NA
14-Sep-2010	10IP023				2	Grid	17:16:48	<LOD	5	63	2	137	3	111	3	<LOD	7	<LOD	31	<LOD	41	<LOD	71	NA	NA	635	189	<LOD	9	NA	NA	NA
14-Sep-2010	10IP023				3	Grid	17:19:56	<LOD	5	71	2	327	6	145	3	<LOD	8	<LOD	32	<LOD	43	<LOD	74	NA	NA	969	208	<LOD	10	NA	NA	NA
14-Sep-2010	10IP024	Gray to brown gravelly sand with silt. ~50% fine sand, 10% gravel, 15% med to coarse sand and 15% pebbles. Gravel is well rounded to subrounded and consists of intrusive igneous rocks, and sandstone. No cooked ore or mineralized veins observed in sample	no	no	1	Grid	17:31:29	<LOD	3	46	2	106	3	187	4	<LOD	8	<LOD	32	47	14	<LOD	71	NA	NA	<LOD	504	<LOD	9	NA	NA	NA
14-Sep-2010	10IP024				2	Grid	17:34:21	<LOD	4	71	3	144	4	126	4	<LOD	9	<LOD	37	<LOD	48	<LOD	80	NA	NA	<LOD	571	13	4	NA	NA	NA
14-Sep-2010	10IP024				3	Grid	17:37:17	<LOD	3	53	2	117	3	227	4	<LOD	8	<LOD	33	<LOD	43	<LOD	71	NA	NA	525	169	<LOD	9	NA	NA	NA
14-Sep-2010	10IP025	could not penetrate organic mat. Material between roots consisted of gray brown, very fine sand and silt. No gravel or pebbles or evidence of cooked ore.	no	not noted	1	Grid	17:53:31	<LOD	4	49	2	113	3	159	4	18	3	<LOD	34	<LOD	43	<LOD	70	NA	NA	<LOD	536	<LOD	10	NA	NA	NA
14-Sep-2010	10IP025				2	Grid	17:56:34	<LOD	3	59	2	99	2	138	3	<LOD	6	<LOD	27	<LOD	35	<LOD	58	NA	NA	607	152	21	3	NA	NA	NA
14-Sep-2010	10IP025				3	Grid	17:58:29	<LOD	2	10	1	31	1	38	2	35	2	<LOD	23	<LOD	28	<LOD	43	NA	NA	<LOD	209	7	2	NA	NA	NA
9/13/2010 12:28	10np001	Gravelly Sand: Rounded to subangular gravel; subangular sand grains; little silt; brown, moist, compacted, well graded. Calcines: Very little. Minerals: None noted	yes	no	1	Grid		< LOD	6.51	59.08	6.31	180.32	9.21	137.63	10.08	< LOD	7.42	< LOD	10.34	< LOD	14.15	< LOD	21.72	NA	NA	887.58	60.76	< LOD	12.19	< LOD	15.54	< LOD
9/13/2010 12:36	10np001				2	Grid		< LOD	7.11	37.27	5.82	153.01	9.08	143.05	10.58	< LOD	7.96	< LOD	11.68	< LOD	15.66	< LOD	23.58	NA	NA	761.15	64.05	24.36	10.42	< LOD	18.24	< LOD
9/13/2010 12:40	10np001				3	Grid		< LOD	7.21	45.28	5.78	270.43	10.94	160.76	10.8	< LOD	7.21	< LOD	11.06	< LOD	15.85	61.62	16.52	NA	NA	540.68	61.49	29.92	10.08	< LOD	17.12	< LOD
9/13/2010 13:30	10np002	Sand: Well graded silt through gravel; tightly compacted sand and gravel, subangular, moist, shale and graywacky at surface. Minerals: None noted. Calcines: Some in general area.	yes	no	1	Grid		< LOD	5.38	46.91	5.39	128.21	7.37	242.31	11.25	< LOD	6.97	< LOD	9.87	< LOD	13.85	< LOD	21.54	NA	NA	670.14	58.15	39.91	10.16	< LOD	13.81	< LOD
9/13/2010 13:35	10np002				2	Grid		< LOD	7.71	59.76	6.79	134.83	8.72	151.28	11.04	< LOD	8.24	< LOD	10.32	< LOD	14.83	< LOD	22.52	NA	NA	543.88	60.02	38.88	11.89	< LOD	16.48	< LOD
9/13/2010 13:39	10np002				3	Grid		< LOD	6.71	60.12	5.98	125.44	7.47	169.74	10.11	< LOD	7.14	< LOD	9.22	< LOD	12.78	< LOD	20.12	NA	NA	542.23	55.57	26.42	9.5	< LOD	13.88	< LOD
9/13/2010 13:52	10np003	Gravel: Well graded grabel with silt through cobbles present, larger grains (cobbles are graywacke), smaller gravel is shale, organic silts present, brown to black, gravel and cobble very angular; likely waste rock dump, possible tailings. Calcines: Pres	yes	no	1	Grid		< LOD	6.06	47.84	5.56	169.53	8.65	165.78	10.3	< LOD	7.09	< LOD	9.73	< LOD	12.97	< LOD	20.03	NA	NA	380.29	54.9	34.81	10.2	< LOD	13.97	< LOD
9/13/2010 13:56	10np003				2	Grid		< LOD	5.37	32.3	4.42	116.54	6.56	123.25	8.04	6.99	4.26	< LOD	7.76	< LOD	10.8	< LOD	16.47	NA	NA	< LOD	64.15	50.65	10.2	< LOD	13.84	< LOD
9/13/2010 13:59	10np003				3	Grid		< LOD	5.59	59.09	5.9	82.7	6.11	155	9.42	< LOD	7.12	< LOD	9.18	< LOD	12.2	< LOD	19.39	NA	NA	620.37	54.6	58.55	11.58	< LOD	14.05	< LOD
9/13/2010 14:14	10np004	Gravelly Sand: Well graded sand; brown, somewhat moist; tightly compacted, subangular gravel to sub rounded gravel intermixed; some river rock in general area; little silt, gravel graywacke, shale and river rock, calcines. Calcines: Some present, coarse	yes	no	1	Grid		< LOD	6.78	51.13	5.99	186.4	9.36	178.16	11.04	< LOD	7.35	< LOD	9.59	< LOD	13.25	< LOD	20.67	NA	NA	394.83	55.86	16.78	8.88	< LOD	15.41	< LOD
9/13/2010 14:17	10np004				2	Grid		< LOD	6.92	50.59	6.02	336.51	12.32	141.62	10.86	< LOD	7.13	< LOD	9.83	< LOD	13.76	< LOD	20.91	NA	NA	839.64	58.79	14.36	8.69	< LOD	16.43	< LOD
9/13/2010 14:20	10np004				3	Grid		< LOD	6.03	64.86	6.31	172.51	8.7	162.41	10.25	< LOD	7.23	< LOD	9.49	< LOD	13.37	< LOD	20.51	NA	NA	802.74	57.79	18.29	8.7	< LOD	15.37	11.15
9/13/2010 14:40	10np005	Silt: Loess, little subabgular sand, gray to dark gray, some plasticity, somewhat cohesive, under 2" of plant material, moist. Calcines + Minerals: Not present	no	no	1	Grid		< LOD	4.76	31.85	4.23	107.96	6.28	214.05	9.84	< LOD	6.48	< LOD	8.63	< LOD	11.75	< LOD	17.88	NA	NA	172.61	49.13	< LOD	9.5	< LOD	10.73	< LOD
9/13/2010 14:44	10np005				2	Grid		< LOD	5.13	32.97	4.61	80.79	5.92	192.41	10.06	< LOD	7.07	< LOD	7.24	< LOD	10.26	< LOD	15.29	NA	NA	< LOD	62.89	12	7.61	< LOD	11.66	< LOD
9/13/2010 14:47	10np005				3	Grid		< LOD	3.6	29.51	3.8	83.46	5.13	166.04	8.12	< LOD	5.86	< LOD	6.72	< LOD	9.32	< LOD	13.87	NA	NA	< LOD	56.63	14.57	6.56	< LOD	9.95	< LOD
9/13/2010 15:03	10np006	Silt: Loess, little subangular sand, gray to dark gray, some plasticity, somewhat cohesive; under 1" of plant material. Moist. Calcines + Minerals: Not present.	no	no	1	Grid		< LOD	3.56	30.09	3.9	68.59	4.93	136.55	7.89	< LOD	6.1	< LOD	7.7	< LOD	10.91	< LOD	16.31	NA	NA	< LOD	67.16	< LOD	9.32	< LOD	9.51	< LOD
9/13/2010 15:06	10np006				2	Grid		< LOD	4.19	47.16	5.24	85.15	5.99	177.17	9.66	< LOD	6.97	< LOD	9.22	< LOD	12.42	< LOD	18.98	NA	NA	432.02	52.8	13.45	7.51	< LOD	12.42	< LOD
9/13/2010 15:08	10np006				3	Grid		< LOD	4.65	47.44	4.97	91.77	5.94	195.29	9.6	< LOD	6.69	< LOD	8.19	< LOD	11.33	< LOD	17.01	NA	NA	230.49	47.36	15.48	7.48	< LOD	11.5	< LOD
9/13/2010 16:22	10np007	Brown to dark brown, mostly silt with 1/4 inch to 1/2 inch gravel intermixed gravel composed of graywacke, moist, little sand, not well graded, gravel is subangular. Calcines: None noted. Minerals: None noted.	no	no	1	Grid		< LOD	6.01	42.27	5.16	147.65	7.89	187.78	10.33	< LOD	7	< LOD	9.54	< LOD	13.96	< LOD	21.26	NA	NA	90.59	52.34	17.98	8.48	< LOD	13.62	< LOD
9/13/2010 16:25	10np007				2	Grid		< LOD	7.94	33.13	5.85	136.18	9.37	134.76	11.28	< LOD	8.79	< LOD	12.22	< LOD	16.57	< LOD	25.6	NA	NA	287.05	64.72	20.89	10.77	< LOD	16.97	< LOD
9/13/2010 16:27	10np007				3	Grid		< LOD	5.75	36.9	4.92	144.43	7.8	210.84	10.75	< LOD	7.02	< LOD	10.34	< LOD	14.24	25.25	14.83	NA	NA	151.83	54.16	16.72	8.18	< LOD	13.46	< LOD
9/13/2010 16:40	10np008	Gray to dark gray, fines appear to be weathered argillaceous rock, large grabel mostly graywacke, some mineralization in graywacke: white mineral (possibly calcite) weathers to brown at exposed areas and has smaller clear crystals within that don't weathe	no	yes	1	Grid		< LOD	4.83	57.99	5.84	78.21	5.96	170.51	9.81	< LOD	7.12	< LOD	9.06	< LOD	12.04	< LOD	19.39	NA	NA	684.79	55.49	14.35	7.94	< LOD	13.07	9.89
9/13/2010 16:43	10np008				2	Grid		< LOD	4.97	70.25	6.33	83.29	6.13	188.57	10.19	< LOD	7.13	< LOD	9.53	< LOD	12.87	< LOD	19.92	NA	NA	783.81	55.99	14.86	8.11	< LOD	14.01	11.63
9/13/2010 16:45	10np008				3	Grid		< LOD	6.32	73.08	6.73	104.93	7.01	170.39	10.23	< LOD	7.31	< LOD	10	< LOD	13	< LOD	20.23	NA	NA	705.54	58.46	< LOD	12.08	< LOD	15.42	< LOD

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Th +/-	W	W +/-	V	V +/-	Sc	Sc +/-	Ca	Ca +/-	K	K +/-	S	S +/-	Cs	Cs +/-	Te	Te +/-	Pd	Pd +/-
14-Sep-2010	10IP023	Brown to gray silty gravel or gravelly silt, moist. ~35% silt, 35% gravel and 30% sand. Gravel is angular to subrounded and consists mainly of sand and siltstone. It is up to 4". Some siltstone exhibited a rusty rind, but may not have been baked. on	yes	yes	1	Grid	17:14:34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP023				2	Grid	17:16:48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP023				3	Grid	17:19:56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP024	Gray to brown gravelly sand with silt. ~50% fine sand, 10% gravel, 15% med to coarse sand and 15% pebbles. Gravel is well rounded to subrounded and consists of intrusive igneous rocks, and sandstone. No cooked ore or mineralized veins observed in sample	no	no	1	Grid	17:31:29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP024				2	Grid	17:34:21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP024				3	Grid	17:37:17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP025	could not penetrate organic mat. Material between roots consisted of gray brown, very fine sand and silt. No gravel or pebbles or evidence of cooked ore.	no	not noted	1	Grid	17:53:31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP025				2	Grid	17:56:34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14-Sep-2010	10IP025				3	Grid	17:58:29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/13/2010 12:28	10np001	Gravelly Sand: Rounded to subangular gravel; subangular sand grains; little silt; brown, moist, compacted, well graded. Calcines: Very little. Minerals: None noted	yes	no	1	Grid		9.11	< LOD	86.81	151.99	58.95	144.39	36.57	21635.2	540.8	4758.35	404.61	< LOD	19200.46	< LOD	22.57	< LOD	67.3	< LOD	14.22
9/13/2010 12:36	10np001				2	Grid		9.75	< LOD	82.34	< LOD	59.1	< LOD	26.12	5646.93	276.33	8953.61	476.82	< LOD	15244.99	34.67	16.34	< LOD	73.88	< LOD	15.06
9/13/2010 12:40	10np001				3	Grid		9.14	< LOD	88.93	145.71	56.99	84.26	28.62	13088.24	422.35	4186.14	372.82	25801.06	13579.73	< LOD	24.93	< LOD	71.65	< LOD	14.89
9/13/2010 13:30	10np002	Sand: Well graded silt through gravel; tightly compacted sand and gravel, subangular, moist, shale and graywacky at surface. Minerals: None noted. Calcines: Some in general area.	yes	no	1	Grid		9.09	< LOD	72.04	130.5	65.66	28.74	15.4	1410.02	192.8	5910.47	430.89	< LOD	13027.77	< LOD	22.27	< LOD	66.49	< LOD	13.01
9/13/2010 13:35	10np002				2	Grid		10.87	< LOD	101.96	86.68	54.18	36.6	13.71	1140.56	161.84	4461.28	364.65	< LOD	11401.32	< LOD	23.26	< LOD	69.01	< LOD	14.87
9/13/2010 13:39	10np002				3	Grid		8.79	< LOD	80.5	95.73	59.7	32.96	14.61	1128.71	175.66	5132.73	397.53	< LOD	10846.27	< LOD	21.11	< LOD	62.2	< LOD	12.5
9/13/2010 13:52	10np003	Gravel: Well graded grabel with silt through cobbles present, larger grains (cobbles are graywacke), smaller gravel is shale, organic silts present, brown to black, gravel and cobble very angular; likely waste rock dump, possible tailings. Calcines: Pres	yes	no	1	Grid		9.28	< LOD	77.19	85	53.26	< LOD	19.16	1268.73	172.91	4622.95	376.24	< LOD	12582.62	< LOD	21.16	< LOD	62.96	< LOD	13.09
9/13/2010 13:56	10np003				2	Grid		8.06	< LOD	64.89	< LOD	81.55	66.48	20.58	5271.73	282.07	5328.89	394.31	< LOD	11949.56	< LOD	17.38	< LOD	50.98	< LOD	10.39
9/13/2010 13:59	10np003				3	Grid		9.08	< LOD	83.76	146.9	61.08	26.29	16.01	2308.89	214.27	4515.12	379.72	< LOD	12962.04	< LOD	20.39	< LOD	61.39	< LOD	12.57
9/13/2010 14:14	10np004	Gravelly Sand: Well graded sand; brown, somewhat moist; tightly compacted, subangular gravel to sub rounded gravel intermixed; some river rock in general area; little silt, gravel graywacke, shale and river rock, calcines. Calcines: Some present, coarse	yes	no	1	Grid		9.44	< LOD	90.67	127.86	59.56	< LOD	23.78	2678.73	219.06	4378	370.65	< LOD	14898.19	< LOD	21.74	< LOD	63.48	< LOD	12.58
9/13/2010 14:17	10np004				2	Grid		8.66	< LOD	85.33	132.57	73.64	< LOD	20.92	963.47	179.33	6829.14	457.92	< LOD	16045.95	< LOD	21.65	< LOD	65.69	< LOD	13.29
9/13/2010 14:20	10np004				3	Grid		6.47	< LOD	82.75	156.13	65.53	< LOD	19.38	686.8	164.04	6360.33	440.3	< LOD	12571.81	< LOD	21.26	< LOD	63.61	< LOD	13.27
9/13/2010 14:40	10np005	Silt: Loess, little subabgular sand, gray to dark gray, some plasticity, somewhat cohesive, under 2" of plant material, moist. Calcines + Minerals: Not present	no	no	1	Grid		7.12	< LOD	61.37	< LOD	64.87	24.24	14.01	2418.49	195.42	3053.25	304.74	< LOD	11598.28	< LOD	19.11	< LOD	57.73	< LOD	11.84
9/13/2010 14:44	10np005				2	Grid		8.21	< LOD	71.21	< LOD	85.96	26.97	13.33	1924.67	176.74	1904.74	255.31	< LOD	11280.51	< LOD	16.8	< LOD	49.95	< LOD	10.16
9/13/2010 14:47	10np005				3	Grid		7.02	< LOD	56.14	71.51	45.83	< LOD	24.21	3419.53	235.43	3296.87	320.01	< LOD	14470.14	< LOD	15.19	< LOD	45.24	< LOD	9.17
9/13/2010 15:03	10np006	Silt: Loess, little subangular sand, gray to dark gray, some plasticity, somewhat cohesive; under 1" of plant material. Moist. Calcines + Minerals: Not present.	no	no	1	Grid		6.62	< LOD	57.94	< LOD	125.63	< LOD	20.98	2121.94	196.74	3438.44	328.01	< LOD	14638.91	< LOD	17.4	< LOD	52.42	< LOD	10.45
9/13/2010 15:06	10np006				2	Grid		8.51	< LOD	72.06	118.33	53.34	20.36	12.97	1454.15	175.07	4996.44	378.34	< LOD	10022.47	< LOD	20.02	< LOD	60.72	< LOD	12.03
9/13/2010 15:08	10np006				3	Grid		7.29	< LOD	63.27	< LOD	81.66	< LOD	24.08	3334.74	236.36	3866.86	348.7	< LOD	13332.61	< LOD	18.14	< LOD	54.71	< LOD	10.81
9/13/2010 16:22	10np007	Brown to dark brown, mostly silt with 1/4 inch to 1/2 inch gravel intermixed gravel composed of graywacke, moist, little sand, not well graded, gravel is subangular. Calcines: None noted. Minerals: None noted.	no	no	1	Grid		8.02	< LOD	65.6	< LOD	110.45	40.29	15.99	2528.44	206.74	3475.37	329.93	< LOD	12528.54	< LOD	21.74	< LOD	62.64	< LOD	13.05
9/13/2010 16:25	10np007				2	Grid		8.9	< LOD	104.34	< LOD	57.85	25.86	11.53	1343.33	146.51	2232.55	264.14	< LOD	8942.78	< LOD	26.47	< LOD	77.58	< LOD	16.24
9/13/2010 16:27	10np007				3	Grid		7.91	< LOD	78.37	< LOD	76.13	46.98	16.97	3068.49	221.87	2820.44	305.14	< LOD	12082.78	< LOD	22.63	< LOD	64.21	< LOD	13.56
9/13/2010 16:40	10np008	Gray to dark gray, fines appear to be weathered argillaceous rock, large grabel mostly graywacke, some mineralization in graywacke: white mineral (possibly calcite) weathers to brown at exposed areas and has smaller clear crystals within that don't weathe	no	yes	1	Grid		6.11	< LOD	81.32	161.56	64.53	41.44	27.4	11922.69	419.74	5242.59	418.14	< LOD	15120.89	< LOD	20.49	< LOD	61.46	< LOD	12.01
9/13/2010 16:43	10np008				2	Grid		6.35	< LOD	74.87	< LOD	134.32	79.07	30.41	15593.16	459.54	7344.48	471.36	< LOD	15800.74	< LOD	20.53	< LOD	62.53	< LOD	12.54
9/13/2010 16:45	10np008				3	Grid		8.77	< LOD	86.63	135.53	60.02	< LOD	17.61	1470.12	183.94	7233.82	451.15	< LOD	11318.07	< LOD	21.52	< LOD	64.54	< LOD	13.58

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	As	As +/-	Average As	Sb	Sb +/-	Average Sb	Hg	Hg +/-	Average Hg	Ti	Ti +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-
9/13/2010 17:11	10np009	Dark brown to black, wet, located on bank wood debris and vegetation on top. Gravel is 1" to 6", mostly angular with some rounded, possible calcine 1/4" within, graywacke with calcite (white). Mineral veins on few pieces. Two small pieces of mica 1/2"	yes	yes	1	Grid		836.25	29.05	821	2404.05	34.57	2,260	33.57	9.44	70	11481.7	300.56	107.73	26.62	349.02	84.16	16424.04	356.72	< LOD	154.6	< LOD	60.86	38.89	22.22	211.31	24.3
9/13/2010 17:14	10np009				2	Grid		762.48	27.18		2372.64	33.24		47.25	9.72		1337.36	130.58	93.14	23.59	250.57	74.3	15952.49	343.66	170.12	100.29	< LOD	63.03	< LOD	31.6	159.74	21.06
9/13/2010 17:17	10np009				3	Grid		862.89	28.22		2004.33	31.6		127.89	13.22		1703.35	148.74	83.09	25.28	323.15	78.79	17242.2	349.83	152.36	101.29	< LOD	59.94	39.63	20.78	195.54	22.74
9/13/2010 17:45	10np010	Gravel on top of loess. Black to dark gray; moist. Thin gravel layer above loess gravel from 1/4" to 3" across gone w/ flat cleavage, little calcines (1/2 inch), mostly graywacke, flat rocks amy be argillite, fairly loose. Nonmineralized noted. Calcines:	yes	no	1	Grid		1771.84	40.73	1,230	1559.34	28.12	1,595	80.17	11.79	74	1966.2	156.5	95.16	25.95	393.89	86.19	18705.28	370.73	< LOD	156.13	< LOD	58.15	34.2	21	174.19	22.08
9/13/2010 17:50	10np010				2	Grid		449.45	19.61		757.92	20.7		32.44	8.3		1354.68	133.59	90.29	24.72	281.41	68.42	11710.67	272.97	< LOD	117.67	< LOD	49.93	< LOD	26.84	128.61	17.85
9/13/2010 17:53	10np010				3	Grid		1468.5	39.59		2467.21	35.45		110.54	14.01		1947.81	153.83	99.77	25.64	435.16	97.88	26607.66	469.6	221.17	135.39	< LOD	71.24	< LOD	34.3	214.21	25.73
9/14/2010 10:28	10np011	Gravel + Silt - Mostly black due to organic silts. Thin layer of alluviam over top of root/ peaty later; gravely beneath. Gravle composed mostly of graywacke (layer 1/2" or more). Smaller gravel contains some argillites and little calcines. Gravel is most	yes	no	1	Grid		492.18	19.18	580	582.17	17.55	522	49.83	8.73	78	1715.48	146.17	75.19	25.44	241.46	62.35	10999.25	249.54	< LOD	107.87	< LOD	48.67	< LOD	24	90.63	14.8
9/14/2010 10:31	10np011				2	Grid		500.17	20.25		614.22	17.28		59.66	9.07		1235.18	114.44	42.77	21.47	166.34	57.96	9487.26	242.65	< LOD	106.3	< LOD	49.31	< LOD	24.79	87.28	15.01
9/14/2010 10:33	10np011				3	Grid		748.49	24.76		369.04	17.62		125.15	12.49		2159.71	155.86	77.54	25.14	348.87	75.21	16971.93	324.29	< LOD	137.23	< LOD	50.19	< LOD	25.99	95.31	16.26
9/14/2010 10:52	10np012	Gravel + Silt - Mostly black, moist. Gravel is intermixed argillites (including small gravel size shale fragments) subrounded, layer gravel (outer 1/2") mostly graywacke, largest 2", well graded, located adjacent to road along stream mouth slope. Minerals	no	no	1	Grid		1041.16	30.67	1,359	1485.5	26.55	1,216	32.18	8.85	28	1543.28	137.73	123.75	26.52	431.73	84.76	16059.82	333.85	207.05	98.19	< LOD	58.17	39.57	20.45	223.42	23.51
9/14/2010 10:55	10np012				2	Grid		952.71	29.51		831.22	22.32		18.06	8.29		1460.42	129.79	124.68	25.89	436.17	84.94	14955.63	325.38	< LOD	137.69	< LOD	58.82	43.03	21.11	263.81	25.54
9/14/2010 10:58	10np012				3	Grid		2082.11	50.72		1330.74	29.47		32.95	12.11		1194.51	144.26	167.19	27.53	659.4	121	23870.37	479.82	< LOD	203.64	112.25	55.86	52.54	28.22	311.75	33
9/14/2010 11:07	10np013	Silt (roadway). Dark brown, moist to wet, compacted, some gravel scatttered throughout area, gravel is small through 5", well graded, equal angular and rounded. Calcines - none noted. Minerals - none noted.	no	no	1	Grid		422.89	28.5	451	935.2	33.95	842	35.02	13.05	25	658.27	83.44	42.18	15.81	318.71	108.31	13239.95	432.87	< LOD	184.32	< LOD	100.99	< LOD	54.83	147.8	28.49
9/14/2010 11:11	10np013				2	Grid		504.27	23.6		701.39	22.34		17.53	8.46		1656.68	134.39	44.96	20.88	455.53	94.22	17069.88	374.78	< LOD	159.56	< LOD	66	42.07	23.66	109.42	19.09
9/14/2010 11:13	10np013				3	Grid		426.6	23.38		890.69	27.26		22.34	9.6		1325.69	115.03	57.12	19.48	263.15	84.84	14580.37	371.25	< LOD	159.9	< LOD	73.08	41.89	26.46	161.24	23.94
9/14/2010 11:36	10np014	Silt (roadway) Dark brown to black; wet, some gravle mixed in cohesive, gravel up to 1/2", rounded/ "riverrock" heavily compacted. Calcines - none noted. Minerals - none noted.	no	no	1	Grid		255.78	17.49	289	767.77	23.87	621	25.91	9.83	28	1802.58	136.11	59.45	20.95	446.41	95.47	17538.69	383.92	< LOD	164.82	< LOD	66.83	< LOD	33.08	141.56	21.62
9/14/2010 11:39	10np014				2	Grid		248.77	16.82		563.82	21.42		29.16	8.96		1680.56	131.81	46.57	20.88	395.63	86.42	13921.93	331.17	159.64	96.99	< LOD	63.86	< LOD	32.72	107.81	18.55
9/14/2010 11:42	10np014				3	Grid		362.86	20.82		532.5	21.63		30.14	9.43		1560.5	130.73	56.38	21.66	512.18	101.92	19463.62	414.18	< LOD	175.76	< LOD	71.7	42.42	25.11	135.63	21.45
9/14/2010 11:54	10np015	Sandy Silt (roadway) Dark brown to black, saturate, well graded silt through 1/2" gravel, gravel is mostly rounded graywacke, some granite gravel mixed in. Calcines - none noted. Minerals - none noted.	no	no	1	Grid		320.23	16.96	305	402.39	18.57	537	13.19	7.5	17	1480.58	137.33	86.94	24.7	356.74	75.8	12268.72	285.57	< LOD	123.46	< LOD	54.27	< LOD	28.31	103.64	16.78
9/14/2010 11:57	10np015				2	Grid		272.03	21.6		602.33	26.66		17.77	11.63		512.05	83.34	26.46	15.58	263.36	93.94	10474.14	359.14	< LOD	156.87	< LOD	89.17	< LOD	48.4	122.71	24.89
9/14/2010 12:00	10np015				3	Grid		322.99	17.82		607.53	20.71		19.13	8.17		1374.16	126.48	65.38	22.27	343.21	77.88	11457.04	288.55	128.31	84.55	< LOD	59	< LOD	30.44	110.46	17.97
9/14/2010 12:14	10np016	Silty gravel (roadway) Black, saturated, compacted well graded, large "waste rock" along road edge w/ rusty weathering on graywackes, highly angula, sand through cobbles 6", argillites present, white mineral viens present in few graywacke. Calcines - none	no	yes	1	Grid		225.82	14.8	201	55.37	14.6	459	< LOD	11.23	56	2108.85	158.74	59.67	23.87	508.04	87.84	15485.07	322.07	< LOD	137.19	< LOD	56.28	30.13	19.34	110.34	17.31
9/14/2010 12:18	10np016				2	Grid		250.19	16.62		863.61	23.65		55.98	10.67		3398.22	207.96	86.07	28.38	870.03	117.58	19737.53	394.25	194.51	114.36	< LOD	67.92	< LOD	33.14	134.98	20.41
9/14/2010 12:21	10np016				3	Grid		127.3	14.74		< LOD	29.99		< LOD	15.36		734.96	99.56	102.17	20.76	485.75	109.53	12861.33	374.99	187.01	111.22	< LOD	82.95	< LOD	45.23	317.25	34.58
9/14/2010 13:24	10np017	Silt (RD creek delta/ Kusko alluvium) gray to brown, soft some what compacted, small rounded gravel (very little) laees than 1/2" very moist. Calcines - none. Minerals - none.	no	no	1	Grid		79.6	8.77	59	28.78	13.77	29	< LOD	8.96	<LOD	2262	163.27	< LOD	38.55	401.48	76.69	16801.65	315.32	< LOD	133.29	< LOD	47.15	< LOD	24.74	107.32	15.92
9/14/2010 13:27	10np017				2	Grid		37.88	7.89		< LOD	19.78		< LOD	9.91		2082.1	153.66	37.52	23.68	400.45	85.4	16396.91	349.42	168.46	101.74	< LOD	59.16	< LOD	29.25	123	18.75
9/14/2010 13:32	10np017				3	Grid		60.6	8.48		< LOD	20.73		< LOD	8.32		1789.01	139.88	39.19	23.38	375	77.93	16397.3	325.8	157.71	94.6	< LOD	52.91	< LOD	25.92	110.98	16.67
9/14/2010 14:05	10np018	Silt (Alluvium) gray to brown, soft, some what compacted, gravel or sand. Many roots, very moist. Calcines - none noted. Minerals- none.	no	no	1	Grid		36.51	7.01	24	< LOD	15.76	<LOD	< LOD	10.08	<LOD	724.75	97.3	152.39	26.16	263.57	66.5	9502.52	245.98	125.64	72.76	< LOD	49.83	37.55	19.11	361.2	27.77
9/14/2010 14:07	10np018				2	Grid		24.89	7.42		< LOD	21.93		< LOD	10.53		1473.84	128.83	33.11	21.23	462.32	92.31	19229.06	386.58	< LOD	164.21	< LOD	64.46	41.2	22.72	165.16	21.8
9/14/2010 14:10	10np018				3	Grid		10.06	5.63		< LOD	17.6		< LOD	9.26		1060	118.57	34.88	21.04	204.01	63.76	10668.52	266.54	< LOD	114.78	< LOD	52.95	< LOD	27.47	138.3	18.52
9/14/2010 14:38	10np019	Silt+gravel (Roadside) Dark brown, moist, somewhat compacted gravel from small, up to 2", mostly angular, little rounded, graywacke, appears to be a combinatio nof river alluvion and rock spread for raodway use. Roadway gravle is angular graywacke tthroug	no	no	1	Grid		271.22	15.65	331	344.52	16.9	385	15.72	7.75	47	1287.44	131.29	80.05	24.94	402.87	79.52	14249.53	305.23	175.77	89.65	< LOD	55.21	38.25	19.45	194.19	21.49
9/14/2010 14:42	10np019				2	Grid		318.28	17.59		429.47	19.13		24.37	8.51		2335.98	165.14	63.76	24.38	593.47	95.79	17719.66	354.75	< LOD	150.46	< LOD	55.3	< LOD	29.62	124.39	18.71
9/14/2010 14:48	10np019				3	Grid		402.7	21.42		381.59	20.1		101.49	13.44		2128.72	146.99	38.85	21.45	829.27	119.96	20040.15	411.09	< LOD	173.8	< LOD	65.62	< LOD	33.66	147.31	22.12

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn	Sn +/-	I	I +/-	Ba	Ba +/-	Pb	Pb +/-	U	U +/-	Th
9/13/2010 17:11	10np009	Dark brown to black, wet, located on bank wood debris and vegetation on top. Gravel is 1" to 6", mostly angular with some rounded, possible calcine 1/4" within, graywacke with calcite (white). Mineral veins on few pieces. Two small pieces of mica 1/2"	yes	yes	1	Grid		< LOD	6.01	45.3	5.25	129.56	7.34	183.81	10.11	< LOD	6.89	< LOD	9.91	< LOD	13.79	24.38	14.35	NA	NA	208.29	53.46	12.16	7.85	< LOD	13.16	< LOD
9/13/2010 17:14	10np009				2	Grid		< LOD	4.91	36.84	4.73	126.01	7.09	205.64	10.26	< LOD	6.86	< LOD	9.21	< LOD	13.1	< LOD	19.94	NA	NA	< LOD	75.02	13.49	7.57	< LOD	12.42	< LOD
9/13/2010 17:17	10np009				3	Grid		< LOD	5.6	46.54	5.06	129.96	7.11	208	10.11	< LOD	6.58	< LOD	9.45	< LOD	13.7	< LOD	20.79	NA	NA	138.8	51.94	< LOD	10.85	< LOD	13.26	< LOD
9/13/2010 17:45	10np010	Gravel on top of loess. Black to dark gray; moist. Thin gravel layer above loess gravel from 1/4" to 3" across gone w/ flat cleavage, little calcines (1/2 inch), mostly graywacke, flat rocks amy be argillite, fairly loose. Nonmineralized noted. Calcines:	yes	no	1	Grid		< LOD	5.97	42.08	5.05	145.01	7.57	165.26	9.58	< LOD	6.69	< LOD	9.21	< LOD	12.83	< LOD	19.7	NA	NA	203.92	51.19	< LOD	10.8	< LOD	13.65	< LOD
9/13/2010 17:50	10np010				2	Grid		< LOD	4.89	35.57	4.33	126.52	6.56	210.47	9.54	< LOD	6.34	< LOD	8.42	< LOD	11.51	< LOD	17.56	NA	NA	< LOD	69.44	14.43	7.08	< LOD	11.39	< LOD
9/13/2010 17:53	10np010				3	Grid		< LOD	6.22	43.36	5.4	178.6	8.88	185.28	10.74	< LOD	7.17	< LOD	9.66	< LOD	14.02	< LOD	21.63	NA	NA	302.66	55.08	13.23	8.27	< LOD	14.63	< LOD
9/14/2010 10:28	10np011	Gravel + Silt - Mostly black due to organic silts. Thin layer of alluviam over top of root/ peaty later; gravely beneath. Gravle composed mostly of graywacke (layer 1/2" or more). Smaller gravel contains some argillites and little calcines. Gravel is most	yes	no	1	Grid		< LOD	4.29	24.45	3.49	87.53	5.25	124	7.33	< LOD	5.77	< LOD	7.15	< LOD	10.03	< LOD	15.19	NA	NA	< LOD	59.62	< LOD	9.17	< LOD	9.56	< LOD
9/14/2010 10:31	10np011				2	Grid		< LOD	4.61	18.51	3.41	64.59	4.83	75.36	6.48	7.29	4.06	< LOD	6.91	< LOD	9.47	< LOD	14.23	NA	NA	< LOD	56.18	< LOD	9.8	< LOD	10.28	< LOD
9/14/2010 10:33	10np011				3	Grid		< LOD	5.19	33	4.1	81	5.41	186.25	8.88	< LOD	5.97	< LOD	8.39	< LOD	11.6	< LOD	17.64	NA	NA	77.79	46.68	17.96	7.49	< LOD	11.3	< LOD
9/14/2010 10:52	10np012	Gravel + Silt - Mostly black, moist. Gravel is intermixed argillites (including small gravel size shale fragments) subrounded, layer gravel (outer 1/2") mostly graywacke, largest 2", well graded, located adjacent to road along stream mouth slope. Minerals	no	no	1	Grid		< LOD	5.34	44.29	4.85	114.32	6.55	171.41	9.26	< LOD	6.41	< LOD	8.65	< LOD	12.48	< LOD	19	NA	NA	173.36	48.93	21.58	8.14	< LOD	11.78	< LOD
9/14/2010 10:55	10np012				2	Grid		< LOD	5.03	36.41	4.56	147.33	7.42	157.32	9.2	< LOD	6.62	< LOD	8.88	< LOD	12.21	< LOD	18.97	NA	NA	353.8	50.8	11.82	7.18	< LOD	11.59	< LOD
9/14/2010 10:58	10np012				3	Grid		< LOD	7.95	42.06	6.25	1015.38	22.03	138.75	14.07	< LOD	7.89	< LOD	10.08	< LOD	13.91	< LOD	21.96	NA	NA	1497.8	66.4	22.68	10.2	< LOD	19.49	< LOD
9/14/2010 11:07	10np013	Silt (roadway). Dark brown, moist to wet, compacted, some gravel scatttered throughout area, gravel is small through 5", well graded, equal angular and rounded. Calcines - none noted. Minerals - none noted.	no	no	1	Grid		< LOD	8.32	36.19	6.52	115.16	9.4	190.09	13.75	< LOD	9.66	16.63	9.98	< LOD	19.73	< LOD	29.19	NA	NA	573.83	77.96	< LOD	16.51	< LOD	17.13	< LOD
9/14/2010 11:11	10np013				2	Grid		< LOD	5.18	37.32	5.03	119.83	7.28	210.87	10.89	< LOD	7.34	< LOD	9.39	< LOD	13.23	< LOD	19.64	NA	NA	244.95	52.63	15.91	8.23	< LOD	12.97	< LOD
9/14/2010 11:13	10np013				3	Grid		< LOD	6.29	38.74	5.44	123.37	7.91	214.15	11.77	9.89	5.37	< LOD	11.38	< LOD	15.43	< LOD	23.35	NA	NA	578.14	63.01	13.96	8.85	< LOD	13.85	11.24
9/14/2010 11:36	10np014	Silt (roadway) Dark brown to black; wet, some gravle mixed in cohesive, gravel up to 1/2", rounded/ "riverrock" heavily compacted. Calcines - none noted. Minerals - none noted.	no	no	1	Grid		< LOD	5.99	54.49	5.88	116.31	7.27	145.15	9.61	< LOD	6.99	< LOD	9.78	< LOD	13.53	< LOD	20.91	NA	NA	438.08	56.4	13.43	8.24	< LOD	14.1	< LOD
9/14/2010 11:39	10np014				2	Grid		< LOD	5.23	36.27	4.69	118.19	7.08	145.94	9.3	< LOD	6.89	< LOD	9.65	< LOD	13.5	< LOD	20.1	NA	NA	377.23	54.23	18.26	8.28	< LOD	11.36	< LOD
9/14/2010 11:42	10np014				3	Grid		< LOD	6.05	44.43	5.52	99.54	6.95	146.74	9.82	< LOD	7.28	< LOD	9.63	< LOD	13.27	< LOD	20.37	NA	NA	345.05	55.36	< LOD	11.83	< LOD	13.59	9.94
9/14/2010 11:54	10np015	Sandy Silt (roadway) Dark brown to black, saturate, well graded silt through 1/2" gravel, gravel is mostly rounded graywacke, some granite gravel mixed in. Calcines - none noted. Minerals - none noted.	no	no	1	Grid		< LOD	4.59	40.95	4.62	95.31	5.88	161.15	8.73	< LOD	6.41	< LOD	8.37	< LOD	11.95	< LOD	18.64	NA	NA	513.12	51.36	< LOD	9.57	< LOD	11.33	< LOD
9/14/2010 11:57	10np015				2	Grid		< LOD	6.93	35.88	5.82	92.11	7.9	150.28	11.61	< LOD	8.9	< LOD	12.57	< LOD	16.58	< LOD	25.34	NA	NA	449.5	67.48	< LOD	14.25	< LOD	13.91	< LOD
9/14/2010 12:00	10np015				3	Grid		< LOD	5.06	31.9	4.43	83.27	5.8	140.14	8.65	< LOD	6.71	< LOD	9.11	< LOD	12.56	< LOD	18.96	NA	NA	306.02	50.95	< LOD	10.31	< LOD	11.63	< LOD
9/14/2010 12:14	10np016	Silty gravel (roadway) Black, saturated, compacted well graded, large "waste rock" along road edge w/ rusty weathering on graywackes, highly angula, sand through cobbles 6", argillites present, white mineral viens present in few graywacke. Calcines - none	no	yes	1	Grid		< LOD	4.49	52.43	5.09	93.79	5.87	127.85	8.1	< LOD	6.32	< LOD	8.15	< LOD	11.39	< LOD	17.04	NA	NA	239.57	47.89	16.36	7.38	< LOD	11.74	< LOD
9/14/2010 12:18	10np016				2	Grid		< LOD	4.98	48.22	5.37	100.56	6.62	144.31	9.23	< LOD	6.9	< LOD	9.53	< LOD	12.95	< LOD	20.51	NA	NA	641.06	55.26	< LOD	11.11	< LOD	13.13	14.67
9/14/2010 12:21	10np016				3	Grid		< LOD	6.57	44.9	6.2	92.28	7.44	138.13	10.65	< LOD	8.35	< LOD	12.17	< LOD	16.19	< LOD	24.41	NA	NA	307.81	70.77	< LOD	13.5	< LOD	15.27	< LOD
9/14/2010 13:24	10np017	Silt (RD creek delta/ Kusko alluvium) gray to brown, soft some what compacted, small rounded gravel (very little) laees than 1/2" very moist. Calcines - none. Minerals - none.	no	no	1	Grid		< LOD	4.11	37.36	4.17	97.9	5.61	166.83	8.38	< LOD	5.94	< LOD	8.07	< LOD	11.01	< LOD	16.47	NA	NA	< LOD	67.1	< LOD	8.85	< LOD	10.03	11.99
9/14/2010 13:27	10np017				2	Grid		< LOD	4.54	35.23	4.52	98.19	6.31	186.7	9.78	< LOD	6.64	< LOD	8.09	< LOD	10.93	< LOD	16.49	NA	NA	< LOD	67.45	< LOD	10.59	< LOD	10.73	< LOD
9/14/2010 13:32	10np017				3	Grid		< LOD	4.59	37.11	4.41	102.89	6.01	192.8	9.24	< LOD	6.27	< LOD	7.72	< LOD	11.02	< LOD	16.59	NA	NA	< LOD	67.51	< LOD	9.86	< LOD	10.98	< LOD
9/14/2010 14:05	10np018	Silt (Alluvium) gray to brown, soft, some what compacted, gravel or sand. Many roots, very moist. Calcines - none noted. Minerals- none.	no	no	1	Grid		< LOD	4.31	20.85	3.56	68.91	4.97	125.21	7.69	9.18	4.22	< LOD	6.13	< LOD	8.46	< LOD	12.79	NA	NA	< LOD	52.11	< LOD	9.22	< LOD	9.88	< LOD
9/14/2010 14:07	10np018				2	Grid		< LOD	5.41	35.05	4.8	112.33	6.86	197.36	10.3	< LOD	6.98	< LOD	8.93	< LOD	12.56	< LOD	18.33	NA	NA	< LOD	74.76	< LOD	11.49	< LOD	12.41	15.88
9/14/2010 14:10	10np018				3	Grid		< LOD	4.73	29.09	4.08	93.72	5.83	157.3	8.65	7.17	4.32	< LOD	7.11	< LOD	9.96	< LOD	14.59	NA	NA	< LOD	60.01	< LOD	10	< LOD	10.66	< LOD
9/14/2010 14:38	10np019	Silt+gravel (Roadside) Dark brown, moist, somewhat compacted gravel from small, up to 2", mostly angular, little rounded, graywacke, appears to be a combinatio nof river alluvion and rock spread for raodway use. Roadway gravle is angular graywacke tthroug	no	no	1	Grid		< LOD	4.67	36.28	4.41	107.67	6.17	163.79	8.78	6.46	4.28	< LOD	7.88	< LOD	11.01	< LOD	16.64	NA	NA	116.01	45.6	< LOD	9.92	< LOD	11.3	9.18
9/14/2010 14:42	10np019				2	Grid		< LOD	4.74	63.09	5.62	113.48	6.6	199.21	9.85	< LOD	6.47	< LOD	8.9	< LOD	12.41	< LOD	18.98	NA	NA	477.58	52.05	< LOD	10.48	< LOD	12.42	< LOD
9/14/2010 14:48	10np019				3	Grid		< LOD	5.65	45.31	5.47	109.93	7.17	200.4	10.78	< LOD	7.32	< LOD	9.91	< LOD	13.56	< LOD	20.14	NA	NA	320.96	54.9	< LOD	11.71	< LOD	14.22	< LOD

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Th +/-	W	W +/-	V	V +/-	Sc	Sc +/-	Ca	Ca +/-	K	K +/-	S	S +/-	Cs	Cs +/-	Te	Te +/-	Pd	Pd +/-
9/13/2010 17:11	10np009	Dark brown to black, wet, located on bank wood debris and vegetation on top. Gravel is 1" to 6", mostly angular with some rounded, possible calcine 1/4" within, graywacke with calcite (white). Mineral veins on few pieces. Two small pieces of mica 1/2"	yes	yes	1	Grid		8.62	< LOD	71.19	< LOD	132.51	29.15	17.06	2789.69	227.72	4321.45	373.62	< LOD	14056.31	< LOD	21.87	< LOD	63.15	< LOD	13.41
9/13/2010 17:14	10np009				2	Grid		7.84	< LOD	65.92	78.66	48.3	< LOD	22.23	2831.14	211.12	3717.83	332.22	< LOD	12973.64	< LOD	20.81	< LOD	59.83	< LOD	12.49
9/13/2010 17:17	10np009				3	Grid		7.73	< LOD	64.28	90.64	54.46	28.52	16.5	3117.78	229.73	4410.45	367.04	< LOD	12141.78	< LOD	21.19	< LOD	62.02	< LOD	12.65
9/13/2010 17:45	10np010	Gravel on top of loess. Black to dark gray; moist. Thin gravel layer above loess gravel from 1/4" to 3" across gone w/ flat cleavage, little calcines (1/2 inch), mostly graywacke, flat rocks amy be argillite, fairly loose. Nonmineralized noted. Calcines:	yes	no	1	Grid		7.81	< LOD	69.18	< LOD	83.36	29.76	16.7	3099.54	232.21	5033.07	389.38	< LOD	13076.83	< LOD	20.4	< LOD	59.97	< LOD	12.16
9/13/2010 17:50	10np010				2	Grid		6.24	< LOD	61.28	< LOD	73.32	35.13	17.63	4074.43	249.97	3253.49	320.69	< LOD	12095.13	< LOD	18.38	< LOD	54.87	< LOD	10.89
9/13/2010 17:53	10np010				3	Grid		8.67	< LOD	77.51	< LOD	82.21	28.41	16.01	2785.58	220	4776.81	379.04	< LOD	12780.35	< LOD	22.22	< LOD	64.2	< LOD	12.57
9/14/2010 10:28	10np011	Gravel + Silt - Mostly black due to organic silts. Thin layer of alluviam over top of root/ peaty later; gravely beneath. Gravle composed mostly of graywacke (layer 1/2" or more). Smaller gravel contains some argillites and little calcines. Gravel is most	yes	no	1	Grid		6.47	< LOD	58	109.26	54.1	28.7	18.32	4513.05	268.74	5284.52	395.85	17740.08	11221.6	< LOD	16.23	< LOD	47.97	< LOD	9.21
9/14/2010 10:31	10np011				2	Grid		6.4	< LOD	52.08	< LOD	62.59	28.82	14.76	2563.9	206.68	3767.93	330.65	< LOD	11432.7	< LOD	15.56	< LOD	45.31	< LOD	9.37
9/14/2010 10:33	10np011				3	Grid		7.05	< LOD	63.29	< LOD	80.42	32.5	16.97	3181.28	236.77	6173.13	424.92	< LOD	12496.58	< LOD	18.52	< LOD	55.63	< LOD	11.1
9/14/2010 10:52	10np012	Gravel + Silt - Mostly black, moist. Gravel is intermixed argillites (including small gravel size shale fragments) subrounded, layer gravel (outer 1/2") mostly graywacke, largest 2", well graded, located adjacent to road along stream mouth slope. Minerals	no	no	1	Grid		8.18	< LOD	66.52	< LOD	74.28	< LOD	22.02	2197.52	203.07	3482.61	332.99	< LOD	10502.36	< LOD	19.69	< LOD	57.69	< LOD	12.12
9/14/2010 10:55	10np012				2	Grid		7.57	< LOD	70.67	77.77	47.37	32.06	14.53	1822.37	186.25	2598.5	294.98	< LOD	9971.89	< LOD	19.77	< LOD	59.18	< LOD	11.71
9/14/2010 10:58	10np012				3	Grid		9.96	< LOD	99.25	118.63	55.7	< LOD	18.96	1273.41	162.1	2279.96	280.57	< LOD	12029.48	< LOD	23	< LOD	67.1	< LOD	13.67
9/14/2010 11:07	10np013	Silt (roadway). Dark brown, moist to wet, compacted, some gravel scatttered throughout area, gravel is small through 5", well graded, equal angular and rounded. Calcines - none noted. Minerals - none noted.	no	no	1	Grid		12.08	< LOD	106.98	< LOD	46.06	15.53	9.91	1323.44	136.81	2213.04	258.62	< LOD	8643.57	59.34	20.47	< LOD	92.66	< LOD	20.28
9/14/2010 11:11	10np013				2	Grid		8.74	< LOD	71.91	< LOD	70.89	39.17	16.49	3535.52	229.85	5313.97	385.67	< LOD	13197.92	< LOD	20.77	< LOD	62.52	< LOD	12.79
9/14/2010 11:13	10np013				3	Grid		6.68	< LOD	81	71.7	41.53	29.4	14.37	2886.9	203.53	4389.89	348.58	< LOD	12511.57	< LOD	24.31	< LOD	73.49	< LOD	15.61
9/14/2010 11:36	10np014	Silt (roadway) Dark brown to black; wet, some gravle mixed in cohesive, gravel up to 1/2", rounded/ "riverrock" heavily compacted. Calcines - none noted. Minerals - none noted.	no	no	1	Grid		9.07	< LOD	82.3	< LOD	70.29	27.94	15.43	3280.27	223.76	6515.29	418.6	< LOD	11380.25	< LOD	21.85	< LOD	65.49	< LOD	14.15
9/14/2010 11:39	10np014				2	Grid		7.95	< LOD	69.85	< LOD	68.97	26.58	14.82	2764.62	209.87	5134.37	379.3	< LOD	11014.76	< LOD	21.01	< LOD	63.54	< LOD	12.6
9/14/2010 11:42	10np014				3	Grid		6.26	< LOD	73.52	82.79	47.45	21.32	14.21	2469.77	201.95	5208.16	382.65	< LOD	11245.38	< LOD	21.48	< LOD	64.1	< LOD	12.93
9/14/2010 11:54	10np015	Sandy Silt (roadway) Dark brown to black, saturate, well graded silt through 1/2" gravel, gravel is mostly rounded graywacke, some granite gravel mixed in. Calcines - none noted. Minerals - none noted.	no	no	1	Grid		6.62	< LOD	65.84	76.27	50.44	< LOD	19.88	1535.96	179.54	3838.75	341.05	< LOD	10774.54	< LOD	19.43	< LOD	58.11	< LOD	11.58
9/14/2010 11:57	10np015				2	Grid		9.92	< LOD	106.98	< LOD	47.65	19.32	8.87	567.7	105.35	1693.32	233.6	< LOD	9122.02	< LOD	26.27	< LOD	79.82	< LOD	17.55
9/14/2010 12:00	10np015				3	Grid		7.76	< LOD	68.81	< LOD	67.22	26.73	12.56	1113.8	157.07	3405.33	319.91	< LOD	11690.75	< LOD	19.84	< LOD	59.47	< LOD	11.97
9/14/2010 12:14	10np016	Silty gravel (roadway) Black, saturated, compacted well graded, large "waste rock" along road edge w/ rusty weathering on graywackes, highly angula, sand through cobbles 6", argillites present, white mineral viens present in few graywacke. Calcines - none	no	yes	1	Grid		7.85	< LOD	68.28	107.08	57.64	20.71	12.3	784.56	160.51	6842.47	435.7	< LOD	12676.29	< LOD	18.23	< LOD	54.64	< LOD	11
9/14/2010 12:18	10np016				2	Grid		6.4	< LOD	72.43	144.96	74.38	< LOD	21.4	1429.06	204.62	10796.14	559.63	< LOD	14599.23	< LOD	20.92	< LOD	62.51	< LOD	12.66
9/14/2010 12:21	10np016				3	Grid		10.61	< LOD	101.6	88.28	39.15	25.84	9.05	< LOD	126.65	1543.39	232.07	< LOD	9411.73	< LOD	26.73	< LOD	80.51	< LOD	16.52
9/14/2010 13:24	10np017	Silt (RD creek delta/ Kusko alluvium) gray to brown, soft some what compacted, small rounded gravel (very little) laees than 1/2" very moist. Calcines - none. Minerals - none.	no	no	1	Grid		5.21	< LOD	59.33	105.91	58.66	< LOD	31.6	6843.39	331.17	6648.13	454.25	< LOD	16369.17	< LOD	17.59	< LOD	53.07	< LOD	10.7
9/14/2010 13:27	10np017				2	Grid		7.61	< LOD	65.23	< LOD	81.04	< LOD	27.68	5011.13	282.42	7412.15	461.56	< LOD	15039.62	< LOD	17.62	< LOD	53.44	< LOD	10.99
9/14/2010 13:32	10np017				3	Grid		7.01	< LOD	56.9	80.24	50.22	< LOD	26.15	4582.14	268.52	5766.58	410.94	< LOD	11962.1	< LOD	17.74	< LOD	54.07	< LOD	11.12
9/14/2010 14:05	10np018	Silt (Alluvium) gray to brown, soft, some what compacted, gravel or sand. Many roots, very moist. Calcines - none noted. Minerals- none.	no	no	1	Grid		6.44	< LOD	70.56	58.2	37.66	< LOD	18.33	1349.1	166.57	1281.11	227.47	< LOD	10110.03	< LOD	14.36	< LOD	42.36	< LOD	8.39
9/14/2010 14:07	10np018				2	Grid		6.43	< LOD	72.32	83.93	47.01	30.93	18.15	5060	268.44	5375.17	390.94	< LOD	11027.45	< LOD	19.68	< LOD	59.41	< LOD	12.12
9/14/2010 14:10	10np018				3	Grid		7.23	< LOD	60.37	< LOD	64.75	< LOD	28.91	6317.86	297.22	6378.07	418.66	< LOD	12874.91	< LOD	16.07	< LOD	48.29	< LOD	9.61
9/14/2010 14:38	10np019	Silt+gravel (Roadside) Dark brown, moist, somewhat compacted gravel from small, up to 2", mostly angular, little rounded, graywacke, appears to be a combinatio nof river alluvion and rock spread for raodway use. Roadway gravle is angular graywacke tthroug	no	no	1	Grid		5.26	< LOD	67.83	87.29	49.14	35.41	17.15	3445.02	237.44	3109.47	318.18	< LOD	11765.63	< LOD	17.8	< LOD	53.1	< LOD	10.82
9/14/2010 14:42	10np019				2	Grid		7.61	< LOD	68.57	< LOD	86.81	< LOD	24.99	3396.74	243.64	8353.03	482.76	< LOD	12510.95	< LOD	19.75	< LOD	59.64	< LOD	12.72
9/14/2010 14:48	10np019				3	Grid		8.83	< LOD	75.9	105.21	52.53	28.6	14.4	2191.95	195.84	5491.03	392.3	< LOD	11007.85	< LOD	21.19	< LOD	63.96	< LOD	13.41

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	As	As +/-	Average As	Sb	Sb +/-	Average Sb	Hg	Hg +/-	Average Hg	Ti	Ti +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-
15-Sep-2010	10IT33A	Med-dark brown moist sandy silt. ~70% silt and 30% fine to very fine sand. Poorly graded. No gravel or evidence of cooked ore.	no	not noted	1	Transect A	10:15:51	<LOD	12	17	<LOD	86	<LOD	<LOD	12	<LOD	1206	292	<LOD	91	187	31	13336	209	158	50	<LOD	41	<LOD	25	74	6
15-Sep-2010	10IT33A				2	Transect A	10:17:42	16	3		<LOD	66		<LOD	9		2761	256	<LOD	74	385	29	19715	211	241	45	<LOD	33	<LOD	20	74	5
15-Sep-2010	10IT33A				3	Transect A	10:19:14	17	3		<LOD	68		<LOD	10		1754	244	<LOD	74	366	29	18200	203	187	44	<LOD	32	21	7	72	5
15-Sep-2010	10IT32A	Med brown to gray silty gravel. ~60% angular to sub angular gravel, ~30% silt. 10% sand. Gravel is up to 3" and consists of sandstone and siltstone. No cooked or observed.	no	not noted	1	Transect A	11:14:26	22	3	32	<LOD	70	<LOD	<LOD	9	<LOD	2712	265	<LOD	78	393	30	16914	196	235	44	<LOD	34	25	7	75	5
15-Sep-2010	10IT32A				2	Transect A	11:16:11	25	4		<LOD	77		<LOD	10		2678	298	<LOD	89	380	33	18257	228	214	50	<LOD	38	29	8	84	6
15-Sep-2010	10IT32A				3	Transect A	11:18:28	48	4		<LOD	79		<LOD	11		3273	322	114	34	759	44	23376	288	369	59	<LOD	38	32	8	88	6
15-Sep-2010	10IT31A	~5" of organics and roots. Med brown, moist gravelly silt with sand. ~25% gravel up to 3" and angular to sub rounded. 40% silt, 25% fine sand and 10% pebbles, angular to sub angular. Gravel consists of mostly sand and siltstone but a chunk of dike mater	yes	not noted	1	Transect A	11:48:35	399	9	460	899	26	813	119	7	124	1437	222	<LOD	71	191	24	11235	143	168	36	<LOD	30	<LOD	20	50	5
15-Sep-2010	10IT31A				2	Transect A	11:50:31	510	10		900	25		147	7		1529	220	<LOD	71	394	28	14509	164	189	39	<LOD	30	<LOD	20	53	4
15-Sep-2010	10IT31A				3	Transect A	11:52:19	470	9		641	23		105	6		1601	211	<LOD	65	290	25	12968	146	212	36	<LOD	27	22	6	48	4
15-Sep-2010	10IT30A	~3" of organics and roots. Dark brown to medium grey gravelly silt. ~30% angular to sub angular gravel up to 4". 40% silt, 10% each of fine sand and coarse sand. No tailings or waste rock observed in sample.	no	not noted	1	Transect A	13:21:13	96	5	66	<LOD	67	<LOD	19	4	19	2945	263	<LOD	77	238	26	18410	203	320	45	<LOD	32	25	7	75	5
15-Sep-2010	10IT30A				2	Transect A	13:23:08	40	4		<LOD	70		<LOD	11		3224	321	107	31	499	35	24378	264	278	53	<LOD	37	32	7	106	6
15-Sep-2010	10IT30A				3	Transect A	13:24:52	63	4		<LOD	64		19	4		2844	256	<LOD	69	290	27	18005	194	327	44	<LOD	32	<LOD	20	62	5
15-Sep-2010	10IT29A	Med to Dark brown gravelly silt. Moist. 25% gravel, sub angular to angular and up to 3". 60% silt, 15% med-fine sand. No tailings or waste rock observed. Gravel consists of sandstone and siltstone. One piece of sandstone hand a rusty orange crust, but	No	not noted	1	Transect A	13:46:40	15	4	34	<LOD	64	<LOD	<LOD	10	11	698	188	<LOD	63	401	29	5794	97	99	28	<LOD	26	<LOD	19	38	4
15-Sep-2010	10IT29A				2	Transect A	13:47:59	57	3		<LOD	56		11	3		1326	183	<LOD	55	343	24	10193	116	138	30	<LOD	25	<LOD	17	46	4
15-Sep-2010	10IT29A				3	Transect A	13:49:29	30	3		<LOD	54		<LOD	8		<LOD	427	<LOD	53	606	27	6512	81	294	25	<LOD	23	<LOD	16	39	3
15-Sep-2010	10IT28A	Dark brown to grey med to very fine, moist sand with silt. No gravel. Appears to be flotation mill tailings.	Not Noted	not noted	1	Transect A	14:15:20	6602	77	6,238	2394	43	1,777	143	12	165	3444	391	136	42	932	54	51641	588	596	89	<LOD	53	51	10	111	8
15-Sep-2010	10IT28A				2	Transect A	14:17:20	6398	72		1428	34		199	12		3570	351	<LOD	111	1451	59	46704	512	579	81	<LOD	49	43	9	110	7
15-Sep-2010	10IT28A				3	Transect A	14:19:04	5713	74		1510	39		153	12		2867	390	<LOD	128	999	58	41631	531	604	88	<LOD	54	60	11	127	9
15-Sep-2010	10IT27A	Moist medium-dark gray sand gravel. Very well graded from 3" to 1/4" gravel. ~50% gravel, well rounded to angular. ~20% silt, ~20% coarse sand and 10% medium sand. Gravel consists of mostly sand and siltstone. Some had white mineralized veins. Some (	yes	yes	1	Transect A	14:47:38	3866	46	5,836	3472	50	5,488	647	18	1,527	3964	344	<LOD	99	572	41	28396	330	204	62	52	15	46	9	95	7
15-Sep-2010	10IT27A				2	Transect A	14:49:21	6407	79		5481	76		1975	39		3231	405	<LOD	124	405	43	34677	436	436	77	<LOD	54	87	12	158	10
15-Sep-2010	10IT27A				3	Transect A	14:50:42	7235	83		7510	91		1960	37		3999	394	<LOD	112	642	46	34291	409	409	73	<LOD	51	54	11	128	9
15-Sep-2010	10IT26A	Med-dark brown, moist silt gravel. ~50% gravel, angular to rounded and up to 8". ~30% silt, 20% coarse to fine sand. Gravel consists mostly of sandstone and some siltstone. 3 pieces of rounded river rock observed. 2 of which were very fine grained and b	no	not noted	1	Transect A	16:08:04	657	13	649	400	27	444	319	12	308	3463	318	<LOD	95	668	41	24757	292	404	59	<LOD	38	46	8	117	7
15-Sep-2010	10IT26A				2	Transect A	16:10:08	685	13		409	25		335	12		3199	305	<LOD	88	704	39	25175	277	368	55	<LOD	37	52	8	100	6
15-Sep-2010	10IT26A				3	Transect A	16:12:15	604	15		522	32		271	13		2972	356	<LOD	105	484	43	22355	319	292	65	<LOD	44	37	10	85	7
15-Sep-2010	10IT25A	Medium brown dry to slightly moist silty gravel. 65% gravel up to 1". 15% coarse to fine sand and 20% silt. Gravel is angular to sub angular and comprised mostly of sandstone and siltstone. One piece of burnt ore was observed in sample.	yes	not noted	1	Transect A	16:30:26	233	8	296	408	28	540	32	5	44	3707	356	138	37	983	51	37700	430	528	74	<LOD	47	67	9	127	7
15-Sep-2010	10IT25A				2	Transect A	16:31:48	344	10		976	33		48	6		5282	414	<LOD	109	1037	55	39169	472	601	80	<LOD	49	55	10	119	8
15-Sep-2010	10IT25A				3	Transect A	16:34:08	311	11		237	33		53	7		4199	435	<LOD	131	886	59	39543	538	367	89	<LOD	55	<LOD	30	133	9
15-Sep-2010	10IT24A	Medium-dark brown moist gravelly sand. ~30% gravel up to 2". ~40% coarse-med sand. 15% fine sand, 15% silt. Gravel is angular to sub-rounded and comprised of sand and siltstone, cooked ore, uncooked ore, dike material.	yes	not noted	1	Transect A	17:01:48	4458	59	5,523	5557	78	5,635	449	18	561	2655	362	<LOD	113	383	42	29925	392	276	72	<LOD	50	55	11	95	8
15-Sep-2010	10IT24A				2	Transect A	17:03:11	5653	81		5789	89		611	23		2670	420	<LOD	133	449	49	30986	451	464	83	<LOD	59	78	13	111	10
15-Sep-2010	10IT24A				3	Transect A	17:04:51	6457	86		5558	83		622	22		3682	439	<LOD	137	655	54	39969	534	438	88	<LOD	60	65	12	132	10
15-Sep-2010	10IT23A	Moist medium to dark brown gravelly sand. ~30% gravel up to 2". ~40% coarse to medium sand. ~15% each of fine sand and silt. Gravel is sub angular to sub rounded and comprised of a mix of material including sand and siltstones, dike material, and baked a	yes	yes	1	Transect A	18:11:42	8926	115	7,510	8286	113	7,644	1240	32	1,064	3304	444	<LOD	140	564	52	39901	534	614	90	<LOD	62	78	13	113	10
15-Sep-2010	10IT23A				2	Transect A	18:13:23	7830	101		7894	107		1068	29		3101	429	<LOD	131	439	48	37525	498	280	84	<LOD	59	51	12	106	9
15-Sep-2010	10IT23A				3	Transect A	18:15:22	5773	80		6751	98		884	27		3111	437	<LOD	133	392	47	32601	456	453	82	<LOD	57	67	13	106	9

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn	Sn +/-	I	I +/-	Ba	Ba +/-	Pb	Pb +/-	U	U +/-	Th
15-Sep-2010	10IT33A	Med-dark brown moist sandy silt. ~70% silt and 30% fine to very fine sand. Poorly graded. No gravel or evidence of cooked ore.	no	not noted	1	Transect A	10:15:51	<LOD	4	43	2	95	3	147	4	<LOD	9	<LOD	36	<LOD	47	<LOD	78	NA	NA	533	176	<LOD	10	NA	NA	NA
15-Sep-2010	10IT33A				2	Transect A	10:17:42	<LOD	3	51	2	118	3	225	3	<LOD	7	<LOD	27	<LOD	36	<LOD	60	NA	NA	<LOD	424	<LOD	7	NA	NA	NA
15-Sep-2010	10IT33A				3	Transect A	10:19:14	<LOD	3	57	2	141	3	165	3	<LOD	7	<LOD	28	<LOD	37	<LOD	61	NA	NA	591	144	<LOD	8	NA	NA	NA
15-Sep-2010	10IT32A	Med brown to gray silty gravel. ~60% angular to sub angular gravel, ~30% silt. 10% sand. Gravel is up to 3" and consists of sandstone and siltstone. No cooked or observed.	no	not noted	1	Transect A	11:14:26	<LOD	3	48	2	116	3	192	3	<LOD	7	<LOD	29	<LOD	38	<LOD	63	NA	NA	<LOD	439	11	3	NA	NA	NA
15-Sep-2010	10IT32A				2	Transect A	11:16:11	<LOD	3	49	2	120	3	189	4	<LOD	8	<LOD	31	<LOD	42	<LOD	70	NA	NA	600	168	<LOD	8	NA	NA	NA
15-Sep-2010	10IT32A				3	Transect A	11:18:28	<LOD	4	56	2	109	3	194	4	<LOD	8	<LOD	32	<LOD	43	<LOD	71	NA	NA	<LOD	532	<LOD	9	NA	NA	NA
15-Sep-2010	10IT31A	~5" of organics and roots. Med brown, moist gravelly silt with sand. ~25% gravel up to 3" and angular to sub rounded. 40% silt, 25% fine sand and 10% pebbles, angular to sub angular. Gravel consists of mostly sand and siltstone but a chunk of dike mater	yes	not noted	1	Transect A	11:48:35	<LOD	3	37	2	89	2	100	2	<LOD	7	<LOD	28	<LOD	37	<LOD	60	NA	NA	<LOD	384	<LOD	8	NA	NA	NA
15-Sep-2010	10IT31A				2	Transect A	11:50:31	<LOD	3	43	2	94	2	121	3	<LOD	6	<LOD	27	<LOD	35	<LOD	57	NA	NA	<LOD	384	11	3	NA	NA	NA
15-Sep-2010	10IT31A				3	Transect A	11:52:19	<LOD	3	37	1	87	2	107	2	<LOD	6	<LOD	26	<LOD	34	<LOD	55	NA	NA	<LOD	365	9	2	NA	NA	NA
15-Sep-2010	10IT30A	~3" of organics and roots. Dark brown to medium grey gravelly silt. ~30% angular to sub angular gravel up to 4". 40% silt, 10% each of fine sand and coarse sand. No tailings or waste rock observed in sample.	no	not noted	1	Transect A	13:21:13	<LOD	3	50	2	95	2	189	3	<LOD	7	<LOD	27	<LOD	36	<LOD	60	NA	NA	<LOD	433	9	3	NA	NA	NA
15-Sep-2010	10IT30A				2	Transect A	13:23:08	<LOD	3	56	2	127	3	157	3	<LOD	7	<LOD	28	<LOD	38	<LOD	63	NA	NA	1664	188	11	3	NA	NA	NA
15-Sep-2010	10IT30A				3	Transect A	13:24:52	<LOD	3	51	2	105	2	208	3	<LOD	7	<LOD	27	<LOD	35	<LOD	58	NA	NA	485	142	<LOD	7	NA	NA	NA
15-Sep-2010	10IT29A	Med to Dark brown gravelly silt. Moist. 25% gravel, sub angular to angular and up to 3". 60% silt, 15% med-fine sand. No tailings or waste rock observed. Gravel consists of sandstone and siltstone. One piece of sandstone hand a rusty orange crust, but	No	not noted	1	Transect A	13:46:40	<LOD	3	31	2	62	2	90	3	30	3	<LOD	29	<LOD	37	<LOD	59	NA	NA	<LOD	336	15	3	NA	NA	NA
15-Sep-2010	10IT29A				2	Transect A	13:47:59	<LOD	3	34	1	74	2	109	2	13	2	<LOD	24	<LOD	32	<LOD	51	NA	NA	<LOD	318	<LOD	6	NA	NA	NA
15-Sep-2010	10IT29A				3	Transect A	13:49:29	<LOD	2	34	1	71	2	109	2	11	2	<LOD	23	<LOD	30	<LOD	49	NA	NA	<LOD	269	6	2	NA	NA	NA
15-Sep-2010	10IT28A	Dark brown to grey med to very fine, moist sand with silt. No gravel. Appears to be flotation mill tailings.	Not Noted	not noted	1	Transect A	14:15:20	<LOD	8	73	3	347	6	99	3	<LOD	8	<LOD	33	<LOD	44	<LOD	74	NA	NA	1073	226	143	7	NA	NA	NA
15-Sep-2010	10IT28A				2	Transect A	14:17:20	<LOD	7	69	2	301	5	100	3	10	3	<LOD	32	<LOD	42	<LOD	70	NA	NA	<LOD	590	110	6	NA	NA	NA
15-Sep-2010	10IT28A				3	Transect A	14:19:04	<LOD	8	65	3	385	7	90	3	16	3	<LOD	36	<LOD	47	<LOD	78	NA	NA	797	226	134	7	NA	NA	NA
15-Sep-2010	10IT27A	Moist medium-dark gray sand gravel. Very well graded from 3" to 1/4" gravel. ~50% gravel, well rounded to angular. ~20% silt, ~20% coarse sand and 10% medium sand. Gravel consists of mostly sand and siltstone. Some had white mineralized veins. Some (	yes	yes	1	Transect A	14:47:38	<LOD	6	58	2	224	4	153	3	<LOD	8	<LOD	31	<LOD	42	<LOD	71	NA	NA	<LOD	552	18	4	NA	NA	NA
15-Sep-2010	10IT27A				2	Transect A	14:49:21	<LOD	9	78	3	256	5	106	3	<LOD	8	<LOD	35	<LOD	47	<LOD	81	NA	NA	1094	232	<LOD	13	NA	NA	NA
15-Sep-2010	10IT27A				3	Transect A	14:50:42	<LOD	9	62	2	337	6	122	3	<LOD	8	<LOD	33	<LOD	45	<LOD	77	NA	NA	684	216	23	4	NA	NA	NA
15-Sep-2010	10IT26A	Med-dark brown, moist silt gravel. ~50% gravel, angular to rounded and up to 8". ~30% silt, 20% coarse to fine sand. Gravel consists mostly of sandstone and some siltstone. 3 pieces of rounded river rock observed. 2 of which were very fine grained and b	no	not noted	1	Transect A	16:08:04	<LOD	4	69	2	95	3	117	3	8	3	<LOD	31	<LOD	41	<LOD	68	NA	NA	<LOD	518	34	4	NA	NA	NA
15-Sep-2010	10IT26A				2	Transect A	16:10:08	<LOD	4	72	2	106	3	148	3	<LOD	7	<LOD	29	<LOD	39	<LOD	64	NA	NA	834	172	23	3	NA	NA	NA
15-Sep-2010	10IT26A				3	Transect A	16:12:15	<LOD	5	47	2	87	3	106	3	13	3	<LOD	37	<LOD	47	<LOD	78	NA	NA	<LOD	586	14	4	NA	NA	NA
15-Sep-2010	10IT25A	Medium brown dry to slightly moist silty gravel. 65% gravel up to 1". 15% coarse to fine sand and 20% silt. Gravel is angular to sub angular and comprised mostly of sandstone and siltstone. One piece of burnt ore was observed in sample.	yes	not noted	1	Transect A	16:30:26	<LOD	4	74	2	103	3	139	3	<LOD	8	<LOD	32	<LOD	42	<LOD	71	NA	NA	804	199	11	3	NA	NA	NA
15-Sep-2010	10IT25A				2	Transect A	16:31:48	<LOD	5	63	2	107	3	193	4	<LOD	8	<LOD	34	<LOD	45	<LOD	75	NA	NA	815	221	14	4	NA	NA	NA
15-Sep-2010	10IT25A				3	Transect A	16:34:08	<LOD	5	67	3	108	4	185	4	<LOD	9	<LOD	39	<LOD	51	<LOD	85	NA	NA	721	239	<LOD	11	NA	NA	NA
15-Sep-2010	10IT24A	Medium-dark brown moist gravelly sand. ~30% gravel up to 2". ~40% coarse-med sand. 15% fine sand, 15% silt. Gravel is angular to sub-rounded and comprised of sand and siltstone, cooked ore, uncooked ore, dike material.	yes	not noted	1	Transect A	17:01:48	<LOD	7	51	2	161	4	84	3	<LOD	8	<LOD	36	<LOD	48	<LOD	83	NA	NA	<LOD	602	13	4	NA	NA	NA
15-Sep-2010	10IT24A				2	Transect A	17:03:11	<LOD	9	48	3	193	5	97	4	<LOD	10	<LOD	40	<LOD	54	<LOD	91	NA	NA	<LOD	714	<LOD	14	NA	NA	NA
15-Sep-2010	10IT24A				3	Transect A	17:04:51	<LOD	9	65	3	202	5	105	3	<LOD	9	<LOD	38	<LOD	50	<LOD	87	NA	NA	<LOD	734	20	5	NA	NA	NA
15-Sep-2010	10IT23A	Moist medium to dark brown gravelly sand. ~30% gravel up to 2". ~40% coarse to medium sand. ~15% each of fine sand and silt. Gravel is sub angular to sub rounded and comprised of a mix of material including sand and siltstones, dike material, and baked a	yes	yes	1	Transect A	18:11:42	<LOD	11	63	3	266	6	101	4	<LOD	9	<LOD	38	<LOD	52	<LOD	90	NA	NA	792	251	26	5	NA	NA	NA
15-Sep-2010	10IT23A				2	Transect A	18:13:23	<LOD	10	55	3	207	5	86	3	<LOD	9	<LOD	37	<LOD	50	<LOD	88	NA	NA	820	243	17	5	NA	NA	NA
15-Sep-2010	10IT23A				3	Transect A	18:15:22	<LOD	9	48	3	262	6	79	3	<LOD	9	<LOD	39	<LOD	53	<LOD	91	NA	NA	888	248	31	5	NA	NA	NA

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Th +/-	W	W +/-	V	V +/-	Sc	Sc +/-	Ca	Ca +/-	K	K +/-	S	S +/-	Cs	Cs +/-	Te	Te +/-	Pd	Pd +/-
15-Sep-2010	10IT33A	Med-dark brown moist sandy silt. ~70% silt and 30% fine to very fine sand. Poorly graded. No gravel or evidence of cooked ore.	no	not noted	1	Transect A	10:15:51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT33A				2	Transect A	10:17:42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT33A				3	Transect A	10:19:14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT32A	Med brown to gray silty gravel. ~60% angular to sub angular gravel, ~30% silt. 10% sand. Gravel is up to 3" and consists of sandstone and siltstone. No cooked or observed.	no	not noted	1	Transect A	11:14:26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT32A				2	Transect A	11:16:11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT32A				3	Transect A	11:18:28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT31A	~5" of organics and roots. Med brown, moist gravelly silt with sand. ~25% gravel up to 3" and angular to sub rounded. 40% silt, 25% fine sand and 10% pebbles, angular to sub angular. Gravel consists of mostly sand and siltstone but a chunk of dike mater	yes	not noted	1	Transect A	11:48:35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT31A				2	Transect A	11:50:31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT31A				3	Transect A	11:52:19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT30A	~3" of organics and roots. Dark brown to medium grey gravelly silt. ~30% angular to sub angular gravel up to 4". 40% silt, 10% each of fine sand and coarse sand. No tailings or waste rock observed in sample.	no	not noted	1	Transect A	13:21:13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT30A				2	Transect A	13:23:08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT30A				3	Transect A	13:24:52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT29A	Med to Dark brown gravelly silt. Moist. 25% gravel, sub angular to angular and up to 3". 60% silt, 15% med-fine sand. No tailings or waste rock observed. Gravel consists of sandstone and siltstone. One piece of sandstone hand a rusty orange crust, but	No	not noted	1	Transect A	13:46:40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT29A				2	Transect A	13:47:59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT29A				3	Transect A	13:49:29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT28A	Dark brown to grey med to very fine, moist sand with silt. No gravel. Appears to be flotation mill tailings.	Not Noted	not noted	1	Transect A	14:15:20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT28A				2	Transect A	14:17:20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT28A				3	Transect A	14:19:04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT27A	Moist medium-dark gray sand gravel. Very well graded from 3" to 1/4" gravel. ~50% gravel, well rounded to angular. ~20% silt, ~20% coarse sand and 10% medium sand. Gravel consists of mostly sand and siltstone. Some had white mineralized veins. Some (	yes	yes	1	Transect A	14:47:38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT27A				2	Transect A	14:49:21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT27A				3	Transect A	14:50:42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT26A	Med-dark brown, moist silt gravel. ~50% gravel, angular to rounded and up to 8". ~30% silt, 20% coarse to fine sand. Gravel consists mostly of sandstone and some siltstone. 3 pieces of rounded river rock observed. 2 of which were very fine grained and b	no	not noted	1	Transect A	16:08:04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT26A				2	Transect A	16:10:08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT26A				3	Transect A	16:12:15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT25A	Medium brown dry to slightly moist silty gravel. 65% gravel up to 1". 15% coarse to fine sand and 20% silt. Gravel is angular to sub angular and comprised mostly of sandstone and siltstone. One piece of burnt ore was observed in sample.	yes	not noted	1	Transect A	16:30:26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT25A				2	Transect A	16:31:48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT25A				3	Transect A	16:34:08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT24A	Medium-dark brown moist gravelly sand. ~30% gravel up to 2". ~40% coarse-med sand. 15% fine sand, 15% silt. Gravel is angular to sub-rounded and comprised of sand and siltstone, cooked ore, uncooked ore, dike material.	yes	not noted	1	Transect A	17:01:48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT24A				2	Transect A	17:03:11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT24A				3	Transect A	17:04:51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT23A	Moist medium to dark brown gravelly sand. ~30% gravel up to 2". ~40% coarse to medium sand. ~15% each of fine sand and silt. Gravel is sub angular to sub rounded and comprised of a mix of material including sand and siltstones, dike material, and baked a	yes	yes	1	Transect A	18:11:42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT23A				2	Transect A	18:13:23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT23A				3	Transect A	18:15:22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	As	As +/-	Average As	Sb	Sb +/-	Average Sb	Hg	Hg +/-	Average Hg	Ti	Ti +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-
9/14/2010 15:34	10nt01a	Silty sand (stream bench) Dark brown / gray mixture of fine sand and silt, moist, much detritus, no gravel, some what tight. Calcines: none noted. Minerals: none noted.	no	no	1	Transect A		18.27	6.24	16	< LOD	19.72	<LOD	< LOD	9.8	#DIV/0!	1597.46	136.57	77.15	23.91	513.51	88.39	14407.67	316.3	< LOD	136	< LOD	58	< LOD	29.26	151.49	19.78
9/14/2010 15:37	10nt01a				2	Transect A		11.9	5		< LOD	13.82		< LOD	8.46		201.88	78.57	111.11	24.37	269.63	59.67	4553.75	160.26	< LOD	70.72	< LOD	43.56	26.04	16.36	329.05	24.71
9/14/2010 15:39	10nt01a				3	Transect A		19.07	6.14		< LOD	20.67		< LOD	8.73		970.11	115.86	34.76	21.13	601.78	89.95	14895.25	308.9	< LOD	129.7	< LOD	51.77	< LOD	25.46	142.79	18.35
9/14/2010 16:23	10nt02a	Silt+sand (stream slope/ slluvium) gray, moist, soft, somewhat compacted, poorly graded silt and fine sand, many organics.	Not Noted	not noted	1	Transect A		8.2	4.9	14	< LOD	15.15	<LOD	< LOD	7.98	<LOD	1284.16	128.66	51.64	23.39	241.96	61.3	9677.32	235.9	< LOD	102	< LOD	46.34	< LOD	23.67	167.6	18.57
9/14/2010 16:26	10nt02a				2	Transect A		11.83	5.72		< LOD	18.94		< LOD	9.25		1460.32	136.19	102.33	25.93	291.65	72.61	14987.23	313.29	< LOD	132.53	< LOD	52.81	< LOD	27.55	214.53	22.21
9/14/2010 16:28	10nt02a				3	Transect A		23.36	6.17		< LOD	19.65		< LOD	9.37		1868.49	150.4	88.64	26.04	276.02	69.84	14535.72	305.7	< LOD	131.13	< LOD	49.63	< LOD	26.63	208.68	21.78
9/14/2010 18:07	10nt04a	Silt+gravel gray, moist, loose silt beneath vegetation. Little gravel, small shale gravel less that 1/2", little graywacke, both subangular 2" vegetation on top. Calcines: none noted. Mineral: none noted.	no	no	1	Transect A		599.64	22.97	695	709.64	19.74	971	46.21	9.47	46	1636.85	146.45	75.35	25.39	296.19	73.1	14386.24	310.13	< LOD	134.77	< LOD	56.4	48.24	20.52	190.89	21.67
9/14/2010 18:11	10nt04a				2	Transect A		650.27	24.79		1113.09	26.05		41.85	9.81		2578.57	169.56	57.82	24.6	280.56	76.66	17863.16	357.8	< LOD	151.6	< LOD	60.14	< LOD	30.09	126.04	19.09
9/14/2010 18:13	10nt04a				3	Transect A		833.89	28.14		1090.88	25.24		50.97	10.36		2238.75	164.53	66.36	24.48	261.47	76.06	18489.18	368.13	< LOD	155.09	< LOD	59.33	< LOD	28.87	113.35	18.56
9/15/2010 10:11	10nt05a	Silt+gravel (roadway) dark brown ot black, moist, very compacted and tight, gravel is intermixed rounded gravel and subangular mostly small 1/2" or less; mainly graywacke composition, well graded, possible course and grain size. Calcines: Minerals: none	Not Noted	no	1	Transect A		509.94	22.88	495	772.17	23.07	1,223	27.88	9.4	26	2168.41	159.88	64.53	23.09	412.82	89.39	16600.35	358.24	< LOD	150.9	< LOD	64.51	< LOD	32.73	140.85	20.64
9/15/2010 10:14	10nt05a				2	Transect A		469.07	26.3		1593.8	35.45		22.77	12.05		1213.64	107.71	37.15	17.54	283.78	93.29	14488.12	398.08	< LOD	173.29	< LOD	76.89	< LOD	42.51	101.46	22.32
9/15/2010 10:16	10nt05a				3	Transect A		507.48	22.12		1302.07	27.39		26.84	8.92		2405.47	164.88	69.98	24.77	370.75	82.81	17042.82	352.19	< LOD	151.68	< LOD	59.67	< LOD	30.43	143.4	20.1
9/15/2010 11:01	10nt06a	Silt+gravel (side of roadway) black, moist, silt and fine sand, well graded gravel up to 2", mostly subangular, mostly graywacke. Calcines: some small 1/4" pieces that readily crumble to sand size grains. Minerals: none noted.	yes	no	1	Transect A		521.49	22.93	463	492.47	21.73	547	54.13	10.42	35	2869.67	177.96	50.26	25.38	354.93	86.93	23040.02	417.61	< LOD	175.71	93.1	44.72	41.92	22.19	152.73	21.06
9/15/2010 11:04	10nt06a				1	Transect A		561.87	23.79		397.97	19.21		< LOD	11.78		1590.94	148.22	146.87	28.52	370.2	86.32	20267.32	391.87	268.77	115.32	96.18	46.42	53.23	23.23	348.34	30.04
9/15/2010 11:06	10nt06a				3	Transect A		306.01	17.46		750.08	20.88		15.93	8.19		886.76	103.73	73.05	21.51	381.45	80.84	9552.92	265.14	< LOD	112.53	< LOD	58.63	< LOD	30.53	230.86	24.43
9/15/2010 11:45	10nt07a	Silt+gravel (roadside) dark brown to black, moist, some fine sand, some small gravel (less than 1/2"), composed of graywacke, well graded, mixture of subangular to subrounded. Calcines: possible sand size grains to small 1/4" gravel. Minerals not noted.	yes	no	1	Transect A		917.41	29.45	924	1296.65	24.97	1,252	66.06	11.2	64	1623.98	145.86	71.6	23.91	306.9	77.25	16223.08	342.76	< LOD	148.9	< LOD	60.63	< LOD	30.15	140.72	20.15
9/15/2010 11:47	10nt07a				2	Transect A		1026.98	31.83		1545.7	30.37		73.42	11.69		2248.33	159.52	59.11	23.89	463.32	93.49	20577.04	396.86	< LOD	169.93	< LOD	65.1	39.44	22.21	166.15	22.1
9/15/2010 11:50	10nt07a				3	Transect A		826.19	31.3		912.35	26.24		52.83	12.51		1433.91	127.86	68.89	21.57	506.6	104.96	20636.93	432.73	< LOD	183.99	< LOD	70.89	< LOD	37.25	126.71	22.04
9/15/2010 12:54	10nt08a	Silt+gravel (side of road) gray, moist, tightly compacted, small gravel 1/2" __ __ mostly graywacke, subangular. Calcines: none noted. Minerals: none noted.	no	no	1	Transect A		643.84	24.21	655	951.74	22.05	1,013	54.21	10.02	62	1124.38	129.25	109.15	25.35	278.53	73.73	14531.83	317.79	< LOD	135.01	< LOD	59.01	38.95	20.62	263.51	25.34
9/15/2010 12:57	10nt08a				2	Transect A		734.03	26.42		1177.28	26.02		69.42	10.96		2354.29	161.26	95.64	25.68	346.07	81.42	18494.78	365.6	< LOD	154.27	< LOD	60.73	< LOD	30.57	200.32	23.04
9/15/2010 12:59	10nt08a				3	Transect A		587.51	22.77		911.27	21.23		60.99	10.15		873.92	113.32	133.88	25.76	428.89	80.95	11320.32	275.6	< LOD	120.78	< LOD	55.79	< LOD	28.28	295.7	26.13
9/15/2010 13:53	10nt09a	Gravel with some silt, brown to balck organic rich silt in between pieces of gravel (up to 4"), gravel not well graded, mostly graywacke, potential waste rock (on back of known waste rock pile, tighly compacted, thin layer detritus, angular). Calcines: no	no	no	1	Transect A		239.72	14.76	439	211.07	15.96	278	10.91	6.97	21	1726.92	137.52	42.47	21.89	262.88	69.43	13763.08	299.66	< LOD	127.15	< LOD	50.44	< LOD	27.66	88.19	15.57
9/15/2010 13:55	10nt09a				2	Transect A		915.77	32.6		534.19	20.26		30.17	10.32		1241.86	123.03	< LOD	31.84	2610.9	202.27	22557.62	452.85	< LOD	188.53	< LOD	72.26	60.85	26.97	145.4	22.64
9/15/2010 13:57	10nt09a				3	Transect A		161.35	13.78		90.08	17.8		< LOD	10.89		2941.08	173.96	84.98	25.27	495.75	97.16	20753.38	409.48	< LOD	171.59	< LOD	65.2	< LOD	32.35	127.51	20.05
9/15/2010 14:57	10nt10a	Silt+gravel (backside of waste rock pile?) black, moist, some fine sand, gravel well graded from small through 2", angular, some minor white mineralization veins (calcite?), gravel appears to be graywacke. Calcines: none noted. Minerals: one gravel piece	no	yes	1	Transect A		148.79	13.51	409	23.27	14.86	707	15.9	8.29	19	937.59	116.93	85.11	23.19	737.82	109.78	15057.43	348.95	< LOD	149.94	< LOD	66.77	< LOD	33.07	257.05	26.81
9/15/2010 15:00	10nt10a				2	Transect A		715.09	28.19		902.92	24.77		15.31	9.74		2332.5	167.33	123.3	25.86	472.72	99.1	22165.18	432.4	263.44	126.51	< LOD	71.37	85.43	27.32	254.52	27.82
9/15/2010 15:02	10nt10a				3	Transect A		361.75	20.1		1193.58	27.34		26.42	9.78		2007.54	172.39	< LOD	38.11	2701.67	197.08	34986.51	533.64	< LOD	227.38	< LOD	70.62	61.48	24.75	220.11	25.54
9/15/2010 15:41	10nt11a	Silt with some gravel (low spot within main processing area). Brown, silt, moist, low spot that likely held or holds water intermittently, 2" layer of silt on top of larger gravel (2") gravel is angular graywacke. Calcines: none noted. Minerals: none note	no	no	1	Transect A		328.12	20.48	265	797.48	22.55	524	17.92	8.18	18	1167.14	108.56	81.88	21.66	199.71	69.49	10698	288.91	< LOD	120.69	< LOD	60.17	< LOD	31.06	250.75	26.02
9/15/2010 15:43	10nt11a				2	Transect A		236.56	17.53		253.39	19.83		< LOD	12.91		670.56	85.86	57.39	17.36	246.99	78.31	8732.4	283.67	< LOD	122.02	< LOD	68.56	< LOD	33.46	146.99	22.54
9/15/2010 15:46	10nt11a				3	Transect A		231.48	14.68		520.44	18.74		< LOD	10.07		1983.32	148.43	70.27	24.74	168.66	59.31	11861.82	270.92	< LOD	117.85	< LOD	51.21	< LOD	25.72	164.68	19.33
9/15/2010 16:48	10nt12a	Gravel+silt (roadway) mostly gravel, graywacke angular, wellgraded gravel, little silt binding, tightly compacted, brown, little moisture, some fine sand. Calcines: none noted. Minerals: none noted.	no	no	1	Transect A		1443.21	51.41	1,216	6700.58	73.99	4,235	59.51	16.08	43	961.7	98.18	45.59	16.85	427.86	123.42	17273.37	494.88	< LOD	214.92	< LOD	99.38	< LOD	55.8	135.07	28.35
9/15/2010 16:51	10nt12a				2	Transect A		1304.58	47		4031.4	55.69		44.12	15.1		874.67	98.9	68.42	18.32	430.89	119.35	14658.76	440.32	< LOD	189.42	< LOD	98.43	< LOD	52.4	257.47	35.33
9/15/2010 16:54	10nt12a				3	Transect A		899.45	33.32		1974.02	35.81		25.01	11.3		2235.1	153.06	74.07	22.58	420.41	99.9	19181.53	426.81	< LOD	183.08	< LOD	76.18	< LOD	39.27	131.18	22.78

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn	Sn +/-	I	I +/-	Ba	Ba +/-	Pb	Pb +/-	U	U +/-	Th
9/14/2010 15:34	10nt01a	Silty sand (stream bench) Dark brown / gray mixture of fine sand and silt, moist, much detritus, no gravel, some what tight. Calcines: none noted. Minerals: none noted.	no	no	1	Transect A		< LOD	4.34	32.68	4.33	101.1	6.17	225.05	10.13	< LOD	6.65	< LOD	8.31	< LOD	11.02	< LOD	16.56	NA	NA	< LOD	68.02	< LOD	9.86	< LOD	10.97	< LOD
9/14/2010 15:37	10nt01a				2	Transect A		< LOD	3.99	17.78	3.12	74.23	4.78	93.58	6.55	10.66	3.91	< LOD	5.58	< LOD	7.77	< LOD	11.6	NA	NA	< LOD	48.07	< LOD	8.53	< LOD	8.68	6.86
9/14/2010 15:39	10nt01a				3	Transect A		< LOD	3.96	37.48	4.32	107.55	6.09	173.92	8.86	< LOD	6.13	< LOD	8.72	< LOD	11.74	< LOD	17.59	NA	NA	< LOD	70.99	< LOD	9.74	< LOD	10.28	8.52
9/14/2010 16:23	10nt02a	Silt+sand (stream slope/ slluvium) gray, moist, soft, somewhat compacted, poorly graded silt and fine sand, many organics.	Not Noted	not noted	1	Transect A		< LOD	4.09	19.05	3.3	72.59	4.83	165.42	8.09	< LOD	5.97	< LOD	6.43	< LOD	8.63	< LOD	12.73	NA	NA	< LOD	52.25	< LOD	8.84	9.68	6.22	< LOD
9/14/2010 16:26	10nt02a				2	Transect A		< LOD	4.29	49.91	4.89	122.39	6.54	247.73	10.3	< LOD	6.45	< LOD	7.56	< LOD	10.55	< LOD	16.17	NA	NA	69.55	44.43	< LOD	9.89	< LOD	11.04	< LOD
9/14/2010 16:28	10nt02a				3	Transect A		< LOD	4.04	38.95	4.49	123.2	6.51	370.67	12.03	< LOD	6.67	< LOD	7.96	< LOD	11.04	< LOD	16.82	NA	NA	206.88	46.56	< LOD	9.1	< LOD	11.19	< LOD
9/14/2010 18:07	10nt04a	Silt+gravel gray, moist, loose silt beneath vegetation. Little gravel, small shale gravel less that 1/2", little graywacke, both subangular 2" vegetation on top. Calcines: none noted. Mineral: none noted.	no	no	1	Transect A		< LOD	4.82	34.7	4.42	121.46	6.62	189.44	9.43	< LOD	6.48	< LOD	7.9	< LOD	10.77	< LOD	16.63	NA	NA	< LOD	66.9	10.54	6.96	< LOD	11.84	8.36
9/14/2010 18:11	10nt04a				2	Transect A		< LOD	5.04	40.87	4.87	132.42	7.14	230.43	10.56	< LOD	6.52	< LOD	9.77	< LOD	13.69	< LOD	20.95	NA	NA	534.75	55.59	12.9	7.43	< LOD	12.56	< LOD
9/14/2010 18:13	10nt04a				3	Transect A		< LOD	5.39	42.71	4.97	155.46	7.78	236.05	10.87	< LOD	6.74	< LOD	9.71	< LOD	13.1	< LOD	20.01	NA	NA	488.18	53.97	< LOD	10.27	< LOD	12.68	< LOD
9/15/2010 10:11	10nt05a	Silt+gravel (roadway) dark brown ot black, moist, very compacted and tight, gravel is intermixed rounded gravel and subangular mostly small 1/2" or less; mainly graywacke composition, well graded, possible course and grain size. Calcines: Minerals: none	Not Noted	no	1	Transect A		< LOD	5.48	40.99	5.05	132.74	7.41	234.97	11.03	< LOD	7.03	< LOD	9.46	< LOD	13.13	< LOD	20.41	NA	NA	484.19	54.64	< LOD	11.18	< LOD	12.91	< LOD
9/15/2010 10:14	10nt05a				2	Transect A		< LOD	6.99	40.56	6.02	116.67	8.31	196.33	12.24	< LOD	8.34	16.82	8.81	22.72	11.92	42.6	17.57	NA	NA	613.36	68.3	15.04	9.6	< LOD	15.54	13.29
9/15/2010 10:16	10nt05a				3	Transect A		< LOD	5.13	43.55	5.04	119.58	6.85	213.68	10.29	< LOD	6.78	< LOD	9.8	< LOD	13.52	28.27	14.15	NA	NA	483.29	55.19	< LOD	10.58	< LOD	12.81	< LOD
9/15/2010 11:01	10nt06a	Silt+gravel (side of roadway) black, moist, silt and fine sand, well graded gravel up to 2", mostly subangular, mostly graywacke. Calcines: some small 1/4" pieces that readily crumble to sand size grains. Minerals: none noted.	yes	no	1	Transect A		< LOD	5.44	45.34	5.25	90.48	6.21	265.59	11.32	< LOD	6.74	< LOD	10.19	< LOD	13.87	< LOD	21.75	NA	NA	980.57	61.01	< LOD	11.06	< LOD	13.51	< LOD
9/15/2010 11:04	10nt06a				1	Transect A		< LOD	5	60.49	5.8	208.28	9.03	178.48	10.2	< LOD	6.95	< LOD	8.9	< LOD	11.9	< LOD	19.13	NA	NA	846.85	55.55	13.44	7.62	< LOD	13.44	< LOD
9/15/2010 11:06	10nt06a				3	Transect A		< LOD	4.93	31.69	4.42	81.64	5.77	167.75	9.25	8.62	4.59	< LOD	8.19	< LOD	11.21	< LOD	17.33	NA	NA	< LOD	69.76	< LOD	10.28	< LOD	11.5	< LOD
9/15/2010 11:45	10nt07a	Silt+gravel (roadside) dark brown to black, moist, some fine sand, some small gravel (less than 1/2"), composed of graywacke, well graded, mixture of subangular to subrounded. Calcines: possible sand size grains to small 1/4" gravel. Minerals not noted.	yes	no	1	Transect A		< LOD	5.45	35.26	4.58	129.34	7.11	185.58	9.79	< LOD	6.67	< LOD	8.58	< LOD	11.82	< LOD	18.02	NA	NA	< LOD	70.34	17.39	7.95	< LOD	12.16	< LOD
9/15/2010 11:47	10nt07a				2	Transect A		< LOD	5.84	49.35	5.29	147.21	7.77	202.77	10.48	< LOD	6.77	< LOD	10.38	< LOD	14.72	< LOD	21.95	NA	NA	488.63	57.75	< LOD	10.73	< LOD	12.75	< LOD
9/15/2010 11:50	10nt07a				3	Transect A		< LOD	6.88	38.74	5.35	144.11	8.36	147.24	10.21	< LOD	7.44	< LOD	10.79	< LOD	14.85	< LOD	22.32	NA	NA	516.97	59.65	< LOD	12.87	< LOD	14	< LOD
9/15/2010 12:54	10nt08a	Silt+gravel (side of road) gray, moist, tightly compacted, small gravel 1/2" __ __ mostly graywacke, subangular. Calcines: none noted. Minerals: none noted.	no	no	1	Transect A		< LOD	5.02	36.7	4.48	107.97	6.41	142.12	8.64	< LOD	6.53	< LOD	7.91	< LOD	11.22	< LOD	17.31	NA	NA	< LOD	68.45	< LOD	10.45	< LOD	11.35	< LOD
9/15/2010 12:57	10nt08a				2	Transect A		< LOD	5.41	48.11	5.19	126.22	7.04	254.08	11	< LOD	6.85	< LOD	9.3	< LOD	13.31	< LOD	20.31	NA	NA	422.31	53.7	13.75	7.74	< LOD	13.07	10.3
9/15/2010 12:59	10nt08a				3	Transect A		< LOD	5.04	29.94	4.22	107.63	6.28	196.75	9.49	< LOD	6.51	< LOD	8.03	< LOD	10.91	< LOD	16.96	NA	NA	< LOD	66.86	12.03	7.1	< LOD	11.92	< LOD
9/15/2010 13:53	10nt09a	Gravel with some silt, brown to balck organic rich silt in between pieces of gravel (up to 4"), gravel not well graded, mostly graywacke, potential waste rock (on back of known waste rock pile, tighly compacted, thin layer detritus, angular). Calcines: no	no	no	1	Transect A		< LOD	4.55	40.93	4.57	106.16	6.12	198.48	9.4	< LOD	6.45	< LOD	8.36	< LOD	11.19	< LOD	17.01	NA	NA	72.13	46.12	< LOD	9.73	< LOD	11.13	< LOD
9/15/2010 13:55	10nt09a				2	Transect A		< LOD	6.38	32.9	4.93	100.7	7.06	147.17	9.96	9.65	5.12	< LOD	8.97	< LOD	11.97	< LOD	18.28	NA	NA	< LOD	74.31	< LOD	11.27	< LOD	12.6	< LOD
9/15/2010 13:57	10nt09a				3	Transect A		< LOD	4.68	38.33	4.96	50	4.92	172.64	9.72	< LOD	7	< LOD	10.31	< LOD	14.27	30.58	14.89	NA	NA	944.78	61.98	< LOD	10.51	< LOD	11.98	< LOD
9/15/2010 14:57	10nt10a	Silt+gravel (backside of waste rock pile?) black, moist, some fine sand, gravel well graded from small through 2", angular, some minor white mineralization veins (calcite?), gravel appears to be graywacke. Calcines: none noted. Minerals: one gravel piece	no	yes	1	Transect A		< LOD	5.36	39.53	5.04	76.61	5.9	116.78	8.56	< LOD	7.09	< LOD	8.19	< LOD	11.53	< LOD	17.81	NA	NA	322.6	50.57	< LOD	11.65	< LOD	12.49	9.4
9/15/2010 15:00	10nt10a				2	Transect A		< LOD	6.26	80.27	6.91	92.58	6.58	154.63	9.78	< LOD	7.31	< LOD	9.26	< LOD	13.18	< LOD	20.67	NA	NA	668.92	57.53	14.14	8.35	< LOD	15.27	< LOD
9/15/2010 15:02	10nt10a				3	Transect A		< LOD	5.95	59	5.95	143.92	7.88	161.24	9.93	< LOD	7.14	< LOD	9.76	< LOD	13.82	< LOD	21.27	NA	NA	836.7	59.28	13.5	8.11	< LOD	13.96	< LOD
9/15/2010 15:41	10nt11a	Silt with some gravel (low spot within main processing area). Brown, silt, moist, low spot that likely held or holds water intermittently, 2" layer of silt on top of larger gravel (2") gravel is angular graywacke. Calcines: none noted. Minerals: none note	no	no	1	Transect A		< LOD	5.19	33.29	4.69	96.11	6.41	154.91	9.35	< LOD	6.89	< LOD	9.06	< LOD	12.45	< LOD	19.25	NA	NA	116.06	50.38	84.69	13.04	< LOD	12.33	< LOD
9/15/2010 15:43	10nt11a				2	Transect A		< LOD	6.16	21.42	4.37	82.29	6.47	131.08	9.51	< LOD	7.47	< LOD	9.97	< LOD	13.45	< LOD	19.95	NA	NA	< LOD	81.02	< LOD	12.46	< LOD	12.38	< LOD
9/15/2010 15:46	10nt11a				3	Transect A		< LOD	4.28	30.36	3.97	96.85	5.72	194.12	9.02	< LOD	6.04	< LOD	8.25	< LOD	11.08	< LOD	17.25	NA	NA	92.48	46.38	28.58	8.03	< LOD	10.21	< LOD
9/15/2010 16:48	10nt12a	Gravel+silt (roadway) mostly gravel, graywacke angular, wellgraded gravel, little silt binding, tightly compacted, brown, little moisture, some fine sand. Calcines: none noted. Minerals: none noted.	no	no	1	Transect A		< LOD	9.32	39.96	6.81	177.99	11.53	174.95	13.78	< LOD	9.81	< LOD	15.14	32.01	14.98	129.55	22.96	NA	NA	385.43	77	25.72	12.5	< LOD	18.11	< LOD
9/15/2010 16:51	10nt12a				2	Transect A		< LOD	8.48	34.64	6.36	146.37	10.15	160.4	12.73	< LOD	9.12	< LOD	13.34	< LOD	19.83	49.98	19.76	NA	NA	283.56	71.54	< LOD	15.49	< LOD	17.78	< LOD
9/15/2010 16:54	10nt12a				3	Transect A		< LOD	6.48	45.18	5.77	185.75	9.6	156.04	10.85	< LOD	7.61	< LOD	11.77	< LOD	15.69	38.98	16.41	NA	NA	857.15	65.45	< LOD	12.81	< LOD	14.28	< LOD

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Th +/-	W	W +/-	V	V +/-	Sc	Sc +/-	Ca	Ca +/-	K	K +/-	S	S +/-	Cs	Cs +/-	Te	Te +/-	Pd	Pd +/-
9/14/2010 15:34	10nt01a	Silty sand (stream bench) Dark brown / gray mixture of fine sand and silt, moist, much detritus, no gravel, some what tight. Calcines: none noted. Minerals: none noted.	no	no	1	Transect A		7.42	< LOD	66.52	106.42	50.49	26.46	17.41	4283.32	255.62	4958.79	382.79	< LOD	14484.97	< LOD	17.95	< LOD	54.08	< LOD	11.3
9/14/2010 15:37	10nt01a				2	Transect A		4.45	< LOD	61.11	< LOD	49.13	< LOD	28.27	5871.73	287.57	2106.94	268.56	< LOD	11141.91	< LOD	13.17	< LOD	38.56	< LOD	7.66
9/14/2010 15:39	10nt01a				3	Transect A		5.13	< LOD	57.03	81.53	44.04	36.23	20.72	7429.78	314.95	5082.48	381.29	< LOD	13261.39	< LOD	18.74	< LOD	56.88	< LOD	11.57
9/14/2010 16:23	10nt02a	Silt+sand (stream slope/ slluvium) gray, moist, soft, somewhat compacted, poorly graded silt and fine sand, many organics.	Not Noted	not noted	1	Transect A		6.35	< LOD	54.73	< LOD	71.36	< LOD	21.72	2482.54	208.53	2944.99	306.39	< LOD	9914.26	< LOD	14.1	< LOD	41.86	< LOD	8.83
9/14/2010 16:26	10nt02a				2	Transect A		7.5	< LOD	61.22	< LOD	74	< LOD	22.67	2522.48	213.57	3355.97	327.78	< LOD	11441.34	< LOD	17.33	< LOD	52.14	< LOD	10.67
9/14/2010 16:28	10nt02a				3	Transect A		7.38	< LOD	61.29	97.71	54.84	< LOD	24.48	3301.71	237.98	4218.85	361.56	< LOD	11972.42	< LOD	17.93	< LOD	54.04	< LOD	10.54
9/14/2010 18:07	10nt04a	Silt+gravel gray, moist, loose silt beneath vegetation. Little gravel, small shale gravel less that 1/2", little graywacke, both subangular 2" vegetation on top. Calcines: none noted. Mineral: none noted.	no	no	1	Transect A		5.27	< LOD	66.76	87.25	53.64	43.08	18.03	3637.73	247.32	4811.54	381.83	< LOD	11886.68	< LOD	17.76	< LOD	52.35	< LOD	10.25
9/14/2010 18:11	10nt04a				2	Transect A		8.16	< LOD	72.01	< LOD	87.18	< LOD	26.02	4129.44	262.51	7716.02	468.69	< LOD	13586.96	< LOD	21.54	< LOD	64.25	< LOD	12.77
9/14/2010 18:13	10nt04a				3	Transect A		8.22	< LOD	71.31	< LOD	87.24	26.68	17.5	3987.6	255.24	7098.43	449.53	< LOD	13650.88	< LOD	20.71	< LOD	61.63	< LOD	12.44
9/15/2010 10:11	10nt05a	Silt+gravel (roadway) dark brown ot black, moist, very compacted and tight, gravel is intermixed rounded gravel and subangular mostly small 1/2" or less; mainly graywacke composition, well graded, possible course and grain size. Calcines: Minerals: none	Not Noted	no	1	Transect A		7.75	< LOD	76.23	< LOD	82.38	30.46	16.19	3206.25	228.44	6245.33	417.69	< LOD	12458.85	< LOD	21.06	< LOD	62.9	< LOD	12.71
9/15/2010 10:14	10nt05a				2	Transect A		7.46	< LOD	106.22	61.36	38.62	40.03	12.63	1542.2	155.74	3547.95	313.39	< LOD	10800.89	49.7	18	< LOD	80.5	< LOD	17.86
9/15/2010 10:16	10nt05a				3	Transect A		8.27	< LOD	71.39	< LOD	86.66	< LOD	24.52	3268.75	238	6814.99	441.71	< LOD	15342.47	< LOD	21.57	< LOD	64.37	< LOD	13.22
9/15/2010 11:01	10nt06a	Silt+gravel (side of roadway) black, moist, silt and fine sand, well graded gravel up to 2", mostly subangular, mostly graywacke. Calcines: some small 1/4" pieces that readily crumble to sand size grains. Minerals: none noted.	yes	no	1	Transect A		7.57	< LOD	70.82	125.28	63.2	< LOD	24.36	2975.45	237.13	7645.74	470.98	< LOD	13104.37	64.45	15.06	< LOD	67.97	< LOD	13.75
9/15/2010 11:04	10nt06a				1	Transect A		8.37	< LOD	80.11	119.71	55.89	< LOD	18.6	782.61	157.26	3307.93	330.27	< LOD	12056.09	< LOD	20.2	< LOD	60.7	< LOD	11.82
9/15/2010 11:06	10nt06a				3	Transect A		7.48	< LOD	72.47	< LOD	57.87	< LOD	18.62	1942.09	177.5	1453.92	232.34	< LOD	9304.73	< LOD	18.52	< LOD	54.69	< LOD	11.32
9/15/2010 11:45	10nt07a	Silt+gravel (roadside) dark brown to black, moist, some fine sand, some small gravel (less than 1/2"), composed of graywacke, well graded, mixture of subangular to subrounded. Calcines: possible sand size grains to small 1/4" gravel. Minerals not noted.	yes	no	1	Transect A		8.13	< LOD	73.44	93.47	53.75	< LOD	25.37	4128.29	251.24	5123.38	385.03	< LOD	11759.79	< LOD	19	< LOD	55.46	< LOD	11.2
9/15/2010 11:47	10nt07a				2	Transect A		8.31	< LOD	73.16	< LOD	84.68	34.09	16.52	3029.13	229.86	6947.88	442.35	< LOD	13143.23	< LOD	22.66	< LOD	66.68	< LOD	14.06
9/15/2010 11:50	10nt07a				3	Transect A		9.33	< LOD	93.28	< LOD	68.71	< LOD	20.23	2399.06	197.69	5336.07	383.61	< LOD	11947.19	< LOD	23.2	< LOD	69.08	< LOD	13.76
9/15/2010 12:54	10nt08a	Silt+gravel (side of road) gray, moist, tightly compacted, small gravel 1/2" __ __ mostly graywacke, subangular. Calcines: none noted. Minerals: none noted.	no	no	1	Transect A		7.82	< LOD	68.39	89.34	49.2	25.17	13.22	1291.89	167.75	2827.02	302.4	< LOD	11205.92	< LOD	18.31	< LOD	53.63	< LOD	10.7
9/15/2010 12:57	10nt08a				2	Transect A		5.81	< LOD	68.35	< LOD	84.46	30.77	16.62	3063.62	231.71	5732.28	411.03	< LOD	11239.99	< LOD	20.96	< LOD	62.54	< LOD	12.02
9/15/2010 12:59	10nt08a				3	Transect A		6.95	< LOD	66.75	84.21	44.04	24.6	13.68	1775.1	180.61	1360.29	232.73	< LOD	10816.47	< LOD	17.86	< LOD	52.61	< LOD	10.68
9/15/2010 13:53	10nt09a	Gravel with some silt, brown to balck organic rich silt in between pieces of gravel (up to 4"), gravel not well graded, mostly graywacke, potential waste rock (on back of known waste rock pile, tighly compacted, thin layer detritus, angular). Calcines: no	no	no	1	Transect A		7.41	< LOD	61.29	< LOD	73.65	< LOD	24.32	4173.98	251.51	5793.86	401.88	< LOD	14310	< LOD	18.13	< LOD	54.61	< LOD	10.67
9/15/2010 13:55	10nt09a				2	Transect A		8.92	< LOD	82.53	92.84	45.91	< LOD	36.16	10796.7	379.46	6607.1	437.14	< LOD	14806.4	< LOD	19.55	< LOD	57.9	< LOD	12.15
9/15/2010 13:57	10nt09a				3	Transect A		8.43	< LOD	76.31	< LOD	89.53	< LOD	22.35	2420.12	214.77	6840.67	444.44	< LOD	13918.06	87.24	15.37	108.64	47.11	< LOD	15.09
9/15/2010 14:57	10nt10a	Silt+gravel (backside of waste rock pile?) black, moist, some fine sand, gravel well graded from small through 2", angular, some minor white mineralization veins (calcite?), gravel appears to be graywacke. Calcines: none noted. Minerals: one gravel piece	no	yes	1	Transect A		5.9	< LOD	74.31	78.7	44.63	32.12	16.14	3417.88	225.42	2563.94	290.37	< LOD	10824.88	< LOD	19.16	< LOD	57.31	< LOD	11.17
9/15/2010 15:00	10nt10a				2	Transect A		9.51	< LOD	88.74	140.18	61.14	30	14.63	2012.34	198.12	7033.9	442.85	< LOD	13428.96	< LOD	21.66	< LOD	63.93	< LOD	12.63
9/15/2010 15:02	10nt10a				3	Transect A		9.01	< LOD	82.21	99.18	63.11	< LOD	29.31	5264.77	292.32	6680.68	450.98	< LOD	14529.63	< LOD	22.17	< LOD	65.83	< LOD	13.5
9/15/2010 15:41	10nt11a	Silt with some gravel (low spot within main processing area). Brown, silt, moist, low spot that likely held or holds water intermittently, 2" layer of silt on top of larger gravel (2") gravel is angular graywacke. Calcines: none noted. Minerals: none note	no	no	1	Transect A		8.88	< LOD	70.17	< LOD	58.94	< LOD	17.84	1562.33	167.64	3070.57	303.17	< LOD	10209.85	< LOD	20.05	< LOD	59.87	< LOD	11.86
9/15/2010 15:43	10nt11a				2	Transect A		8.99	< LOD	80.32	< LOD	46.71	< LOD	14.04	1134.12	135.47	2634.52	275.62	< LOD	8216.4	< LOD	21.75	< LOD	64.79	< LOD	13.24
9/15/2010 15:46	10nt11a				3	Transect A		6.67	< LOD	60.78	< LOD	78.09	< LOD	23.57	2697.46	222.85	5277.86	395.79	< LOD	13397.09	< LOD	18.35	< LOD	54.85	< LOD	10.83
9/15/2010 16:48	10nt12a	Gravel+silt (roadway) mostly gravel, graywacke angular, wellgraded gravel, little silt binding, tightly compacted, brown, little moisture, some fine sand. Calcines: none noted. Minerals: none noted.	no	no	1	Transect A		11.75	< LOD	118.66	< LOD	52.55	49.27	13.48	2032.77	165.52	2689.03	280.28	< LOD	9971.24	< LOD	34.13	< LOD	93.82	< LOD	20.59
9/15/2010 16:51	10nt12a				2	Transect A		10.95	< LOD	123.39	< LOD	52.77	33.57	12.87	2103.85	171.03	2980.65	293.22	< LOD	11293.39	< LOD	30.27	< LOD	86.44	< LOD	18.77
9/15/2010 16:54	10nt12a				3	Transect A		9.71	< LOD	97.07	< LOD	79.44	74.46	18.75	3916.17	241.52	6030.09	409.27	< LOD	13952.28	27.34	16.76	< LOD	74.25	< LOD	15.31

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	As	As +/-	Average As	Sb	Sb +/-	Average Sb	Hg	Hg +/-	Average Hg	Ti	Ti +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-
9/15/2010 17:34	10nt13a	Silt+gravel - brown to black, moist, gravel is well graded from 1/4" through 1.5", mostly graywacke, some small shale pieces, tightly compacted, mostly subangular. Minerals: none noted. Calcines: 1/4" in size, red and black mottled, friable.	yes	no	1	Transect A		177.19	13.86	597	26.67	15.4	77	< LOD	11.02	<LOD	2294	159.25	< LOD	34.9	396.13	86.33	20889.1	390.02	173.49	112.54	< LOD	59.99	< LOD	31.01	145.33	20.15
9/15/2010 17:37	10nt13a				2	Transect A		1505.31	46.07		117.14	20.88		< LOD	15.36		1631.01	122.17	62.17	19.85	431.68	109.67	20250.26	471.8	< LOD	198.75	< LOD	75.7	< LOD	42.89	160.84	26.14
9/15/2010 17:39	10nt13a				3	Transect A		108.56	15.39		87.42	23		< LOD	17.51		826.97	90.71	22.9	15.05	402.46	112.63	12863.78	414.93	< LOD	174.57	< LOD	92.26	< LOD	48.14	117.5	25.48
9/15/2010 18:25	10nt03a	Silt+gravel (side of road) brown to black, moist, somewhat tight, some fine sand, well graded, gravel to 3/4", graywacke composes all grain sizes, some shale flakes, mostly subangular, little rounded. Calcines: none noted. Minerals: none noted.	no	no	1	Transect A		1182.17	36.79	1,191	3539.67	43.41	3,274	65.51	12.62	68	1504.61	127.6	80.15	21.96	494.87	102.21	17053.14	390.49	< LOD	166.15	< LOD	68.91	44.22	25.41	160.2	23.69
9/15/2010 18:28	10nt03a				2	Transect A		1256.28	34.62		3276.57	39.28		98.62	12.69		2499.54	179.92	69.51	26.34	431.55	89.85	20532.66	389.53	< LOD	161.71	< LOD	61.26	46.7	21.71	167	21.94
9/15/2010 18:31	10nt03a				3	Transect A		1134.57	37.68		3004.36	42.54		40.99	11.04		1448.64	123.11	72.52	20.72	441.84	102.4	17244.03	409.96	< LOD	178.17	< LOD	73.68	60.33	28.29	154.87	24.04
15-Sep-2010	10IT33B	~4" of organics and roots. Dark brown, moist sandy silt, trace gravel. ~60% silt, 35% fine sand and 5% gravel up to 1", angular to sub angular consisting of siltstone and sandstone. No evidence of ore or burnt ore.	no	not noted	1	Transect B	10:27:19	30	4	26	72	24	71	19	5	18	811	226	<LOD	81	80	23	10665	160	137	41	<LOD	34	<LOD	21	57	5
15-Sep-2010	10IT33B				2	Transect B	10:31:02	32	4		70	22		17	4		<LOD	579	<LOD	72	<LOD	60	8460	128	104	34	<LOD	29	<LOD	20	27	4
15-Sep-2010	10IT33B				3	Transect B	10:33:56	16	4		<LOD	72		<LOD	12		787	232	<LOD	75	109	25	9895	159	<LOD	118	<LOD	35	<LOD	25	59	6
15-Sep-2010	10IT32B	~8" of tundra. Med brown weathered bedrock of moist sandstone and shale. ~60% gravel up to 4". ~20% angular pebbles. ~20% silt. Gravel consists of angular to sub angular sandstone and siltstone. Some has orangey staining but not likely cooked ore. No b	no	no	1	Transect B	10:52:16	25	3	34	<LOD	72	<LOD	<LOD	10	<LOD	2775	274	<LOD	81	350	30	17639	209	294	47	<LOD	35	29	7	64	5
15-Sep-2010	10IT32B				2	Transect B	10:54:00	32	4		<LOD	69		<LOD	10		3326	279	<LOD	82	409	32	22309	243	386	51	<LOD	35	26	7	81	5
15-Sep-2010	10IT32B				3	Transect B	10:55:53	45	4		<LOD	70		<LOD	11		3053	288	<LOD	86	1200	48	28473	303	533	59	<LOD	39	38	8	76	5
15-Sep-2010	10IT31B	Dark brown organic rich silt with gravel. ~80% silt and 10% gravel up to 2" and sub angular, all sandstone and siltstone. No tailings or waste rock.	no	not noted	1	Transect B	11:34:36	56	3	35	<LOD	52	<LOD	<LOD	8	<LOD	692	155	<LOD	49	101	16	5912	75	126	22	<LOD	21	<LOD	14	17	3
15-Sep-2010	10IT31B				2	Transect B	11:36:12	25	2		<LOD	49		<LOD	7		<LOD	369	<LOD	45	<LOD	37	3432	53	55	17	<LOD	19	<LOD	14	13	2
15-Sep-2010	10IT31B				3	Transect B	11:37:48	25	2		<LOD	48		<LOD	7		369	119	<LOD	45	<LOD	36	3634	52	75	17	<LOD	19	<LOD	14	18	3
15-Sep-2010	10IT30B	Med to dark brown gravelly silt. ~30% angular to sub angular gravel up to 4", ~40% silt, 10% fine sand and 10% coarse sand. Gravel is all sand and siltstone. No ore (baked or otherwise).	no	not noted	1	Transect B	12:53:06	12	3	54	<LOD	69	<LOD	<LOD	10	<LOD	3681	286	<LOD	79	355	30	17245	201	261	45	<LOD	32	<LOD	20	55	5
15-Sep-2010	10IT30B				2	Transect B	12:55:23	122	6		<LOD	75		<LOD	12		4014	346	<LOD	102	743	45	44177	470	648	76	<LOD	45	49	8	89	6
15-Sep-2010	10IT30B				3	Transect B	12:56:58	29	4		<LOD	81		<LOD	12		5084	393	<LOD	113	1029	53	42538	488	733	81	<LOD	47	42	9	101	7
15-Sep-2010	10IT29B	Med to dark brown gravelly silt. ~30% angular to sub angular gravel up to 5". ~40% silt and 20% coarse to fine sand. Gravel is mostly sand or siltstone. One piece was dike material. No tailings or waste rock observed.	no	not noted	1	Transect B	13:34:18	29	4	33	<LOD	68	<LOD	<LOD	10	<LOD	3498	298	<LOD	87	526	35	30158	310	481	58	<LOD	38	21	7	66	5
15-Sep-2010	10IT29B				2	Transect B	13:35:51	32	4		<LOD	74		<LOD	11		3577	303	<LOD	86	299	32	24326	284	389	58	<LOD	36	31	8	73	6
15-Sep-2010	10IT29B				3	Transect B	13:37:24	38	4		<LOD	65		<LOD	9		2654	248	98	27	342	28	19045	203	406	45	<LOD	32	28	7	65	5
15-Sep-2010	10IT28B	Med brown gravelly silt. Moist. 30% gravel, up to 2", angular to sub-rounded. 60% silt and 10% med to fine sands. Gravel consists of sand and siltstone. No tailings or waste rock noted.	no	not noted	1	Transect B	13:58:09	25	3	17	<LOD	67	<LOD	13	4	13	3099	277	<LOD	75	340	29	19608	214	272	46	<LOD	34	21	7	74	5
15-Sep-2010	10IT28B				2	Transect B	13:59:31	12	3		<LOD	68		<LOD	10		2866	264	<LOD	80	265	27	20284	218	319	47	<LOD	31	22	7	58	5
15-Sep-2010	10IT28B				3	Transect B	14:01:13	13	4		<LOD	85		<LOD	14		3478	342	<LOD	93	334	36	17752	253	199	55	<LOD	41	<LOD	26	79	6
15-Sep-2010	10IT27B	Moist , med to dark brown gravelly silt. ~30% gravel up to 2", angular to sub rounded. 50% silt and 20% med-fine sand. Gravel consists of sandstone and siltstone. No tailings or waste rock observed.	no	not noted	1	Transect B	14:27:43	138	6	218	302	26	276	22	5	64	2917	317	<LOD	94	3225	80	22965	272	327	56	<LOD	40	<LOD	23	114	7
15-Sep-2010	10IT27B				2	Transect B	14:30:00	231	8		190	27		39	6		4847	353	<LOD	98	719	43	27937	328	338	62	<LOD	41	38	8	88	6
15-Sep-2010	10IT27B				3	Transect B	14:31:33	286	9		335	27		131	8		3464	343	<LOD	100	499	40	38320	428	467	73	<LOD	45	30	8	98	6
15-Sep-2010	10IT26B	~4" of roots & organics. Med brown to gray moist gravelly silt. ~20% angular to sub-angular gravel up to 3", ~50% silt, 30% med-fine sand. Gravel consists of sandstone & siltstone. No tailings or waste rock observed.	no	not noted	1	Transect B	15:44:28	404	10	417	450	27	442	89	7	87	3435	326	<LOD	91	803	43	26209	300	471	60	<LOD	39	62	9	116	7
15-Sep-2010	10IT26B				2	Transect B	15:46:53	488	11		469	28		104	8		4587	359	<LOD	103	841	47	33207	382	646	70	<LOD	44	45	9	115	7
15-Sep-2010	10IT26B				3	Transect B	15:48:47	358	9		406	27		67	6		2768	307	<LOD	93	722	41	23502	274	389	56	<LOD	40	35	8	106	6
15-Sep-2010	10IT25B	Medium brown moist silty gravel. ~75% angular to rounded gravel up to 6". ~25% well compacted silt. Gravel comprised of sandstone and siltstone. 2 small and round river gravels found in sample. One large sandstone piece had a petroleum smell when buste	Not Noted	not noted	1	Transect B	16:46:18	479	11	545	580	28	652	80	7	108	4063	337	111	33	679	41	29860	334	444	63	<LOD	43	58	9	99	6
15-Sep-2010	10IT25B				2	Transect B	16:47:35	412	11		519	29		144	9		5143	377	138	37	673	45	33737	396	474	71	<LOD	46	34	9	114	7
15-Sep-2010	10IT25B				3	Transect B	16:48:52	744	14		858	29		101	8		4024	346	131	34	762	43	28583	324	305	61	<LOD	42	54	9	100	6

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn	Sn +/-	I	I +/-	Ba	Ba +/-	Pb	Pb +/-	U	U +/-	Th
9/15/2010 17:34	10nt13a	Silt+gravel - brown to black, moist, gravel is well graded from 1/4" through 1.5", mostly graywacke, some small shale pieces, tightly compacted, mostly subangular. Minerals: none noted. Calcines: 1/4" in size, red and black mottled, friable.	yes	no	1	Transect A		< LOD	4.29	46.91	5.13	107.87	6.53	203.94	10.07	< LOD	6.57	< LOD	9.27	< LOD	12.73	< LOD	19.27	NA	NA	472.27	53.09	13.76	7.4	< LOD	12.29	< LOD
9/15/2010 17:37	10nt13a				2	Transect A		< LOD	7.78	67.94	7.36	117.9	8.36	159	11.47	< LOD	8.49	< LOD	12.41	< LOD	16.95	< LOD	25.51	NA	NA	1069.53	72.39	< LOD	14.49	< LOD	16.76	12.43
9/15/2010 17:39	10nt13a				3	Transect A		< LOD	8.54	42.85	6.68	95.38	8.37	193	13.33	< LOD	9.3	< LOD	14.12	< LOD	19.58	< LOD	28.61	NA	NA	818.72	79.02	< LOD	15.46	< LOD	16.25	17.48
9/15/2010 18:25	10nt03a	Silt+gravel (side of road) brown to black, moist, somewhat tight, some fine sand, well graded, gravel to 3/4", graywacke composes all grain sizes, some shale flakes, mostly subangular, little rounded. Calcines: none noted. Minerals: none noted.	no	no	1	Transect A		< LOD	6.33	40.81	5.48	113.36	7.45	144.65	9.94	< LOD	7.34	< LOD	10.84	< LOD	15.87	30.75	15.78	NA	NA	266.92	58.01	< LOD	11.53	< LOD	14.63	< LOD
9/15/2010 18:28	10nt03a				2	Transect A		< LOD	6.25	45.47	5.26	250.11	9.79	190.18	10.47	< LOD	6.69	< LOD	9.85	< LOD	14.38	54.83	14.99	NA	NA	694.49	57.06	13.69	7.94	< LOD	14.43	< LOD
9/15/2010 18:31	10nt03a				3	Transect A		< LOD	6.97	43.49	5.68	134.58	8.38	160.52	10.84	< LOD	7.77	< LOD	11.76	< LOD	16.37	45.62	16.76	NA	NA	425.55	62.5	< LOD	12.53	< LOD	13.83	< LOD
15-Sep-2010	10IT33B	~4" of organics and roots. Dark brown, moist sandy silt, trace gravel. ~60% silt, 35% fine sand and 5% gravel up to 1", angular to sub angular consisting of siltstone and sandstone. No evidence of ore or burnt ore.	no	not noted	1	Transect B	10:27:19	<LOD	3	34	2	74	3	87	3	19	3	<LOD	32	<LOD	41	<LOD	65	NA	NA	<LOD	411	17	3	NA	NA	NA
15-Sep-2010	10IT33B				2	Transect B	10:31:02	<LOD	4	21	1	52	2	60	2	26	3	<LOD	30	<LOD	38	<LOD	60	NA	NA	<LOD	365	9	3	NA	NA	NA
15-Sep-2010	10IT33B				3	Transect B	10:33:56	<LOD	3	28	2	70	3	78	3	36	3	<LOD	34	<LOD	42	<LOD	66	NA	NA	<LOD	420	18	3	NA	NA	NA
15-Sep-2010	10IT32B	~8" of tundra. Med brown weathered bedrock of moist sandstone and shale. ~60% gravel up to 4". ~20% angular pebbles. ~20% silt. Gravel consists of angular to sub angular sandstone and siltstone. Some has orangey staining but not likely cooked ore. No b	no	no	1	Transect B	10:52:16	<LOD	3	49	2	115	3	224	4	<LOD	7	<LOD	29	<LOD	39	<LOD	66	NA	NA	<LOD	452	<LOD	8	NA	NA	NA
15-Sep-2010	10IT32B				2	Transect B	10:54:00	<LOD	3	51	2	103	3	203	3	<LOD	7	<LOD	28	<LOD	37	<LOD	62	NA	NA	<LOD	452	10	3	NA	NA	NA
15-Sep-2010	10IT32B				3	Transect B	10:55:53	<LOD	3	44	2	84	2	188	3	<LOD	7	<LOD	29	<LOD	38	<LOD	63	NA	NA	<LOD	480	<LOD	8	NA	NA	NA
15-Sep-2010	10IT31B	Dark brown organic rich silt with gravel. ~80% silt and 10% gravel up to 2" and sub angular, all sandstone and siltstone. No tailings or waste rock.	no	not noted	1	Transect B	11:34:36	<LOD	2	23	1	49	2	86	2	9	2	<LOD	23	<LOD	30	<LOD	47	NA	NA	<LOD	282	<LOD	5	NA	NA	NA
15-Sep-2010	10IT31B				2	Transect B	11:36:12	<LOD	2	10	1	22	1	47	2	11	2	<LOD	22	<LOD	28	<LOD	45	NA	NA	<LOD	228	<LOD	5	NA	NA	NA
15-Sep-2010	10IT31B				3	Transect B	11:37:48	<LOD	2	18	1	43	1	92	2	17	2	<LOD	21	<LOD	27	<LOD	44	NA	NA	<LOD	218	<LOD	5	NA	NA	NA
15-Sep-2010	10IT30B	Med to dark brown gravelly silt. ~30% angular to sub angular gravel up to 4", ~40% silt, 10% fine sand and 10% coarse sand. Gravel is all sand and siltstone. No ore (baked or otherwise).	no	not noted	1	Transect B	12:53:06	<LOD	3	42	2	86	2	292	4	<LOD	7	<LOD	28	<LOD	38	<LOD	62	NA	NA	<LOD	453	<LOD	8	NA	NA	NA
15-Sep-2010	10IT30B				2	Transect B	12:55:23	<LOD	4	72	2	74	2	138	3	9	2	<LOD	31	<LOD	40	<LOD	68	NA	NA	706	191	<LOD	9	NA	NA	NA
15-Sep-2010	10IT30B				3	Transect B	12:56:58	<LOD	4	48	2	72	3	186	4	<LOD	8	<LOD	33	<LOD	44	<LOD	72	NA	NA	739	211	<LOD	10	NA	NA	NA
15-Sep-2010	10IT29B	Med to dark brown gravelly silt. ~30% angular to sub angular gravel up to 5". ~40% silt and 20% coarse to fine sand. Gravel is mostly sand or siltstone. One piece was dike material. No tailings or waste rock observed.	no	not noted	1	Transect B	13:34:18	<LOD	3	48	2	103	3	254	4	<LOD	7	<LOD	28	<LOD	37	<LOD	62	NA	NA	712	166	<LOD	8	NA	NA	NA
15-Sep-2010	10IT29B				2	Transect B	13:35:51	<LOD	3	49	2	86	3	183	3	<LOD	7	<LOD	31	<LOD	40	<LOD	67	NA	NA	<LOD	477	10	3	NA	NA	NA
15-Sep-2010	10IT29B				3	Transect B	13:37:24	<LOD	3	47	2	90	2	208	3	<LOD	7	<LOD	27	<LOD	35	<LOD	59	NA	NA	<LOD	413	8	2	NA	NA	NA
15-Sep-2010	10IT28B	Med brown gravelly silt. Moist. 30% gravel, up to 2", angular to sub-rounded. 60% silt and 10% med to fine sands. Gravel consists of sand and siltstone. No tailings or waste rock noted.	no	not noted	1	Transect B	13:58:09	<LOD	3	52	2	98	2	224	3	<LOD	7	<LOD	27	<LOD	37	<LOD	61	NA	NA	707	154	<LOD	8	NA	NA	NA
15-Sep-2010	10IT28B				2	Transect B	13:59:31	<LOD	3	39	2	87	2	214	3	<LOD	7	<LOD	27	<LOD	37	<LOD	61	NA	NA	462	146	10	3	NA	NA	NA
15-Sep-2010	10IT28B				3	Transect B	14:01:13	<LOD	4	47	2	88	3	211	4	<LOD	9	<LOD	35	<LOD	46	<LOD	76	NA	NA	<LOD	541	13	4	NA	NA	NA
15-Sep-2010	10IT27B	Moist , med to dark brown gravelly silt. ~30% gravel up to 2", angular to sub rounded. 50% silt and 20% med-fine sand. Gravel consists of sandstone and siltstone. No tailings or waste rock observed.	no	not noted	1	Transect B	14:27:43	<LOD	4	49	2	94	3	136	3	<LOD	7	<LOD	31	<LOD	40	<LOD	67	NA	NA	930	181	<LOD	8	NA	NA	NA
15-Sep-2010	10IT27B				2	Transect B	14:30:00	<LOD	4	67	2	103	3	180	4	<LOD	8	<LOD	32	<LOD	42	<LOD	70	NA	NA	<LOD	549	13	3	NA	NA	NA
15-Sep-2010	10IT27B				3	Transect B	14:31:33	<LOD	4	64	2	104	3	163	3	<LOD	8	<LOD	31	<LOD	41	<LOD	69	NA	NA	773	192	14	3	NA	NA	NA
15-Sep-2010	10IT26B	~4" of roots & organics. Med brown to gray moist gravelly silt. ~20% angular to sub-angular gravel up to 3", ~50% silt, 30% med-fine sand. Gravel consists of sandstone & siltstone. No tailings or waste rock observed.	no	not noted	1	Transect B	15:44:28	<LOD	4	71	2	95	3	163	3	11	3	<LOD	31	<LOD	41	<LOD	67	NA	NA	867	182	13	3	NA	NA	NA
15-Sep-2010	10IT26B				2	Transect B	15:46:53	<LOD	4	67	2	95	3	151	3	<LOD	8	<LOD	32	<LOD	42	<LOD	70	NA	NA	<LOD	572	16	3	NA	NA	NA
15-Sep-2010	10IT26B				3	Transect B	15:48:47	<LOD	4	70	2	94	3	145	3	<LOD	7	<LOD	31	<LOD	41	<LOD	68	NA	NA	782	175	<LOD	9	NA	NA	NA
15-Sep-2010	10IT25B	Medium brown moist silty gravel. ~75% angular to rounded gravel up to 6". ~25% well compacted silt. Gravel comprised of sandstone and siltstone. 2 small and round river gravels found in sample. One large sandstone piece had a petroleum smell when buste	Not Noted	not noted	1	Transect B	16:46:18	<LOD	4	75	2	100	3	198	4	<LOD	7	<LOD	30	<LOD	40	<LOD	67	NA	NA	684	184	11	3	NA	NA	NA
15-Sep-2010	10IT25B				2	Transect B	16:47:35	<LOD	4	52	2	114	3	239	4	<LOD	8	<LOD	32	<LOD	43	<LOD	71	NA	NA	<LOD	590	11	3	NA	NA	NA
15-Sep-2010	10IT25B				3	Transect B	16:48:52	<LOD	4	59	2	101	3	158	3	<LOD	7	<LOD	31	<LOD	41	<LOD	68	NA	NA	942	191	10	3	NA	NA	NA

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Th +/-	W	W +/-	V	V +/-	Sc	Sc +/-	Ca	Ca +/-	K	K +/-	S	S +/-	Cs	Cs +/-	Te	Te +/-	Pd	Pd +/-
9/15/2010 17:34	10nt13a	Silt+gravel - brown to black, moist, gravel is well graded from 1/4" through 1.5", mostly graywacke, some small shale pieces, tightly compacted, mostly subangular. Minerals: none noted. Calcines: 1/4" in size, red and black mottled, friable.	yes	no	1	Transect A		8.33	< LOD	72.49	< LOD	83.55	< LOD	27.25	4610.64	272.33	7633.25	467.35	< LOD	12732.29	< LOD	20.17	< LOD	61.76	< LOD	12.37
9/15/2010 17:37	10nt13a				2	Transect A		7.57	< LOD	96.66	95.49	44.02	26.37	12.01	1369.93	159.16	5449.32	381.24	< LOD	9403.99	71.34	17.68	112.82	54.33	< LOD	17.17
9/15/2010 17:39	10nt13a				3	Transect A		8.69	< LOD	111.74	< LOD	49.24	27.71	10.42	1072.77	129.85	2867.96	283.45	< LOD	9136.54	57.57	19.8	143.87	61.41	< LOD	19.11
9/15/2010 18:25	10nt03a	Silt+gravel (side of road) brown to black, moist, somewhat tight, some fine sand, well graded, gravel to 3/4", graywacke composes all grain sizes, some shale flakes, mostly subangular, little rounded. Calcines: none noted. Minerals: none noted.	no	no	1	Transect A		9.09	< LOD	85.4	< LOD	68.37	31.31	15.37	3111.25	218.11	5674.27	394.09	< LOD	10064.94	< LOD	24.2	< LOD	68.71	< LOD	14.7
9/15/2010 18:28	10nt03a				2	Transect A		8	< LOD	71.8	113.65	64.53	74.36	22.18	5678.21	301.56	7610.09	474.63	< LOD	14415.66	< LOD	22.57	< LOD	64.76	< LOD	13.81
9/15/2010 18:31	10nt03a				3	Transect A		9.17	< LOD	79.88	86.18	44.76	44.29	15.29	2862.46	204.24	4371.59	348.92	< LOD	12058.23	< LOD	25.59	< LOD	74.24	< LOD	15.45
15-Sep-2010	10IT33B	~4" of organics and roots. Dark brown, moist sandy silt, trace gravel. ~60% silt, 35% fine sand and 5% gravel up to 1", angular to sub angular consisting of siltstone and sandstone. No evidence of ore or burnt ore.	no	not noted	1	Transect B	10:27:19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT33B				2	Transect B	10:31:02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT33B				3	Transect B	10:33:56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT32B	~8" of tundra. Med brown weathered bedrock of moist sandstone and shale. ~60% gravel up to 4". ~20% angular pebbles. ~20% silt. Gravel consists of angular to sub angular sandstone and siltstone. Some has orangey staining but not likely cooked ore. No b	no	no	1	Transect B	10:52:16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT32B				2	Transect B	10:54:00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT32B				3	Transect B	10:55:53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT31B	Dark brown organic rich silt with gravel. ~80% silt and 10% gravel up to 2" and sub angular, all sandstone and siltstone. No tailings or waste rock.	no	not noted	1	Transect B	11:34:36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT31B				2	Transect B	11:36:12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT31B				3	Transect B	11:37:48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT30B	Med to dark brown gravelly silt. ~30% angular to sub angular gravel up to 4", ~40% silt, 10% fine sand and 10% coarse sand. Gravel is all sand and siltstone. No ore (baked or otherwise).	no	not noted	1	Transect B	12:53:06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT30B				2	Transect B	12:55:23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT30B				3	Transect B	12:56:58	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT29B	Med to dark brown gravelly silt. ~30% angular to sub angular gravel up to 5". ~40% silt and 20% coarse to fine sand. Gravel is mostly sand or siltstone. One piece was dike material. No tailings or waste rock observed.	no	not noted	1	Transect B	13:34:18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT29B				2	Transect B	13:35:51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT29B				3	Transect B	13:37:24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT28B	Med brown gravelly silt. Moist. 30% gravel, up to 2", angular to sub-rounded. 60% silt and 10% med to fine sands. Gravel consists of sand and siltstone. No tailings or waste rock noted.	no	not noted	1	Transect B	13:58:09	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT28B				2	Transect B	13:59:31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT28B				3	Transect B	14:01:13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT27B	Moist , med to dark brown gravelly silt. ~30% gravel up to 2", angular to sub rounded. 50% silt and 20% med-fine sand. Gravel consists of sandstone and siltstone. No tailings or waste rock observed.	no	not noted	1	Transect B	14:27:43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT27B				2	Transect B	14:30:00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT27B				3	Transect B	14:31:33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT26B	~4" of roots & organics. Med brown to gray moist gravelly silt. ~20% angular to sub-angular gravel up to 3", ~50% silt, 30% med-fine sand. Gravel consists of sandstone & siltstone. No tailings or waste rock observed.	no	not noted	1	Transect B	15:44:28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT26B				2	Transect B	15:46:53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT26B				3	Transect B	15:48:47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT25B	Medium brown moist silty gravel. ~75% angular to rounded gravel up to 6". ~25% well compacted silt. Gravel comprised of sandstone and siltstone. 2 small and round river gravels found in sample. One large sandstone piece had a petroleum smell when buste	Not Noted	not noted	1	Transect B	16:46:18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT25B				2	Transect B	16:47:35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT25B				3	Transect B	16:48:52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	As	As +/-	Average As	Sb	Sb +/-	Average Sb	Hg	Hg +/-	Average Hg	Ti	Ti +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-
15-Sep-2010	10IT24B	Dark Brown silty gravel to gravelly silt. Moist. ~40% angular to sub-angular gravel up to 2". ~40% silt. ~20% med-coarse sand. Gravel consists of silt and sandstone some with orange rusty staining, but does not appear to be cooked. No cooked ore or mine	no	no	1	Transect B	17:26:17	413	10	738	473	27	1,066	130	8	156	4251	345	134	34	2869	74	24863	282	253	56	94	15	79	9	115	7
15-Sep-2010	10IT24B				2	Transect B	17:27:36	533	13		1077	33		148	9		3271	354	<LOD	109	753	47	31847	386	411	70	49	16	44	9	109	7
15-Sep-2010	10IT24B				3	Transect B	17:28:56	1267	23		1649	40		190	11		3061	392	<LOD	111	768	51	32805	426	225	75	<LOD	50	50	10	116	8
15-Sep-2010	10IT23B	~3" roots and organics. Brown/grey silty gravel. ~40% gravel up to 3" sub angular to angular, ~30% silt, 15% coarse sand and 15% med-fine sand. Gravel consists mostly of sandstone and siltstone, one piece had a white vein. One piece of sandstone was a	no	yes	1	Transect B	17:57:26	1415	22	1,005	987	32	770	149	10	136	3405	351	<LOD	107	1019	52	31494	378	293	68	51	16	51	9	111	7
15-Sep-2010	10IT23B				2	Transect B	17:58:50	933	16		857	30		151	9		3849	336	109	33	612	41	26118	309	369	61	<LOD	42	40	9	97	7
15-Sep-2010	10IT23B				3	Transect B	18:00:12	668	12		465	24		108	7		1476	225	<LOD	75	621	35	14325	177	235	42	<LOD	31	23	7	96	6
9/14/2010 15:08	10nt01b	Silt (streambank) Dark brown/ Dark gray, mostly silt with little gravel, gravel is graywacke up to 1.5", appears to be river alluvium, very moist, somewhat coherent. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		247.17	14.64	288	369.92	17.78	458	15.11	7.2	17	2112.93	158.09	< LOD	36.88	462.99	82.17	16571.58	323.16	< LOD	139.32	< LOD	52.46	< LOD	26.9	131.75	17.86
9/14/2010 15:11	10nt01b				2	Transect B		297.76	16.97		572.9	21.11		13.21	7.67		2145.34	162.5	44.97	24.03	532.01	93.07	18111.23	359.5	< LOD	154.16	< LOD	56.52	36.79	20.6	105.23	17.51
9/14/2010 15:14	10nt01b				3	Transect B		318.46	17.74		431.96	19.13		23.51	8.46		2626.44	167.07	40.04	24.1	408.71	84.73	17389.5	353.44	< LOD	153.25	< LOD	58.72	30.63	20.35	125.09	18.85
9/14/2010 16:46	10nt02b	Silt+gravel - Silt matrix, dark gray (v fine grain sand), some gravel throughout up to 2", mostly graywcke, some with quartz and adeite (white mineral) veins, weathering in one piece of gravel noted throughout as if had been under water for a period of ti	no	yes	1	Transect B		83.8	9.51	50	248.34	17.27	248	14.82	6.88	15	2454.01	165.71	45.4	23.71	465.85	85.18	15292.47	318.75	< LOD	136.28	< LOD	57.35	30.77	19.13	121.26	17.58
9/14/2010 16:49	10nt02b				2	Transect B		34.6	6.91		< LOD	18.39		< LOD	9		1199.23	124.64	46.93	24.38	1181.5	112.73	10818.88	254.77	< LOD	109.59	< LOD	48.84	< LOD	25.32	108.12	15.9
9/14/2010 16:51	10nt02b				3	Transect B		31.31	7.42		< LOD	19.7		< LOD	10.39		1418.23	133.88	84.56	24.55	1397.26	137.5	14859.41	332.44	< LOD	141.93	< LOD	59.72	40.45	21.62	249.42	25.37
9/14/2010 18:28	10nt04b	Silt (loess) gray, moist, somewhat loose, somewhat cohesive, poorly graded, no gravel. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		283.09	16.13	243	298.36	17.04	261	16.38	7.01	21	2233.43	154.05	38.07	23.06	264.35	69.82	13959.22	305.48	< LOD	129.53	< LOD	52.86	< LOD	27.65	99.01	16.29
9/14/2010 18:31	10nt04b				2	Transect B		193.89	13.8		182.69	15.6		25.64	8.01		1414.65	124.34	51.5	21.24	163.7	61.29	10336.41	268.08	< LOD	114.57	< LOD	54.6	< LOD	27.93	84.78	15.79
9/14/2010 18:35	10nt04b				3	Transect B		251.99	14.55		301.57	16.08		21.59	7.29		1517.32	135.92	94.4	25.48	179.25	59.17	10371.2	252.4	119.78	74.15	< LOD	48.2	26.44	17.52	160.88	19.05
9/15/2010 10:31	10nt05b	Sandy silt (loess) gray, moist, fine sand and silt, some cohesiveness, soft, poorly graded, no gravel. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		16.2	5.6	19	< LOD	18.5	<LOD	< LOD	9.29	<LOD	1368.38	133.8	90.79	24.66	270.83	68.76	13119.23	289.59	< LOD	122.53	< LOD	52.35	< LOD	27.42	206.18	21.48
9/15/2010 10:33	10nt05b				2	Transect B		17.24	6.09		< LOD	21.45		< LOD	9.45		2340.96	167.75	36.47	23.72	176.1	65.05	15449.07	322.17	< LOD	136.73	< LOD	54.58	< LOD	28.25	97.34	16.5
9/15/2010 10:36	10nt05b				3	Transect B		23.56	6.71		< LOD	19.38		< LOD	9.83		1622.27	143.53	50.51	23.45	288.37	73.5	14499.03	315.37	< LOD	133.5	64.5	39.74	36.49	20.27	87.17	15.85
9/15/2010 11:23	10nt06b	Gray, soft, moist, gravel appears on top of loess possibly as a result of previous slope stabilization wolrk. Round fragment of green tile materal. Gravel is ~1" to 1.5", located beneath peat layer, gravel is rounded and sub rounded graywacke. Calcines: none noted, Minerals: note noted	no	no	1	Transect B		114.04	10.68	114	< LOD	18.54	57	< LOD	10.32	<LOD	1309.9	125.11	85.67	24.74	103.27	53.69	11866.28	271.84	130.34	79.63	< LOD	50.8	< LOD	26.89	257.73	23.59
9/15/2010 11:26	10nt06b				2	Transect B		135.23	11.71		57.28	14.58		< LOD	9.62		2575	162.12	< LOD	34.71	216.77	67.32	15740.22	321.94	< LOD	136.75	< LOD	56.23	< LOD	27.38	98.44	16.17
9/15/2010 11:29	10nt06b				3	Transect B		93.14	11.27		< LOD	22.9		< LOD	11.18		1252.31	114.29	50.4	19.63	224.9	72.26	15400.13	343.23	< LOD	142.55	< LOD	62.82	< LOD	30.84	91.7	17.08
9/15/2010 12:01	10nt07b	Silt (loess) gray, soft, moist, some fine sand, little cohesiveness, beneath peat layer, poorly graded, no gravel. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		276.55	16.02	224	176.18	15.58	149	< LOD	10.21	<LOD	2225.41	159.04	77.73	25.23	216.55	67.23	14585.68	311.13	< LOD	132.57	< LOD	53.38	< LOD	26.54	195.87	21.62
9/15/2010 12:03	10nt07b				2	Transect B		179.79	12.34		39.27	12.94		< LOD	9.14		1733.07	140.01	88.23	25.34	180.86	57.65	11522.51	258.09	< LOD	112.14	< LOD	47.88	< LOD	23.9	155.7	18.21
9/15/2010 12:06	10nt07b				3	Transect B		214.3	14.15		230.16	16.89		< LOD	9.91		2469	162.49	< LOD	34.72	241.79	66.35	13544.48	292.85	< LOD	125.69	< LOD	52.32	< LOD	26.77	105.87	16.46
9/15/2010 13:15	10nt08b	Silt (loess) gray, moist, soft, somewhat loose and cohesive, no gravel, poorly graded. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		33.32	7.41	44	< LOD	20.42	28	< LOD	10.14	<LOD	1645.79	146.5	72.44	23.76	230.36	64.33	9569.86	250.03	120.22	73.8	< LOD	50.17	< LOD	24.5	164.81	19.94
9/15/2010 13:17	10nt08b				2	Transect B		77.52	9.37		27.52	13.75		< LOD	9.53		2174.47	151.8	64.62	24.25	316.57	70	11687.32	268.45	< LOD	117.28	< LOD	51.86	< LOD	26.14	137.82	17.88
9/15/2010 13:20	10nt08b				3	Transect B		21.17	6.78		< LOD	23.67		< LOD	9.75		1857.42	134.44	50.18	20.63	171.04	64.66	11019.89	286.9	< LOD	124.64	< LOD	57.86	< LOD	28.32	95.38	16.88
9/15/2010 14:17	10nt09b	Silt (loess) gray, moist, soft, somewhat cohesive, no gravel, poorly graded some fine sands. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		15.82	5.8	18	< LOD	20.18	<LOD	< LOD	9.57	<LOD	2266.63	165.99	72.95	25.89	342.54	79.69	19840.65	367.48	< LOD	156.36	< LOD	57.44	36.34	19.96	214.12	22.63
9/15/2010 14:19	10nt09b				2	Transect B		15.72	6.52		< LOD	20.29		< LOD	9.64		2784.52	168.81	< LOD	36.09	456.45	86.83	20133.79	369.72	206.69	107.5	< LOD	55.15	< LOD	26.97	119.69	17.87
9/15/2010 14:22	10nt09b				3	Transect B		22.26	6.71		< LOD	23.12		< LOD	10.52		2188.88	147.75	49.35	22.1	392	88.63	18508.15	382.25	< LOD	162.81	< LOD	62.54	< LOD	31.12	113.15	18.91
9/15/2010 14:33	10nt10b	Silt (loess) gray, moist, soft, somewhat cohesive, no gravel, poorly graded some fine sands. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		9.81	3.94	79	< LOD	10.05	145	< LOD	7.13	41	455.42	92.27	< LOD	32.75	71.54	36.32	938.88	68.64	< LOD	31.43	< LOD	35.43	28.32	13.93	96.76	13
9/15/2010 14:36	10nt10b				2	Transect B		144.86	11.15		210.89	14.03		41.01	7.91		1932.08	151.32	80.07	26.17	164.69	56.5	11427.85	256.24	< LOD	110.66	< LOD	47.02	31.56	17.04	181.11	19.35
9/15/2010 14:39	10nt10b				3	Transect B		82.94	8.87		78.98	13.72		< LOD	8.99		2793.89	174.38	59.68	26.12	152.64	56.94	14803.96	293.98	< LOD	124.96	< LOD	48.24	< LOD	23.08	94.46	15.01

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn	Sn +/-	I	I +/-	Ba	Ba +/-	Pb	Pb +/-	U	U +/-	Th
15-Sep-2010	10IT24B	Dark Brown silty gravel to gravelly silt. Moist. ~40% angular to sub-angular gravel up to 2". ~40% silt. ~20% med-coarse sand. Gravel consists of silt and sandstone some with orange rusty staining, but does not appear to be cooked. No cooked ore or mine	no	no	1	Transect B	17:26:17	<LOD	4	118	3	96	3	140	3	<LOD	7	<LOD	30	<LOD	40	<LOD	67	NA	NA	1121	191	18	3	NA	NA	NA
15-Sep-2010	10IT24B				2	Transect B	17:27:36	<LOD	4	71	3	81	3	116	3	<LOD	8	<LOD	33	<LOD	44	<LOD	74	NA	NA	705	198	20	4	NA	NA	NA
15-Sep-2010	10IT24B				3	Transect B	17:28:56	<LOD	5	76	3	115	3	109	3	<LOD	9	<LOD	36	<LOD	48	<LOD	80	NA	NA	1148	226	<LOD	11	NA	NA	NA
15-Sep-2010	10IT23B	~3" roots and organics. Brown/grey silty gravel. ~40% gravel up to 3" sub angular to angular, ~30% silt, 15% coarse sand and 15% med-fine sand. Gravel consists mostly of sandstone and siltstone, one piece had a white vein. One piece of sandstone was a	no	yes	1	Transect B	17:57:26	<LOD	5	55	2	115	3	151	3	<LOD	8	<LOD	33	<LOD	44	<LOD	73	NA	NA	657	195	<LOD	10	NA	NA	NA
15-Sep-2010	10IT23B				2	Transect B	17:58:50	<LOD	5	58	2	115	3	145	3	<LOD	8	<LOD	31	<LOD	41	<LOD	69	NA	NA	<LOD	544	10	3	NA	NA	NA
15-Sep-2010	10IT23B				3	Transect B	18:00:12	<LOD	4	30	2	67	2	93	2	22	2	<LOD	29	<LOD	37	<LOD	59	NA	NA	<LOD	387	12	3	NA	NA	NA
9/14/2010 15:08	10nt01b	Silt (streambank) Dark brown/ Dark gray, mostly silt with little gravel, gravel is graywacke up to 1.5", appears to be river alluvium, very moist, somewhat coherent. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		< LOD	4.14	34.13	4.23	89.41	5.58	198.9	9.18	< LOD	6.29	< LOD	8.26	< LOD	11.54	< LOD	17.83	NA	NA	216.6	48.04	< LOD	9.05	< LOD	10.87	< LOD
9/14/2010 15:11	10nt01b				2	Transect B		< LOD	5.24	42.13	4.84	100.6	6.26	208.06	10	< LOD	6.6	< LOD	9.34	< LOD	13.1	< LOD	19.71	NA	NA	414.61	53.44	< LOD	9.74	< LOD	11.81	< LOD
9/14/2010 15:14	10nt01b				3	Transect B		< LOD	4.56	49.21	5.22	112.07	6.61	243.05	10.71	< LOD	6.79	< LOD	9.06	< LOD	12.19	< LOD	18.72	NA	NA	423.51	51.61	10.84	7.22	< LOD	12.76	11.97
9/14/2010 16:46	10nt02b	Silt+gravel - Silt matrix, dark gray (v fine grain sand), some gravel throughout up to 2", mostly graywcke, some with quartz and adeite (white mineral) veins, weathering in one piece of gravel noted throughout as if had been under water for a period of ti	no	yes	1	Transect B		< LOD	4.32	45.98	4.94	104.39	6.14	209.38	9.68	< LOD	6.26	< LOD	8.65	< LOD	12.39	< LOD	18.83	NA	NA	573.99	52.15	< LOD	9.53	14.61	8.29	10.87
9/14/2010 16:49	10nt02b				2	Transect B		< LOD	3.6	28.53	3.71	63.28	4.63	117.51	7.26	7.38	4.01	< LOD	7	< LOD	9.75	< LOD	14.89	NA	NA	< LOD	62.39	11.4	6.38	< LOD	9.06	8.15
9/14/2010 16:51	10nt02b				3	Transect B		< LOD	4.54	38.51	4.67	77.26	5.64	180.51	9.52	9.99	4.65	< LOD	8.04	< LOD	10.85	< LOD	16.53	NA	NA	118.44	46.2	< LOD	10.44	< LOD	10.89	< LOD
9/14/2010 18:28	10nt04b	Silt (loess) gray, moist, somewhat loose, somewhat cohesive, poorly graded, no gravel. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		< LOD	4.45	31.91	4.26	105.8	6.2	204.08	9.61	< LOD	6.3	< LOD	8.26	< LOD	11.62	< LOD	17.54	NA	NA	124.55	47.19	< LOD	9.94	< LOD	11.15	< LOD
9/14/2010 18:31	10nt04b				2	Transect B		< LOD	4.86	28.74	4.07	96.25	6.05	178.52	9.27	< LOD	6.57	< LOD	8.03	< LOD	11.11	< LOD	16.57	NA	NA	< LOD	66.44	< LOD	9.77	< LOD	10.47	< LOD
9/14/2010 18:35	10nt04b				3	Transect B		< LOD	4.2	31.34	3.99	101.32	5.82	177.91	8.73	< LOD	6.22	< LOD	7.72	< LOD	10.59	< LOD	16.28	NA	NA	< LOD	65.04	< LOD	8.98	< LOD	10.29	9.75
9/15/2010 10:31	10nt05b	Sandy silt (loess) gray, moist, fine sand and silt, some cohesiveness, soft, poorly graded, no gravel. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		< LOD	4.15	37.48	4.32	101.01	5.92	178.57	8.91	6.41	4.24	< LOD	7.28	< LOD	10.41	< LOD	15.61	NA	NA	< LOD	64.31	< LOD	8.94	< LOD	10.38	< LOD
9/15/2010 10:33	10nt05b				2	Transect B		< LOD	4.28	47.41	4.87	134.3	6.92	267.59	10.81	< LOD	6.41	< LOD	8.81	< LOD	11.83	< LOD	18.09	NA	NA	299.85	49.23	< LOD	9.8	< LOD	11.17	8.7
9/15/2010 10:36	10nt05b				3	Transect B		< LOD	4.57	38	4.55	103.77	6.21	196.78	9.59	< LOD	6.52	< LOD	7.6	< LOD	10.59	< LOD	16.06	NA	NA	< LOD	65.67	< LOD	10.24	< LOD	11.19	< LOD
9/15/2010 11:23	10nt06b	Gray, soft, moist, gravel appears on top of loess possibly as a result of previous slope stabilization wolrk. Round fragment of green tile materal. Gravel is ~1" to 1.5", located beneath peat layer, gravel is rounded and sub rounded graywacke. Calcines: none noted, Minerals: note noted	no	no	1	Transect B		< LOD	4.16	36.33	4.27	98.73	5.79	236.82	9.79	< LOD	6.38	< LOD	6.9	< LOD	9.56	< LOD	14.34	NA	NA	< LOD	58.89	13.27	6.81	< LOD	10.67	< LOD
9/15/2010 11:26	10nt06b				2	Transect B		< LOD	4.03	40.98	4.55	112.99	6.33	293.2	11.03	< LOD	6.46	< LOD	8.38	< LOD	11.68	< LOD	17.4	NA	NA	80.42	46.66	11.6	6.86	< LOD	10.75	< LOD
9/15/2010 11:29	10nt06b				3	Transect B		< LOD	5.05	43.71	5.01	50.74	4.83	177.64	9.55	< LOD	6.81	< LOD	9.1	< LOD	12.43	< LOD	18.74	NA	NA	< LOD	77.33	19.37	8.29	< LOD	11.55	8.64
9/15/2010 12:01	10nt07b	Silt (loess) gray, soft, moist, some fine sand, little cohesiveness, beneath peat layer, poorly graded, no gravel. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		< LOD	4.63	36.43	4.39	116.39	6.44	255.87	10.51	< LOD	6.56	< LOD	8.14	< LOD	11.05	< LOD	17.1	NA	NA	120.49	46.31	12.15	7.06	< LOD	10.79	11.35
9/15/2010 12:03	10nt07b				2	Transect B		< LOD	4.16	28.92	3.78	83.53	5.17	160.95	8.1	< LOD	5.9	< LOD	7.09	< LOD	9.85	< LOD	14.85	NA	NA	< LOD	60.36	11.91	6.47	< LOD	9.8	8.1
9/15/2010 12:06	10nt07b				3	Transect B		< LOD	4.14	42.05	4.49	116.08	6.28	327.99	11.33	< LOD	6.19	< LOD	8.9	< LOD	12.24	< LOD	18.75	NA	NA	332.85	49.97	19.26	7.45	< LOD	10.5	10.48
9/15/2010 13:15	10nt08b	Silt (loess) gray, moist, soft, somewhat loose and cohesive, no gravel, poorly graded. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		< LOD	4.17	35.52	4.28	116.23	6.36	330.88	11.52	< LOD	6.43	< LOD	8.18	< LOD	11.33	< LOD	17.09	NA	NA	154.97	46.61	15.02	7.14	< LOD	10.4	8.03
9/15/2010 13:17	10nt08b				2	Transect B		< LOD	4.17	38.44	4.26	109.39	6.02	171.05	8.64	< LOD	6.19	< LOD	8.01	< LOD	10.78	< LOD	16.57	NA	NA	78.72	45.02	17.45	7.16	< LOD	10.05	< LOD
9/15/2010 13:20	10nt08b				3	Transect B		< LOD	4.44	38.08	4.79	134.12	7.28	173.99	9.69	< LOD	6.78	< LOD	9.86	< LOD	13.42	< LOD	19.95	NA	NA	397.44	54.2	< LOD	10.56	< LOD	12.08	9.32
9/15/2010 14:17	10nt09b	Silt (loess) gray, moist, soft, somewhat cohesive, no gravel, poorly graded some fine sands. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		< LOD	4.73	43.66	4.82	131.84	6.92	290.12	11.24	< LOD	6.68	< LOD	8.44	< LOD	11.65	< LOD	17.18	NA	NA	85.44	47.43	< LOD	9.45	< LOD	11.69	< LOD
9/15/2010 14:19	10nt09b				2	Transect B		< LOD	4.46	39.31	4.65	133.87	6.95	254.02	10.66	< LOD	6.57	< LOD	8.21	< LOD	11.33	< LOD	17.15	NA	NA	82.21	47.06	14.6	7.31	< LOD	11.59	8.22
9/15/2010 14:22	10nt09b				3	Transect B		< LOD	5.51	39.72	4.99	128.41	7.35	296.23	12.19	< LOD	6.95	< LOD	9.6	< LOD	13.14	< LOD	19.93	NA	NA	341.18	54.47	< LOD	10.12	< LOD	12.17	< LOD
9/15/2010 14:33	10nt10b	Silt (loess) gray, moist, soft, somewhat cohesive, no gravel, poorly graded some fine sands. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		< LOD	3.03	< LOD	2.61	40.68	3.33	20.59	4.01	16.78	3.52	< LOD	3.92	< LOD	5.51	< LOD	8.38	NA	NA	< LOD	35.07	< LOD	6.65	< LOD	6.68	< LOD
9/15/2010 14:36	10nt10b				2	Transect B		< LOD	3.93	37.54	4.09	86.58	5.26	166.5	8.17	< LOD	5.75	< LOD	6.78	< LOD	9.32	< LOD	14.15	NA	NA	< LOD	57.14	< LOD	9.16	< LOD	10.07	< LOD
9/15/2010 14:39	10nt10b				3	Transect B		< LOD	3.96	37.6	4.2	108.03	5.84	170.39	8.4	< LOD	5.81	< LOD	7.62	< LOD	10.41	< LOD	15.62	NA	NA	< LOD	62.63	< LOD	8.77	< LOD	10.41	< LOD

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Th +/-	W	W +/-	V	V +/-	Sc	Sc +/-	Ca	Ca +/-	K	K +/-	S	S +/-	Cs	Cs +/-	Te	Te +/-	Pd	Pd +/-
15-Sep-2010	10IT24B	Dark Brown silty gravel to gravelly silt. Moist. ~40% angular to sub-angular gravel up to 2". ~40% silt. ~20% med-coarse sand. Gravel consists of silt and sandstone some with orange rusty staining, but does not appear to be cooked. No cooked ore or mine	no	no	1	Transect B	17:26:17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT24B				2	Transect B	17:27:36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT24B				3	Transect B	17:28:56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT23B	~3" roots and organics. Brown/grey silty gravel. ~40% gravel up to 3" sub angular to angular, ~30% silt, 15% coarse sand and 15% med-fine sand. Gravel consists mostly of sandstone and siltstone, one piece had a white vein. One piece of sandstone was a	no	yes	1	Transect B	17:57:26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT23B				2	Transect B	17:58:50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15-Sep-2010	10IT23B				3	Transect B	18:00:12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/14/2010 15:08	10nt01b	Silt (streambank) Dark brown/ Dark gray, mostly silt with little gravel, gravel is graywacke up to 1.5", appears to be river alluvium, very moist, somewhat coherent. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		7.07	< LOD	61.5	< LOD	84.43	26.14	17.26	3336.42	245.34	5780.14	417.13	< LOD	14298.35	< LOD	18.69	< LOD	55.81	< LOD	11.5
9/14/2010 15:11	10nt01b				2	Transect B		7.68	< LOD	67.14	< LOD	86.36	< LOD	22.71	3284.34	238.6	6370.24	429.59	< LOD	13205.15	< LOD	20.62	< LOD	62.63	< LOD	12.71
9/14/2010 15:14	10nt01b				3	Transect B		5.9	< LOD	68.8	100.36	58.76	< LOD	23.8	3114.19	238.2	7512.1	465.24	< LOD	14521.46	< LOD	19.73	< LOD	59.06	< LOD	11.86
9/14/2010 16:46	10nt02b	Silt+gravel - Silt matrix, dark gray (v fine grain sand), some gravel throughout up to 2", mostly graywcke, some with quartz and adeite (white mineral) veins, weathering in one piece of gravel noted throughout as if had been under water for a period of ti	no	yes	1	Transect B		5.49	< LOD	58.75	< LOD	86.24	< LOD	22.55	2825.48	227.77	7304.64	454.52	< LOD	13058.42	< LOD	19.62	< LOD	59.48	< LOD	12.1
9/14/2010 16:49	10nt02b				2	Transect B		4.84	< LOD	58.55	< LOD	68.5	< LOD	19.32	1833.95	195.82	2977.45	313.4	< LOD	11858.8	< LOD	16.19	< LOD	48.34	< LOD	9.68
9/14/2010 16:51	10nt02b				3	Transect B		7.67	< LOD	74.13	< LOD	73.78	< LOD	17.72	1042.86	159.45	2660.47	297.33	< LOD	12784.34	< LOD	17.83	< LOD	53.33	< LOD	10.43
9/14/2010 18:28	10nt04b	Silt (loess) gray, moist, somewhat loose, somewhat cohesive, poorly graded, no gravel. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		7.49	< LOD	57.31	107.7	55.06	27.82	17.93	4431.88	265.24	6947.75	443.81	< LOD	12798.72	< LOD	18.58	< LOD	56.12	< LOD	11.09
9/14/2010 18:31	10nt04b				2	Transect B		7.42	< LOD	62.23	< LOD	67.45	< LOD	20.32	2556.39	202.61	3911.75	336.21	< LOD	12000.46	< LOD	17.79	< LOD	53.29	< LOD	10.32
9/14/2010 18:35	10nt04b				3	Transect B		5.07	< LOD	57.95	79.02	49.75	29.64	15.06	2120.05	200.78	3143.24	317.51	< LOD	13893.05	< LOD	17.21	< LOD	51.31	< LOD	10.51
9/15/2010 10:31	10nt05b	Sandy silt (loess) gray, moist, fine sand and silt, some cohesiveness, soft, poorly graded, no gravel. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		7.03	< LOD	57.28	< LOD	72.94	< LOD	20.35	1754.44	186.12	3406.56	325.04	< LOD	12327.6	< LOD	16.93	< LOD	50.85	< LOD	10.3
9/15/2010 10:33	10nt05b				2	Transect B		5.35	< LOD	67.69	< LOD	89.37	< LOD	25.77	4227.83	263.96	7918.22	472.31	< LOD	12599.01	< LOD	18.88	< LOD	57.74	< LOD	11.15
9/15/2010 10:36	10nt05b				3	Transect B		7.51	< LOD	64.44	93.75	52.85	< LOD	25.5	4343.79	261.51	6517.13	431.01	< LOD	14391.48	< LOD	17.33	< LOD	51.87	< LOD	10.76
9/15/2010 11:23	10nt06b	Gray, soft, moist, gravel appears on top of loess possibly as a result of previous slope stabilization wolrk. Round fragment of green tile materal. Gravel is ~1" to 1.5", located beneath peat layer, gravel is rounded and sub rounded graywacke. Calcines: none noted, Minerals: note noted	no	no	1	Transect B		7.16	< LOD	64.17	98.73	47.28	< LOD	17.76	938.17	155.23	1855.14	258.69	< LOD	10958.24	< LOD	15.75	< LOD	46.68	< LOD	9.15
9/15/2010 11:26	10nt06b				2	Transect B		7.54	< LOD	59.93	90.65	56.56	< LOD	25.8	4189.74	260.91	6776.94	441.48	< LOD	16533.3	< LOD	18.32	< LOD	55.68	< LOD	11.49
9/15/2010 11:29	10nt06b				3	Transect B		5.76	< LOD	69.38	74.68	41.91	< LOD	17.99	1807.07	168.87	2635.55	284.14	< LOD	10520.16	< LOD	20.12	< LOD	60.92	< LOD	12.01
9/15/2010 12:01	10nt07b	Silt (loess) gray, soft, moist, some fine sand, little cohesiveness, beneath peat layer, poorly graded, no gravel. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		5.55	< LOD	66.17	< LOD	82.6	< LOD	25.28	3511.45	244.41	5403.03	402.38	< LOD	15131.27	< LOD	18.15	< LOD	54.84	< LOD	10.62
9/15/2010 12:03	10nt07b				2	Transect B		4.81	< LOD	58.66	116.88	51.84	27.94	15.8	2710.6	218.79	3883.26	346.31	< LOD	12773.59	< LOD	16.08	< LOD	48.28	< LOD	9.88
9/15/2010 12:06	10nt07b				3	Transect B		5.42	< LOD	63.11	< LOD	84.15	29.78	18.11	4255.36	263.53	6482.15	432.48	< LOD	13247.8	< LOD	19.34	< LOD	58.6	< LOD	11.91
9/15/2010 13:15	10nt08b	Silt (loess) gray, moist, soft, somewhat loose and cohesive, no gravel, poorly graded. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		5.2	< LOD	67.28	< LOD	79.16	26.48	15.93	3190.18	228.14	4775.93	371.22	< LOD	11708.46	< LOD	18.14	< LOD	55	< LOD	10.88
9/15/2010 13:17	10nt08b				2	Transect B		7.24	< LOD	59.65	104.48	54.31	31.49	16.61	3201.01	234.94	5946.38	413.79	< LOD	12319.58	< LOD	17.65	< LOD	53.39	< LOD	10.55
9/15/2010 13:20	10nt08b				3	Transect B		5.65	< LOD	61.29	< LOD	70.27	25.99	16.49	4236.59	246.56	5975.25	402.96	< LOD	12169.64	< LOD	20.92	< LOD	64.27	< LOD	13.24
9/15/2010 14:17	10nt09b	Silt (loess) gray, moist, soft, somewhat cohesive, no gravel, poorly graded some fine sands. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		7.84	< LOD	61.07	110.51	59.94	< LOD	26.21	4020.94	260.9	6530.74	440.59	< LOD	11856.73	< LOD	18.48	< LOD	56.04	< LOD	11.52
9/15/2010 14:19	10nt09b				2	Transect B		5.36	< LOD	66.07	98.93	58.73	< LOD	29.11	5288.06	290.37	7537.46	468.01	< LOD	13126.17	< LOD	18.31	< LOD	55.63	< LOD	10.97
9/15/2010 14:22	10nt09b				3	Transect B		8.56	< LOD	73.59	< LOD	75.88	< LOD	24.4	4295.09	254.28	5828.46	407.4	< LOD	11980.12	< LOD	20.96	< LOD	63.95	< LOD	13.44
9/15/2010 14:33	10nt10b	Silt (loess) gray, moist, soft, somewhat cohesive, no gravel, poorly graded some fine sands. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		4.74	< LOD	43.65	< LOD	52.82	< LOD	24.05	3667.67	245.38	2606.11	279.66	< LOD	11202.95	< LOD	9.92	< LOD	28.24	< LOD	5.2
9/15/2010 14:36	10nt10b				2	Transect B		6.28	< LOD	53.35	< LOD	80.49	< LOD	22.51	2495.14	217.83	3237.03	326.5	< LOD	13810.19	< LOD	15.42	< LOD	45.61	< LOD	9.07
9/15/2010 14:39	10nt10b				3	Transect B		6.72	< LOD	57.47	< LOD	88.49	< LOD	28.04	4413.58	275.7	6933.48	453.08	< LOD	15427.1	< LOD	16.64	< LOD	49.97	< LOD	10.1

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	As	As +/-	Average As	Sb	Sb +/-	Average Sb	Hg	Hg +/-	Average Hg	Ti	Ti +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-
9/15/2010 16:17	10nt11b	Silt (loess) gray, moist, soft, somewhat cohesive, no gravel, poorly graded some fine sands. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		166.07	12.67	182	247.86	16.22	295	13.28	7.22	24	2696.61	167.56	56.03	25.12	168.88	63.93	15766.3	324.06	< LOD	138.15	< LOD	56.08	< LOD	27.43	127.35	18.1
9/15/2010 16:19	10nt11b				2	Transect B		300.65	15.41		204.71	14.08		35.11	7.62		1897.57	146.36	42.23	23.59	124.9	52.58	11324.64	254.59	< LOD	106.7	< LOD	47.56	< LOD	22.1	101.22	15.21
9/15/2010 16:22	10nt11b				3	Transect B		80.71	9.6		431.13	18.49		< LOD	10.41		2506.88	163.53	57.22	24.57	189.34	65.56	15165.43	317.91	< LOD	136.13	< LOD	54.8	< LOD	27.38	123.37	17.9
9/15/2010 17:04	10nt12b	Silt and gravel (hillslopes) Brown to black, moist somewhat tight, little plasticity, gravel is graywacke, mostly 1/2" to 2" angular to some some subrounded faces. Calcites: none noted. Minerals: none noted.	no	no	1	Transect B		487.58	22.54	375	758.04	22.08	539	22.5	9	21	1405.27	123.9	58.61	21.87	404.42	87.54	16535.13	358.97	204.48	105.37	< LOD	60.84	37.57	22.31	221.5	24.88
9/15/2010 17:07	10nt12b				2	Transect B		269.76	18.79		361.44	19.58		< LOD	14.79		512.94	89.53	116.77	21.11	189.33	74.6	8638.98	286.92	< LOD	125.5	< LOD	67.37	< LOD	38.1	288.97	30.93
9/15/2010 17:12	10nt12b				3	Transect B		366.44	17.64		498.46	17.97		19.27	7.64		1437.97	138.17	94.58	25.93	272.53	69.06	13381.61	290.76	158.17	85.3	< LOD	52.45	< LOD	26.72	245.68	23.29
9/15/2010 17:56	10nt13b	Silt (loess) gray, moist, soft, some what cohesive, no gravel, poorly graded, some fine sand. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		12.89	5.04	22	< LOD	17.25	<LOD	< LOD	8.76	<LOD	1128.26	123.66	78.06	24.52	213.4	59.47	8559.81	223.48	< LOD	97.96	< LOD	46.48	< LOD	24.8	91.61	14.76
9/15/2010 17:59	10nt13b				2	Transect B		< LOD	10.46		< LOD	24.17		< LOD	11.43		1291.33	119.87	63.87	20.39	252.76	79.5	14664.02	354.95	< LOD	149.7	< LOD	60.04	< LOD	34.87	139.35	21.48
9/15/2010 18:03	10nt13b				3	Transect B		31.68	8.24		< LOD	22.82		< LOD	10.01		1595.95	129.42	39.12	20.35	240.76	76.38	14798.9	342.52	< LOD	142.18	< LOD	59.89	< LOD	27.84	110.19	18.57
9/15/2010 18:42	10nt03b	Silt (loess) gray, soft, some what cohesive, some fine sand, trace gravel at surface, subangular, graywacke, small through 3". Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		271.31	16.1	254	802.49	21.2	594	< LOD	9.93	<LOD	1952.75	158.23	57.03	24.05	386.85	80.31	14524.79	315.03	< LOD	136.44	< LOD	56.23	38.37	20.02	119.98	17.78
9/15/2010 18:46	10nt03b				2	Transect B		187.62	13.5		244.21	16.42		< LOD	10.21		2004.4	146.57	64.2	23.23	356.08	77.71	13129.77	299.61	< LOD	130.46	< LOD	53.32	< LOD	27.03	109.46	17.16
9/15/2010 18:49	10nt03b				3	Transect B		304.17	16.22		735.73	20.8		< LOD	9.67		2354.55	164.59	51.49	24.42	255.75	68.53	14242.29	302.88	< LOD	131.37	< LOD	49.71	< LOD	26.54	118.01	17.33
9/6/2010 9:34	10nt14a	Silt+gravel (spoils pile) brown to black, moist, somehwat compacted, small gravel through 1", well graded, graywacke, argillites, + some small calcines, mainly subangular. Calcines: some small gravel size scattered throughout. Minerals: none noted.	yes	no	1	Transect A		804	N/A	913	408	N/A	459	29	N/A	26	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available
9/6/2010 9:36	10nt14a				2	Transect A		1285	N/A		704	N/A		14	N/A																	
9/6/2010 9:38	10nt14a				3	Transect A		651	N/A		264	N/A		36	N/A																	
9/6/2010 9:57	10nt14b	Silt (loess) (side of slope) gray, soft, moist, slightly cohesive, some fine sand. Gravel located over top, 1.5" to 2" mostly graywacke, subangular, poorly graded. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		296	N/A	188	<25.3	N/A	<LOD	<11.7	N/A	<LOD																
9/6/2010 10:00	10nt14b				2	Transect B		120	N/A		<20.9	N/A		<11.7	N/A																
9/6/2010 10:03	10nt14b				3	Transect B		148	N/A		<21.4	N/A		<9.4	N/A																
9/6/2010 10:24	10nt15a	Silt+gravel (process area behind pad)Brown to blakc, moist, compacted, well graded, sand gravel through 1", subangular, mostly graywacke, some calcine gravel up to 3/4" in throughout. Calcines: scattered throughout up to 3/4". Minerals: none noted. Note:	yes	no	1	Transect A		420	N/A	327	88	N/A	83	<12.6	N/A	<LOD																
9/6/2010 10:26	10nt15a				2	Transect A		341	N/A		136	N/A		<4.1	N/A																
9/6/2010 10:28	10nt15a				3	Transect A		220	N/A		24.8	N/A		<10.8	N/A																
9/6/2010 10:42	10nt15b	Silt (loess) (slope area) gray, moist, soft, somewhat cohesive, some fine sand, little gravel on top, graywacke subangular up to 1". Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		194	N/A	139	<24.7	N/A	33	<12.2	N/A	<LOD																
9/6/2010 10:44	10nt15b				2	Transect B		98	N/A		<22.1	N/A		<10.5	N/A																
9/6/2010 10:46	10nt15b				3	Transect B		125	N/A		33	N/A		<9.2	N/A																
9/6/2010 11:35	10nt16a	Silt and gravel (edge of waste rock rock pile). Black, somewhat moist, mostly gravel, well graded, argillites and graywacke, argillites up to 1/2", gray wacke to 3", little calcines, loose, some white minerals weathered brown/rust. Calcines: little, up to	yes	yes	1	Transect A		2755	N/A	2,641	1378	N/A	3,480	147	N/A	154																
9/6/2010 11:40	10nt16a				2	Transect A		2208	N/A		5031	N/A		172	N/A																
9/6/2010 11:42	10nt16a				3	Transect A		2961	N/A		4031	N/A		144	N/A																
9/6/2010 11:15	10nt16b	Silt (loess) (Processing pad drainage swale to creek) gray, moist soft, somewhat cohesive, some fine sand, little gravel on top, subangular, up to 2".	No	no	1	Transect B		268	N/A	181	374	N/A	254	17	N/A	17																
9/6/2010 11:17	10nt16b				2	Transect B		189	N/A		139	N/A		<10.7	N/A																
9/6/2010 11:19	10nt16b				3	Transect B		85	N/A		250	N/A		<10.3	N/A																
9/6/2010 12:34	10nt17a	Silt and gravel (stream floodplain) mostly silt with little gravel on top; brown, very moist, some clay, little fine sand, poorly graded, gravel is angular. Calcines:none noted. Mineral: none noted.	no	no	1	Transect A		73	N/A	55	<18.4	N/A	<LOD	<7.4	N/A	<LOD																
9/6/2010 12:36	10nt17a				2	Transect A		52	N/A		<17.0	N/A		<8.8	N/A																
9/6/2010 12:38	10nt17a				3	Transect A		39	N/A		<20.3	N/A		<8.5	N/A																
9/6/2010 12:51	10nt17b	Silt (stream bank) Brown, highly saturated, poorly graded, soft, cohesive. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		12	N/A	17	<15.1	N/A	<LOD	<7.8	N/A	<LOD																
9/6/2010 12:53	10nt17b				2	Transect B		18	N/A		<16.6	N/A		<6.8	N/A																
9/6/2010 12:55	10nt17b				3	Transect B		21	N/A		<17.4	N/A		<6.9	N/A																

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn	Sn +/-	I	I +/-	Ba	Ba +/-	Pb	Pb +/-	U	U +/-	Th
9/15/2010 16:17	10nt11b	Silt (loess) gray, moist, soft, somewhat cohesive, no gravel, poorly graded some fine sands. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		< LOD	4.31	41.51	4.68	102.54	6.1	235.52	10.13	< LOD	6.41	< LOD	7.99	< LOD	11.07	< LOD	17.18	NA	NA	94.29	46.02	< LOD	9.62	< LOD	11.54	< LOD
9/15/2010 16:19	10nt11b				2	Transect B		< LOD	4.01	26.07	3.66	80.7	5.09	119.96	7.25	< LOD	5.78	< LOD	7.04	< LOD	9.45	< LOD	14.09	NA	NA	< LOD	56.02	11.97	6.39	< LOD	10.09	< LOD
9/15/2010 16:22	10nt11b				3	Transect B		< LOD	4.8	37.69	4.53	117.3	6.48	253.11	10.49	< LOD	6.56	< LOD	8.56	< LOD	11.76	< LOD	18.17	NA	NA	147.95	48.04	< LOD	10.29	< LOD	11.49	10.44
9/15/2010 17:04	10nt12b	Silt and gravel (hillslopes) Brown to black, moist somewhat tight, little plasticity, gravel is graywacke, mostly 1/2" to 2" angular to some some subrounded faces. Calcites: none noted. Minerals: none noted.	no	no	1	Transect B		< LOD	5.34	32.93	4.75	85.49	6.1	173.01	9.7	< LOD	7.11	< LOD	9.1	< LOD	12.25	< LOD	18.58	NA	NA	< LOD	74.25	12.94	7.69	15.68	8.62	< LOD
9/15/2010 17:07	10nt12b				2	Transect B		< LOD	5.95	32.51	5	73.19	6.26	166.52	10.5	9.26	5.26	< LOD	8.92	< LOD	12.42	< LOD	18.62	NA	NA	< LOD	75.36	< LOD	11.95	< LOD	12.51	11.69
9/15/2010 17:12	10nt12b				3	Transect B		< LOD	5	34.38	4.26	112.42	6.19	195.1	9.21	< LOD	6.22	< LOD	7.81	< LOD	10.8	< LOD	16.38	NA	NA	< LOD	66	< LOD	9.66	< LOD	11.14	< LOD
9/15/2010 17:56	10nt13b	Silt (loess) gray, moist, soft, some what cohesive, no gravel, poorly graded, some fine sand. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		< LOD	4.12	28.07	3.77	112.91	5.93	169.31	8.36	< LOD	6	< LOD	7.23	< LOD	9.68	< LOD	14.76	NA	NA	< LOD	61.06	< LOD	8.41	< LOD	9.97	< LOD
9/15/2010 17:59	10nt13b				2	Transect B		< LOD	4.89	35.14	5	104.7	6.98	220.59	11.23	< LOD	7.55	< LOD	10.04	< LOD	13.85	< LOD	20.27	NA	NA	142.48	54.78	15.4	8.23	< LOD	12.73	< LOD
9/15/2010 18:03	10nt13b				3	Transect B		< LOD	4.91	38.6	4.94	108.6	6.82	196.97	10.35	< LOD	7.16	< LOD	9.46	< LOD	12.99	< LOD	19.23	NA	NA	290.8	53.03	16.92	8.16	< LOD	12.14	8.84
9/15/2010 18:42	10nt03b	Silt (loess) gray, soft, some what cohesive, some fine sand, trace gravel at surface, subangular, graywacke, small through 3". Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		< LOD	4.23	36.94	4.49	110.45	6.38	213.86	9.91	< LOD	6.55	< LOD	8.19	< LOD	11.58	< LOD	17.77	NA	NA	112.39	47.12	12.38	7.08	< LOD	11.12	< LOD
9/15/2010 18:46	10nt03b				2	Transect B		< LOD	4.7	36.07	4.46	121.94	6.67	186.46	9.45	7.35	4.43	< LOD	8.15	< LOD	11.25	< LOD	17.18	NA	NA	< LOD	69.08	< LOD	9.71	< LOD	11.18	< LOD
9/15/2010 18:49	10nt03b				3	Transect B		< LOD	4.54	33.38	4.22	107.65	6.11	218.83	9.71	< LOD	6.38	< LOD	8.31	< LOD	12.05	< LOD	18.03	NA	NA	< LOD	70.11	< LOD	8.9	< LOD	10.67	9.08
9/6/2010 9:34	10nt14a	Silt+gravel (spoils pile) brown to black, moist, somehwat compacted, small gravel through 1", well graded, graywacke, argillites, + some small calcines, mainly subangular. Calcines: some small gravel size scattered throughout. Minerals: none noted.	yes	no	1	Transect A		Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available
9/6/2010 9:36	10nt14a				2	Transect A																										
9/6/2010 9:38	10nt14a				3	Transect A																										
9/6/2010 9:57	10nt14b	Silt (loess) (side of slope) gray, soft, moist, slightly cohesive, some fine sand. Gravel located over top, 1.5" to 2" mostly graywacke, subangular, poorly graded. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B																										
9/6/2010 10:00	10nt14b				2	Transect B																										
9/6/2010 10:03	10nt14b				3	Transect B																										
9/6/2010 10:24	10nt15a	Silt+gravel (process area behind pad)Brown to blakc, moist, compacted, well graded, sand gravel through 1", subangular, mostly graywacke, some calcine gravel up to 3/4" in throughout. Calcines: scattered throughout up to 3/4". Minerals: none noted. Note:	yes	no	1	Transect A																										
9/6/2010 10:26	10nt15a				2	Transect A																										
9/6/2010 10:28	10nt15a				3	Transect A																										
9/6/2010 10:42	10nt15b	Silt (loess) (slope area) gray, moist, soft, somewhat cohesive, some fine sand, little gravel on top, graywacke subangular up to 1". Calcines: none noted. Minerals: none noted.	no	no	1	Transect B																										
9/6/2010 10:44	10nt15b				2	Transect B																										
9/6/2010 10:46	10nt15b				3	Transect B																										
9/6/2010 11:35	10nt16a	Silt and gravel (edge of waste rock rock pile). Black, somewhat moist, mostly gravel, well graded, argillites and graywacke, argillites up to 1/2", gray wacke to 3", little calcines, loose, some white minerals weathered brown/rust. Calcines: little, up to	yes	yes	1	Transect A																										
9/6/2010 11:40	10nt16a				2	Transect A																										
9/6/2010 11:42	10nt16a				3	Transect A																										
9/6/2010 11:15	10nt16b	Silt (loess) (Processing pad drainage swale to creek) gray, moist soft, somewhat cohesive, some fine sand, little gravel on top, subangular, up to 2".	No	no	1	Transect B																										
9/6/2010 11:17	10nt16b				2	Transect B																										
9/6/2010 11:19	10nt16b				3	Transect B																										
9/6/2010 12:34	10nt17a	Silt and gravel (stream floodplain) mostly silt with little gravel on top; brown, very moist, some clay, little fine sand, poorly graded, gravel is angular. Calcines:none noted. Mineral: none noted.	no	no	1	Transect A																										
9/6/2010 12:36	10nt17a				2	Transect A																										
9/6/2010 12:38	10nt17a				3	Transect A																										
9/6/2010 12:51	10nt17b	Silt (stream bank) Brown, highly saturated, poorly graded, soft, cohesive. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B																										
9/6/2010 12:53	10nt17b				2	Transect B																										
9/6/2010 12:55	10nt17b				3	Transect B																										

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Th +/-	W	W +/-	V	V +/-	Sc	Sc +/-	Ca	Ca +/-	K	K +/-	S	S +/-	Cs	Cs +/-	Te	Te +/-	Pd	Pd +/-
9/15/2010 16:17	10nt11b	Silt (loess) gray, moist, soft, somewhat cohesive, no gravel, poorly graded some fine sands. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		7.46	< LOD	63.36	126.63	59.62	< LOD	24.4	3392.79	243.51	5889.85	417.79	< LOD	13246.84	< LOD	18.09	< LOD	54.65	< LOD	10.73
9/15/2010 16:19	10nt11b				2	Transect B		6.04	< LOD	53	99.44	52.97	< LOD	32.04	7580.52	331.54	7299.48	455.61	55615.07	15669.76	< LOD	15.4	< LOD	45.78	< LOD	9.35
9/15/2010 16:22	10nt11b				3	Transect B		5.46	< LOD	64.33	< LOD	85.56	< LOD	34.18	8873.84	358.78	8633.66	496.65	56459.55	16243.62	< LOD	18.98	< LOD	57.42	< LOD	11.47
9/15/2010 17:04	10nt12b	Silt and gravel (hillslopes) Brown to black, moist somewhat tight, little plasticity, gravel is graywacke, mostly 1/2" to 2" angular to some some subrounded faces. Calcites: none noted. Minerals: none noted.	no	no	1	Transect B		7.94	< LOD	75.33	< LOD	66.56	23.54	13.61	1949.96	184.86	3418.87	321.24	< LOD	10444.84	< LOD	19.73	< LOD	58.52	< LOD	12.05
9/15/2010 17:07	10nt12b				2	Transect B		6.58	< LOD	93.6	< LOD	51.85	< LOD	14.1	810.49	123.26	1189.74	212.58	< LOD	9347.75	< LOD	20.21	< LOD	60.13	< LOD	12.15
9/15/2010 17:12	10nt12b				3	Transect B		7.17	< LOD	64.25	< LOD	76.36	< LOD	20.62	1595.63	185.79	3092.23	316.7	< LOD	10132.09	< LOD	17.45	< LOD	51.87	< LOD	10.32
9/15/2010 17:56	10nt13b	Silt (loess) gray, moist, soft, some what cohesive, no gravel, poorly graded, some fine sand. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		6.54	< LOD	56.1	< LOD	68.2	< LOD	27.03	5454.01	283.43	3278.07	321.51	< LOD	13966	< LOD	16.06	< LOD	47.99	< LOD	9.83
9/15/2010 17:59	10nt13b				2	Transect B		8.55	< LOD	78.66	< LOD	65	< LOD	19.81	2576.05	195.2	3661.64	324.44	< LOD	11915.3	< LOD	21.6	< LOD	65.77	< LOD	13.77
9/15/2010 18:03	10nt13b				3	Transect B		5.86	< LOD	70.22	< LOD	68.11	< LOD	22.2	3275.89	220.36	4375.97	352.77	< LOD	12443.6	< LOD	20.41	< LOD	61.8	< LOD	12.72
9/15/2010 18:42	10nt03b	Silt (loess) gray, soft, some what cohesive, some fine sand, trace gravel at surface, subangular, graywacke, small through 3". Calcines: none noted. Minerals: none noted.	no	no	1	Transect B		7.86	< LOD	60.12	< LOD	84.39	< LOD	25.01	3565.79	243.81	6206.5	422.03	< LOD	12998.08	< LOD	18.69	< LOD	55.62	< LOD	11.24
9/15/2010 18:46	10nt03b				2	Transect B		7.26	< LOD	60.58	< LOD	77.77	< LOD	25.24	4185.8	252.85	5717.42	401.74	< LOD	10384.99	< LOD	18.24	< LOD	55.04	< LOD	11.09
9/15/2010 18:49	10nt03b				3	Transect B		5.14	< LOD	64.5	103.83	58.84	32.95	18.77	4730.82	274.74	7035.87	448.03	< LOD	14388.4	< LOD	18.75	< LOD	56.13	< LOD	11.43
9/6/2010 9:34	10nt14a	Silt+gravel (spoils pile) brown to black, moist, somehwat compacted, small gravel through 1", well graded, graywacke, argillites, + some small calcines, mainly subangular. Calcines: some small gravel size scattered throughout. Minerals: none noted.	yes	no	1	Transect A		Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available	Electronic Data Not Available
9/6/2010 9:36	10nt14a				2	Transect A																				
9/6/2010 9:38	10nt14a				3	Transect A																				
9/6/2010 9:57	10nt14b	Silt (loess) (side of slope) gray, soft, moist, slightly cohesive, some fine sand. Gravel located over top, 1.5" to 2" mostly graywacke, subangular, poorly graded. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B																				
9/6/2010 10:00	10nt14b				2	Transect B																				
9/6/2010 10:03	10nt14b				3	Transect B																				
9/6/2010 10:24	10nt15a	Silt+gravel (process area behind pad)Brown to blakc, moist, compacted, well graded, sand gravel through 1", subangular, mostly graywacke, some calcine gravel up to 3/4" in throughout. Calcines: scattered throughout up to 3/4". Minerals: none noted. Note:	yes	no	1	Transect A																				
9/6/2010 10:26	10nt15a				2	Transect A																				
9/6/2010 10:28	10nt15a				3	Transect A																				
9/6/2010 10:42	10nt15b	Silt (loess) (slope area) gray, moist, soft, somewhat cohesive, some fine sand, little gravel on top, graywacke subangular up to 1". Calcines: none noted. Minerals: none noted.	no	no	1	Transect B																				
9/6/2010 10:44	10nt15b				2	Transect B																				
9/6/2010 10:46	10nt15b				3	Transect B																				
9/6/2010 11:35	10nt16a	Silt and gravel (edge of waste rock rock pile). Black, somewhat moist, mostly gravel, well graded, argillites and graywacke, argillites up to 1/2", gray wacke to 3", little calcines, loose, some white minerals weathered brown/rust. Calcines: little, up to	yes	yes	1	Transect A																				
9/6/2010 11:40	10nt16a				2	Transect A																				
9/6/2010 11:42	10nt16a				3	Transect A																				
9/6/2010 11:15	10nt16b	Silt (loess) (Processing pad drainage swale to creek) gray, moist soft, somewhat cohesive, some fine sand, little gravel on top, subangular, up to 2".	No	no	1	Transect B																				
9/6/2010 11:17	10nt16b				2	Transect B																				
9/6/2010 11:19	10nt16b				3	Transect B																				
9/6/2010 12:34	10nt17a	Silt and gravel (stream floodplain) mostly silt with little gravel on top; brown, very moist, some clay, little fine sand, poorly graded, gravel is angular. Calcines:none noted. Mineral: none noted.	no	no	1	Transect A																				
9/6/2010 12:36	10nt17a				2	Transect A																				
9/6/2010 12:38	10nt17a				3	Transect A																				
9/6/2010 12:51	10nt17b	Silt (stream bank) Brown, highly saturated, poorly graded, soft, cohesive. Calcines: none noted. Minerals: none noted.	no	no	1	Transect B																				
9/6/2010 12:53	10nt17b				2	Transect B																				
9/6/2010 12:55	10nt17b				3	Transect B																				

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	As	As +/-	Average As	Sb	Sb +/-	Average Sb	Hg	Hg +/-	Average Hg	Ti	Ti +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-
16-Sep-2010	10IT18A	Moist/wet brown to dark brown sand silt. ~75% silt, 25% very fine sand. No gravel.	Not Noted	not noted	1	Transect A		18	3	29	<LOD	60	<LOD	<LOD	9	<LOD	865	175	<LOD	58	244	22	8293	105	191	29	<LOD	25	<LOD	17	33	4
16-Sep-2010	10IT18A				2	Transect A		30	3		<LOD	59		<LOD	9		1764	204	<LOD	65	427	26	14772	152	227	36	<LOD	27	23	6	49	4
16-Sep-2010	10IT18A				3	Transect A		40	3		<LOD	57		<LOD	9		1449	190	<LOD	61	337	24	14214	144	221	35	<LOD	27	<LOD	16	45	4
16-Sep-2010	10IT18B	2-3" roots and organics. Brown moist to wet sand silt. ~60% silt, ~40% fine sand. No gravel. Stream deposit. No burnt ore.	no	not noted	1	Transect B		36	3	122	<LOD	55	228	<LOD	8	12	<LOD	422	<LOD	46	190	19	3953	64	65	20	<LOD	22	<LOD	16	31	3
16-Sep-2010	10IT18B				2	Transect B		117	4		166	20		<LOD	9		1480	193	<LOD	65	431	26	12840	136	210	34	<LOD	27	<LOD	17	60	4
16-Sep-2010	10IT18B				3	Transect B		214	6		289	23		12	4		2182	246	<LOD	74	542	32	19941	211	395	46	<LOD	33	<LOD	20	74	5
16-Sep-2010	10IT19A	Med/dark brown to grey gravelly silt with sand. ~35% silt, 30% gravel up to 2", 25% med-fine sand, 10% coarse sand/pebbles. Gravel material consists mostly of sand and siltstone. Some siltstone has white veins, some sandstone is rusty orange. Some sma	not noted	yes	1	Transect A		951	17	745	1024	32	770	309	13	233	4393	375	<LOD	107	585	43	38107	435	423	74	<LOD	47	59	9	122	7
16-Sep-2010	10IT19A				2	Transect A		779	16		865	33		243	12		3622	390	<LOD	119	572	47	48287	564	613	87	<LOD	53	63	10	123	8
16-Sep-2010	10IT19A				3	Transect A		506	12		422	28		147	9		3799	343	132	35	500	39	28205	328	191	61	57	14	110	10	119	7
16-Sep-2010	10IT19B	8" of dense roots and organics. Med-dark brown silty sand trace gravel. ~60% fine sand and 20% silt. 10% med-coarse sand. 10% gravel. Gravel up to 1/2", sub angular, sandstone and siltstone. Believed to be in disturbed area. No ore, waste rock, or coo	no	not noted	1	Transect B		485	9	499	373	23	408	184	8	138	2660	253	<LOD	75	465	30	18512	197	226	43	<LOD	33	47	7	77	5
16-Sep-2010	10IT19B				2	Transect B		404	9		332	24		62	6		3168	283	<LOD	85	408	32	23640	256	317	52	<LOD	36	34	7	92	6
16-Sep-2010	10IT19B				3	Transect B		607	11		519	25		169	8		3240	283	<LOD	85	594	35	22165	241	151	49	44	12	38	7	83	6
16-Sep-2010	10IT20A	Med Brown grey silty gravel. ~50% gravel up to 4", angular to rounded. ~30% silt and 20% med sand/pebbles. Gravel consists mostly of sand and siltstone. One rounded river rock (granitoid). One piece of siltstone had a white vein. One piece of sandsto	no	yes	1	Transect A		3532	43	3,982	4841	61	5,008	641	18	655	2936	336	<LOD	103	449	38	29726	341	334	63	<LOD	45	<LOD	26	117	7
16-Sep-2010	10IT20A				2	Transect A		4896	57		7587	88		839	21		3393	360	119	37	566	42	30213	351	372	65	63	16	57	10	114	8
16-Sep-2010	10IT20A				3	Transect A		3518	47		2595	47		486	17		3664	379	151	40	550	45	33157	413	282	73	<LOD	50	<LOD	29	103	8
16-Sep-2010	10IT21A	~4" of roots and organics. Med-dark brown gravelly silt, moist. ~30% gravel up to 2" angular to sub angular. ~40% silt, ~15% med-fine sand and ~15% coarse sand and pebbles. Gravel consists of sandstone and siltstone. 2 pieces of sandstone were rusty o	no	no	1	Transect A		69	8	191	143	41	206	<LOD	22	59	2949	552	<LOD	162	1539	96	34158	653	354	112	<LOD	73	55	15	177	13
16-Sep-2010	10IT21A				2	Transect A		163	8		<LOD	90		31	6		6101	555	<LOD	169	2269	94	104514	1323	1695	149	<LOD	77	182	14	198	11
16-Sep-2010	10IT21A				3	Transect A		342	9		269	27		86	7		4667	398	178	40	2068	68	51754	548	552	82	96	18	58	9	176	8
16-Sep-2010	10IT21B	~2" of roots and organics. Med-dark grey gravelly sand with silt. ~40% gravel up to 1" angular to sub angular. ~20% coarse sand/pebbles. ~20% med-fine sand. ~20% silt. Gravel consists of sand and siltstone and 2 pieces of dike material. Some of the sil	no	yes	1	Transect B		12818	154	8,186	6439	89	5,451	1280	32	1,517	2873	399	<LOD	128	459	46	33017	435	309	77	<LOD	55	51	12	146	10
16-Sep-2010	10IT21B				2	Transect B		2926	34		2927	42		802	19		2271	272	<LOD	86	432	33	20129	229	281	49	<LOD	38	41	8	117	7
16-Sep-2010	10IT21B				3	Transect B		8813	99		6986	86		2470	43		2967	386	236	44	648	47	36893	434	382	75	70	18	75	11	117	9
16-Sep-2010	10IT20B	~1-2" of roots and organics. Med brown to gray, moist silty gravel. ~50% gravel up to 1", angular to sub angular. ~30% silt and ~20% med sand to pebbles. Gravel consists of sandstone and siltstone. One piece of sandstone was a rusty orange color, one p	no	yes	1	Transect B		52	4	79	<LOD	75	<LOD	<LOD	12	<LOD	2628	283	<LOD	83	246	29	14252	188	192	44	<LOD	35	<LOD	22	61	5
16-Sep-2010	10IT20B				2	Transect B		81	5		<LOD	68		<LOD	11		3755	292	<LOD	83	527	34	24522	258	372	52	<LOD	36	25	7	90	5
16-Sep-2010	10IT20B				3	Transect B		104	5		<LOD	71		<LOD	11		3048	294	126	31	416	33	24816	272	407	55	<LOD	38	35	8	102	6
16-Sep-2010	10IT22A	Med-dark gray moist silty and sandy gravel. ~30% gravel up to 1.5". ~15% rounded pebbles. ~20% med-fine sand. ~15% silt. ~30% coarse sand. Gravel is angular to sub angular and consists mostly of sandstone and siltstone. Some siltstone had white veins,	no	yes	1	Transect A		3333	51	3,247	3921	67	4,184	790	25	868	2489	401	<LOD	131	654	53	28872	418	387	79	<LOD	53	<LOD	33	128	10
16-Sep-2010	10IT22A				2	Transect A		3538	48		4693	68		918	25		2514	364	<LOD	109	576	46	29378	380	339	71	<LOD	49	46	10	113	9
16-Sep-2010	10IT22A				3	Transect A		2870	38		3939	56		897	23		1514	304	<LOD	101	519	40	24644	306	372	62	<LOD	45	38	9	124	8
16-Sep-2010	10IT22B	~6" of roots, sticks, & organics. Med brown-gray silty gravel, moist. ~50% angular to sub angular gravel up to 2.5". ~30% silt, ~20% coarse sand/pebbles. Gravel consists of sandstone and siltstone. No ore or veins observed. One piece of sandstone was	no	no	1	Transect B		434	11	423	186	26	270	140	9	115	2162	300	<LOD	92	804	44	23841	287	347	58	<LOD	39	27	8	105	7
16-Sep-2010	10IT22B				2	Transect B		434	16		245	42		130	13		2441	476	<LOD	153	1060	76	20575	403	393	85	<LOD	63	<LOD	38	123	11
16-Sep-2010	10IT22B				3	Transect B		400	10		378	26		74	6		4228	344	106	33	1122	48	29319	322	360	61	63	14	51	8	123	7

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Se	Se +/-	Rb	Rb +/-	Sr	Sr +/-	Zr	Zr +/-	Mo	Mo +/-	Ag	Ag +/-	Cd	Cd +/-	Sn	Sn +/-	I	I +/-	Ba	Ba +/-	Pb	Pb +/-	U	U +/-	Th
16-Sep-2010	10IT18A	Moist/wet brown to dark brown sand silt. ~75% silt, 25% very fine sand. No gravel.	Not Noted	not noted	1	Transect A		<LOD	3	25	1	47	2	82	2	<LOD	6	<LOD	25	<LOD	33	<LOD	54	NA		<LOD	311	<LOD	6	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed
16-Sep-2010	10IT18A				2	Transect A		<LOD	3	36	1	67	2	130	2	6	2	<LOD	24	<LOD	32	<LOD	53	NA		<LOD	350	<LOD	7			
16-Sep-2010	10IT18A				3	Transect A		<LOD	2	30	1	61	2	116	2	<LOD	6	<LOD	24	<LOD	31	<LOD	52	NA		<LOD	332	<LOD	6			
16-Sep-2010	10IT18B	2-3" roots and organics. Brown moist to wet sand silt. ~60% silt, ~40% fine sand. No gravel. Stream deposit. No burnt ore.	no	not noted	1	Transect B		<LOD	3	22	1	54	2	62	2	20	2	<LOD	25	<LOD	31	<LOD	50	NA		<LOD	264	7	2			
16-Sep-2010	10IT18B				2	Transect B		<LOD	3	36	1	78	2	101	2	<LOD	6	<LOD	24	<LOD	32	<LOD	52	NA		<LOD	338	7	2			
16-Sep-2010	10IT18B				3	Transect B		<LOD	3	52	2	91	2	127	3	<LOD	6	<LOD	27	<LOD	36	<LOD	60	NA		490	141	9	3			
16-Sep-2010	10IT19A	Med/dark brown to grey gravelly silt with sand. ~35% silt, 30% gravel up to 2", 25% med-fine sand, 10% coarse sand/pebbles. Gravel material consists mostly of sand and siltstone. Some siltstone has white veins, some sandstone is rusty orange. Some sma	not noted	yes	1	Transect A		<LOD	4	65	2	125	3	135	3	<LOD	8	<LOD	32	<LOD	43	<LOD	72	NA		837	205	34	4			
16-Sep-2010	10IT19A				2	Transect A		<LOD	5	63	2	110	3	133	3	<LOD	8	<LOD	34	<LOD	45	<LOD	77	NA		1022	222	21	4			
16-Sep-2010	10IT19A				3	Transect A		<LOD	4	101	3	115	3	132	3	<LOD	8	<LOD	32	<LOD	42	<LOD	71	NA		794	190	22	4			
16-Sep-2010	10IT19B	8" of dense roots and organics. Med-dark brown silty sand trace gravel. ~60% fine sand and 20% silt. 10% med-coarse sand. 10% gravel. Gravel up to 1/2", sub angular, sandstone and siltstone. Believed to be in disturbed area. No ore, waste rock, or coo	no	not noted	1	Transect B		<LOD	3	46	2	102	2	135	3	<LOD	6	<LOD	26	<LOD	35	<LOD	58	NA		513	142	11	3			
16-Sep-2010	10IT19B				2	Transect B		<LOD	3	56	2	109	3	159	3	<LOD	7	<LOD	28	<LOD	38	<LOD	63	NA		<LOD	466	9	3			
16-Sep-2010	10IT19B				3	Transect B		<LOD	4	51	2	117	3	172	3	8	2	<LOD	28	<LOD	37	<LOD	61	NA		494	155	16	3			
16-Sep-2010	10IT20A	Med Brown grey silty gravel. ~50% gravel up to 4", angular to rounded. ~30% silt and 20% med sand/pebbles. Gravel consists mostly of sand and siltstone. One rounded river rock (granitoid). One piece of siltstone had a white vein. One piece of sandsto	no	yes	1	Transect A		<LOD	6	50	2	157	4	78	3	15	3	<LOD	31	<LOD	40	<LOD	67	NA		724	190	29	4			
16-Sep-2010	10IT20A				2	Transect A		<LOD	7	62	2	378	6	108	3	<LOD	8	<LOD	32	<LOD	43	<LOD	74	NA		635	199	18	4			
16-Sep-2010	10IT20A				3	Transect A		<LOD	7	58	2	209	5	120	3	<LOD	8	<LOD	34	<LOD	46	<LOD	78	NA		<LOD	628	<LOD	11			
16-Sep-2010	10IT21A	~4" of roots and organics. Med-dark brown gravelly silt, moist. ~30% gravel up to 2" angular to sub angular. ~40% silt, ~15% med-fine sand and ~15% coarse sand and pebbles. Gravel consists of sandstone and siltstone. 2 pieces of sandstone were rusty o	no	no	1	Transect A		<LOD	6	51	3	99	5	101	5	<LOD	13	<LOD	53	<LOD	67	<LOD	110	NA		1069	320	<LOD	16			
16-Sep-2010	10IT21A				2	Transect A		<LOD	5	84	3	115	4	126	4	23	3	<LOD	38	<LOD	49	<LOD	80	NA		1366	311	17	5			
16-Sep-2010	10IT21A				3	Transect A		<LOD	4	72	2	162	4	143	3	<LOD	7	<LOD	31	<LOD	42	<LOD	71	NA		1728	228	25	4			
16-Sep-2010	10IT21B	~2" of roots and organics. Med-dark grey gravelly sand with silt. ~40% gravel up to 1" angular to sub angular. ~20% coarse sand/pebbles. ~20% med-fine sand. ~20% silt. Gravel consists of sand and siltstone and 2 pieces of dike material. Some of the sil	no	yes	1	Transect B		<LOD	11	61	3	223	5	77	3	<LOD	9	<LOD	36	<LOD	49	<LOD	85	NA		<LOD	679	<LOD	13			
16-Sep-2010	10IT21B				2	Transect B		<LOD	6	50	2	203	4	95	3	<LOD	7	<LOD	29	<LOD	38	<LOD	65	NA		<LOD	461	<LOD	9			
16-Sep-2010	10IT21B				3	Transect B		<LOD	10	52	2	333	6	88	3	<LOD	8	<LOD	33	<LOD	44	<LOD	78	NA		1072	224	19	4			
16-Sep-2010	10IT20B	~1-2" of roots and organics. Med brown to gray, moist silty gravel. ~50% gravel up to 1", angular to sub angular. ~30% silt and ~20% med sand to pebbles. Gravel consists of sandstone and siltstone. One piece of sandstone was a rusty orange color, one p	no	yes	1	Transect B		<LOD	3	38	2	51	2	114	3	<LOD	7	<LOD	31	<LOD	41	<LOD	68	NA		<LOD	467	<LOD	8			
16-Sep-2010	10IT20B				2	Transect B		<LOD	3	54	2	108	3	186	3	<LOD	7	<LOD	28	<LOD	37	<LOD	61	NA		566	158	15	3			
16-Sep-2010	10IT20B				3	Transect B		<LOD	3	53	2	99	3	173	3	<LOD	7	<LOD	29	<LOD	39	<LOD	64	NA		680	166	16	3			
16-Sep-2010	10IT22A	Med-dark gray moist silty and sandy gravel. ~30% gravel up to 1.5". ~15% rounded pebbles. ~20% med-fine sand. ~15% silt. ~30% coarse sand. Gravel is angular to sub angular and consists mostly of sandstone and siltstone. Some siltstone had white veins,	no	yes	1	Transect A		<LOD	8	54	3	162	5	99	4	<LOD	9	<LOD	39	<LOD	52	<LOD	88	NA		<LOD	691	16	5			
16-Sep-2010	10IT22A				2	Transect A		<LOD	7	47	2	147	4	92	3	<LOD	8	<LOD	35	<LOD	47	<LOD	80	NA		657	208	<LOD	12			
16-Sep-2010	10IT22A				3	Transect A		<LOD	6	61	2	165	4	99	3	<LOD	8	<LOD	33	<LOD	43	<LOD	74	NA		<LOD	539	14	4			
16-Sep-2010	10IT22B	~6" of roots, sticks, & organics. Med brown-gray silty gravel, moist. ~50% angular to sub angular gravel up to 2.5". ~30% silt, ~20% coarse sand/pebbles. Gravel consists of sandstone and siltstone. No ore or veins observed. One piece of sandstone was	no	no	1	Transect B		<LOD	4	62	2	99	3	116	3	10	3	<LOD	32	<LOD	41	<LOD	69	NA		754	176	21	3			
16-Sep-2010	10IT22B				2	Transect B		<LOD	6	44	3	67	4	98	4	<LOD	12	<LOD	50	<LOD	66	<LOD	110	NA		<LOD	829	<LOD	15			
16-Sep-2010	10IT22B				3	Transect B		<LOD	4	79	2	129	3	144	3	<LOD	7	<LOD	30	<LOD	40	<LOD	67	NA		1075	190	27	3			

Table 4-1 XRF Field Screening of the Grid and Transect Locations

Date	Location	Soil Description	Red Porous Rock (aka Burnt Ore, Calcines)	Mineralized Veins	Test Number	Type	Time	Th +/-	W	W +/-	V	V +/-	Sc	Sc +/-	Ca	Ca +/-	K	K +/-	S	S +/-	Cs	Cs +/-	Te	Te +/-	Pd	Pd +/-
16-Sep-2010	10IT18A	Moist/wet brown to dark brown sand silt. ~75% silt, 25% very fine sand. No gravel.	Not Noted	not noted	1	Transect A		Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed	Element Not Analyzed
16-Sep-2010	10IT18A				2	Transect A																				
16-Sep-2010	10IT18A				3	Transect A																				
16-Sep-2010	10IT18B	2-3" roots and organics. Brown moist to wet sand silt. ~60% silt, ~40% fine sand. No gravel. Stream deposit. No burnt ore.	no	not noted	1	Transect B																				
16-Sep-2010	10IT18B				2	Transect B																				
16-Sep-2010	10IT18B				3	Transect B																				
16-Sep-2010	10IT19A	Med/dark brown to grey gravelly silt with sand. ~35% silt, 30% gravel up to 2", 25% med-fine sand, 10% coarse sand/pebbles. Gravel material consists mostly of sand and siltstone. Some siltstone has white veins, some sandstone is rusty orange. Some sma	not noted	yes	1	Transect A																				
16-Sep-2010	10IT19A				2	Transect A																				
16-Sep-2010	10IT19A				3	Transect A																				
16-Sep-2010	10IT19B	8" of dense roots and organics. Med-dark brown silty sand trace gravel. ~60% fine sand and 20% silt. 10% med-coarse sand. 10% gravel. Gravel up to 1/2", sub angular, sandstone and siltstone. Believed to be in disturbed area. No ore, waste rock, or coo	no	not noted	1	Transect B																				
16-Sep-2010	10IT19B				2	Transect B																				
16-Sep-2010	10IT19B				3	Transect B																				
16-Sep-2010	10IT20A	Med Brown grey silty gravel. ~50% gravel up to 4", angular to rounded. ~30% silt and 20% med sand/pebbles. Gravel consists mostly of sand and siltstone. One rounded river rock (granitoid). One piece of siltstone had a white vein. One piece of sandsto	no	yes	1	Transect A																				
16-Sep-2010	10IT20A				2	Transect A																				
16-Sep-2010	10IT20A				3	Transect A																				
16-Sep-2010	10IT21A	~4" of roots and organics. Med-dark brown gravelly silt, moist. ~30% gravel up to 2" angular to sub angular. ~40% silt, ~15% med-fine sand and ~15% coarse sand and pebbles. Gravel consists of sandstone and siltstone. 2 pieces of sandstone were rusty o	no	no	1	Transect A																				
16-Sep-2010	10IT21A				2	Transect A																				
16-Sep-2010	10IT21A				3	Transect A																				
16-Sep-2010	10IT21B	~2" of roots and organics. Med-dark grey gravelly sand with silt. ~40% gravel up to 1" angular to sub angular. ~20% coarse sand/pebbles. ~20% med-fine sand. ~20% silt. Gravel consists of sand and siltstone and 2 pieces of dike material. Some of the sil	no	yes	1	Transect B																				
16-Sep-2010	10IT21B				2	Transect B																				
16-Sep-2010	10IT21B				3	Transect B																				
16-Sep-2010	10IT20B	~1-2" of roots and organics. Med brown to gray, moist silty gravel. ~50% gravel up to 1", angular to sub angular. ~30% silt and ~20% med sand to pebbles. Gravel consists of sandstone and siltstone. One piece of sandstone was a rusty orange color, one p	no	yes	1	Transect B																				
16-Sep-2010	10IT20B				2	Transect B																				
16-Sep-2010	10IT20B				3	Transect B																				
16-Sep-2010	10IT22A	Med-dark gray moist silty and sandy gravel. ~30% gravel up to 1.5". ~15% rounded pebbles. ~20% med-fine sand. ~15% silt. ~30% coarse sand. Gravel is angular to sub angular and consists mostly of sandstone and siltstone. Some siltstone had white veins,	no	yes	1	Transect A																				
16-Sep-2010	10IT22A				2	Transect A																				
16-Sep-2010	10IT22A				3	Transect A																				
16-Sep-2010	10IT22B	~6" of roots, sticks, & organics. Med brown-gray silty gravel, moist. ~50% angular to sub angular gravel up to 2.5". ~30% silt, ~20% coarse sand/pebbles. Gravel consists of sandstone and siltstone. No ore or veins observed. One piece of sandstone was	no	no	1	Transect B																				
16-Sep-2010	10IT22B				2	Transect B																				
16-Sep-2010	10IT22B				3	Transect B																				

Table 4-2 XRF Field Screening of Laboratory Samples

Time	Type	Duration	Units	Sequence	Sample	Mo	Mo Error	Zr	Zr Error	Sr	Sr Error	U	U Error	Rb	Rb Error	Th	Th Error	Pb	Pb Error	Se	Se Error	As	As Error	Hg	Hg Error	Zn	Zn Error	W	W Error	Cu	Cu Error	Ni	Ni Error	Co	Co Error	Fe	Fe Error	Mn	Mn Error
9/20/2010 21:50	SOIL	90	ppm	Final	10MP41SS	< LOD	7.14	451.65	13.95	136.52	7.25	< LOD	12.13	47.67	5.12	< LOD	8.38	13.77	7.63	< LOD	5.24	252.49	16.14	< LOD	11.31	55.13	14.23	< LOD	70.29	< LOD	29.78	< LOD	60.21	< LOD	157.5	19088.79	371.81	589.86	97.12
9/20/2010 22:01	SOIL	90	ppm	Final	10MP53SS	< LOD	7.23	159.43	10.78	217.26	10.03	< LOD	15.66	58.74	6.26	< LOD	9.4	35.5	10.6	< LOD	6.93	2602.11	54.32	84.71	13.29	108.7	20.42	< LOD	76.1	53.05	25.93	< LOD	74.14	< LOD	234.69	33887	546.85	643.1	116.77
9/20/2010 22:11	SOIL	90	ppm	Final	10MP57SS	< LOD	6.76	209.03	10.88	186.71	8.77	< LOD	14.36	52.92	5.62	10.25	6.15	19.77	8.73	< LOD	6.27	1458.25	38.31	97.37	12.85	72.43	16.67	< LOD	70.47	49.61	23.14	< LOD	64.64	< LOD	182.28	23455.42	427.42	548.74	100.76
9/20/2010 22:15	SOIL	90	ppm	Final	10MP18SS	< LOD	7.35	185.81	11.12	165.35	8.87	< LOD	15.15	57.03	6.16	< LOD	9.13	21.11	9.5	< LOD	7.61	2302.83	51.25	81.34	13.6	126.4	21.89	< LOD	84.88	81.82	27.89	79.56	50.52	< LOD	209.26	26906.48	490.01	848.24	127.23
9/20/2010 22:20	SOIL	90	ppm	Final	10MP11SS	< LOD	7.88	94.21	10.79	264.42	12.41	< LOD	21.62	48.66	6.73	12.92	7.76	21.6	11.5	< LOD	10.76	5681.64	88.17	421.97	28.12	143.82	27.29	< LOD	98.17	74.42	30.96	121.33	59.22	< LOD	232.05	27453.3	544.88	561.21	122.68
9/20/2010 22:25	SOIL	90	ppm	Final	10MP23SS	< LOD	7.99	147.27	11.41	197.98	10.49	< LOD	20.21	67.3	7.39	11.57	7.55	30.42	11.53	< LOD	9.59	4455.75	76.41	211.47	20.99	119.73	24.28	< LOD	101.51	75.6	30.83	113.14	58.53	< LOD	253.74	35205.28	602.21	793.72	137.41
9/20/2010 22:32	SOIL	90	ppm	Final	10MP55SS	< LOD	6.87	232.01	11.03	120.17	7.14	< LOD	14.02	49.73	5.5	10.68	6.01	< LOD	10.85	< LOD	6.25	1344.88	36.58	66.16	11.53	89.4	17.68	< LOD	73.28	< LOD	31.67	< LOD	62.27	< LOD	173.34	21739.76	410.94	438.56	93.29
9/20/2010 22:37	SOIL	90	ppm	Final	10MP25SS	< LOD	8.26	125.24	11.84	283.09	13.27	< LOD	25.47	68.32	7.79	< LOD	13.38	220.61	24.29	< LOD	11.16	5533.04	89.92	783.3	37.46	140.22	29.1	< LOD	100.11	77.82	32.21	147.24	61.49	< LOD	242.86	30967.74	587.12	625.7	131.66
9/20/2010 22:47	SOIL	90	ppm	Final	10MP12SS	< LOD	8.05	167.67	11.32	142.54	8.96	< LOD	19.76	58.06	6.8	< LOD	10.31	52.93	13.06	< LOD	8.52	3711.51	68.61	314.69	23.41	108.34	23.04	< LOD	88.77	65.13	29.44	93.4	56.78	< LOD	241.48	32347.55	565.41	680.02	126.23
9/20/2010 22:54	SOIL	90	ppm	Final	10MP56SS	< LOD	6.55	265.92	11.09	135.95	7.15	< LOD	11.7	47.02	5.01	< LOD	8.12	< LOD	10.65	< LOD	4.97	280.49	16.61	< LOD	10.41	51.56	13.67	< LOD	67.01	< LOD	29.17	< LOD	56.04	< LOD	139.8	15409.51	330.72	382.78	81.69
9/20/2010 22:59	SOIL	90	ppm	Final	10MP32SS	< LOD	7.33	106.99	10.16	244.76	10.78	< LOD	16.52	58.98	6.46	< LOD	11.16	107.56	15.99	< LOD	10.15	6853.68	89.47	68.52	14.47	77.78	19.51	< LOD	92.38	< LOD	38.27	< LOD	74.05	< LOD	223.25	31105.96	533.39	659.34	119.24
9/20/2010 23:08	SOIL	90	ppm	Final	10MP02SS	< LOD	8.03	122.14	12.1	361.48	14.34	< LOD	20.39	76.1	7.93	< LOD	10.79	17.26	10.62	< LOD	10.65	5967.42	91.29	156.61	19.87	102.25	23.93	< LOD	106.34	61.05	32.17	< LOD	92.12	< LOD	300.76	47434.17	723.54	1372.29	177.05
9/21/2010 8:49	SHUTTER_CAL	56.12	cps	Final																																			
9/21/2010 8:54	SOIL	90	ppm	Final	10MP37SS	< LOD	6.95	214.53	10.5	74.28	5.73	< LOD	12.23	45.51	5.21	9.02	5.82	11.62	7.59	< LOD	4.98	45.04	8.67	< LOD	10.68	92.62	17.4	< LOD	72.06	< LOD	31.55	< LOD	65.55	< LOD	188.64	25159.54	443.03	402.59	91.78
9/21/2010 10:39	SOIL	90	ppm	Final	10RD13SS	< LOD	5.74	139.57	7.41	69.31	4.61	< LOD	8.42	22.47	3.29	7.11	4.49	< LOD	8.68	< LOD	3.51	8	4.81	< LOD	6.87	25.45	9.42	< LOD	50.32	< LOD	23.17	< LOD	45.57	< LOD	95.86	8999.63	221.99	213.89	57.61
9/21/2010 10:45	SOIL	90	ppm	Final	10RD01SS	< LOD	6.17	191.3	9.12	102.84	5.95	< LOD	10.27	39.99	4.4	< LOD	7.28	< LOD	8.35	< LOD	4.05	19.92	5.6	< LOD	8.45	65.05	13.48	< LOD	54.94	< LOD	23.95	< LOD	52.09	< LOD	144.1	17945	337.24	342.82	75.38
9/21/2010 10:48	SOIL	90	ppm	Final	10RD02SS	< LOD	7.21	214.02	10.81	131.66	7.47	< LOD	13.57	54.46	5.69	< LOD	8.12	14.63	7.99	< LOD	5.62	1037.35	32.63	22.28	8.94	96.3	18.02	< LOD	72.7	42.75	23.09	67.74	44.95	< LOD	180.7	23483.14	430.89	478.32	97.61
9/21/2010 10:51	SOIL	90	ppm	Final	10RD03SS	< LOD	6.57	191.64	10	136.78	7.32	< LOD	12.21	45.14	5.06	< LOD	6.96	< LOD	9.93	< LOD	5.26	784.41	27.35	11.16	7.36	64.57	14.84	< LOD	63.63	< LOD	30.6	< LOD	60.26	< LOD	155.68	18383.14	368.19	404.71	86.22
9/21/2010 10:55	SOIL	90	ppm	Final	10RD04SS	< LOD	7.28	209.02	11.32	134.61	7.96	< LOD	14.54	48.2	5.75	12.62	6.6	< LOD	12.09	< LOD	6.79	1463.43	40.46	50.45	11.4	98.76	19.41	< LOD	78.84	47.36	25.08	< LOD	73.35	< LOD	234.36	34479.36	547.82	634.95	115.7
9/21/2010 10:59	QA/QC	90	ppm	Final	BLANK_180_428	< LOD	5.69	< LOD	5.46	< LOD	2.79	< LOD	6.12	< LOD	2.62	< LOD	6.2	< LOD	8.48	< LOD	4.23	< LOD	6.03	< LOD	8.2	< LOD	10.98	< LOD	53.1	< LOD	22.9	< LOD	46.85	< LOD	21.38	< LOD	44.55	< LOD	54.98
9/21/2010 11:04	QA/QC	90	ppm	Final	STANDARD_RCRA	< LOD	7.89	257.3	13.33	181.96	9.75	< LOD	16.55	70.71	7.22	22.23	11.76	498.83	37.66	484.16	22.89	469.29	36.41	< LOD	14.62	69.88	18.75	< LOD	94.35	57.52	28.69	< LOD	78.16	< LOD	282.3	45696.36	672.61	760.25	136.16
9/21/2010 11:13	SOIL	90	ppm	Final	10RD12SS	< LOD	5.78	174.06	8.09	72.6	4.74	< LOD	9.14	30.15	3.7	< LOD	5.95	< LOD	8.07	< LOD	3.98	18.9	5.28	< LOD	7.54	40.16	10.79	< LOD	51.96	< LOD	22.71	< LOD	46.02	< LOD	113.33	12831.45	266.6	378.01	70.95
9/21/2010 11:18	SOIL	90	ppm	Final	10RD11SS	< LOD	5.72	148.39	7.56	64.31	4.48	< LOD	8.61	25.72	3.44	< LOD	6.26	< LOD	7.87	< LOD	3.63	21.21	5.34	< LOD	7.17	35.91	10.23	< LOD	47.37	< LOD	22.05	< LOD	43.74	< LOD	104.56	10960.24	245.1	217.97	58.62
9/21/2010 11:21	SOIL	90	ppm	Final	10RD10SS	< LOD	6.45	215.54	9.67	65.84	5.02	< LOD	9.55	29.78	4	< LOD	6.81	< LOD	9.25	< LOD	4.54	17.86	5.9	< LOD	8.72	50.23	12.95	< LOD	61.29	37.85	19.79	< LOD	54.83	168.25	102.39	18649.23	353.88	590.04	93.49
9/21/2010 11:30	SOIL	90	ppm	Final	10RD05SS	< LOD	6.12	184.33	8.93	96.07	5.73	< LOD	10.55	35.12	4.24	7.65	4.99	< LOD	9.68	< LOD	4.11	57.01	8.18	< LOD	8.62	60.46	13.31	< LOD	59.66	31.33	18.33	< LOD	50.97	< LOD	125.27	13613.45	292.46	217.93	64.15
9/21/2010 11:33	SOIL	90	ppm	Final	10RD20SS	< LOD	7.21	233.74	11.49	205.6	9.25	< LOD	13.36	49.89	5.46	< LOD	8.38	< LOD	11.73	< LOD	6.17	1093.61	33.54	62.52	11.1	93.83	18.12	< LOD	69.2	75.2	25.2	< LOD	64.14	< LOD	179.43	22365.51	421.91	464.56	95.13
9/21/2010 11:38	SOIL	90	ppm	Final	10UP01SS	< LOD	6.44	230.64	10.07	78	5.44	< LOD	10.62	30.81	4.2	8.74	5.27	< LOD	9.93	< LOD	4.52	9.07	5.55	< LOD	9.26	44.01	12.65	< LOD	65.6	< LOD	28.94	< LOD	57.3	< LOD	138.92	15665.97	326.32	207.38	67.18
9/21/2010 11:47	SOIL	90	ppm	Final	10MP38SS	< LOD	6.78	199.21	10.27	110.95	6.86	< LOD	13.59	40.13	5.05	< LOD	7.7	< LOD	11.07	< LOD	5.51	709.41	26.7	77.97	11.81	77.79	16.69	< LOD	71.05	< LOD	30.51	< LOD	61.24	< LOD	162.6	18624.87	378.25	387.66	87.56
9/21/2010 11:50	SOIL	90	ppm	Final	10MP33SS	7.63	4.51	198.57	9.6	68.41	5.21	< LOD	10.41	26.2	4.02	8.85	5.45	21.77	8.02	< LOD	4.63	18.01	7.18	< LOD	9.63	43.29	12.92	< LOD	69.74	< LOD	28.35	< LOD	55.73	< LOD	143.4	15920.86	335.32	1553.3	139.99
9/21/2010 11:53	SOIL	90	ppm	Final	10MP13SS	< LOD	7.75	181.15	11.54	172.68	9.48	< LOD	18.24	70.24	7.14	< LOD	11.84	105.54	16.2	< LOD	7.66	2212.03	53.19	155.53	17.53	126.74	23.14	< LOD	91.39	50.72	27.9	128.48	56.14	< LOD	224.19	29966.01	537	699.08	124.56
9/21/2010 11:57	SOIL	90	ppm	Final	10MP14SS	< LOD	8	122.65	11.43	237.96	11.67	< LOD	21.17	44.28	6.61	< LOD	12.11	83.77	16	< LOD	11.26	7986.66	104.02	289.76	24.41	146.28	27	< LOD	102.19	76.06	32.18	102.74	59.76	< LOD	244.34	31908.62	583.46	742.09	135.45
9/21/2010 12:00	SOIL	90	ppm	Final	10MP15SS	< LOD	7.66	195.55	11.11	90.74	6.89	< LOD	13.99	49.66	5.83	< LOD	9.57	31.72	10.5	< LOD	6.47	602.46	27.57	80.06	13.11	110.18	20.76	< LOD	80.96	40.22	25.83	< LOD	72.17	< LOD	205.61	25574.66	485.53	703.01	119.68
9/21/2010 12:03	SOIL	90	ppm	Final	10MP06SS	< LOD	8.13	128.57	11.37	220.13	11.43	< LOD	21.81	60.69	7.18	< LOD	10.89	40.45	13.08	< LOD	10.74	5755.63	88.52	469.19	29.35	128.6	26.55	< LOD	99.92	89.81	33.1	108.65	60.45	< LOD	270.48	39449.37	649.57	681.14	133.52
9/21/2010 12:06	SOIL	90	ppm	Final	10MP22SS	< LOD	7.46	166.48	10.71	156.38	8.69	< LOD	15.88	68.63	6.67	11.3	6.76	14.34	8.81	< LOD	6.56	1721.88	44.54	104.76	14.28	123.8	21.67	< LOD	79.66	94.52	29.11	86.71	51.34	< LOD	218.53	30030.71	519.07	730.01	121.43
9/21/2010 12:09	SOIL	90	ppm	Final	10MP40SS	< LOD	7.18	171.71	10.04	77.48	6.07	< LOD	12.41	42.1	5.23	< LOD	8.01	< LOD	10.77	< LOD	5.71	230.7	16.49	< LOD	12.39	80.16	17.41	< LOD	79.05	< LOD	35.45	< LOD	67.66	< LOD	156.89	16429.6	372.77	160.33	72.07
9/21/2010 12:15	SOIL	90	ppm	Final	10MP11SS	< LOD	7.65	132.4	11.14	248.31	11.59	< LOD	21.71	56.51	6.95	< LOD	10.58	27.76	11.47	< LOD	9.72	4606.99	76.46	399.45	26.1	94.15	22.73	< LOD	88.27	57.94	28.95	< LOD	84.01	< LOD	236.15	30713.93	553.72	616.31	122.55
9/21/2010 12:21	SOIL	90	ppm	Final	10MP14SS	< LOD	7.75	192.02	11.76	138.03	8.66	< LOD	17.1	52.57	6.45	< LOD	10.07	23.79	10.32	< LOD	7.68	1790.9	47.91	110.96	15.68	123.3	23	< LOD	89.93	71.88	29.66	< LOD	80	< LOD	231.51	29824.4	544.65	869.66	136.79
9/21/2010 12:30	SOIL	90	ppm	Final	10MP01SS	< LOD	6.87	176.69	9.86	83.41	6.14	< LOD	16.3	87.07	7.03	< LOD	8.77	17.49	8.35	< LOD	5.22	221.27	16.09	64.47	11.48	142.01	21.21	< LOD	77.61	100.06	26.89	< LOD	68.14	< LOD	198.22	27434.2	465.84	897.43	122.08
9/21/2010 12:33	SOIL	90	ppm	Final	10MP39SS	< LOD	7.25	168.19	10.33	133.47	7.82	< LOD	13.7	50.43	5.69	< LOD	8.95	12.93	8.19	< LOD	6.15	1469.86	40.12	42.96	11.05	91.12	18.65	< LOD	81.04	< LOD	34.17	< LOD	71.64	< LOD	185.76	22950.57	442.39	454.62	99.53
9/21/2010 12:37	SOIL	90	ppm	Final	10MP35SS	< LOD	6.64	170.39	10.06	163.29	8.24	< LOD	14.63	47.24	5.47	< LOD	8.46	34.67	9.87	< LOD	6.5	1776.86	42.35	80.27	12.44	75.96	17.05	< LOD	75.7	50.34	23.33	< LOD	64.16	< LOD	176.33	22607.95	419.92	480.64	96.75
9/21/2010 12:39	SOIL	90	ppm	Final	10MP26SS	< LOD	8.46	120.04	12.28	342.07	14.92	< LOD	31.67	55.8	8.06	< LOD	11.87	22.77	13.33	< LOD	12.21	6314.51	95.91	1181.9	46.21	100.05	29.28	< LOD	109.5	109.3	35.65	155.21	65.89	< LOD	241.63	27098.75	558.08	474.49	121.13
9/21/2010 13:54	SOIL	90	ppm	Final	10DS01SS	< LOD	7.56	175.74	11.06	141.04	8.56	< LOD	16.58	58.98	6.47	13.8	7.09	< LOD	13.38	< LOD	6.58	437.66	23.72	168.68	17.33	105.16	21.19	< LOD	85.18	48.93	27.07	119.2	56.96	< LOD	317.61	61945.45	763.78	3699.25	249.67
9/21/2010 13:57	SOIL	90	ppm	Final	10MP15SS(2)	< LOD	8.11	125.41	11.72	267.93	12.48	< LOD	18.4	57.95	6.96	13.1	7.96	29.51	11.95	< LOD	10.62	5604.19	88.75	188.17	21.11	143.25	26.77	< LOD	107.06	61.97	31.65	112.94	61.55	< LOD	229.36	25759.19	535.12	596.69	125.43
9/21/2010 14:01	SOIL	90	ppm	Final	10MP49SS	< LOD	8.32	173.31	12.59	257.35	12.11	< LOD	18.2	60.54	7.06	< LOD	10.07	27.13	11.5	< LOD	10.31	4597.34	79.76	136.43	18.41	131.38	25.23	< LOD	101.66	50.14	30.54	152.77	62.2	< LOD	233.35	28784.33	560.4	610.7	127.58
9/21/2010 14:04	SOIL	90	ppm	Final	10MP27SS	< LOD	8.15	132.41	11.72	246.03	11.95	< LOD	20.57	54.62	6.95	< LOD	12.84	165.48	20.81	< LOD	10.58	6780.67	97.25	312.64	24.96	111.52	24.91	< LOD	96.81	127.24	35.56	< LOD	91.5	< LOD	293.99	44079.37	689.71	761.22	141.89
9/21/2010 14:07	SOIL	90	ppm	Final	10MP09SS	< LOD	7.81	167.63	11.5	216.47	10.58	21.86	13.64	56.69	6.82	13.66	7.55	42.23	12.32	< LOD	9.4	3635.82	66.76	280.87	22.06	115.55	23.13	< LOD	88.58	86.26	30.03	< LOD	77.13	< LOD	233.9	33344.11	564.57	421.95	107.28
9/21/2010 14:10	SOIL	90	ppm	Final	10MP48SS	< LOD	7.44	133.22	10.82	251.94	11.49	< LOD	24.47	53.54	6.9	< LOD	16.56	573.22	33.81	< LOD	9.77	3825.02	71.75	739.96	33.02	130.56	25.54	< LOD	83.36	78.72	28.83	91.82	53.28	< LOD	214.42	27404.36	504.17	573.89	114.2
9/21/2010 14:13	SOIL	90	ppm	Final	10MP61SS	< LOD	7.02	200.5	10.65	132.26	7.57	< LOD	13.75	47.08	5.45	< LOD	8.31	< LOD	11.42	< LOD	5.65	904.49	30.74	49.41	10.61	70.3	16.43	< LOD	72.57	< LOD	33.4	< LOD	64.63	< LOD	167.42	19094.97	392.19	310.08	84.24
9/21/2010 14:16	SOIL	90	ppm	Final	10MP63SS	< LOD	7.59	177.19	11.5	223.44	10.47	< LOD	15.88	49.26	6	< LOD	9.71	< LOD	13.04	< LOD	8.03	2710.44	56.73	124.69	15.64	97.52	20.51	< LOD	80.91	63.23	27.91	79.84	52.46	< LOD	218.27	28834.65	518.94	590.17	115.75
9/21/2010 14:19	SOIL	90	ppm	Final	10MP24SS	< LOD	7.52	152.15	10.75	184.11	9.71	< LOD	19.26	69.12	7.01	< LOD	9.6	16.17	9.68	< LOD	7.91	2203.64	51.28	301.38	22.01	143.34	24.28	< LOD	82.96	97.4	30.21	80.16	52.87	< LOD	228.59	31679.38	542.92	776.78	127.63
9/21/2010 14:22	QA/QC	90	ppm	Final	BLANK_180_428	< LOD	5.64	< LOD	5.41	< LOD	2.69	< LOD	7.02	< LOD	2.75	< LOD	4.9	< LOD	7.2	< LOD	3.63	< LOD	5.71	< LOD	8.63	< LOD	12.41	< LOD	56.81	< LOD	23.13	< LOD	48.95	< LOD	21.63	58.31	33.92	< LOD	48.37
9/21/2010 14:25	QA/QC	90	ppm	Final	STANDARD_RCRA_	< LOD	7.85	252.2	12.96	182.2	9.59	< LOD	15.29	69.76	6.96	< LOD	15.2	454.95	35.81	482.76	22.43	472.63	35.12	< LOD	12.9	58.98	17.17	< LOD	88.38	< LOD	39.2	< LOD	81.84	< LOD	272.95	44340.68	651.91	894.77	141.52
9/21/2010 14:29	QA/QC	90	ppm	Final	STANDARD_TILL4_	< LOD	8.13	432.39	14.96	107.72	7.13	20.73	12.5	131.1	8.8	39.33	9.49	51.1	12.04	< LOD	7.24	113.67	14.27	< LOD	15.87	52.17	17.23	265.44	72.35	183.92	33.51	< LOD	67.72	< LOD	224.8	32552.25	528.78	321.78	93.43
9/21/2010 14:31	QA/QC	90	ppm	Final	STANDARD_NCS_1	< LOD	6.5	80.51	7.06	23.86	3.6	< LOD	9.19	5.5	2.77	< LOD	7.28	26.48	8.64	< LOD	4.78	24.72	8.13	< LOD	11.52	42.74	13.4	< LOD	72.4	< LOD	30.77	< LOD	61.4	< LOD	164.6	19502.81	384.18	798.77	111.79
9/21/2010 14:34	QA/QC	90	ppm	Final	STANDARD_GBW_	< LOD	8.2	229.1	13.21	130.2	8.72	< LOD	18.49	92.24	8.49	< LOD	31.71	2513.09	73.18	< LOD	10.41	215.9	59.65	< LOD	18.15	3657.03	109.59	< LOD	138.75	60.5	31.46	< LOD	88.13	< LOD	313.14	54620.57	764.5	9875.32	415.43
9/21/2010 14:36	SOIL	90	ppm	Final	10MP64SS	< LOD	7.31	148.14	11.12	369.24	12.82	< LOD	16.02	43.7	5.65	11.61	6.61	< LOD	12.57	< LOD	7.58	2441.41	52	117.65	15.12	106.9	20.65	< LOD	84.18	42.17	24.98	< LOD	71.63	< LOD	195.64	25962.6	475.39	537.47	107.37
9/21/2010 14:39	SOIL	90	ppm	Final	10MP66SS	< LOD	7.35	181.98	11.51	298.59	11.65	< LOD	16.81	58.55	6.33	< LOD	9.64	< LOD	11.91	< LOD	7	1722.08	43.97	135.24	15.99	104.96	20.75	< LOD	88.55	54.17	26.15	98.05	51.93	< LOD	231.5	34244.21	548.16	953.67	135.08
9/21/2010 14:43	SOIL	90	ppm	Final	10MP08SS	< LOD	7.12	135.04	11.6	581.39	15.85	< LOD	17.38	54.93	6.12	< LOD	9.24	34.06	10.64	< LOD	7.21	2293.7	50.25	198.74	17.72	99.76	20.26	< LOD	76.28	53.61	25.42	< LOD	74.13	< LOD	215.21	30173.58	507.42	553.31	109.67
9/21/2010 14:46	SOIL	90	ppm	Final	10MP03SS	< LOD	8.08	174.44	12.66	293.2	12.9	< LOD	22.39	58.21	7.13	< LOD	11.14	38.11	13.09	< LOD	11.53	5734.09	87.62	473.37	29.13	119.75	25.7	< LOD	95.7	63.4	30.67	< LOD	87.73	< LOD	261.34	36724.73	621.72	714.39	134.82
9/21/2010 14:49	SOIL	90	ppm	Final	10MP04SS	< LOD	7.78	125.75	11.25	276.77	12.28	< LOD	21.45	46.52	6.54	< LOD	9.84	29.66	11.8	< LOD	10.61	5613.32	85.03	406.18	26.76	123.39	25.14	< LOD	93.06	94.4	31.65	95.98	58.02	< LOD	261.18	36692.49	609.84	526.58	119.3
9/21/2010 14:53	SOIL	90	ppm	Final	10MP30SS	< LOD	7.26	179.47	11.02	226.98	10.04	< LOD	15.61	52.01	5.88	< LOD	9.92	55.81	12.07	< LOD	7.6	3062.83	57.76	120.83	15.06	76.92	18.24	< LOD	81.24	< LOD	35.62	88.02	49.16	< LOD	201.68	26947.71	477.57	590.13	108.84
9/21/2010 14:56	SOIL	90	ppm	Final	10MP65SS	< LOD	6.92	240.76	11.31	154.28	7.99	< LOD	13.5	45.88	5.34	< LOD	8.07	11.86	7.71	< LOD	5.7	895.29	30.17	23.47	8.94	84.83	17.14	< LOD	71.49	40.17	22.53	< LOD	62.98	< LOD	169.79	20067.47	396.04	348.66	85.43
9/21/2010 14:58	SOIL	90	ppm	Final	10MP05SS	< LOD	7.79	120.06	10.95	219.24	11.16	< LOD	22.22	52.21	6.88	12.1	7.49	18.56	11.13	< LOD	10.87	5529.39	84.95	438.52	27.67	112.76	24.57	< LOD	89.44	74.81	30.9	106.13	59.31	< LOD	259.17	35809.64	606.85	417.51	113
9/21/2010 15:05	SOIL	90	ppm	Final	10MP28SS	< LOD	8.14	139.28	11.8	270.21	12.43	< LOD	22.22	59.76	7.2	< LOD	10.97	50.6	13.66	< LOD	10.15	5871.46	88.86	446.06	28.39	106.3	24.72	< LOD	94.77	99.39	33.35	148.79	62.74	< LOD	268.23	37824.32	631.9	718.82	135.33
9/21/2010 15:08	SOIL	90	ppm	Final	10RD07SS	< LOD	6.59	269.7	10.77	110.23	6.33	< LOD	11.73	40.78	4.7	< LOD	7.46	< LOD	10.15	< LOD	4.56	57.86	8.56	< LOD	10.27	66.92	14.48	< LOD	66.86	< LOD	26.75	< LOD	53.04	< LOD	138.37	15720.88	325.45	299.43	74.3
9/21/2010 15:11	SOIL	90	ppm	Final	10RD06SS	< LOD	6.59	196.64	9.77	115.26	6.69	< LOD	13.58	40.25	4.84	9.11	5.53	< LOD	11.23	< LOD	5.61	819.98	27.33	134.09	13.42	70.9	15.62	< LOD	64.08	33.67	20.1	< LOD	56.41	< LOD	142.37	16372.25	337.89	346.83	78.98
9/21/2010 15:14	SOIL	90	ppm	Final	10RS03SS	< LOD	6.36	132.67	8.26	102.71	6.12	< LOD	11.38	39.24	4.59	< LOD	7.77	11.05	6.85	< LOD	4.02	79.66	9.62	< LOD	9.4	65.01	14.04	< LOD	59.75	< LOD	27.75	< LOD	54.76	< LOD	145.8	17525.79	343.26	610.27	94.16
9/21/2010 15:18	SOIL	90	ppm	Final	10DS03SS	< LOD	6.59	262.98	10.5	91.39	5.77	< LOD	11.11	41.79	4.62	9.26	5.28	< LOD	9.07	< LOD	4.22	176.88	12.86	14.93	7.46	130.31	18.24	< LOD	65	< LOD	28.23	< LOD	56.99	< LOD	132.59	14054.33	304.75	308.72	73.63
9/21/2010 15:22	SOIL	90	ppm	Final	10MP43SS	< LOD	7.5	171.65	11.14	202.88	9.92	< LOD	16.41	64.18	6.59	10.52	6.8	19.58	9.4	< LOD	6.55	1823.91	46.32	128.6	15.63	102.13	20.6	< LOD	82.27	< LOD	38.49	< LOD	77.87	< LOD	248.87	37792.32	587.41	740.03	126.67
9/21/2010 15:26	SOIL	90	ppm	Final	10MP42SS	< LOD	7.43	193.38	10.82	132.56	7.81	< LOD	15.21	58.87	6.15	< LOD	9.16	16.78	8.61	< LOD	6.11	1206.73	36.42	73.61	12.83	109.11	20.18	< LOD	84.53	58.77	25.57	< LOD	72.27	< LOD	229.21	34500.38	540.31	706.87	118.36
9/21/2010 15:29	SOIL	90	ppm	Final	10MP68SS	< LOD	6.63	206.91	10.02	114.81	6.65	< LOD	12.45	48.67	5.13	< LOD	7.88	14.59	7.61	< LOD	5.27	675.28	25.14	36.66	9.11	85.73	16.27	< LOD	66.65	< LOD	29.03	65.84	40.16	< LOD	132.82	14648.45	322.66	275.87	74.58
9/21/2010 15:32	SOIL	90	ppm	Final	10MP52SS	< LOD	8.85	129.68	12.72	323.04	14.31	< LOD	20.73	51.9	7.24	13.91	8.52	35.23	13.24	< LOD	11.68	5708.47	94.14	175.6	21.77	102.88	25.41	< LOD	114.21	113.58	36.77	180.73	67.62	< LOD	239.72	25838.11	563.12	665.24	137.77
9/21/2010 15:36	SOIL	90	ppm	Final	10MP54SS	< LOD	7.25	197.5	10.86	128.93	7.67	< LOD	14.43	65.21	6.33	< LOD	8.7	20.19	8.83	< LOD	5.81	851.6	30.84	24.71	9.72	83.75	17.99	< LOD	79.29	54.59	25.19	< LOD	70.53	< LOD	237.87	36991.36	559.44	602.21	112.55
9/21/2010 15:39	SOIL	90	ppm	Final	10MP58SS	< LOD	7.11	230.42	11.16	136.06	7.64	16.11	9.99	55.1	5.87	< LOD	8.45	< LOD	11.53	< LOD	5.79	661.42	26.32	51.89	10.71	64.7	15.95	< LOD	73.58	< LOD	33.63	< LOD	67.73	< LOD	171.35	20052.36	399.8	484.93	95.77
9/21/2010 15:41	SOIL	90	ppm	Final	10MP44SS	< LOD	7.41	160.64	10.61	146.01	8.48	< LOD	15.66	59.53	6.42	< LOD	9.95	26.49	9.99	< LOD	6.63	725.31	29.89	54.1	12.44	111.37	21.19	< LOD	91.66	87.99	29.29	< LOD	77.11	< LOD	231.72	33224.09	552.08	621.62	117.82
9/21/2010 15:45	SOIL	90	ppm	Final	10MP51SS	< LOD	8.68	126.95	13.1	385.66	15.74	< LOD	19.63	51.52	7.17	< LOD	12.19	22.5	11.93	< LOD	11.16	5433.11	92.92	131.35	19.66	102.41	25.18	< LOD	109.27	125.91	38.08	231.05	70.59	< LOD	236.81	25108.76	562.21	613.76	134.93
9/21/2010 15:49	SOIL	90	ppm	Final	10MP50SS	< LOD	6.49	206.4	9.93	127.68	6.91	13.35	8.67	40.37	4.83	< LOD	7.95	14.14	7.45	< LOD	4.98	579.15	23.08	56.08	10.22	72.03	15.36	< LOD	68.1	< LOD	28.01	< LOD	57.3	< LOD	138.48	15487.01	327.48	279.43	73.46
9/21/2010 15:52	SOIL	90	ppm	Final	10RS02SS	< LOD	6.85	200.2	10.18	117.01	6.87	< LOD	12.26	42.03	5	9.68	5.75	< LOD	10.72	< LOD	4.62	20.06	6.8	< LOD	10.2	55.47	14.38	< LOD	71.16	< LOD	30.31	< LOD	61.29	< LOD	152.58	16465.05	352.09	483.68	91.77
9/21/2010 15:54	SOIL	90	ppm	Final	10RS01SS	< LOD	6.34	183.62	9	95.25	5.75	< LOD	10.87	34.41	4.28	14.21	5.66	11.74	6.82	< LOD	4.11	26.89	6.8	< LOD	8.41	99.01	15.98	< LOD	61.29	< LOD	26.4	< LOD	50.8	< LOD	141.4	16986.42	329.07	398.5	78.89
9/21/2010 17:03	SOIL	90	ppm	Final	10DS02SS	< LOD	7.16	233.3	11.15	126.14	7.34	< LOD	13.79	52.87	5.67	10.91	6.16	13.57	8.03	< LOD	5.55	244.39	16.68	25.03	9	60.57	15.42	< LOD	72.57	< LOD	33.34	< LOD	64.29	< LOD	203.8	29368.13	483.2	1562.2	153.05
9/21/2010 17:07	SOIL	90	ppm	Final	10SM30SS	< LOD	6.5	172.2	9.36	115.01	6.63	13.34	8.38	45.04	5.06	< LOD	7.91	13.23	7.31	< LOD	4.45	28.97	7.41	< LOD	9.68	48.54	13.36	< LOD	66.54	33.71	20.55	< LOD	59.28	< LOD	157.19	19286.79	370.48	408.11	85.04

Table 4-2 XRF Field Screening of Laboratory Samples

Time	Type	Duration	Units	Sequence	Sample	Mo	Cr	Cr Error	V	V Error	Ti	Ti Error	Sc	Sc Error	Ca	Ca Error	K	K Error	S	S Error	Ba	Ba Error	Cs	Cs Error	Te	Te Error	Sb	Sb Error	Sn	Sn Error	Cd	Cd Error	Ag	Ag Error	Pd	Pd Error
9/20/2010 21:50	SOIL	90	ppm	Final	10MP41SS	< LOD	56.34	24.87	134.52	65.13	4097.99	192.41	< LOD	32.37	7211.33	331.36	9753.54	526.47	< LOD	14768.95	594.7	54.52	< LOD	20.52	< LOD	62.48	93.82	16.34	< LOD	19.62	< LOD	13.03	< LOD	9.4	< LOD	12.56
9/20/2010 22:01	SOIL	90	ppm	Final	10MP53SS	< LOD	73.15	26.05	115.13	63.78	3033.66	182.43	56.39	20.05	4387.32	278.07	11649.24	574.59	< LOD	13624	833.19	65.22	< LOD	25.42	< LOD	74.98	2711.81	40.65	64.16	16.87	< LOD	15.83	< LOD	11.23	< LOD	15.41
9/20/2010 22:11	SOIL	90	ppm	Final	10MP57SS	< LOD	74.47	25.76	< LOD	96	2785.39	182.15	36.48	19.14	4611.23	278.69	10436.28	540.75	< LOD	14198.34	670.1	58.9	< LOD	23.19	< LOD	68.44	2571.92	36.76	51.12	15.35	< LOD	14.83	< LOD	10.78	< LOD	14.18
9/20/2010 22:15	SOIL	90	ppm	Final	10MP18SS	< LOD	55.09	24.76	< LOD	93.5	2993.03	184.49	126.76	24.76	6559.43	319.23	10101.21	536.06	< LOD	15767.46	488.58	63.86	< LOD	28.26	< LOD	77.77	7411.51	64.63	133.4	19.17	22.69	12.26	< LOD	12.71	< LOD	16.6
9/20/2010 22:20	SOIL	90	ppm	Final	10MP11SS	< LOD	94.14	25.48	< LOD	90.07	2513.88	180.19	336.23	37.51	16710.89	473.9	9363.71	521.54	< LOD	19902.94	354.96	76	< LOD	38.67	147.04	66.04	14947.71	109.23	256.35	26.75	69.63	17.4	< LOD	16.72	< LOD	23.14
9/20/2010 22:25	SOIL	90	ppm	Final	10MP23SS	< LOD	71.21	26.77	< LOD	105.99	3053.43	204.58	230.49	33.94	13573.09	445.56	12941.02	614.76	< LOD	16898.75	550.31	71.62	< LOD	33.06	< LOD	87.76	10019.25	82.69	160.77	22.32	33.63	14.33	< LOD	14.98	< LOD	18.33
9/20/2010 22:32	SOIL	90	ppm	Final	10MP55SS	< LOD	50.98	24.67	< LOD	96.4	3008.4	185.45	74.99	21.65	5483.93	296.31	10140.44	533.09	< LOD	15758.54	665.63	61.89	< LOD	24.64	< LOD	72.63	3062.25	41.46	54.02	16.28	< LOD	15.61	< LOD	11.13	< LOD	14.46
9/20/2010 22:37	SOIL	90	ppm	Final	10MP25SS	< LOD	123.47	27.56	< LOD	94.49	2794.38	187.76	306.9	37.73	17286.31	489.51	10902.06	565.38	< LOD	20527.72	329.4	74.77	< LOD	37.72	< LOD	95.01	14491.27	106.37	219.02	25.79	61.56	16.88	< LOD	16.31	< LOD	20.51
9/20/2010 22:47	SOIL	90	ppm	Final	10MP12SS	< LOD	77.69	25.63	115	62.9	2937.35	179.5	58.85	20.22	4692.52	279.63	10240.42	538.4	< LOD	14658.54	750.61	70.24	35.69	19.42	< LOD	81.99	5072.2	57.71	112.46	19.62	< LOD	18.77	< LOD	13.22	< LOD	17.71
9/20/2010 22:54	SOIL	90	ppm	Final	10MP56SS	< LOD	83.07	24.65	< LOD	91.34	3068.06	177.65	36.24	20.09	6042.46	303.45	10839.23	541.28	< LOD	15358.81	634.43	55.2	22.68	14	< LOD	63.27	514.96	20.69	< LOD	20.25	< LOD	13.32	< LOD	9.51	< LOD	12.87
9/20/2010 22:59	SOIL	90	ppm	Final	10MP32SS	< LOD	67.25	26.19	122.55	63.33	2140.94	172.42	27.45	14.51	1232.63	187.72	8950.68	508.9	< LOD	15905.53	883.38	65.91	< LOD	25.12	< LOD	73.67	1982.81	36.15	33.94	16.39	< LOD	15.53	< LOD	11.38	< LOD	14.86
9/20/2010 23:08	SOIL	90	ppm	Final	10MP02SS	< LOD	< LOD	36	143.85	61.54	1934.56	164.29	< LOD	17.91	< LOD	214.18	8890.22	508.43	< LOD	13807.73	1317.58	73.45	53.97	17.79	< LOD	79.81	1244.18	32.39	27.41	17.19	< LOD	16.62	< LOD	11.93	< LOD	16.43
9/21/2010 8:49	SHUTTER_CAL	56.12	cps	Final																																
9/21/2010 8:54	SOIL	90	ppm	Final	10MP37SS	< LOD	72.06	25.03	< LOD	86.93	2424.28	165.07	< LOD	23.44	2810.91	226.53	7026.92	450.03	< LOD	12990.3	253.54	52.48	< LOD	20.23	< LOD	60.88	< LOD	23.2	< LOD	19.29	< LOD	12.41	< LOD	9.06	< LOD	12.67
9/21/2010 10:39	SOIL	90	ppm	Final	10RD13SS	< LOD	< LOD	32.62	< LOD	74.53	1813.74	140.28	< LOD	30.02	7241.36	316.27	4485.53	365.27	< LOD	14238.17	< LOD	55.87	< LOD	15.05	< LOD	45.38	< LOD	16.53	< LOD	13.81	< LOD	9.3	< LOD	6.85	< LOD	9.24
9/21/2010 10:45	SOIL	90	ppm	Final	10RD01SS	< LOD	< LOD	39.1	< LOD	95.17	2671.97	181.01	< LOD	32.13	6365.56	325.42	8888.96	518.46	< LOD	17880.21	335.4	49.83	< LOD	19.24	< LOD	58.69	< LOD	21.66	< LOD	18.38	< LOD	11.91	< LOD	8.55	< LOD	11.86
9/21/2010 10:48	SOIL	90	ppm	Final	10RD02SS	< LOD	50.79	24.67	< LOD	90.45	2580.65	173.97	33.4	19.8	5335.51	293.79	10002.7	530.71	< LOD	14724.95	500.79	56.66	< LOD	22.17	< LOD	65.61	1624.97	30.26	27.14	14.55	< LOD	13.8	< LOD	10.35	< LOD	13.02
9/21/2010 10:51	SOIL	90	ppm	Final	10RD03SS	< LOD	51.4	23.94	< LOD	85.78	2290.63	162.74	< LOD	28.09	4968.5	280.67	8611.25	492.51	< LOD	13641.23	416.26	53.85	< LOD	21.07	< LOD	63.72	806.8	23.26	< LOD	20.45	< LOD	13.41	< LOD	9.52	< LOD	13.11
9/21/2010 10:55	SOIL	90	ppm	Final	10RD04SS	< LOD	< LOD	37.59	108	60.76	2592.14	171.55	< LOD	29.78	5332.4	297.85	8689.16	507.27	< LOD	12972.62	350.25	58.32	< LOD	23.74	< LOD	68.66	2464.83	37.22	39.89	15.59	< LOD	14.66	< LOD	10.33	< LOD	14.09
9/21/2010 10:59	QA/QC	90	ppm	Final	BLANK_180_428	< LOD	< LOD	20.52	< LOD	23.03	< LOD	48.39	< LOD	9.16	301.69	90.51	< LOD	171.76	< LOD	5102.13	< LOD	72.91	< LOD	19.72	< LOD	60.61	< LOD	22.06	< LOD	18.9	< LOD	12.69	< LOD	9.32	< LOD	12.22
9/21/2010 11:04	QA/QC	90	ppm	Final	STANDARD_RCRA	< LOD	226.45	34.39	107.25	67.99	3096.03	195.93	< LOD	58.25	26564.92	633.84	14951.5	689.42	< LOD	21832.83	512.51	64.32	47.53	16.56	< LOD	75.41	< LOD	29.24	< LOD	26	574.29	21.22	557.96	19.49	32.59	13.01
9/21/2010 11:13	SOIL	90	ppm	Final	10RD12SS	< LOD	41.4	25.73	< LOD	91.57	2751.33	176.55	< LOD	31.28	6093.57	312.69	6533.47	445.38	< LOD	16311.06	< LOD	64.69	< LOD	16.99	< LOD	51.56	< LOD	18.64	< LOD	16.02	< LOD	10.65	< LOD	7.78	< LOD	10.36
9/21/2010 11:18	SOIL	90	ppm	Final	10RD11SS	< LOD	< LOD	35.89	< LOD	85.98	2555.84	164.57	< LOD	30.9	6611.64	313.86	5610.58	408.91	< LOD	12593.62	< LOD	59.6	< LOD	15.88	< LOD	47.95	< LOD	17.55	< LOD	14.73	< LOD	9.83	< LOD	7.05	< LOD	9.87
9/21/2010 11:21	SOIL	90	ppm	Final	10RD10SS	< LOD	< LOD	33.78	100.72	55.23	2076.73	153.28	< LOD	25.75	4212.23	260.46	5460.49	404.7	< LOD	12750.51	141.72	47.74	< LOD	18.61	< LOD	56.32	< LOD	20.38	< LOD	17.39	< LOD	11.58	< LOD	8.59	< LOD	11.43
9/21/2010 11:30	SOIL	90	ppm	Final	10RD05SS	< LOD	< LOD	34.53	96.2	56.07	2072.95	155.58	< LOD	26.64	4617.65	270.43	6958.85	443.65	< LOD	13765.89	< LOD	62.88	< LOD	16.62	< LOD	50.03	< LOD	19.3	< LOD	15.51	< LOD	10.4	< LOD	7.59	< LOD	10.29
9/21/2010 11:33	SOIL	90	ppm	Final	10RD20SS	< LOD	40.86	23.34	112.95	58.68	2599.82	166.03	41.06	18.72	4487.25	268.58	8663.84	491.01	< LOD	12140.18	668.74	59.58	< LOD	23.23	< LOD	68.86	2175.32	34.73	29.68	15.16	< LOD	14.74	< LOD	10.81	< LOD	13.96
9/21/2010 11:38	SOIL	90	ppm	Final	10UP01SS	< LOD	< LOD	33.07	< LOD	81.27	2548.94	157.61	< LOD	22.35	2618.65	214.23	5646.09	402.07	< LOD	11496.54	< LOD	69.41	< LOD	18.21	< LOD	54.89	< LOD	19.88	< LOD	17	< LOD	11.24	< LOD	8.18	< LOD	11.1
9/21/2010 11:47	SOIL	90	ppm	Final	10MP38SS	< LOD	64.47	23.07	< LOD	81.28	2282.28	155.11	< LOD	21.87	2655.52	217.1	7896.29	464.22	< LOD	15300.63	607.95	58.14	27.78	14.99	< LOD	67.92	962.69	25.75	25.28	14.59	< LOD	14.45	< LOD	10.21	< LOD	13.82
9/21/2010 11:50	SOIL	90	ppm	Final	10MP33SS	7.63	35.47	23.61	104.88	57.89	2389.5	162.15	< LOD	23.77	3841.01	250.6	5053.26	389.97	< LOD	10395.48	< LOD	65.03	< LOD	16.95	< LOD	50.11	< LOD	17.9	< LOD	15.47	< LOD	9.89	< LOD	7.29	< LOD	10.25
9/21/2010 11:53	SOIL	90	ppm	Final	10MP13SS	< LOD	70.27	24.88	120	65.58	2971.63	185.88	81.07	20.54	4370.16	270.34	11155.02	554.05	< LOD	15527.09	560.3	65.09	< LOD	27.03	< LOD	76.46	4830.56	53.64	55.1	17.74	< LOD	17.59	< LOD	12.44	< LOD	16.05
9/21/2010 11:57	SOIL	90	ppm	Final	10MP14SS	< LOD	100.66	25.98	< LOD	89.47	2349.97	173.99	149.92	29.34	11497.52	399.54	7830.36	481.1	< LOD	14256.81	663.58	70.65	< LOD	30.87	< LOD	83.75	8159.67	72.96	114.83	20.67	25.05	13.42	< LOD	14.3	< LOD	18.68
9/21/2010 12:00	SOIL	90	ppm	Final	10MP15SS	< LOD	53.59	22.31	89.1	56.05	2367.36	158.72	< LOD	19.1	1974.52	193.95	7493.15	451.08	< LOD	14712.71	564.75	60.97	< LOD	23.35	< LOD	70.56	708.33	24.83	< LOD	22.28	< LOD	15.06	< LOD	10.64	< LOD	14.69
9/21/2010 12:03	SOIL	90	ppm	Final	10MP06SS	< LOD	53.04	24.88	< LOD	86.5	2295.46	168.45	196.99	28.79	8223.29	351.09	8496.33	503.87	< LOD	18089.7	828.07	75.2	56.77	21.8	152.15	60.14	7882.45	74.73	142.35	21.95	38.58	14.33	17.53	10.14	< LOD	19.4
9/21/2010 12:06	SOIL	90	ppm	Final	10MP22SS	< LOD	81.23	25.54	106.54	64.39	3287.73	186.53	71.79	21.27	5294.22	291.99	10693.58	546.31	< LOD	16816.73	652.44	60.21	< LOD	23.57	< LOD	68.64	2544.78	37.4	37.23	15.5	< LOD	14.66	< LOD	10.72	< LOD	13.89
9/21/2010 12:09	SOIL	90	ppm	Final	10MP40SS	< LOD	< LOD	30.6	124.87	54.15	2363.38	151.26	< LOD	18.96	1906.56	190.56	7749.74	453.2	< LOD	12197.09	620.15	59.01	24.99	15.13	< LOD	68.19	836.91	25.01	< LOD	22.08	< LOD	14.21	< LOD	10.73	< LOD	13.55
9/21/2010 12:15	SOIL	90	ppm	Final	10MP11SS	< LOD	72.79	25.32	< LOD	93.68	2975.55	186.98	170.65	28.94	9868.95	378.64	10483.83	547.82	< LOD	16005.79	493.59	71.59	< LOD	32.76	< LOD	87.65	9424.03	80.83	162.4	22.3	22.33	14.03	< LOD	14.27	< LOD	18.08
9/21/2010 12:21	SOIL	90	ppm	Final	10MP14SS	< LOD	73.09	23.89	118.14	60.09	2672.61	170.53	93.81	21.79	5533.69	287.88	9176.19	502.75	< LOD	13181.42	613.85	66.93	< LOD	28.13	< LOD	80.01	5131.66	56.15	93.76	18.74	< LOD	17.92	< LOD	12.88	< LOD	16.84
9/21/2010 12:30	SOIL	90	ppm	Final	10MP01SS	< LOD	58.25	26.32	212.07	72.78	3239.1	198.45	< LOD	22.95	2231.94	229.62	14154.96	626.33	< LOD	16158.71	979.67	59.77	< LOD	21.57	< LOD	65.34	68.68	16.82	< LOD	20.79	< LOD	13.53	< LOD	9.86	< LOD	13.66
9/21/2010 12:33	SOIL	90	ppm	Final	10MP39SS	< LOD	44.92	22.48	88.77	55.96	2278.55	158.68	61.86	18.36	3680.46	243.7	7841.15	464.62	< LOD	13192.27	426.18	59.54	< LOD	24.45	< LOD	70.75	3604.81	44.03	45.99	16.12	< LOD	15.82	< LOD	11.26	< LOD	15.43
9/21/2010 12:37	SOIL	90	ppm	Final	10MP35SS	< LOD	51.4	24.82	148.7	62.47	2558.04	172.48	56.76	20.42	5056.13	284.72	8450.36	491.66	< LOD	14109.18	270.93	56.4	< LOD	23.21	< LOD	66.97	3031.79	39.65	32.38	15.26	< LOD	14.74	< LOD	10.47	< LOD	14.17
9/21/2010 12:39	SOIL	90	ppm	Final	10MP26SS	< LOD	52.61	23.7	< LOD	91.98	2674.1	184.1	329.79	37.79	17687.24	485.65	10409.37	545.22	< LOD	20243.83	246.57	76.53	< LOD	39.29	< LOD	97.7	15141.15	112.12	198.72	26.52	38.85	16.94	< LOD	17.13	< LOD	22.31
9/21/2010 13:54	SOIL	90	ppm	Final	10DS01SS	< LOD	< LOD	43.52	144.6	73.42	2707.07	200.77	< LOD	23.85	1532.81	214.94	9630.02	550.29	< LOD	16065.12	1089.55	64.11	< LOD	22.83	< LOD	68.25	< LOD	25.75	< LOD	21.55	< LOD	13.81	< LOD	10.14	< LOD	14.06
9/21/2010 13:57	SOIL	90	ppm	Final	10MP15SS(2)	< LOD	68.75	24.16	< LOD	89.17	2557.22	176.2	326.24	37.14	16778.24	472.63	9257.62	517.4	< LOD	15460.81	413.15	76.55	< LOD	38.4	< LOD	96.34	14967.03	108.94	218.65	26.2	43.47	16.67	< LOD	17.22	< LOD	22
9/21/2010 14:01	SOIL	90	ppm	Final	10MP49SS	< LOD	88.6	24.34	< LOD	85.41	2433.56	168	166.48	28.74	10858.07	383.48	8736.7	495.66	< LOD	14526.08	259.03	72.45	< LOD	35.91	< LOD	91.43	13111.6	98.71	186.9	24.43	40.46	15.72	< LOD	16.16	< LOD	21.22
9/21/2010 14:04	SOIL	90	ppm	Final	10MP27SS	< LOD	57.96	26.88	< LOD	98.77	2611.43	192.27	165.06	29.05	8860.91	372.18	9820.44	546.91	< LOD	18077.72	540.52	73.36	< LOD	33.56	< LOD	89.79	9800.51	83.78	153.51	22.69	25.16	14.42	< LOD	15.07	< LOD	20.24
9/21/2010 14:07	SOIL	90	ppm	Final	10MP09SS	< LOD	72.26	25.55	< LOD	94.29	2764.28	181.97	92.65	22.11	5042.42	287.83	9957.36	533.28	< LOD	13584.95	597.8	66.8	< LOD	27.64	< LOD	78.86	4724.71	54.23	55.48	18.13	< LOD	18.09	< LOD	13.14	< LOD	16.29
9/21/2010 14:10	SOIL	90	ppm	Final	10MP48SS	< LOD	90.13	26.08	100.43	63.25	2769.4	181.65	175.49	28.43	9119.87	365.72	10599.91	549.14	< LOD	18478.56	663.98	67.72	< LOD	29.01	< LOD	79.95	6895.19	64.82	107.18	19.42	20.07	12.55	< LOD	13.09	< LOD	17.58
9/21/2010 14:13	SOIL	90	ppm	Final	10MP61SS	< LOD	66.6	22.53	< LOD	81.67	2296.14	159.14	25.22	16.25	3634.22	238.19	7256.33	444.62	< LOD	12496.22	582.81	59.81	< LOD	23.74	< LOD	70.73	2182.64	35.3	52.63	15.69	< LOD	15.56	< LOD	10.91	< LOD	14.59
9/21/2010 14:16	SOIL	90	ppm	Final	10MP63SS	< LOD	125.07	26.08	< LOD	86.11	2409.3	166.8	69.86	20.95	5484.3	287.83	8304.84	482.17	< LOD	14845.45	704.72	65.43	< LOD	26.32	< LOD	76.16	3631.52	46.75	65.75	17.41	< LOD	16.94	< LOD	11.67	< LOD	15.33
9/21/2010 14:19	SOIL	90	ppm	Final	10MP24SS	< LOD	76.09	26.19	116.4	67.54	2950.96	190.85	70.31	21.7	5434.72	299.15	11307.55	566.42	< LOD	17751.68	749.38	63.71	< LOD	24.91	< LOD	72.69	2861.17	40.96	24.99	16.14	< LOD	15.63	< LOD	11.39	< LOD	15.08
9/21/2010 14:22	QA/QC	90	ppm	Final	BLANK_180_428	< LOD	< LOD	19.97	< LOD	25.18	< LOD	52.87	< LOD	7.91	325.48	95.82	< LOD	211.72	< LOD	8621.87	< LOD	70.32	< LOD	19.1	< LOD	58.77	< LOD	21.27	< LOD	18.37	< LOD	12.19	< LOD	9.09	< LOD	12.02
9/21/2010 14:25	QA/QC	90	ppm	Final	STANDARD_RCRA_	< LOD	220.59	34.42	116.68	68.61	3171.7	197.69	< LOD	59.66	26871.53	637.82	14668.39	685.12	< LOD	20201.38	547.37	64.48	35.61	16.46	< LOD	76.15	< LOD	29	< LOD	25.87	565.85	21.06	557.86	19.45	32.61	12.98
9/21/2010 14:29	QA/QC	90	ppm	Final	STANDARD_TILL4_	< LOD	< LOD	38.2	< LOD	100.55	3807.89	198.4	< LOD	33.41	6518.53	349.73	21165.37	784.91	< LOD	20152.97	321.33	57.46	28.31	15.04	< LOD	69.03	< LOD	24.89	< LOD	21.69	< LOD	14.06	< LOD	10.15	< LOD	13.59
9/21/2010 14:31	QA/QC	90	ppm	Final	STANDARD_NCS_1	< LOD	72.56	24.81	102.17	41.56	1026.41	106.51	< LOD	25.05	4006.48	245.7	679.53	205.81	< LOD	13242.86	< LOD	78.26	< LOD	20.97	< LOD	64.81	< LOD	23.37	< LOD	20.05	< LOD	13.4	< LOD	9.6	< LOD	13.22
9/21/2010 14:34	QA/QC	90	ppm	Final	STANDARD_GBW_	< LOD	< LOD	39.89	< LOD	102.57	2856.38	197.64	< LOD	56.93	23097.26	603.02	12675.7	648.79	< LOD	22442.02	485.32	64.62	39.74	16.66	< LOD	75.9	< LOD	27.65	60.96	16.66	30.36	11.36	< LOD	11.62	< LOD	15.15
9/21/2010 14:36	SOIL	90	ppm	Final	10MP64SS	< LOD	90.1	26.43	108.98	64.38	2896.1	183.53	84.79	23.23	6510.88	318.92	10075.37	536.78	< LOD	16961.42	804.93	64.52	< LOD	25.36	< LOD	73.43	3007.87	42.14	50.87	16.66	< LOD	16.36	< LOD	11.56	< LOD	16.05
9/21/2010 14:39	SOIL	90	ppm	Final	10MP66SS	< LOD	172.92	30.64	122.42	70.72	3254.15	200.49	46.7	22.84	7029.32	336.37	11276.65	574.3	< LOD	15220.86	887.73	61.89	< LOD	23.21	< LOD	69.23	1304.51	29.18	< LOD	22.41	< LOD	14.5	< LOD	11.18	< LOD	14.2
9/21/2010 14:43	SOIL	90	ppm	Final	10MP08SS	< LOD	75.12	27.43	132.19	74.73	2801.94	206.08	77.26	20.72	3882.04	265.54	10301.13	545.84	< LOD	14640.98	1041.56	65.56	< LOD	24.63	< LOD	72.68	2363.49	37.8	32.96	16.09	< LOD	16.05	< LOD	11.17	< LOD	15.2
9/21/2010 14:46	SOIL	90	ppm	Final	10MP03SS	< LOD	102.68	26.85	< LOD	88.11	2610.69	174.81	153.26	26.85	7587.25	339.91	8691.22	507.12	< LOD	16413.12	670.09	69.55	< LOD	30.2	< LOD	82.98	7539.71	69.17	131.29	20.41	25.06	13.11	< LOD	13.72	< LOD	17.55
9/21/2010 14:49	SOIL	90	ppm	Final	10MP04SS	< LOD	67.56	26.04	< LOD	92.01	2609.79	177.24	145.88	27.33	8341.89	354.08	8031.41	491.3	< LOD	18951.75	398.26	66.22	< LOD	29.88	< LOD	80.33	8126.61	70.71	100.09	19.8	26.73	13.04	< LOD	13.25	< LOD	17.1
9/21/2010 14:53	SOIL	90	ppm	Final	10MP30SS	< LOD	79.34	26.3	149.61	66	3301.3	187.09	34.27	18.63	4117.85	269.84	10707.43	550.86	< LOD	16213	819.19	62.68	< LOD	24.47	< LOD	71.44	2643.42	38.78	60.26	16.21	< LOD	15.75	< LOD	11.35	< LOD	14.95
9/21/2010 14:56	SOIL	90	ppm	Final	10MP65SS	< LOD	< LOD	33.73	< LOD	83.89	2370.32	161.03	43.36	19.01	4687.97	272.44	8620.54	489.45	< LOD	13194.09	577.95	58.55	< LOD	23.01	< LOD	68.44	1692.32	31.43	40.16	15.1	< LOD	14.69	< LOD	10.66	< LOD	14.29
9/21/2010 14:58	SOIL	90	ppm	Final	10MP05SS	< LOD	74.62	26.4	98.21	62.63	2411.14	177.08	147.23	26.4	7163.27	331.91	8056.34	491.79	< LOD	18360.11	353.46	65.9	< LOD	29.86	< LOD	80.43	8031	70.36	124.56	20.1	< LOD	19.16	< LOD	13.14	< LOD	17.28
9/21/2010 15:05	SOIL	90	ppm	Final	10MP28SS	< LOD	63.61	26.16	< LOD	96.75	2733.53	187.38	153.35	28.68	9489.38	379.14	10873.54	565.64	< LOD	19525.74	656.78	72.56	< LOD	31.98	< LOD	86.22	8387.68	75.94	122.57	21.39	< LOD	20.09	< LOD	14.28	< LOD	19.12
9/21/2010 15:08	SOIL	90	ppm	Final	10RD07SS	< LOD	39.23	23.26	< LOD	90.88	2779.69	173.82	< LOD	23.97	3462.31	243.62	8512.44	483.18	< LOD	14301.81	224.48	48.62	< LOD	18.86	< LOD	57.25	44.3	14.74	< LOD	17.95	< LOD	11.77	< LOD	8.73	< LOD	11.65
9/21/2010 15:11	SOIL	90	ppm	Final	10RD06SS	< LOD	41.61	23.06	< LOD	84.03	2327.44	160.84	37.35	17.63	3840.76	249.45	6744.94	435.86	< LOD	11558.37	< LOD	70.08	< LOD	18.89	< LOD	55.95	1078.22	23.36	< LOD	17.91	< LOD	12	< LOD	8.63	< LOD	11.68
9/21/2010 15:14	SOIL	90	ppm	Final	10RS03SS	< LOD	46.83	25.42	117.54	64.61	2803.14	181.52	< LOD	25.04	3076.19	243.25	8981.57	508.62	< LOD	14013.27	371.72	49.8	< LOD	19.02	< LOD	57.92	< LOD	21.12	< LOD	17.82	< LOD	11.63	< LOD	8.76	< LOD	11.81
9/21/2010 15:18	SOIL	90	ppm	Final	10DS03SS	< LOD	91.79	26.36	102.34	55.64	1859.78	151.76	< LOD	19.38	1225.85	173.34	2889.96	311.4	< LOD	10807.37	327.71	47.38	< LOD	17.9	< LOD	53.49	< LOD	19.99	< LOD	16.76	< LOD	10.99	< LOD	7.69	< LOD	10.41
9/21/2010 15:22	SOIL	90	ppm	Final	10MP43SS	< LOD	50.23	26.19	156.16	71.23	3398.67	199.92	< LOD	24.52	2510.08	234.69	12169.47	588.91	< LOD	13402.67	867.78	63.98	< LOD	24.07	< LOD	72.24	1227.84	29.57	25.6	15.65	< LOD	15.1	< LOD	11.2	< LOD	14.6
9/21/2010 15:26	SOIL	90	ppm	Final	10MP42SS	< LOD	53.19	27	133.01	73.83	3435.88	208.16	< LOD	26.07	3047.72	253.07	12798.34	608.33	< LOD	15863.79	832.59	61.05	< LOD	22.87	< LOD	68.38	953.78	26.22	< LOD	22.28	< LOD	14.41	< LOD	10.39	< LOD	14.43
9/21/2010 15:29	SOIL	90	ppm	Final	10MP68SS	< LOD	34.21	22.05	< LOD	85.94	2555.48	164.39	< LOD	23.1	3439.41	240.2	8934.12	489.33	< LOD	11697.69	433.11	52.1	< LOD	20.1	< LOD	60.72	732.09	21.86	< LOD	19.41	< LOD	12.79	< LOD	9.3	< LOD	12.03
9/21/2010 15:32	SOIL	90	ppm	Final	10MP52SS	< LOD	68.11	23.46	< LOD	87.4	2820.88	183.15	513.04	46.39	27589.06	595.53	11353.17	570.16	< LOD	17615.44	< LOD	125.32	< LOD	49.31	152.71	77.79	23726.05	156.37	392.87	34.59	58.67	21.08	22.88	14.39	< LOD	27.47
9/21/2010 15:36	SOIL	90	ppm	Final	10MP54SS	< LOD	55.05	27.15	114.76	70.42	3668.86	203.19	< LOD	24.69	2636.72	244.16	12261.58	600.08	< LOD	17704.64	921.41	62.59	35.75	15.33	< LOD	69.85	189.9	19.18	< LOD	22.31	< LOD	14.31	< LOD	10.34	< LOD	13.88
9/21/2010 15:39	SOIL	90	ppm	Final	10MP58SS	< LOD	49.32	22.78	100.36	56.37	2455.86	159.86	27.09	17.84	4608.89	268.46	9513.3	506.34	< LOD	13077.78	558.46	57	< LOD	21.93	< LOD	65.73	1015.63	25.8	< LOD	21.32	< LOD	13.92	< LOD	9.87	< LOD	13.03
9/21/2010 15:41	SOIL	90	ppm	Final	10MP44SS	< LOD	61.65	24.28	100.32	62.65	2737.84	177.32	< LOD	20.75	1752.25	199.29	10169.66	528.01	< LOD	12916.91	969.3	65.4	51.57	16.3	< LOD	73.86	935.32	27.44	< LOD	23.59	< LOD	15.22	< LOD	11.63	< LOD	14.5
9/21/2010 15:45	SOIL	90	ppm	Final	10MP51SS	< LOD	78.23	24.11	< LOD	88.71	2732.57	187.67	612.1	49.51	30440.21	624.47	10918.71	562.59	< LOD	22054.83	150.32	82.06	< LOD	47.39	< LOD	111.29	23332.79	151.11	310.77	32.46	46.94	20.1	< LOD	20.19	< LOD	26.73
9/21/2010 15:49	SOIL	90	ppm	Final	10MP50SS	< LOD	39.88	24.79	< LOD	97.99	3579.4	193.01	< LOD	31.1	6595.26	321.86	9520.7	523.2	< LOD	16433.18	557.53	55.64	< LOD	21.5	< LOD	64.22	965.03	24.87	< LOD	20.9	< LOD	13.62	< LOD	9.76	< LOD	13.35
9/21/2010 15:52	SOIL	90	ppm	Final	10RS02SS	< LOD	< LOD	31.26	74.14	47.63	1776.11	134.3	< LOD	27.19	5724.6	285.56	6911.83	437.08	< LOD	13046.46	159.67	49.92	< LOD	19.44	< LOD	59.51	< LOD	21.63	< LOD	18.28	< LOD	12.09	< LOD	8.9	< LOD	11.95
9/21/2010 15:54	SOIL	90	ppm	Final	10RS01SS	< LOD	< LOD	36.06	< LOD	81.23	1819.53	151.3	< LOD	35.88	9573.68	370.25	6211.98	434.17	< LOD	16545.05	< LOD	63.59	< LOD	16.79	< LOD	50.34	< LOD	18.48	< LOD	15.61	< LOD	10.3	< LOD	7.78	< LOD	10.15
9/21/2010 17:03	SOIL	90	ppm	Final	10DS02SS	< LOD	57.07	25.09	< LOD	88.38	2521.6	170.16	< LOD	27.39	4739.08	285.6	11784.15	575.81	< LOD	13895.55	666.92	56.74	< LOD	21.21	< LOD	64.82	70.8	16.57	< LOD	20.18	< LOD	13	< LOD	9.79	< LOD	13
9/21/2010 17:07	SOIL	90	ppm	Final	10SM30SS	< LOD	< LOD	32.75	< LOD	83.05	2657.38	163.48	< LOD	26.48	4406.39	267.29	8515.06	488.13	< LOD	13881.5	252.53	50.41	< LOD	19.47	< LOD	59.38	< LOD	21.5	< LOD	18.43	< LOD	12.28	< LOD	9	< LOD	11.95

Table 4-2 XRF Field Screening of Laboratory Samples

Time	Type	Duration	Units	Sequence	Sample	Mo	Mo Error	Zr	Zr Error	Sr	Sr Error	U	U Error	Rb	Rb Error	Th	Th Error	Pb	Pb Error	Se	Se Error	As	As Error	Hg	Hg Error	Zn	Zn Error	W	W Error	Cu	Cu Error	Ni	Ni Error	Co	Co Error	Fe	Fe Error	Mn	Mn Error
9/21/2010 17:11	SOIL	90	ppm	Final	10SM20SS	< LOD	6.71	238.77	10.61	124.55	6.87	< LOD	10.88	42.25	4.75	12.34	5.84	< LOD	10.61	< LOD	4.62	< LOD	8.62	< LOD	10.32	67.95	15.03	< LOD	70.33	31.4	20.27	< LOD	55.65	< LOD	150.63	17795.99	355.43	234.22	71.66
9/21/2010 17:16	SOIL	90	ppm	Final	10SM23SS	< LOD	6.93	292.11	11.86	127.11	7.17	< LOD	11.7	41.78	4.93	< LOD	7.73	< LOD	10.98	< LOD	4.82	195.18	14.64	< LOD	10.73	52.03	14.08	< LOD	66.58	32.97	21.3	< LOD	59.21	< LOD	148.25	15781.3	345.87	260.74	75.77
9/21/2010 17:23	SOIL	90	ppm	Final	10SM21SS	< LOD	7.03	254.56	11.52	136.93	7.58	14.73	8.97	43.1	5.27	9.53	5.89	< LOD	10.68	< LOD	4.33	46.88	8.58	< LOD	10.53	51.45	14.36	< LOD	69.89	35.82	22.34	< LOD	61.49	< LOD	154.37	17215.68	368.67	311.32	81.98
9/21/2010 17:28	SOIL	90	ppm	Final	10SM22SS	< LOD	6.4	222.42	10.03	107.64	6.3	< LOD	10.63	36.85	4.43	< LOD	7.68	< LOD	9.8	< LOD	4.25	28.79	6.87	< LOD	9.77	38.73	12.13	< LOD	61.16	< LOD	28.2	< LOD	53.84	< LOD	137.72	14993.21	319.68	288.97	73.06
9/21/2010 17:32	SOIL	90	ppm	Final	10SM29SS	< LOD	6.63	273.59	11.47	125.45	7.08	< LOD	11.33	41.29	4.85	< LOD	7.46	< LOD	10.91	< LOD	4.93	12.03	6.3	< LOD	10.51	40.74	13.05	< LOD	68.25	< LOD	30.51	< LOD	59.48	< LOD	143.08	15334.64	338.92	331.01	80.21
9/21/2010 17:34	SOIL	90	ppm	Final	10SM28SS	< LOD	6.62	304.66	11.67	122.78	6.83	< LOD	11.77	39.9	4.75	< LOD	7.77	< LOD	10.28	< LOD	4.62	235.11	15.3	< LOD	10.32	54.9	13.74	< LOD	61.95	< LOD	29.36	< LOD	57.67	< LOD	148.82	17430.59	351.72	373.24	82.21
9/21/2010 17:39	SOIL	90	ppm	Final	10MP36SS	< LOD	7.01	110.2	9.44	224.67	9.79	< LOD	14.53	46.73	5.55	< LOD	10.52	111.42	15.21	< LOD	7.92	3854.24	64.02	63.3	12.12	88.15	18.32	< LOD	74.58	< LOD	33.58	< LOD	70.36	< LOD	223.39	33927.03	526.93	684.92	115.15
9/21/2010 17:42	SOIL	90	ppm	Final	10MP17SS	< LOD	8.1	134.03	12.66	510.06	16.5	< LOD	20.53	54.13	6.82	< LOD	10.76	70.15	14.84	< LOD	10.16	5607.66	86.4	297.93	24.15	176.6	28.53	< LOD	100.96	100.58	32.76	< LOD	83.96	< LOD	251.64	33769.56	593.47	826.01	139.71
9/21/2010 17:45	SOIL	90	ppm	Final	10MP60SS	< LOD	7.32	167.84	10.68	178.39	9.18	< LOD	16.89	68.34	6.62	< LOD	9.69	21.49	9.56	< LOD	6.85	1594.18	42.4	207.22	18.29	123.86	21.92	< LOD	82.08	68.34	26.96	82.39	51.34	< LOD	238.49	36308.59	562.01	618.18	115.98
9/21/2010 17:48	SOIL	90	ppm	Final	10MP34SS	< LOD	7.53	123.09	10.45	268.21	11.11	< LOD	16.3	66.4	6.68	12.12	7.87	128.58	16.87	< LOD	8.9	5148.18	77.08	38.94	12.01	77.14	18.58	< LOD	84.61	< LOD	36.2	91.28	51.77	< LOD	233.05	35377.38	562.21	826.2	128.56
9/21/2010 17:51	SOIL	90	ppm	Final	10MP62SS	< LOD	7.07	191.89	10.68	160.91	8.37	< LOD	14.14	48.98	5.53	< LOD	9.01	< LOD	12.02	< LOD	6.46	1484.41	39.35	99.91	13.51	103.61	19.31	< LOD	77.72	< LOD	34.32	< LOD	69.95	< LOD	198.4	26698.04	465.35	403.63	95.48
9/21/2010 17:54	SOIL	90	ppm	Final	10MP47SS	< LOD	7.15	163.23	10.22	117.78	7.45	< LOD	14.79	54.28	5.98	10.02	6.31	< LOD	11.73	< LOD	6.37	1499.43	40.64	59.15	12.02	97.13	19.36	< LOD	82.08	76.97	27.11	< LOD	72.33	< LOD	219.5	32685.82	529.76	717.63	118.68
9/21/2010 17:57	SOIL	90	ppm	Final	10MP29SS	< LOD	8.59	121.26	12.33	297.15	13.72	< LOD	23.42	61.71	7.85	< LOD	11.75	32.07	12.66	< LOD	10.94	6985.86	102.94	303.24	26.28	131.78	27.78	< LOD	110.25	83.39	34.73	116.18	65.12	< LOD	260.58	31063.19	610.56	657.03	137.19
9/21/2010 18:01	SOIL	90	ppm	Final	10MP31SS	< LOD	6.68	386.71	12.51	87.59	5.75	< LOD	10.08	33.52	4.24	< LOD	7.23	< LOD	10.26	< LOD	4.39	18.18	6.38	< LOD	9.16	58.98	13.62	< LOD	59.46	< LOD	25.34	< LOD	55.11	< LOD	149.15	17877.9	349.07	334.74	78.29
9/21/2010 18:05	SOIL	90	ppm	Final	10MP16SS	< LOD	7.78	131.31	10.79	209.11	10.47	< LOD	18.99	50.65	6.44	< LOD	10.24	33.83	11.49	< LOD	9.44	5042.56	78.95	241.41	21.12	142.09	24.83	< LOD	89.15	45.57	27.61	< LOD	78.95	< LOD	263.66	39979.73	623.5	1076.68	150.72
9/21/2010 18:09	SOIL	90	ppm	Final	10MP67SS	< LOD	7.95	141.54	11.54	267.02	12.11	< LOD	23.09	53.76	7	< LOD	10.77	22.94	11.32	< LOD	10.36	5095.25	80.83	477.4	28.71	111.08	24.75	< LOD	97.59	83.38	31.09	< LOD	84.35	< LOD	230.08	29046	542.01	627.8	124.05
9/21/2010 18:12	SOIL	90	ppm	Final	10MP07SS	< LOD	7.99	110.79	11.15	258.69	12.46	< LOD	24.18	43.1	6.63	< LOD	10.67	30.28	12.61	< LOD	10.85	5509.64	86.71	685.85	34.55	151.18	28.67	< LOD	95.79	64.5	31.2	142.48	62.42	< LOD	250.18	32278.55	588.68	550.29	123.28
9/21/2010 18:15	SOIL	90	ppm	Final	10MP13SS(2)	< LOD	8.6	121.58	12.31	305.97	14	< LOD	25.31	60.57	7.88	< LOD	11.78	19	12.07	< LOD	12	6049.83	95.51	492.51	31.96	160.53	30.5	< LOD	115.49	92.61	35.65	112.35	65.63	< LOD	250.88	28294.23	580.9	515.96	127.22
9/21/2010 18:18	SOIL	90	ppm	Final	10MP12SS(2)	< LOD	8.19	143.99	12.25	270.43	12.67	< LOD	20.31	58.43	7.23	< LOD	10.82	32.74	12.06	< LOD	9.61	5496	88.63	230.81	22.65	128.62	26.08	< LOD	103.85	71.18	32.64	149.51	64	< LOD	256.18	32940	609.23	629.22	132.43
9/21/2010 18:23	SOIL	90	ppm	Final	10OP01SS	< LOD	8.67	95.26	12.79	494.79	17.44	< LOD	19.26	42.84	6.75	16.53	8.49	< LOD	14.82	< LOD	11.99	6536.98	100.25	48.31	15.69	146.31	27.82	< LOD	112.99	81	34.82	200.12	70.26	< LOD	298.28	41187.32	708.93	1419.81	188.59
9/21/2010 18:29	SOIL	90	ppm	Final	10RD16SS	< LOD	5.83	232.2	9.18	79.05	4.98	< LOD	9.39	27.32	3.65	< LOD	6.07	< LOD	8.7	< LOD	3.8	8.76	4.89	< LOD	7.75	43.15	11.23	< LOD	54.92	< LOD	21.41	< LOD	46	< LOD	102.38	9879.98	236.79	161.73	54.23
9/21/2010 18:34	SOIL	90	ppm	Final	10RD14SS	< LOD	5.78	230.16	9.14	83.67	5.1	< LOD	9.04	23.55	3.44	< LOD	6.14	< LOD	8.29	< LOD	3.45	7.71	4.64	< LOD	7.85	44.95	11.32	< LOD	53.59	< LOD	23.02	< LOD	47.38	< LOD	105.39	10291.3	241.06	145.1	53.64
9/21/2010 18:37	SOIL	90	ppm	Final	10RD09SS	< LOD	6.75	206.73	10.08	69.79	5.44	< LOD	11.88	48.64	5.2	8.6	5.63	< LOD	10.78	< LOD	4.92	130.11	12.22	< LOD	10.69	70.7	15.5	< LOD	70.99	< LOD	30.84	< LOD	63.08	< LOD	177.02	23396.36	417.26	474.35	92.84
9/21/2010 18:40	SOIL	90	ppm	Final	10RD08SS	< LOD	6.82	269.05	11.09	74.83	5.55	< LOD	12.17	48.89	5.21	< LOD	7.56	14.04	7.51	< LOD	4.82	23.75	7.25	< LOD	9.72	72.46	15.39	< LOD	67.64	32.29	20.68	< LOD	59.29	233.07	117.66	22433.58	404.8	658.74	102.85
9/21/2010 18:44	SOIL	90	ppm	Final	10RD19SS	< LOD	5.61	154.28	7.55	59.91	4.29	< LOD	8.17	22.82	3.24	< LOD	6.16	< LOD	7.95	< LOD	3.73	10.06	4.58	< LOD	6.93	37.99	10.27	< LOD	47.23	< LOD	20.77	< LOD	41.6	< LOD	94.56	8869.07	218.05	184.54	54.45
9/21/2010 18:47	SOIL	90	ppm	Final	10RD18SS	< LOD	5.69	126.1	7.19	58.94	4.36	< LOD	8.24	25.32	3.41	< LOD	6.19	< LOD	7.9	< LOD	3.84	23.33	5.51	< LOD	8.03	32.8	10.28	< LOD	52.22	< LOD	22.44	< LOD	45.41	< LOD	114.38	12353.63	262.77	109.57	51.18
9/21/2010 18:51	SOIL	90	ppm	Final	10RD17SS	< LOD	5.82	223.18	9.22	93.19	5.44	< LOD	9.39	34.32	3.96	< LOD	6.39	< LOD	8.59	< LOD	4.13	9.25	4.87	< LOD	8.47	42.12	11.5	< LOD	58.8	< LOD	23.96	< LOD	46.94	< LOD	107.65	10771.62	250.71	143.14	54.38
9/21/2010 18:55	SOIL	90	ppm	Final	10RD15SS	< LOD	5.86	203.55	8.77	82.78	5.11	10.95	6.51	24.51	3.6	< LOD	6.31	< LOD	8.57	< LOD	3.56	< LOD	7.02	< LOD	7.66	37.89	10.8	< LOD	53.99	< LOD	21.13	< LOD	48	< LOD	111.98	11588.32	257.48	169.92	57.05
9/21/2010 18:58	SOIL	90	ppm	Final	10MP46SS	< LOD	8.22	131.11	12.93	470.22	16.4	< LOD	19.61	57.19	7.15	13.51	8.07	21.58	11.4	< LOD	11.06	5616.06	89.49	136.45	18.84	143.17	26.67	< LOD	101.98	95.41	33.67	176.95	65.12	< LOD	272.65	36683.37	643.29	1360.41	175.53
9/21/2010 20:51	SOIL	90	ppm	Final	10SM11SS	< LOD	6.52	266.07	11	117.51	6.67	< LOD	11.34	45.25	4.9	10.18	5.63	< LOD	10.48	< LOD	4.9	9.55	5.84	< LOD	10.1	53.45	13.74	< LOD	67.73	< LOD	26.57	< LOD	56.85	180.27	108.27	19841.79	373.89	299.62	77.33
9/21/2010 20:55	SOIL	90	ppm	Final	10SM10SS	< LOD	7.22	219.85	11.33	113.36	7.36	< LOD	15.83	62.15	6.36	< LOD	8.87	19.45	9.02	< LOD	6.34	844.55	30.97	92.06	13.78	97.7	19.63	< LOD	85.94	46.43	25.11	< LOD	72.21	< LOD	211.75	29336.24	502.59	800.8	122.69
9/21/2010 21:02	SOIL	90	ppm	Final	10MP10SS	< LOD	7.39	220.57	11.53	121.91	7.71	< LOD	15.67	63.89	6.44	11	6.74	27.39	9.91	< LOD	5.99	876.71	32.04	108.67	14.18	89.62	19.04	< LOD	78.25	46.37	25.5	< LOD	74.86	< LOD	218.13	30026.73	514.31	761.64	122.75
9/21/2010 21:05	SOIL	90	ppm	Final	10SM10SS	< LOD	6.79	318.49	12.08	141.6	7.37	< LOD	12.19	44.16	5.01	< LOD	8.25	< LOD	10.53	< LOD	4.84	14.95	6.3	< LOD	10	61.62	14.6	< LOD	69.11	< LOD	29.27	< LOD	60.4	< LOD	158.2	18370.68	364.97	293.81	77.81
9/21/2010 21:10	SOIL	90	ppm	Final	10MP59SS	< LOD	6.83	182.29	9.91	82.8	6.03	< LOD	13.2	60.12	5.85	< LOD	8.15	< LOD	11.17	< LOD	5.55	211.61	15.42	< LOD	12.52	79.61	16.82	< LOD	76.84	58.47	24.01	69.07	45.34	< LOD	194.05	26867.45	458.71	851.84	118.31
9/21/2010 21:14	SOIL	90	ppm	Final	10MP45SS	< LOD	7.41	169.94	10.45	117.26	7.51	< LOD	15.26	68.33	6.58	< LOD	9.57	22.38	9.36	< LOD	6.29	1009.21	34.07	67.05	12.29	82.28	18.37	< LOD	80.42	57.98	26.21	< LOD	78.57	273.64	177.52	44307.55	622.39	865.53	132.27
9/21/2010 21:18	SOIL	90	ppm	Final	10SM12SS	< LOD	6.76	239.43	10.84	112.35	6.73	< LOD	11.19	40.67	4.8	< LOD	7.54	14.23	7.61	< LOD	4.73	63.45	9.55	< LOD	10.51	51.67	13.92	< LOD	67.15	< LOD	30.89	< LOD	60.5	< LOD	144.37	15821.25	344.19	294.5	77.68
9/24/2010 17:00	SOIL	90	ppm	Final	10NR001	< LOD	6.67	197.19	10	111.7	6.67	< LOD	12.97	50.7	5.32	10.35	5.81	< LOD	11.06	< LOD	5.61	857.59	28.54	35.61	9.42	108.08	18.1	< LOD	70.33	< LOD	31.04	< LOD	62.91	< LOD	175.77	23133.4	411.02	660.74	103.56
9/24/2010 17:04	SOIL	90	ppm	Final	10NR002	< LOD	7.91	203.92	11.81	108.56	7.7	< LOD	15.15	52.31	6.24	< LOD	9.47	< LOD	12.66	< LOD	7.31	1261.05	40.06	59.21	12.87	93.48	20.45	< LOD	89.25	43.19	27.76	< LOD	81.96	269.76	156.67	29727.33	542.21	738.16	128.63
9/24/2010 17:06	SOIL	90	ppm	Final	10NR003	< LOD	6.25	151.79	8.63	105.03	6.18	< LOD	11.79	38.6	4.56	< LOD	7.41	13.54	7.2	< LOD	4.93	738.17	25.35	45.09	9.23	97.9	16.57	< LOD	64.03	52.59	20.96	83.41	40.51	< LOD	143.82	16836.67	334.62	558.23	90.96
9/25/2010 8:04	QA/QC	90	ppm	Final	BLANK_180_428	< LOD	5.77	< LOD	5.44	< LOD	2.86	< LOD	6.6	< LOD	2.62	< LOD	6.39	< LOD	8.05	< LOD	4.04	< LOD	5.74	< LOD	9.46	< LOD	12.03	< LOD	59.97	< LOD	22.23	< LOD	48.62	< LOD	23.11	< LOD	50.09	< LOD	52.32
9/25/2010 8:09	QA/QC	90	ppm	Final	RCRA_180_436	< LOD	7.92	273.39	13.39	177.63	9.51	< LOD	16.71	65.8	6.98	< LOD	15.92	488.33	36.55	457.74	21.92	433.43	35.03	< LOD	13.81	79.07	18.82	< LOD	84.52	45.11	27.16	< LOD	77.55	< LOD	272.6	43926.14	650.54	906.04	142.3
9/25/2010 8:11	QA/QC	90	ppm	Final	TILL4_180_601	11.34	5.52	433.55	15.08	108.73	7.19	< LOD	17.49	129.3	8.66	46.46	9.99	47.26	11.74	< LOD	6.62	108.48	13.98	< LOD	16.39	68.84	18.74	291.24	75.14	189.2	34.16	< LOD	70.28	< LOD	222.68	32469.56	531.3	489.97	105.15
9/25/2010 8:15	QA/QC	90	ppm	Final	GBW_180_605	< LOD	8.36	229.57	13.22	128.49	8.7	< LOD	18.63	86.84	8.35	< LOD	31.28	2554.05	73.93	< LOD	9.92	209.18	60.17	< LOD	18.75	3683.31	110.28	< LOD	138.95	< LOD	44.91	< LOD	89.06	< LOD	312.13	54056.3	762.81	9930.63	417.71
9/25/2010 8:17	QA/QC	90	ppm	Final	NCS_180_600	< LOD	6.45	89.1	7.18	21.97	3.43	< LOD	8.44	5.66	2.66	< LOD	7.24	23.56	8.25	< LOD	4.52	24.31	7.81	< LOD	10.06	36.49	12.41	< LOD	68.84	< LOD	27.66	< LOD	61.74	< LOD	159.68	20139.44	384.86	742.42	106.73
9/25/2010 8:34	SOIL	90	ppm	Final	10UP08SS	< LOD	6.83	285.91	11.21	70.31	5.34	< LOD	11.31	40.7	4.75	< LOD	7.55	11.23	7.14	< LOD	4.86	11.58	6.15	< LOD	10.15	36.12	12.45	< LOD	70.06	< LOD	29.13	< LOD	58.3	206.09	113.74	21625.8	392.38	410.12	86.26
9/25/2010 8:39	SOIL	90	ppm	Final	10SM24SS	< LOD	6.8	279.62	11.39	74.78	5.6	< LOD	11.1	42.24	4.87	12.86	5.99	< LOD	10.21	< LOD	4.55	12.65	6.02	< LOD	10.23	77.21	16.02	< LOD	74.06	< LOD	30.66	68.05	43.38	< LOD	173.3	22301.72	407.19	521.49	95.35
9/25/2010 8:42	SOIL	90	ppm	Final	10SM01SS	< LOD	7.1	150.32	9.65	98.91	6.73	< LOD	14.97	77.75	6.76	9.8	6.27	< LOD	11.29	< LOD	5.59	761.85	28.73	19.5	8.83	93.15	18.18	< LOD	73.8	41.8	23.95	< LOD	70.32	< LOD	228.13	34641.39	536.41	1138.64	139.31
9/25/2010 8:46	SOIL	90	ppm	Final	10UP02SS	8.74	3.8	122.91	6.91	55.41	4.12	< LOD	8.15	19.14	3.07	8.08	4.4	< LOD	7.25	< LOD	3.65	6.35	3.94	< LOD	6.87	12.13	7.86	< LOD	47.17	< LOD	19.44	< LOD	42.89	< LOD	96.4	9478.38	223.61	80.09	45.16
9/25/2010 8:50	SOIL	90	ppm	Final	10UP09SS	< LOD	6.45	229.39	9.85	68.15	5.05	< LOD	9.54	29.57	3.98	< LOD	7.19	< LOD	9.31	< LOD	4.22	12.66	5.56	< LOD	8.74	30.23	11.37	< LOD	66.45	< LOD	27.03	< LOD	52.14	< LOD	138.4	16593.27	330.98	207.05	67.12
9/25/2010 8:54	SOIL	90	ppm	Final	10SM26SS	< LOD	6.53	213.98	9.95	96.34	6.06	< LOD	11.31	34.09	4.44	< LOD	7.22	< LOD	9.8	< LOD	4.47	8.74	5.49	< LOD	9.58	34.63	11.82	< LOD	60.89	< LOD	27.72	< LOD	54.71	< LOD	135.08	13817.39	310.57	263.41	71.67
9/25/2010 8:59	SOIL	90	ppm	Final	10MP21SS	< LOD	7.25	174.08	10.37	122.98	7.54	< LOD	15.06	66.03	6.43	< LOD	9.24	14.09	8.35	< LOD	5.7	298.85	18.93	43.52	10.68	133.36	21.36	< LOD	79.61	79.09	26.97	< LOD	75.56	308.06	164.33	38438.83	571.74	855.5	127.76
9/25/2010 9:02	SOIL	90	ppm	Final	10SM15SS	< LOD	6.74	312.8	11.7	119.55	6.7	< LOD	11.82	43.55	4.88	8.59	5.42	< LOD	9.79	< LOD	4.86	17.62	6.12	< LOD	10.22	52.09	13.68	< LOD	68.43	< LOD	29.67	< LOD	55.84	160.56	101.06	17367.97	348.51	303.97	76.51
9/25/2010 9:05	SOIL	90	ppm	Final	10SM27SS	< LOD	7.72	173.02	10.98	70.55	6.37	< LOD	13.69	44.21	5.83	< LOD	10.26	21.22	9.7	< LOD	5.75	20.15	8.84	< LOD	13.17	59.51	17.26	< LOD	86.43	41.91	27.91	< LOD	75.58	< LOD	208.71	23297.49	484.48	807.25	131
9/25/2010 9:08	SOIL	90	ppm	Final	10UP04SS	6.18	3.85	140.18	7.34	52.15	4.08	< LOD	8.55	19.2	3.16	< LOD	6.33	< LOD	8.3	< LOD	3.45	< LOD	6.69	< LOD	7.51	15.03	8.5	< LOD	52.07	< LOD	21.34	< LOD	44.56	< LOD	87.67	7713.76	205.36	68.37	43.83
9/25/2010 9:13	SOIL	90	ppm	Final	10UP05SS	< LOD	6.03	202.8	8.87	73.63	4.93	< LOD	9.4	28.65	3.75	< LOD	6.67	< LOD	8.71	< LOD	3.83	7.2	4.79	< LOD	7.94	32.3	10.45	< LOD	53.42	< LOD	23.16	< LOD	49.77	< LOD	118.92	13053.29	277.06	119.83	54.45
9/25/2010 9:16	SOIL	90	ppm	Final	10UP07SS	< LOD	6.1	188.07	8.84	61.65	4.71	< LOD	9.9	30.13	3.96	< LOD	7.11	9.85	6.53	< LOD	4.24	< LOD	7.44	< LOD	8.56	33.11	10.94	< LOD	56.3	< LOD	25.32	< LOD	49.97	< LOD	126.63	13952.63	295.48	266.92	68.34
9/25/2010 9:19	SOIL	90	ppm	Final	10MP19SS	< LOD	7.11	330.56	12.28	91.47	6.15	< LOD	11.36	38.24	4.72	< LOD	7.47	< LOD	9.92	< LOD	4.49	127.1	11.94	17.33	7.86	59.86	14.61	< LOD	65.98	< LOD	29.9	< LOD	60.47	191.85	112.43	20114.6	387.78	495.41	92.81
9/25/2010 9:22	SOIL	90	ppm	Final	10SM18SS	< LOD	8.13	140.93	10.55	74.28	6.71	< LOD	14	41.16	5.85	10.64	7.06	17.49	9.63	< LOD	6.35	269.59	20.32	< LOD	14.78	81.11	19.92	< LOD	96.03	< LOD	42.27	< LOD	85.16	296.95	146.23	23229.77	498.54	875.25	139.24
9/25/2010 9:25	SOIL	90	ppm	Final	10UP06SS	< LOD	6.24	190.77	8.98	79.07	5.26	< LOD	9.49	29.33	3.87	7.57	4.94	< LOD	9.8	< LOD	4.22	< LOD	8.03	< LOD	8.76	37.39	11.29	< LOD	55.41	< LOD	23.79	< LOD	50.21	< LOD	129.69	14936.59	306.15	194.28	63.2
9/25/2010 9:32	SOIL	90	ppm	Final	10MP20SS	< LOD	6.74	144.3	8.88	94.41	6.21	< LOD	12.52	48.16	5.19	< LOD	8.71	38.18	9.64	< LOD	4.77	163.57	14.3	40.87	9.72	287.44	27.14	< LOD	73.32	57.84	22.76	< LOD	61.72	230.34	132.93	29141.28	463.15	1775.66	155.15
9/25/2010 9:35	SOIL	90	ppm	Final	10SM03SS	< LOD	6.9	158.84	9.83	147.08	7.87	< LOD	13.24	46.99	5.38	9.3	5.89	< LOD	10.66	< LOD	6.59	1335.28	36.83	20.31	9.48	54.12	15.24	< LOD	79.44	< LOD	32.52	< LOD	68.05	< LOD	182.42	22916.53	426.81	686.02	110.49
9/25/2010 9:38	SOIL	90	ppm	Final	10SM19SS	< LOD	6.92	164.63	9.53	93.15	6.3	< LOD	13.54	58.76	5.81	< LOD	8.2	< LOD	10.23	< LOD	5.07	312.9	18.12	< LOD	11.82	59.44	15.05	< LOD	72.28	35.03	22.03	< LOD	61.53	< LOD	171.54	20569.8	398.99	462.64	93.26
9/25/2010 9:42	SOIL	90	ppm	Final	10MP01SS(2)	< LOD	6.75	325.8	11.8	99.76	6.16	< LOD	10.73	40.13	4.61	8.65	5.39	< LOD	10.01	< LOD	4.57	80.17	9.66	< LOD	10.14	45.86	12.87	< LOD	62.58	< LOD	27.75	< LOD	55.8	< LOD	145.96	17075.31	344.64	309.12	76.27
9/25/2010 9:46	SOIL	90	ppm	Final	10SM09SS	< LOD	7.1	175.09	10.11	87.93	6.39	< LOD	15.2	77.96	6.81	< LOD	9.34	19.68	8.61	< LOD	4.85	164.1	14.6	< LOD	12.88	107.28	19.33	< LOD	81.64	71.02	26.2	127.86	50.96	< LOD	219.42	32684.28	522.31	2003.49	175.06
9/25/2010 9:49	SOIL	90	ppm	Final	10SM14SS	< LOD	6.7	294.69	11.39	119.86	6.69	< LOD	12.07	42.4	4.86	< LOD	7.46	< LOD	10	< LOD	4.53	< LOD	8.03	< LOD	9.81	50.66	13.29	< LOD	63.42	< LOD	28.5	< LOD	57.88	< LOD	150.4	18167.03	355.54	250.35	73.45
9/25/2010 9:52	SOIL	90	ppm	Final	10SM02SS	< LOD	7.53	173.07	10.96	213.85	9.86	< LOD	15.6	71.41	6.75	< LOD	9.6	16.01	8.71	< LOD	6.7	1761.98	44.49	< LOD	14.7	85.87	18.65	< LOD	85.33	< LOD	36.65	< LOD	73.8	< LOD	230.42	34226.8	547.29	841.72	127.01
9/25/2010 9:55	SOIL	90	ppm	Final	10SM05SS	< LOD	7.87	150.46	11.41	211.15	10.59	< LOD	17.68	82.16	7.72	< LOD	10.61	14.56	9.37	< LOD	8.25	3650.32	68.57	46.38	12.75	106.65	21.92	< LOD	89.32	58.49	29.52	< LOD	88.4	< LOD	351.11	69586.34	839.85	2566.53	223.43
9/25/2010 9:59	SOIL	90	ppm	Final	10SM17SS	< LOD	6.61	245.25	10.75	124.85	6.9	< LOD	12.28	53.89	5.33	8.69	5.63	15.26	7.59	< LOD	4.73	157.97	13.14	< LOD	10.87	64.87	14.87	< LOD	70.75	31.11	20.43	< LOD	58.68	< LOD	152.42	17703.48	355.45	359.69	81.11
9/25/2010 10:02	SOIL	90	ppm	Final	10SM07SS	< LOD	7.48	178.62	11.96	399.31	13.31	< LOD	16.75	52.05	6.13	< LOD	9.23	< LOD	12.98	< LOD	8.87	5208.31	75.82	52.7	12.78	58.2	17.28	< LOD	85.4	42.8	25.52	< LOD	70.68	< LOD	172.45	18877.12	407.08	295.2	87.24
9/25/2010 10:05	SOIL	90	ppm	Final	10SM16SS	< LOD	6.91	214.82	10.4	90.63	6.15	< LOD	13.52	57.6	5.73	< LOD	8.67	16.04	7.86	< LOD	4.8	131.55	12.6	< LOD	11.43	77.6	16.3	< LOD	75.63	< LOD	32.29	< LOD	66.34	< LOD	182.64	24272.2	428.19	632.05	102.9
9/25/2010 10:08	SOIL	90	ppm	Final	10SM13SS	< LOD	7.05	180.73	10.01	89.85	6.29	< LOD	13.04	48.01	5.43	< LOD	8.46	< LOD	10.06	< LOD	5.43	519.74	23.31	< LOD	11.76	69.79	16.1	< LOD	74.83	< LOD	33.51	< LOD	66.93	< LOD	194.45	25925.67	454.38	620.1	106.89
9/25/2010 10:12	SOIL	90	ppm	Final	10SM25SS	< LOD	6.97	165.2	9.43	61.94	5.29	< LOD	11.77	44.94	5.13	< LOD	8.31	16.51	7.91	< LOD	4.59	19.05	7.33	< LOD	11.9	53.82	14.8	< LOD	78.75	< LOD	32.9	< LOD	66.27	< LOD	174.82	21821.68	412.75	658.19	105.81
9/25/2010 10:15	SOIL	90	ppm	Final	10SM08SS	< LOD	7.58	177.45	10.56	109.02	7.24	< LOD	15.74	76.64	6.99	< LOD	9.26	21.89	9.19	< LOD	5.75	147.53	14.53	< LOD	12.52	110.87	20.1	< LOD	80.5	83.33	27.94	< LOD	79.01	< LOD	301.07	57572.93	711.38	611.18	122.23
9/25/2010 10:18	SOIL	90	ppm	Final	10SM06SS	< LOD	7.66	182.35	10.81	92.07	6.83	< LOD	14.94	71.77	6.83	10.39	6.74	22.02	9.4	< LOD	6.02	586.75	26.88	< LOD	13.39	123.01	21.27	< LOD	83.31	44.06	25.87	< LOD	79.57	< LOD	293.71	53604.41	699.21	1772.83	179.15
9/25/2010 10:21	SOIL	90	ppm	Final	10SM04SS	< LOD	6.81	201.19	10.21	134.33	7.27	< LOD	13.25	49	5.34	11.97	5.97	< LOD	10.64	< LOD	5.42	511.69	22.35	13.03	7.85	75.73	15.9	< LOD	68.87	50.77	22.35	< LOD	61.86	< LOD	177.74	24569.01	425.66	748.68	109.16
9/25/2010 10:24	SOIL	90	ppm	Final	10UP10SS	< LOD	6.14	257.61	10.01	76.23	5.13	< LOD	9.82	34.59	4.11	< LOD	7.13	< LOD	9.44	< LOD	3.93	13.23	5.6	< LOD	8.12	27.56	10.38	< LOD	55.57	< LOD	24.29	< LOD	49.33	168.24	96.81	18101.1	333.82	158.29	61.49
9/25/2010 10:29	SOIL	90	ppm	Final	10UP03SS	< LOD	5.56	154.76	7.66	66.91	4.54	< LOD	8.1	23.12	3.26	< LOD	5.73	< LOD	7.71	< LOD	3.36	7.4	4.32	< LOD	7.57	22.26	9.03	< LOD	48.07	< LOD	20.34	< LOD	44.81	< LOD	97.77	9734.68	230.52	130.64	50.83

Table 4-2 XRF Field Screening of Laboratory Samples

Time	Type	Duration	Units	Sequence	Sample	Mo	Cr	Cr Error	V	V Error	Ti	Ti Error	Sc	Sc Error	Ca	Ca Error	K	K Error	S	S Error	Ba	Ba Error	Cs	Cs Error	Te	Te Error	Sb	Sb Error	Sn	Sn Error	Cd	Cd Error	Ag	Ag Error	Pd	Pd Error
9/21/2010 17:11	SOIL	90	ppm	Final	10SM20SS	< LOD	< LOD	34.19	< LOD	88.07	2812.87	169.86	< LOD	26.56	4894.33	278.93	8505.47	488.61	< LOD	14421.3	95.08	48.15	< LOD	18.76	< LOD	56.79	< LOD	20.54	< LOD	17.75	< LOD	11.72	< LOD	8.68	< LOD	11.95
9/21/2010 17:16	SOIL	90	ppm	Final	10SM23SS	< LOD	< LOD	31.36	< LOD	80.24	2398.7	157.16	30.16	18.74	5422.81	282.52	8416.62	477.02	< LOD	14090.65	435.47	54.99	< LOD	21.56	< LOD	64.99	1035.12	25.45	< LOD	20.87	< LOD	13.55	< LOD	10.1	< LOD	13.18
9/21/2010 17:23	SOIL	90	ppm	Final	10SM21SS	< LOD	54.16	22.38	< LOD	85.06	2697.3	165.05	< LOD	24.41	4038.68	250.47	7990.18	466.1	< LOD	14181.03	737.92	57.94	24.75	14.37	< LOD	65.69	< LOD	24.05	< LOD	20.52	< LOD	13.7	< LOD	9.91	< LOD	13.25
9/21/2010 17:28	SOIL	90	ppm	Final	10SM22SS	< LOD	< LOD	35.02	99.76	60.18	2373.21	168.39	< LOD	26.53	4169.62	262.9	7246.47	457.9	< LOD	13485.6	342.45	49.5	< LOD	18.99	< LOD	58.11	< LOD	21.18	< LOD	17.96	< LOD	11.81	< LOD	8.85	< LOD	11.9
9/21/2010 17:32	SOIL	90	ppm	Final	10SM29SS	< LOD	< LOD	31.51	< LOD	78.77	2399.2	153.08	< LOD	26.83	4893.37	269.87	7927.93	463.52	< LOD	12606.48	725.01	56.93	51.16	14.27	72.21	43.97	< LOD	23.8	< LOD	20.66	< LOD	13.53	< LOD	9.91	< LOD	13.37
9/21/2010 17:34	SOIL	90	ppm	Final	10SM28SS	< LOD	< LOD	34.94	109.03	64.33	3145.47	184.38	34.84	20	5602.66	297.13	9489.56	515.39	< LOD	14701.01	296.48	50.26	< LOD	19.51	< LOD	58.66	470.76	19.29	< LOD	18.51	< LOD	12.2	< LOD	8.82	< LOD	11.62
9/21/2010 17:39	SOIL	90	ppm	Final	10MP36SS	< LOD	84.25	28.45	142.75	66.75	2427.84	181.96	25.77	16.28	2005.55	218.52	8554.34	509.05	< LOD	15279.48	669.64	58.6	< LOD	22.12	< LOD	66.77	733.3	23.83	< LOD	21.37	< LOD	13.55	< LOD	10.47	< LOD	13.68
9/21/2010 17:42	SOIL	90	ppm	Final	10MP17SS	< LOD	99.1	26.64	< LOD	92.9	2544.32	180.46	172.46	28.5	9067.35	364.89	9068.51	515.27	< LOD	17689.98	711.2	71.72	< LOD	31.9	< LOD	84.35	9493.47	79.1	136.3	21.44	24.54	13.75	< LOD	14.1	< LOD	18.03
9/21/2010 17:45	SOIL	90	ppm	Final	10MP60SS	< LOD	47.29	26.08	< LOD	100.37	2860.59	190.46	36.3	18.92	3853.9	270.24	12071.64	588.95	< LOD	15881.8	798.25	62.33	< LOD	23.47	< LOD	70	977.63	27.04	< LOD	22.58	< LOD	14.86	< LOD	10.89	< LOD	14.68
9/21/2010 17:48	SOIL	90	ppm	Final	10MP34SS	< LOD	66.84	26.67	126.51	66	2722.25	183.61	< LOD	20.72	1029.1	190.98	12015.61	584.75	< LOD	13748.34	922.88	63.87	< LOD	23.74	< LOD	70.3	1128.94	28.61	< LOD	22.78	< LOD	15.09	< LOD	10.62	< LOD	14.81
9/21/2010 17:51	SOIL	90	ppm	Final	10MP62SS	< LOD	47.15	24.38	< LOD	94.2	3034.62	181.16	35.57	18.97	4580.99	278.17	11084.33	554.55	< LOD	13523.71	607.65	61.91	< LOD	25.06	< LOD	72.51	3404.91	43.66	57.8	16.53	< LOD	15.8	< LOD	11.48	< LOD	15.67
9/21/2010 17:54	SOIL	90	ppm	Final	10MP47SS	< LOD	78.69	27.57	127.04	71.93	3582.9	204.99	< LOD	23.36	1950.87	222.12	12531.82	600.18	< LOD	15539.29	710	60.3	< LOD	22.84	< LOD	68.32	871.86	25.57	< LOD	22.13	< LOD	14.23	< LOD	10.44	< LOD	14.48
9/21/2010 17:57	SOIL	90	ppm	Final	10MP29SS	< LOD	76.08	25.14	< LOD	94.92	3057.65	190.86	384.78	40.15	19046.63	507.4	11147.52	567.79	< LOD	18494.78	263.45	81.75	< LOD	44.51	< LOD	107.07	19107.78	133.69	293.03	30.55	50.78	19.07	< LOD	18.85	< LOD	25.96
9/21/2010 18:01	SOIL	90	ppm	Final	10MP31SS	< LOD	< LOD	36.6	120.85	66.03	3740.63	192.32	< LOD	26.98	4516.2	273.23	6647.81	445.01	< LOD	14139.92	253.81	48.57	< LOD	18.78	< LOD	57.24	< LOD	20.88	< LOD	17.78	< LOD	11.66	< LOD	8.46	< LOD	11.58
9/21/2010 18:05	SOIL	90	ppm	Final	10MP16SS	< LOD	140.44	29.55	109.47	62.7	2199.34	173.08	49.74	21.74	5812.7	308.34	8168.03	497.56	< LOD	15691.32	647.06	66.93	< LOD	27.03	< LOD	78.25	3482.64	47.27	62.21	17.84	< LOD	17.51	< LOD	11.84	< LOD	15.92
9/21/2010 18:09	SOIL	90	ppm	Final	10MP67SS	< LOD	47.01	23.85	< LOD	89.26	2816.18	178.31	180.83	30.36	11651.61	404.75	10300.12	542.02	< LOD	18347.08	320.44	68.27	< LOD	31.89	< LOD	85.08	9690.12	79.92	139	21.47	< LOD	20.41	< LOD	13.87	< LOD	18.99
9/21/2010 18:12	SOIL	90	ppm	Final	10MP07SS	< LOD	105.63	25.98	< LOD	89.18	2388.5	174.02	227.35	31.36	11308.66	396.64	8810.66	505.42	< LOD	16141.88	442.06	74.61	< LOD	35.56	< LOD	93.16	11384.95	92.71	212.07	24.55	37.98	15.49	< LOD	15.8	< LOD	19.89
9/21/2010 18:15	SOIL	90	ppm	Final	10MP13SS(2)	< LOD	106.99	25.45	< LOD	90.56	2631.49	180.19	311.21	36.72	16758.24	470.94	8678.98	502.61	< LOD	16676.14	201.59	74.89	< LOD	39.06	< LOD	96.49	16006.76	113.53	209.32	26.46	29.85	16.58	< LOD	17.26	< LOD	23.38
9/21/2010 18:18	SOIL	90	ppm	Final	10MP12SS(2)	< LOD	66.1	25.28	< LOD	97.27	2623.24	188.59	294.43	36.1	15507.4	462.32	10686.56	555.81	< LOD	19529.19	387.01	76.14	< LOD	38.09	< LOD	96.71	14349.74	106.62	224.22	26.07	32.21	16.24	< LOD	16.46	< LOD	21.67
9/21/2010 18:23	SOIL	90	ppm	Final	10OP01SS	< LOD	178.63	30.81	< LOD	99.43	2449.87	194.93	294.24	35.69	13321.59	439.06	7819.98	495	< LOD	16821.15	526.18	82.23	< LOD	42.23	< LOD	103.55	17807.87	125.55	263.83	29.03	29.62	17.75	< LOD	18.46	< LOD	24.24
9/21/2010 18:29	SOIL	90	ppm	Final	10RD16SS	< LOD	48.96	24.88	< LOD	93.44	2801.97	177.37	< LOD	27.49	4916.48	279.86	6208.87	426.27	< LOD	15232.87	< LOD	65.98	< LOD	17.34	< LOD	52.33	< LOD	18.97	< LOD	16.24	< LOD	10.7	< LOD	7.73	< LOD	10.18
9/21/2010 18:34	SOIL	90	ppm	Final	10RD14SS	< LOD	50.43	24.36	< LOD	87.08	3153.79	172.5	< LOD	27.13	5173.94	286.15	6895.75	446.32	< LOD	12647.56	< LOD	66.55	< LOD	17.54	< LOD	53.43	< LOD	19.34	< LOD	16.55	< LOD	10.94	< LOD	7.89	< LOD	10.53
9/21/2010 18:37	SOIL	90	ppm	Final	10RD09SS	< LOD	< LOD	35.35	112.66	60.51	3011.1	173.85	< LOD	24.33	3209.4	242.55	8365.06	490.21	< LOD	14582.53	601.97	53.83	< LOD	20.17	< LOD	61.38	< LOD	22.92	< LOD	19.4	< LOD	12.43	< LOD	9.05	< LOD	11.8
9/21/2010 18:40	SOIL	90	ppm	Final	10RD08SS	< LOD	< LOD	36.39	112.11	63.13	2811.68	178.22	< LOD	23.23	2520.54	223.42	8189.11	483	< LOD	12801.34	435.8	51.79	< LOD	19.6	< LOD	59.52	< LOD	21.57	< LOD	18.48	< LOD	12.22	< LOD	8.85	< LOD	12.01
9/21/2010 18:44	SOIL	90	ppm	Final	10RD19SS	< LOD	< LOD	35.84	< LOD	82.51	2168.52	158.25	< LOD	25.35	3710.74	252.13	5065.63	390.08	< LOD	12034.67	< LOD	59.09	< LOD	15.77	< LOD	47.46	< LOD	17.16	< LOD	14.64	< LOD	9.83	< LOD	7.09	< LOD	9.56
9/21/2010 18:47	SOIL	90	ppm	Final	10RD18SS	< LOD	47.54	27.03	111.91	65.19	3194.8	186.54	< LOD	28.49	5260.95	300.61	7130.5	466.98	< LOD	15519.21	< LOD	62.5	< LOD	16.56	< LOD	50.23	< LOD	18.24	< LOD	15.39	< LOD	10.23	< LOD	7.71	< LOD	9.93
9/21/2010 18:51	SOIL	90	ppm	Final	10RD17SS	< LOD	48.83	24.68	103.4	61.37	3019.45	176.37	< LOD	27.22	4589.68	275.34	7986.26	476.19	< LOD	12959.34	223.62	47.33	< LOD	18.43	< LOD	55.77	< LOD	20.24	< LOD	17.52	< LOD	11.44	< LOD	8.31	< LOD	11.49
9/21/2010 18:55	SOIL	90	ppm	Final	10RD15SS	< LOD	< LOD	37.49	93.71	60.94	3148.07	177.6	< LOD	27.41	3990.73	264.38	6522.01	441.85	< LOD	15059.09	< LOD	66.24	< LOD	17.38	< LOD	52.64	< LOD	18.98	< LOD	16.23	< LOD	10.88	< LOD	7.78	< LOD	10.47
9/21/2010 18:58	SOIL	90	ppm	Final	10MP46SS	< LOD	95.02	27.82	< LOD	101.87	2917.11	199.91	316.81	38.65	17231.08	497.87	11975.07	599.13	< LOD	17104.25	958.63	83.38	< LOD	39.17	< LOD	99.18	15021.72	111.34	225.22	26.86	38.77	16.88	< LOD	17.28	< LOD	21.72
9/21/2010 20:51	SOIL	90	ppm	Final	10SM11SS	< LOD	< LOD	35.39	< LOD	88.57	2677.69	170.82	< LOD	28.02	4755.8	277.69	7878.88	476.2	< LOD	14000.71	221.76	50.15	< LOD	19.45	< LOD	59.42	< LOD	21.41	< LOD	18.4	< LOD	12.21	< LOD	8.89	< LOD	11.84
9/21/2010 20:55	SOIL	90	ppm	Final	10SM10SS	< LOD	56.29	24.15	108.32	62.88	3083.8	180.13	< LOD	21.23	1785.41	203.4	11025.23	547.74	< LOD	11339.37	882	63.05	30.73	15.7	< LOD	71.02	777.59	25.37	< LOD	22.6	< LOD	15.08	< LOD	10.86	< LOD	14.47
9/21/2010 21:02	SOIL	90	ppm	Final	10MP10SS	< LOD	38.37	23.64	146.25	64.83	3080.07	182.06	< LOD	20.72	1724.41	198.39	9777.58	518.28	< LOD	13076.07	898.74	63.19	< LOD	23.49	< LOD	71.27	770.91	25.31	< LOD	22.7	< LOD	14.97	< LOD	10.88	< LOD	14.59
9/21/2010 21:05	SOIL	90	ppm	Final	10SM10SS	< LOD	< LOD	34.68	< LOD	89.66	2833.39	172.87	< LOD	29.02	5604.78	295.22	8502.05	490.77	< LOD	14162.78	353.49	51.84	< LOD	19.82	< LOD	60.42	< LOD	21.93	< LOD	18.55	< LOD	12.37	< LOD	8.98	< LOD	12.09
9/21/2010 21:10	SOIL	90	ppm	Final	10MP59SS	< LOD	63.84	26.17	123.63	72.69	3975.2	209.73	< LOD	27.16	4240.29	277.53	12970.03	603.72	< LOD	16152.71	841.62	59.2	41.33	14.63	< LOD	66.81	143.32	17.8	< LOD	21.17	< LOD	13.68	< LOD	10.06	< LOD	13.84
9/21/2010 21:14	SOIL	90	ppm	Final	10MP45SS	< LOD	67.3	28.31	155.34	74.67	3624.15	210.05	< LOD	21.79	1396.42	207.99	11980.8	594.72	< LOD	15587.96	886.23	62.47	25.48	15.39	< LOD	69.84	426.97	21.8	< LOD	21.96	< LOD	14.43	< LOD	10.32	< LOD	13.66
9/21/2010 21:18	SOIL	90	ppm	Final	10SM12SS	< LOD	63.51	23.54	< LOD	84.9	2744.12	165.48	35.25	17.85	4170.04	257.2	7571.92	459.13	< LOD	13264.87	639.24	56.3	35.89	14.17	< LOD	64.63	< LOD	23.57	< LOD	20.5	< LOD	13.16	< LOD	9.83	< LOD	12.88
9/24/2010 17:00	SOIL	90	ppm	Final	10NR001	< LOD	71.43	26.53	103.61	66.99	2978.36	189.77	< LOD	26.7	4145.6	271.84	10233.91	542.02	< LOD	13394.05	443.24	52.27	< LOD	19.96	< LOD	60.06	325.88	18.34	< LOD	19.07	< LOD	12.58	< LOD	8.94	< LOD	11.65
9/24/2010 17:04	SOIL	90	ppm	Final	10NR002	< LOD	94.36	23.9	119.46	54.09	2172.51	150.01	< LOD	19.8	1984.84	193.62	7304.23	447.89	< LOD	14691.66	907.72	66.54	56.34	16.54	< LOD	75.36	413.63	23	< LOD	23.95	< LOD	15.57	< LOD	11.24	< LOD	15.6
9/24/2010 17:06	SOIL	90	ppm	Final	10NR003	< LOD	97.89	26.56	119.94	61.36	2530.64	171.02	< LOD	26.88	4481.84	272.06	8275.53	485.54	< LOD	13371.1	71.89	46.73	< LOD	18.29	< LOD	55.15	230.83	16.37	< LOD	17.26	< LOD	11.63	< LOD	8.37	< LOD	10.89
9/25/2010 8:04	QA/QC	90	ppm	Final	BLANK_180_428	< LOD	24.83	15.31	< LOD	24.4	< LOD	56.49	< LOD	8.47	263.29	91.42	< LOD	181.11	< LOD	8003.01	< LOD	71.32	< LOD	19.37	< LOD	59.79	< LOD	21.85	< LOD	18.5	< LOD	12.51	< LOD	9.27	< LOD	12.19
9/25/2010 8:09	QA/QC	90	ppm	Final	RCRA_180_436	< LOD	252.24	35.22	< LOD	100.61	3303.92	197.07	85.18	40.2	26257.61	631.01	14934.3	691.11	< LOD	22045.62	522.74	64	36.4	16.4	< LOD	75.36	< LOD	29.27	< LOD	25.78	567.82	21.01	558.98	19.39	25.58	12.65
9/25/2010 8:11	QA/QC	90	ppm	Final	TILL4_180_601	11.34	< LOD	37.46	< LOD	95.83	3894.17	197.29	33.47	22.04	6063.63	340.95	21407.17	788.17	< LOD	17637.15	371.62	58.38	38.87	15.24	< LOD	69.49	< LOD	25.13	< LOD	21.95	< LOD	14.33	< LOD	10.45	< LOD	13.84
9/25/2010 8:15	QA/QC	90	ppm	Final	GBW_180_605	< LOD	< LOD	41.31	< LOD	103.08	3068.76	199.76	< LOD	57.44	24105.87	621.37	13529.55	675.03	< LOD	25330.55	523.26	64.36	25.18	16.44	< LOD	75.14	< LOD	27.61	59.83	16.51	31.91	11.3	< LOD	12.01	< LOD	15
9/25/2010 8:17	QA/QC	90	ppm	Final	NCS_180_600	< LOD	95.67	26.12	91.52	44.77	1005.58	116.05	< LOD	25.91	3801.88	241.6	522.73	197.18	< LOD	13527.4	< LOD	78.49	< LOD	21.16	< LOD	64.81	< LOD	23.83	< LOD	20.33	< LOD	13.72	< LOD	9.87	< LOD	12.98
9/25/2010 8:34	SOIL	90	ppm	Final	10UP08SS	< LOD	< LOD	37.26	107.07	62.68	3248.18	181.64	< LOD	24.87	2859.55	233.11	6004.28	428.07	< LOD	13215.29	175.42	48.04	< LOD	18.62	< LOD	56.32	< LOD	20.24	< LOD	17.31	< LOD	11.26	< LOD	8.09	< LOD	11.55
9/25/2010 8:39	SOIL	90	ppm	Final	10SM24SS	< LOD	45.15	23.96	118.03	61.46	2862.25	174.27	< LOD	21.44	1919.93	198.6	6283.3	427.8	< LOD	13632.78	564.59	54.96	< LOD	20.74	< LOD	63.42	< LOD	23.01	< LOD	19.83	< LOD	13.1	< LOD	9.67	< LOD	12.83
9/25/2010 8:42	SOIL	90	ppm	Final	10SM01SS	< LOD	95.61	26.43	112.09	62.79	2813.1	177.46	< LOD	18.75	750.66	169.29	9526.92	518.04	< LOD	15503.18	732.56	59.3	< LOD	21.81	< LOD	66.49	56.79	17.03	< LOD	20.61	< LOD	14.02	< LOD	10.26	< LOD	14.41
9/25/2010 8:46	SOIL	90	ppm	Final	10UP02SS	8.74	< LOD	33.63	< LOD	77.24	2147.66	148.1	< LOD	18.87	1458.64	182.21	4030.56	349.28	< LOD	13280.38	< LOD	55.13	< LOD	14.95	< LOD	45.03	< LOD	16.24	< LOD	13.81	< LOD	9.23	< LOD	6.81	< LOD	9.16
9/25/2010 8:50	SOIL	90	ppm	Final	10UP09SS	< LOD	42.48	23.57	< LOD	85.35	2704.24	165.56	< LOD	18.76	1825.83	193.95	5243.77	393.2	< LOD	14127.75	< LOD	69.7	< LOD	18.24	< LOD	55.71	< LOD	20.02	< LOD	17.08	< LOD	11.3	< LOD	8.35	< LOD	11.08
9/25/2010 8:54	SOIL	90	ppm	Final	10SM26SS	< LOD	71.44	23.36	80.22	52.11	2609.18	152.56	< LOD	22.37	3024.07	224	5563.97	399.26	< LOD	10831.07	415.52	51.77	< LOD	19.88	< LOD	60.93	< LOD	21.99	< LOD	18.88	< LOD	12.33	< LOD	9.27	< LOD	12.07
9/25/2010 8:59	SOIL	90	ppm	Final	10MP21SS	< LOD	82.2	27.7	120.89	69.46	3187.01	196.45	< LOD	23.47	1820.16	213	10176.61	545.78	< LOD	13987.76	837.29	61.08	< LOD	22.79	< LOD	68.86	839.04	25.24	< LOD	21.74	< LOD	14.52	< LOD	10.74	< LOD	13.72
9/25/2010 9:02	SOIL	90	ppm	Final	10SM15SS	< LOD	39.45	24.36	< LOD	96.08	3118.07	185.46	< LOD	27.96	5121.17	288.33	9025.38	507.03	< LOD	13401.19	364.67	51.08	< LOD	19.51	< LOD	59.14	< LOD	21.34	< LOD	18.57	< LOD	12.16	< LOD	8.88	< LOD	11.55
9/25/2010 9:05	SOIL	90	ppm	Final	10SM27SS	< LOD	58.47	20.67	74.15	47.19	1672.43	132.28	28.35	12.84	1546.96	166.6	4609.97	359.74	< LOD	12291.55	363.62	60.5	< LOD	23.16	< LOD	70.32	< LOD	25.31	< LOD	21.51	< LOD	14.36	< LOD	10.64	< LOD	14.56
9/25/2010 9:08	SOIL	90	ppm	Final	10UP04SS	6.18	35.75	21.63	< LOD	72.78	2160.78	141.53	< LOD	19.74	1994.78	191.26	3769.02	333.32	< LOD	10291.65	< LOD	57.95	< LOD	15.57	< LOD	47.11	< LOD	16.91	< LOD	14.4	< LOD	9.64	< LOD	7.01	< LOD	9.4
9/25/2010 9:13	SOIL	90	ppm	Final	10UP05SS	< LOD	< LOD	37.09	< LOD	93.6	2790.38	178.98	< LOD	24.78	3018.66	236.04	6227	430.17	< LOD	13170.17	< LOD	62.43	< LOD	16.56	< LOD	49.77	< LOD	17.99	< LOD	15.38	< LOD	10.38	< LOD	7.43	< LOD	10.53
9/25/2010 9:16	SOIL	90	ppm	Final	10UP07SS	< LOD	41.08	22.84	< LOD	82.18	2481.04	157.64	< LOD	20.05	1767.39	189.03	4903.67	378.91	< LOD	11126.19	< LOD	67.6	< LOD	17.79	< LOD	54.03	< LOD	19.58	< LOD	16.65	< LOD	11.19	< LOD	8.1	< LOD	10.74
9/25/2010 9:19	SOIL	90	ppm	Final	10MP19SS	< LOD	45.63	23.41	< LOD	84.61	2496.43	162.52	< LOD	21.23	2046.94	199.17	5310.44	396.49	< LOD	11888.22	488.99	55.3	< LOD	21.14	< LOD	64.76	138.96	17.31	< LOD	20.39	< LOD	13.37	< LOD	9.79	< LOD	12.84
9/25/2010 9:22	SOIL	90	ppm	Final	10SM18SS	< LOD	53.99	20.56	94.88	50.85	1828.33	140.85	26.22	10.83	446.99	125.86	5548.21	387.26	< LOD	10621	662.89	67.15	40.6	16.95	< LOD	77.65	< LOD	28.52	< LOD	24.14	< LOD	16.32	< LOD	11.9	< LOD	16.42
9/25/2010 9:25	SOIL	90	ppm	Final	10UP06SS	< LOD	70.48	25.2	< LOD	91.18	3253.62	181.78	< LOD	25.79	3498.04	247.65	7092.9	453.59	< LOD	14345.31	< LOD	65.21	< LOD	17.28	< LOD	52.04	< LOD	18.83	< LOD	16.2	< LOD	10.81	< LOD	7.82	< LOD	10.82
9/25/2010 9:32	SOIL	90	ppm	Final	10MP20SS	< LOD	< LOD	38.02	130.92	63.97	2707.81	178.15	< LOD	24.79	3106.89	242.37	7550.85	473.43	< LOD	13610.98	201.9	49.1	< LOD	18.83	< LOD	57.02	75.17	15.25	< LOD	17.6	< LOD	11.63	< LOD	8.14	< LOD	11.54
9/25/2010 9:35	SOIL	90	ppm	Final	10SM03SS	< LOD	65.86	24.14	< LOD	85.21	2330.88	161.51	< LOD	22.52	2406.49	215.52	8339.15	481.59	< LOD	13074.84	366.13	53.71	< LOD	20.5	< LOD	61.92	52.01	16.06	< LOD	19.59	< LOD	12.68	< LOD	9.43	< LOD	12.8
9/25/2010 9:38	SOIL	90	ppm	Final	10SM19SS	< LOD	57.57	24.15	122.04	62	2698.68	173.71	< LOD	22.82	2733.64	227.37	9807.14	517.59	< LOD	14200.59	600.77	55.82	< LOD	20.9	< LOD	63.18	< LOD	23.57	< LOD	19.88	< LOD	12.94	< LOD	9.39	< LOD	13.08
9/25/2010 9:42	SOIL	90	ppm	Final	10MP01SS(2)	< LOD	< LOD	34.16	< LOD	86.62	2698.57	167.1	< LOD	22.89	2949.39	225.3	5682.29	404.71	< LOD	10255.48	114.69	47.31	< LOD	18.42	< LOD	55.77	< LOD	20.83	< LOD	17.24	< LOD	11.55	< LOD	8.34	< LOD	11.39
9/25/2010 9:46	SOIL	90	ppm	Final	10SM09SS	< LOD	73.38	27.44	< LOD	108.35	3218.12	204.75	< LOD	22.57	1948.33	218.25	10995.05	564.81	< LOD	14794.24	1032.2	61.41	31.89	14.77	< LOD	67.51	< LOD	24.66	< LOD	21.29	< LOD	13.72	< LOD	10.16	< LOD	12.89
9/25/2010 9:49	SOIL	90	ppm	Final	10SM14SS	< LOD	78.43	25.71	< LOD	92.64	3104.96	180.51	< LOD	29.11	5340.58	291.25	7797.73	476.62	< LOD	13729.98	462.3	51.9	< LOD	19.61	< LOD	60.06	< LOD	21.73	< LOD	18.64	< LOD	12.34	< LOD	9.17	< LOD	12.03
9/25/2010 9:52	SOIL	90	ppm	Final	10SM02SS	< LOD	71.84	25.76	< LOD	99.34	3359.53	193.32	< LOD	19.66	879.97	177.91	10641.45	547.18	< LOD	14230.25	806.74	59.79	< LOD	21.82	< LOD	65.62	73.1	17.21	< LOD	20.91	< LOD	13.86	< LOD	9.65	< LOD	13.39
9/25/2010 9:55	SOIL	90	ppm	Final	10SM05SS	< LOD	< LOD	44.63	157.71	80.2	2640.18	216.39	< LOD	23.24	1079.28	202.17	10380.69	573.22	< LOD	16238.52	1140.27	67.83	27	16.2	< LOD	73.04	251.68	21.01	< LOD	23.16	< LOD	15.03	< LOD	10.73	< LOD	14.75
9/25/2010 9:59	SOIL	90	ppm	Final	10SM17SS	< LOD	35.21	23.46	119.65	62.31	2711.24	174.63	< LOD	23.66	3509.61	245.72	8471.14	485.4	< LOD	12245.98	385.1	51.6	< LOD	19.65	< LOD	59.72	< LOD	22.2	< LOD	18.54	< LOD	12.08	< LOD	8.82	< LOD	11.84
9/25/2010 10:02	SOIL	90	ppm	Final	10SM07SS	< LOD	114.18	25.82	123.1	69.25	3465.71	196.63	< LOD	16.31	715.9	160.59	9218.29	496.41	< LOD	12748.9	1329.65	64.81	< LOD	22.42	< LOD	68.19	< LOD	25.31	< LOD	21.54	< LOD	13.99	< LOD	10.21	< LOD	14.29
9/25/2010 10:05	SOIL	90	ppm	Final	10SM16SS	< LOD	57.22	25.48	133.52	64.02	2881.36	179.55	< LOD	23.38	2624.72	227.88	8445.5	493.46	< LOD	13701.68	688.83	56.26	< LOD	20.95	< LOD	63.34	< LOD	23.28	< LOD	19.78	< LOD	12.74	< LOD	9.38	< LOD	12.84
9/25/2010 10:08	SOIL	90	ppm	Final	10SM13SS	< LOD	51.37	24.3	112.48	60.87	2370.76	168.9	< LOD	20.72	1957.34	199.9	6473.62	434.21	< LOD	12128.87	689.14	57.52	< LOD	21.46	< LOD	65	69.1	16.75	< LOD	20.49	< LOD	13.42	< LOD	9.88	< LOD	13.24
9/25/2010 10:12	SOIL	90	ppm	Final	10SM25SS	< LOD	50.78	23.91	121.39	58.68	2621.79	165.03	< LOD	18.69	1140.57	171.76	6185.17	423.12	< LOD	12156.03	295.53	52.74	< LOD	20.13	< LOD	61.21	< LOD	22.34	< LOD	19.03	< LOD	12.46	< LOD	9.23	< LOD	12.53
9/25/2010 10:15	SOIL	90	ppm	Final	10SM08SS	< LOD	61.8	29.82	147.22	78.3	3457.44	218.79	< LOD	23.09	952.69	196.63	10363.13	568.48	< LOD	16396.3	921.76	61.48	< LOD	22.23	< LOD	67.47	< LOD	24.92	< LOD	20.94	< LOD	13.66	< LOD	9.68	< LOD	13.57
9/25/2010 10:18	SOIL	90	ppm	Final	10SM06SS	< LOD	< LOD	43.76	176.82	74.92	2617.75	201.56	< LOD	23.46	1018.77	200.23	10159.7	564.81	< LOD	16036.42	856.88	60.9	< LOD	22.23	< LOD	66.71	50.77	17.13	< LOD	20.98	< LOD	13.56	< LOD	10.08	< LOD	12.98
9/25/2010 10:21	SOIL	90	ppm	Final	10SM04SS	< LOD	48.62	26.65	137.44	71.6	3180.2	200.1	< LOD	22.25	1912.59	217.18	10462.62	551.08	< LOD	14425.81	783.74	55.76	< LOD	20.43	< LOD	62.31	48.02	15.81	< LOD	19.61	< LOD	12.7	< LOD	9.04	< LOD	12.67
9/25/2010 10:24	SOIL	90	ppm	Final	10UP10SS	< LOD	< LOD	37.94	109.25	65.78	3299.47	189.21	< LOD	24.87	2719.57	233.8	6332.58	440.59	< LOD	15013.9	< LOD	64.89	< LOD	17.04	< LOD	51.6	< LOD	18.76	< LOD	15.84	< LOD	10.32	< LOD	7.58	< LOD	10.32
9/25/2010 10:29	SOIL	90	ppm	Final	10UP03SS	< LOD	56.09	25.61	92.92	61.92	3164.42	179.87	< LOD	27.75	4361.09	270.14	5542.91	409.11	< LOD	12191.48	< LOD	60	< LOD	15.98	< LOD	48.54	< LOD	17.49	< LOD	14.92	< LOD	9.77	< LOD	7.24	< LOD	9.61

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Main Processing Area																			
Source Area / Other Area							East of Red Devil Creek																			
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Direct Contact/ Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/ Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10MP10SS 9/21/2010 6:35:00 PM	10MP19SS 9/23/2010 6:15:00 PM	10MP11SS 9/19/2010 12:40:00 PM	10MP12SS 9/18/2010 10:23:00 AM	10MP13SS 9/18/2010 9:56:00 AM	10MP14SS 9/17/2010 5:53:00 PM	10MP15SS 9/17/2010 6:20:00 PM	10MP18SS 9/16/2010 2:45:00 PM	10MP88SS 9/19/2010 1:00:00 PM	10MP06070809SS 9/17/2010 2:20:00 PM	10MP06SS 9/17/2010 2:20:00 PM	10MP07SS 9/17/2010 12:30:00 PM	10MP08SS 9/17/2010 12:00:00 PM	10MP09SS 9/18/2010 1:00:00 PM	10MP030405SS 9/18/2010 10:25:00 AM	10MP03SS 9/18/2010 10:25:00 AM	10MP04SS 9/18/2010 11:10:00 AM	10MP05SS 9/18/2010 11:30:00 AM	10MP80SS 9/18/2010 10:55:00 AM	10MP02SS 9/18/2010 3:20:00 PM	10MP81SS 9/18/2010 (Duplicate of 10MP02SS) 4:05:00 PM
Total Metals																										
Aluminum	SW6010B-Total	mg/kg	NA	NA			6800	13000	12500	12000	14600	9920	14800	11300	15600	10400	11500	10700	6440	8210	13900	15200	16700	14500	12600	3390	2450
Antimony	SW6010B-Total	mg/kg	41	3.6			470 J	40	6980 J	10900 J	12100 J	3400 J	11800 J	4810 J	11500 J	4420 J	5750 J	8200 J	1220 J	1990 J	5500 J	4720 J	5530 J	4460 J	5600 J	210 J	250 J
Arsenic	SW6010B-Total	mg/kg	4.5	3.9			1540	170	5320	4870	4890	2320	4660	2570	5780	4520	5640	4280	3040	4200	5580	5200	6670	5660	5800	7310	5020
Barium	SW6010B-Total	mg/kg	20300	1100			225	90.3	796	746	840	462	1160	462	880	496	580	572	286	424	639	769	750	697	567	134	97.1
Beryllium	SW6010B-Total	mg/kg	200	42			0.8	0.6	1	1	0.9	0.8	1.1	0.8	1.1	0.9	0.9	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9	1.3	0.9
Cadmium	SW6010B-Total	mg/kg	79	5.0			0.5 U	0.6 U	0.5 U	1 U	1 U	0.6 U	1 U	0.5 U	1 U	0.6 U	0.5 U	1 U	0.6 U	0.6 U	0.6 U	0.6 U	0.5 U	0.5 U	1 U	1 U	0.5 U
Calcium	SW6010B-Total	mg/kg	NA	NA			2350 J	1010	4750 J	7180 J	7480 J	3390 J	6650 J	4340 J	7790 J	4150 J	6470 J	6660 J	3290 J	4840 J	5900 J	3990 J	3760 J	4830 J	4250	1400 J	390
Chromium	SW6010B-Total	mg/kg	300	25			23	23	43	35	41	24	30	27	54	34	29	32	24	33	39	46	71	45	35	8	6
Cobalt	SW6010B-Total	mg/kg	NA	NA			22.5	16.2	21	19	18	18.5	18	17.7	19	19.1	14.2	17	21	20.2	17.1	17.8	15.2	14.3	17	35	17.6
Copper	SW6010B-Total	mg/kg	4100	460			83.5	32.4	86.7	90	77	72.3	87	72.9	89	81.3	77.2	77	79.5	70	81.6	75	73.8	72.9	76	118	67.9
Iron	SW6010B-Total	mg/kg	MA	NA			43700	30600	40300	38000	34100	37800	33300	34500	33300	42900	40700	35400	46600	41800	41300	35800	39400	38400	35300	50100	32600
Lead	SW6010B-Total	mg/kg	400	NA			30	9	19	10 U	10 U	24	20	16	10 U	22	33	10	29	29	28	38	24	24	30	20	16
Magnesium	SW6010B-Total	mg/kg	NA	NA			2040	2480	5420	5960	7130	3180	5350	3690	7580	4470	6010	5320	3640	4430	5850	4930	4370	5490	5160	450	390
Manganese	SW6010B-Total	mg/kg	NA	NA			813	537	785	801	676	874	694	965	665	616	596	692	688	650	737	527	502	523	528	1190	855
Nickel	SW6010B-Total	mg/kg	2000	86			64	40	69	64	64	58	58	54	66	62	45	55	65	58	51	55	53	45	52 J	97	43 J
Potassium	SW6010B-Total	mg/kg	NA	NA			1790	810	3380	3450	3770	2650	4010	2820	3960	3220	3270	2930	1840	2360	3880	4030	3880	3930	3560	1770	1390
Sodium	SW6010B-Total	mg/kg	NA	NA			130 U	150 U	310	280	340	200	340	210	370	240	310	270 U	140 U	170	370	390	360	370	380	260 U	130 U
Vanadium	SW6010B-Total	mg/kg	710	3400			39	45.4	34.5	32	31	36.4	32	35.8	36	33.5	29	29	31.4	30.3	36.2	33.9	33.5	34.7	31	20	15.3
Zinc	SW6010B-Total	mg/kg	30400	4100			136	83	126	122	115	118	125	112	125 J	120	95	110	135	107	115	115	110	106	109	159	101
Mercury																											
Mercury	SW7471A-Total	mg/kg	18	1.4			172	38	660	304	690	162	217	136	590	750	750	790 J	295	560	680	710	860	900	780	88	94
Diesel Range Hydrocarbons																											
Diesel Range Hydrocarbons	AK102/AK103 TPHD	mg/kg			10250	300	31 J	7.1 J																			
Motor Oil	AK102/AK103 TPHD	mg/kg			10000	11000	94	100																			
n-Triacontane	AK102/AK103 TPHD	mg/kg					24.6	23.1																			
o-Terphenyl	AK102/AK103 TPHD	mg/kg					28.5	23.5																			
Moisture Content																											
Moisture Content	ASTM D2216	Percent																									
Grain Size																											
Percent passing < 1.3 micron	ASTM D422	Percent																									
Percent retained 1.3 micron	ASTM D422	Percent																									
Percent retained 13 micron	ASTM D422	Percent																									
Percent retained 150 micron sieve	ASTM D422	Percent																									
Percent retained 2000 micron sieve	ASTM D422	Percent																									
Percent retained 22 micron	ASTM D422	Percent																									
Percent retained 250 micron sieve	ASTM D422	Percent																									
Percent retained 3.2 micron	ASTM D422	Percent																									
Percent retained 32 micron	ASTM D422	Percent																									
Percent retained 425 micron sieve	ASTM D422	Percent																									
Percent retained 4750 micron sieve	ASTM D422	Percent																									
Percent retained 7 micron	ASTM D422	Percent																									
Percent retained 75 micron sieve	ASTM D422	Percent																									
Percent retained 850 micron sieve	ASTM D422	Percent																									
Percent retained 9 micron	ASTM D422	Percent																									
Atterberg Limits Classification																											
Liquid Limit	ASTM D4318	Percent																									
Plastic Limit	ASTM D4318	Percent																									
Plasticity Index	ASTM D4318	Percent																									
Total Solids																											
%TS	SM 2540G	Percent																									73.
Selective Sequential Extraction Mercury																											
Hg(F0)	BRL SOP No. BR-0013	ng/g																									3.7
Hg(F1)	BRL SOP No. BR-0013	ng/g																									4.3
Hg(F2)	BRL SOP No. BR-0013	ng/g																									7.9
Hg(F3)	BRL SOP No. BR-0013	ng/g																									105
Hg(F4)	BRL SOP No. BR-0013	ng/g																									26.
Hg(F5)	BRL SOP No. BR-0013	ng/g																									21
Hg(F6)	BRL SOP No. BR-0013	ng/g																									10.
Arsenic Speciation																											
As(III)	EPA 1632	mg/kg																									2.
As(Inorg)	EPA 1632	mg/kg																									11
As(V)	EPA 1632	mg/kg																									11
Mercury																											
Mercury	SW7470A-Leachate	mg/L														0.0031					0.005					0.0006	0.021 J
Semi-Volatile Organic Compounds																											
1-Methylnaphthalene	SW8270D	µg/kg	280000	6200			15 J	20 U																			
2-Methylnaphthalene	SW8270D	µg/kg	280000	6100			36	20 U																			
bis(2-Ethylhexyl)phthalate	SW8270D	µg/kg	NA	NA			12 J	11 J																			
Chrysene	SW8270D	µg/kg	490000	360000			19 J	20 U																			
Diethylphthalate	SW8270D	µg/kg	NA	NA			19 U	20 U																			
Naphthalene	SW8270D	µg/kg	28000	20000			14 J	20 U																			
Pentachlorophenol	SW8270D	µg/kg	39000	47			97 U	98 U																			
Phenanthrene	SW8270D	µg/kg	20600000	3000000			18 J	20 U																			
Phenol	SW8270D	µg/kg	23200000	68000			19 U	20 U																			
Sulfur	SW8270D	µg/kg	NA	NA																							
Unknown	SW8270D	µg/kg	NA	NA																							
Unknown Aromatic	SW8270D	µg/kg	NA	NA			170 J	890 J																			
Unknown Hydrocarbon	SW8270D	µg/kg	NA	NA			170 J	230 J																			
Unknown Organic Acid	SW8270D	µg/kg	NA	NA			170 J	380 J																			
Unknown Sterol	SW8270D	µg/kg	NA	NA			150 J	420 J																			

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Main Processing Area																		
Source Area / Other Area							East of Red Devil Creek																		
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Direct Contact/ Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/ Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10MP23SS 9/18/2010 5:53:00 PM	10MP24SS 9/18/2010 5:00:00 PM	10MP25SS 9/18/2010 4:36:00 PM	10MP83SS 9/18/2010 5:45:00 PM	10MP22SS 9/16/2010 6:05:00 PM	10MP20SS 9/23/2010 7:00:00 PM	10MP21SS 9/23/2010 7:50:00 PM	10MP87SS 9/23/2010 7:20:00 PM	10MP35SS 9/17/2010 12:30:00 PM	10MP37SS 9/17/2010 11:25:00 AM	10MP68SS 9/19/2010 2:30:00 PM	10MP38SS 9/17/2010 1:02:00 PM	10MP39SS 9/17/2010 11:50:00 AM	10MP40SS 9/17/2010 10:45:00 AM	10MP32SS 9/20/2010 12:30:00 PM	10MP34SS 9/20/2010 3:00:00 PM	10MP36SS 9/20/2010 3:50:00 PM	10MP84SS (Duplicate of 10MP36SS) 9/20/2010 4:15:00 PM	10MP31SS 9/18/2010 12:50:00 PM	10MP33SS 9/17/2010 10:20:00 AM
Total Metals																									
Aluminum	SW6010B-Total	mg/kg	NA	NA			11300	5280	13700	5160	6170	7370	5330	5320	11900	12100	9470	10900	10800	11700	3100	2410	3240	2850	14700	12000
Antimony	SW6010B-Total	mg/kg	41	3.6			8720	1180	14100	1670 J	2500	40	80	90 J	1680	20	351 J	760	1910	267	1430	780	690	660 J	7	9
Arsenic	SW6010B-Total	mg/kg	4.5	3.9			4380	2020	5400	1940	1960	230	360	320	2390	60	959	992	1770	375	9880	8510	7050	6390	19	18
Barium	SW6010B-Total	mg/kg	20300	1100			598	277	882	251	346	213	319	297	474	144	149	207	401	162	126	101	145	140	76.2	112
Beryllium	SW6010B-Total	mg/kg	200	42			0.9	0.7	1	0.6	0.8	0.7	0.8	0.7	0.6	0.5	0.5	0.6	0.6	0.5	0.7	0.7	0.8	0.7	0.4	0.3
Cadmium	SW6010B-Total	mg/kg	79	5.0			1 U	1	1 U	1.3	0.5 U	1.1	0.8	0.8	0.6 U	0.7	0.2 U	0.2 U	0.6 U	0.2	1 U	1 U	0.6 U	0.6 U	0.3	0.3 U
Calcium	SW6010B-Total	mg/kg	NA	NA			4700	5960	6110	4950	5390	2410	1860	1990	3640	2050	2050	2170	3570	1760	1670	1520	3310	2740	976	3900
Chromium	SW6010B-Total	mg/kg	300	25			30	26	41	27	25	25	32	25	37	24	20.8	22.9	34	25.4	19	10	18	17	21.5	18.7
Cobalt	SW6010B-Total	mg/kg	NA	NA			19	23	17	23.5	26.2	18.2	25.2	22.2	21.3	20.3	15.3	20.1	16.2	13.6	16	16	16.9	18.1	7.4	5.9
Copper	SW6010B-Total	mg/kg	4100	460			117	82.3	95	84.2	87.9	89.7	96.9	96.5	46.2	35.4	30.1	44.4	40.5	38.2	71	73	64.2	65.8	17.9	20.2
Iron	SW6010B-Total	mg/kg	MA	NA			38400	42500	34000	39300	45000	48100	55600	45700	29900	34400	21600	27400	31600	26300	44300	43300	49400	45200	26100	16800
Lead	SW6010B-Total	mg/kg	400	NA			10	30	80	28	28	40	24	22	43	9	11	17	12	9	180	160	198	185	7	8
Magnesium	SW6010B-Total	mg/kg	NA	NA			4790	8640	5710	7500	5400	1960	1190	960	4130	3800	3790	3630	3450	3380	1390	680	4080	3800	2340	2640
Manganese	SW6010B-Total	mg/kg	NA	NA			892	768	604	711	991	1040	1390	1500	764	480	346	540	486	310	708	814	1090	1020	258	158
Nickel	SW6010B-Total	mg/kg	2000	86			60	77	56	75 J	79	66	80	64 J	61	44	38 J	49	49	39	48	52	54	58 J	20	18
Potassium	SW6010B-Total	mg/kg	NA	NA			3250	1770	3760	1530	1820	1680	1570	1620	2190	1150	1130	1440	2110	1280	1600	1180	1490	1300	670	880
Sodium	SW6010B-Total	mg/kg	NA	NA			260	140 U	350	130 U	130 U	140 U	130 U	130 U	150 U	150 U	90	80	140 U	70	300 U	270 U	150 U	140 U	70	90
Vanadium	SW6010B-Total	mg/kg	710	3400			33	27.3	31	26.9	31.6	39.8	49.5	43	35.6	41.1	30.9	35.6	34.1	39.3	21	20	25.3	24.5	47.5	32.2
Zinc	SW6010B-Total	mg/kg	30400	4100			117	152	113	146	160	386	209	177	90	88	77	90	84	94	112	109	110	111	51	38
Mercury																										
Mercury	SW7471A-Total	mg/kg	18	1.4			261	440	1340	387	106	62	63	67	183	3.6	109	154	42	15	127	79	75	85	0.28	1.46
Diesel Range Hydrocarbons																										
Diesel Range Hydrocarbons	AK102/AK103 TPHD	mg/kg			10250	300						680 J	62 J								6 U	5.6 U	5.9 U	6 U		
Motor Oil	AK102/AK103 TPHD	mg/kg			10000	11000						7800	680								13	24	32	41		
n-Triacontane	AK102/AK103 TPHD	mg/kg										0 D	28.6								31.5	28.9	27.1	39.3		
o-Terphenyl	AK102/AK103 TPHD	mg/kg										0 D	26.1								35.5	32.8	30.3	36.2		
Moisture Content																										
Moisture Content	ASTM D2216	Percent																			29.34	13.12	19.32			
Grain Size																										
Percent passing < 1.3 micron	ASTM D422	Percent																			2.6	2.7	1.7			
Percent retained 1.3 micron	ASTM D422	Percent																			1.9	1.3	1.7			
Percent retained 13 micron	ASTM D422	Percent																			1.9	1.3	1.2			
Percent retained 150 micron sieve	ASTM D422	Percent																			17.9	19.8	20.4			
Percent retained 2000 micron sieve	ASTM D422	Percent																			0.1	0.1 U	0.1			
Percent retained 22 micron	ASTM D422	Percent																			3.2	1.8	2.3			
Percent retained 250 micron sieve	ASTM D422	Percent																			20.1	27.1	31.5			
Percent retained 3.2 micron	ASTM D422	Percent																			2.6	2.2	0.6			
Percent retained 32 micron	ASTM D422	Percent																			13.8	6.3	5.4			
Percent retained 425 micron sieve	ASTM D422	Percent																			13.2	21.6	18.4			
Percent retained 4750 micron sieve	ASTM D422	Percent																			0.1	0.1 U	0.1			
Percent retained 7 micron	ASTM D422	Percent																			1.9	0.4	1.7			
Percent retained 75 micron sieve	ASTM D422	Percent																			19	14.7	14.2			
Percent retained 850 micron sieve	ASTM D422	Percent																			0.3	0.7	0.7			
Percent retained 9 micron	ASTM D422	Percent																			1.3	0.1 U	0.1 U			
Atterberg Limits Classification																										
Liquid Limit	ASTM D4318	Percent																								
Plastic Limit	ASTM D4318	Percent																								
Plasticity Index	ASTM D4318	Percent																								
Total Solids																										
%TS	SM 2540G	Percent					24		89.44												84.64	89.77	85.41	83.46		
Selective Sequential Extraction Mercury																										
Hg(F0)	BRL SOP No. BR-0013	ng/g					4 U		174												7.54	2.98 U	3.07 U			
Hg(F1)	BRL SOP No. BR-0013	ng/g					7 J		17100 J												1090 J	560 J	442 J			
Hg(F2)	BRL SOP No. BR-0013	ng/g					6 J		1830 J												406 J	318 J	51.3 J			
Hg(F3)	BRL SOP No. BR-0013	ng/g					0 J		17100 J												980 J	1380 J	727 J			
Hg(F4)	BRL SOP No. BR-0013	ng/g					9 J		46100 J												27000 J	23800 J	14900 J			
Hg(F5)	BRL SOP No. BR-0013	ng/g					.7		1390000												215000	195000	218000			
Hg(F6)	BRL SOP No. BR-0013	ng/g					7 J		45400 J												7160 J	7230 J	7600 J			
Arsenic Speciation																										
As(III)	EPA 1632	mg/kg					02		158												191	27.5	59.5	92.4		
As(Inorg)	EPA 1632	mg/kg					5		9680												13300 J-M	12000 J-M	8080 J-M	10000 J-M		
As(V)	EPA 1632	mg/kg					3		9520												13100	12000	8020	9910		
Mercury																										
Mercury	SW7470A-Leachate	mg/L					001		0.021 J												0.0033 J	0.0012 J	0.0014 J	0.021 J		
Semi-Volatile Organic Compounds																										
1-Methylnaphthalene	SW8270D	µg/kg	280000	6200								60 J	26 U								20 U	19 U	20 U	19 U		
2-Methylnaphthalene	SW8270D	µg/kg	280000	6100								140	29								20 U	19 U	20 U	19 U		
bis(2-Ethylhexyl)phthalate	SW8270D	µg/kg	NA	NA								86 U	26 U								13 J	15 J	220	12 J		
Chrysene	SW8270D	µg/kg	490000	360000								86 U	42								20 U	19 U	20 U	19 U		
Diethylphthalate	SW8270D	µg/kg	NA	NA								140 B	26 U								20 U	19 U	20 U	19 U		
Naphthalene	SW8270D	µg/kg	28000	20000								86 U	26 U								20 U	19 U	20 U	19 U		
Pentachlorophenol	SW8270D	µg/kg	39000	47								430 U	38 J								99 U	97 U	99 U	96 U		
Phenanthrene	SW8270D	µg/kg	20600000	3000000								86 U	38								20 U	19 U	20 U	19 U		
Phenol	SW8270D	µg/kg	23200000	68000								86 U	26 U								20 U	19 U	20 U	19 U		
Sulfur	SW8270D	µg/kg	NA	NA																	190 J	620 J	200 J	180 J		
Unknown	SW8270D	µg/kg	NA	NA																	140 J					
Unknown Aromatic	SW8270D	µg/kg	NA	NA								1100 JB	2600 J								110 U	110 U	130 U	120 U		
Unknown Hydrocarbon	SW8270D	µg/kg	NA	NA								1600 J	600 J								140 U	140 U	160 U	120 U		
Unknown Organic Acid	SW8270D	µg/kg	NA	NA																	90 U	87 J	110 J	150 J		
Unknown Sterol	SW8270D	µg/kg	NA	NA								1800 J	2100 J								78 J	130 J	310 J	270 J		

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Main Processing Area																				
Source Area / Other Area							East of Red Devil Creek																				
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Direct Contact/ Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/ Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10MP10SS 9/21/2010 6:35:00 PM	10MP19SS 9/23/2010 6:15:00 PM	10MP11SS 9/19/2010 12:40:00 PM	10MP12SS 9/18/2010 10:23:00 AM	10MP13SS 9/18/2010 9:56:00 AM	10MP14SS 9/17/2010 5:53:00 PM	10MP15SS 9/17/2010 6:20:00 PM	10MP18SS 9/16/2010 2:45:00 PM	10MP88SS 9/19/2010 1:00:00 PM	10MP0607 0809SS 9/17/2010 2:20:00 PM	10MP06SS 9/17/2010 2:20:00 PM	10MP07SS 9/17/2010 12:30:00 PM	10MP08SS 9/17/2010 12:00:00 PM	10MP09SS 9/18/2010 1:00:00 PM	10MP03040 5SS 9/18/2010 10:25:00 AM	10MP03SS 9/18/2010 10:25:00 AM	10MP04SS 9/18/2010 11:10:00 AM	10MP05SS 9/18/2010 11:30:00 AM	10MP80SS 9/18/2010 10:55:00 AM	10MP02SS 9/18/2010 3:20:00 PM	10MP81SS 9/18/2010 (Duplicate of 10MP02SS) 4:05:00 PM
Synthetic Precipitation Leaching Procedure Target Analyte List Metals																											
Aluminum	SW6010B-Leachate SPLP	mg/l														**0.26**					**0.21**					**0.11**	**3.9 J**
Antimony	SW6010B-Leachate SPLP	mg/l														**8.19**					**9.25**					**0.09**	**0.1**
Arsenic	SW6010B-Leachate SPLP	mg/l														**2.81**					**3.05**					**0.44**	**0.96 J**
Barium	SW6010B-Leachate SPLP	mg/l														**0.018**					**0.027**					**0.004**	**0.074 J**
Calcium	SW6010B-Leachate SPLP	mg/l														**2.42**					**2.64**					**0.19**	0.05 U
Chromium	SW6010B-Leachate SPLP	mg/l														0.005 U					0.005 U					**0.107**	**0.006**
Copper	SW6010B-Leachate SPLP	mg/l														**0.002**					0.002 U					**0.003**	**0.01**
Iron	SW6010B-Leachate SPLP	mg/l														**0.48**					**0.34**					**0.52**	**4.09 J**
Lead	SW6010B-Leachate SPLP	mg/l														0.02 U					0.02 U					0.02 U	0.02 U
Magnesium	SW6010B-Leachate SPLP	mg/l														**1.64**					**1.54**					**0.11**	**0.29**
Manganese	SW6010B-Leachate SPLP	mg/l														**0.005**					**0.01**					**0.04**	**0.068 J**
Nickel	SW6010B-Leachate SPLP	mg/l														**0.0031**					**0.005**					**0.11**	0.01 U
Potassium	SW6010B-Leachate SPLP	mg/l														**1**					**1.2**					**0.7**	**1.4**
Sodium	SW6010B-Leachate SPLP	mg/l														**0.6**					0.5 U					**0.5**	0.5 UJ
Thallium	SW6010B-Leachate SPLP	mg/l														0.05 U					0.05 U					0.05 U	0.05 U
Vanadium	SW6010B-Leachate SPLP	mg/l														0.003 U					**0.003**					0.003 U	**0.012**
Zinc	SW6010B-Leachate SPLP	mg/l														0.01 U					0.01 U					**0.1**	**0.02**
Mercury	SW7470A-Leachate SPLP	mg/l														**0.008**					**0.03**					**0.0006**	**0.021 J**
Toxicity Characteristic Leaching Procedure RCRA Metals																											
Arsenic	SW6010B-Leachate TCLP	mg/l	5.0[2]													**5.4**					**5.7**						
Barium	SW6010B-Leachate TCLP	mg/l	100.0[2]													**0.82**					**1.29**						
Mercury	SW7470A-Leachate TCLP	mg/l	0.2[2]													**0.0031**					**0.005**						

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter

**Only detected compounds listed in this table

*ADEC (2008) Chronic Standard

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Main Processing Area																			
Source Area / Other Area							East of Red Devil Creek																			
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Direct Contact/ Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/ Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10MP23SS 9/18/2010 5:53:00 PM	10MP24SS 9/18/2010 5:00:00 PM	10MP25SS 9/18/2010 4:36:00 PM	10MP83SS 9/18/2010 5:45:00 PM	10MP22SS 9/16/2010 6:05:00 PM	10MP20SS 9/23/2010 7:00:00 PM	10MP21SS 9/23/2010 7:50:00 PM	10MP87SS 9/23/2010 7:20:00 PM	10MP35SS 9/17/2010 12:30:00 PM	10MP37SS 9/17/2010 11:25:00 AM	10MP68SS 9/19/2010 2:30:00 PM	10MP38SS 9/17/2010 1:02:00 PM	10MP39SS 9/17/2010 11:50:00 AM	10MP40SS 9/17/2010 10:45:00 AM	10MP32SS 9/20/2010 12:30:00 PM	10MP34SS 9/20/2010 3:00:00 PM	10MP36SS 9/20/2010 3:50:00 PM	10MP84SS (Duplicate of 10MP36SS) 9/20/2010 4:15:00 PM	10MP31SS 9/18/2010 12:50:00 PM	10MP33SS 9/17/2010 10:20:00 AM
Synthetic Precipitation Leaching Procedure Target Analyte List Metals																										
Aluminum	SW6010B-Leachate SPLP	mg/l							**0.09**												0.05 U	**0.13 J**	**0.1 J**	**2.03 J**		
Antimony	SW6010B-Leachate SPLP	mg/l							**9.24**												**3.66**	**0.48**	**0.51**	**0.57**		
Arsenic	SW6010B-Leachate SPLP	mg/l					5 U		**3.82**												**2.31**	**0.7 J**	**0.57 J**	**1.06 J**		
Barium	SW6010B-Leachate SPLP	mg/l							**0.014 J**												0.003 U	0.003 U	0.003 U	**0.075 J**		
Calcium	SW6010B-Leachate SPLP	mg/l							**1.77**												**0.45**	**0.51**	**1.2**	**1.38**		
Chromium	SW6010B-Leachate SPLP	mg/l					5 U		0.005 U												0.005 U	0.005 U	0.005 U	**0.005**		
Copper	SW6010B-Leachate SPLP	mg/l					2 U		0.002 U												**0.005**	0.002 U	0.002 U	**0.007**		
Iron	SW6010B-Leachate SPLP	mg/l							0.05 U												**0.12**	**0.26 J**	**0.28 J**	**2.92 J**		
Lead	SW6010B-Leachate SPLP	mg/l					2 U		0.02 U												0.02 U	0.02 U	0.02 U	**0.04**		
Magnesium	SW6010B-Leachate SPLP	mg/l							**2.16**												**0.67**	**0.43**	**0.98**	**0.88**		
Manganese	SW6010B-Leachate SPLP	mg/l							**0.003**												**0.004**	**0.007 J**	**0.007 J**	**0.078 J**		
Nickel	SW6010B-Leachate SPLP	mg/l					1 U		**0.021 J**												**0.0033 J**	**0.0012 J**	**0.0014 J**	**0.021 J**		
Potassium	SW6010B-Leachate SPLP	mg/l							**1.2**												**2.4**	0.5 U	0.5 U	**0.7**		
Sodium	SW6010B-Leachate SPLP	mg/l					1 U		**0.5**												**0.5**	0.5 U	0.5 U	**8.7 J**		
Thallium	SW6010B-Leachate SPLP	mg/l					5 U		0.05 U												0.05 U	0.05 U	0.05 U	0.05 U		
Vanadium	SW6010B-Leachate SPLP	mg/l					3 U		**0.006**												0.003 U	0.003 U	0.003 U	**0.006**		
Zinc	SW6010B-Leachate SPLP	mg/l					1 U		0.01 U												0.01 U	0.01 U	0.01 U	**0.01**		
Mercury	SW7470A-Leachate SPLP	mg/l							**0.021 J**												**0.0033 J**	**0.0012 J**	**0.0014 J**	**0.021 J**		
Toxicity Characteristic Leaching Procedure RCRA Metals																										
Arsenic	SW6010B-Leachate TCLP	mg/l	5.0[2]						**5.7**												**2.8**	**0.9**	**0.7**	**0.8**		
Barium	SW6010B-Leachate TCLP	mg/l	100.0[2]						**0.64**												0.02 U	0.02 U	0.02 U	0.02 U		
Mercury	SW7470A-Leachate TCLP	mg/l	0.2[2]						**0.0032**												**0.005**	**0.0013**	**0.0017**	**0.002**		

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter

**Only detected compounds listed in this table

*ADEC (2008) Chronic Standard

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Main Processing Area																
Source Area / Other Area							West of Red Devil Creek						West of Red Devil Creek										
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10MP64SS 9/17/2010 10:45:00 AM	10MP65SS 9/17/2010 11:05:00 AM	10MP63SS 9/17/2010 10:10:00 AM	10MP66SS 9/17/2010 12:30:00 PM	10MP85SS 9/17/2010 1:10:00 PM	10MP60SS 9/20/2010 5:15:00 PM	10MP45SS 9/21/2010 4:00:00 PM	10MP46SS 9/21/2010 4:50:00 PM	10MP47SS 9/20/2010 6:15:00 PM	10MP48SS 9/16/2010 4:45:00 PM	10MP49SS 9/16/2010 5:45:00 PM	10MP424344SS 9/19/2010 9:15:00 AM	10MP42SS 9/19/2010 9:15:00 AM	10MP43SS 9/19/2010 9:50:00 AM	10MP44SS 9/19/2010 10:20:00 AM	10MP61SS 9/16/2010 6:25:00 PM	10MP62SS 9/20/2010 6:40:00 PM
Total Metals																							
Aluminum	SW6010B-Total	mg/kg	NA	NA			10300	10400	8200	5500	4870	5910	5630	12700	5650	10500	11900	5280	5660	5360	5210	9710	8550
Antimony	SW6010B-Total	mg/kg	41	3.6			1810 J	589 J	2680 J	220 J	850 J	660 J	220	13000	90	5980 J	10900 J	880	560	720	340	1200 J	1590 J
Arsenic	SW6010B-Total	mg/kg	4.5	3.9			2520	1200	2880	2490	2160	1800	1800	4940	1180	3940	4130	1840	1770	2080	860	1410	1880
Barium	SW6010B-Total	mg/kg	20300	1100			371	255	319	212	208	217	205	892	191	498	562	211	218	224	196	211	297
Beryllium	SW6010B-Total	mg/kg	200	42			0.7	0.5	0.7	0.9	0.9	0.8	0.9	1.1	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.6	0.8
Cadmium	SW6010B-Total	mg/kg	79	5			0.5 U	0.2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.6 U	0.2 U	0.6 U
Calcium	SW6010B-Total	mg/kg	NA	NA			3830	2660	3350	8620	8450	3370	2020	5620	2600	4380	6410	2640	2360	2930	2180	2350	2560
Chromium	SW6010B-Total	mg/kg	300	25			33	25.1	28	31	34	20	19	39	20	31	42	20	20	21	19	23.4	26
Cobalt	SW6010B-Total	mg/kg	NA	NA			17.3	11.2	18.2	23.7	24.4	21.7	23.1	19	21.4	16.3	17	20.5	19.9	20.5	19.6	15.7	20.3
Copper	SW6010B-Total	mg/kg	4100	460			52.8	35.4	55.8	61.2	61.4	73.7	74.4	91	78.6	73	78	80.1	71.4	73.3	80.8	40.8	59.7
Iron	SW6010B-Total	mg/kg	NA	NA			28900	25600	33300	43400	37200	35100	53700	37200	47000	35500	32600	50200	41900	41400	43500	27900	34400
Lead	SW6010B-Total	mg/kg	400	NA			10	10	11	12	13	19	21	10 U	18	3090	10 U	22	22	24	23	12	13
Magnesium	SW6010B-Total	mg/kg	NA	NA			4930	4280	5480	10800	11400	4980	1340	5400	2830	4720	7260	2350	2290	2840	1540	3280	4540
Manganese	SW6010B-Total	mg/kg	NA	NA			507	411	563	879	761	572	877	758	672	737	707	702	759	789	656	477	616
Nickel	SW6010B-Total	mg/kg	2000	86			56 J	32	57 J	74	74 J	57 J	61	69	72	48	60	64	59	60	58	48 J	62 J
Potassium	SW6010B-Total	mg/kg	NA	NA			2690	1460	2490	1640	1550	1670	1790	3770	1460	2610	3180	1480	1400	1570	1590	1410	2060
Silver	SW6010B-Total	mg/kg	510	11.2			0.8 U	0.3 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	2 U	0.8 U	0.8 U	2 U	0.8 U	0.8 U	0.8 U	0.8 U	0.3 U	0.8 U
Sodium	SW6010B-Total	mg/kg	NA	NA			350	110	380	130 U	130 U	130 U	130 U	310	130 U	230	330	140 U	130 U	130 U	140 U	100	140 U
Thallium	SW6010B-Total	mg/kg	8.1	1.9			10 U	6 U	10 U	10 U	10 U	10 U	10 U	30 U	10 U	10 U	30 U	10 U	10 U	10 U	10 U	6 U	10 U
Vanadium	SW6010B-Total	mg/kg	710	3400			28.6	31.5	27.7	32.4	29.7	29.6	37.3	34	31.9	32.2	34	32.7	30.9	31.2	35.5	33.2	31.4
Zinc	SW6010B-Total	mg/kg	30400	4100			92	73	98	102	94	114	140	126	146	116	128	145	126	124	147	89	104
Mercury																							
Mercury	SW7471A-Total	mg/kg	18	1.4			172	54	150	145	129	144	87	194	118	1260	176	136	124	149	86	68	165
Diesel Range Hydrocarbons																							
Diesel Range Hydrocarbons	AK102/AK103 TPHD	mg/kg			10250	250							120 J	5.2 U	140								
Motor Oil	AK102/AK103 TPHD	mg/kg			10000	11000							180	24	510								
n-Triacontane	AK102/AK103 TPHD	mg/kg											28.5	23.8	35.4								
o-Terphenyl	AK102/AK103 TPHD	mg/kg											33.3	27.4	37.9								
Moisture Content																							
Moisture Content	ASTM D2216	Percent										9.74											12.33
Grain Size																							
Percent passing < 1.3 micron	ASTM D422	Percent										4.9											4.4
Percent retained 1.3 micron	ASTM D422	Percent										2.4											2
Percent retained 12500 micron sieve	ASTM D422	Percent										10											6.3
Percent retained 13 micron	ASTM D422	Percent										2.4											4
Percent retained 150 micron sieve	ASTM D422	Percent										4											6.6
Percent retained 19000 micron sieve	ASTM D422	Percent										3.8											10.3
Percent retained 2000 micron sieve	ASTM D422	Percent										14.5											10.5
Percent retained 22 micron	ASTM D422	Percent										2.4											3.6
Percent retained 250 micron sieve	ASTM D422	Percent										4.7											6.8
Percent retained 25K micron sieve	ASTM D422	Percent										0.1 U											0.1 U
Percent retained 3.2 micron	ASTM D422	Percent										3.2											2.8
Percent retained 32 micron	ASTM D422	Percent										5.5											4.8
Percent retained 425 micron sieve	ASTM D422	Percent										6											6.3
Percent retained 4750 micron sieve	ASTM D422	Percent										12											6.9
Percent retained 7 micron	ASTM D422	Percent										0.8											2
Percent retained 75 micron sieve	ASTM D422	Percent										4.3											6.5
Percent retained 850 micron sieve	ASTM D422	Percent										9.4											7.1
Percent retained 9 micron	ASTM D422	Percent										1.6											1.2
Percent retained 9500 micron sieve	ASTM D422	Percent										8											7.8
Atterberg Limits Classification																							
Liquid Limit	ASTM D4318	Percent										24.8											26.4
Plastic Limit	ASTM D4318	Percent										17.2											19.2
Plasticity Index	ASTM D4318	Percent										7.6											7.2
Total Solids																							
%TS	SM 2540G	Percent																					
Selective Sequential Extraction Mercury																							
Hg(F0)	BRL SOP No. BR-0013	ng/g																					
Hg(F1)	BRL SOP No. BR-0013	ng/g																					
Hg(F2)	BRL SOP No. BR-0013	ng/g																					
Hg(F3)	BRL SOP No. BR-0013	ng/g																					
Hg(F4)	BRL SOP No. BR-0013	ng/g																					
Hg(F5)	BRL SOP No. BR-0013	ng/g																					
Hg(F6)	BRL SOP No. BR-0013	ng/g																					
Arsenic Speciation																							
As(III)	EPA 1632	mg/kg																					
As(Inorg)	EPA 1632	mg/kg																					
As(V)	EPA 1632	mg/kg																					
Mercury																							
Mercury	SW7470A-Leachate	mg/L																0.0039 J					

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area								
Source Area / Other Area								
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10MP55565758SS 9/18/2010 7:43:00 PM	10MP55SS 9/18/2010 7:43:00 PM
Total Metals								
Aluminum	SW6010B-Total	mg/kg	NA	NA			**9340**	**9480**
Antimony	SW6010B-Total	mg/kg	41	3.6			**764 J**	**1890 J**
Arsenic	SW6010B-Total	mg/kg	4.5	3.9			**1100**	**2150**
Barium	SW6010B-Total	mg/kg	20300	1100			**221**	**340**
Beryllium	SW6010B-Total	mg/kg	200	42			**0.5**	**0.6**
Cadmium	SW6010B-Total	mg/kg	79	5			0.2 U	0.6 U
Calcium	SW6010B-Total	mg/kg	NA	NA			**2190**	**3000**
Chromium	SW6010B-Total	mg/kg	300	25			**26.9**	**31**
Cobalt	SW6010B-Total	mg/kg	NA	NA			**11.9**	**16.9**
Copper	SW6010B-Total	mg/kg	4100	460			**33.2**	**45.4**
Iron	SW6010B-Total	mg/kg	NA	NA			**21800**	**29200**
Lead	SW6010B-Total	mg/kg	400	NA			**9**	**13**
Magnesium	SW6010B-Total	mg/kg	NA	NA			**3570**	**4100**
Manganese	SW6010B-Total	mg/kg	NA	NA			**644**	**573**
Nickel	SW6010B-Total	mg/kg	2000	86			**38**	**43 J**
Potassium	SW6010B-Total	mg/kg	NA	NA			**1350**	**1980**
Silver	SW6010B-Total	mg/kg	510	11.2			0.3 U	0.9 U
Sodium	SW6010B-Total	mg/kg	NA	NA			**110**	**160**
Thallium	SW6010B-Total	mg/kg	8.1	1.9			6 U	10 U
Vanadium	SW6010B-Total	mg/kg	710	3400			**27.3**	**28.9**
Zinc	SW6010B-Total	mg/kg	30400	4100			**68**	**93**
Mercury								
Mercury	SW7471A-Total	mg/kg	18	1.4			**114**	**124**
Diesel Range Hydrocarbons								
Diesel Range Hydrocarbons	AK102/AK103 TPHD	mg/kg			10250	250		
Motor Oil	AK102/AK103 TPHD	mg/kg			10000	11000		
n-Triacontane	AK102/AK103 TPHD	mg/kg						
o-Terphenyl	AK102/AK103 TPHD	mg/kg						
Moisture Content								
Moisture Content	ASTM D2216	Percent						
Grain Size								
Percent passing < 1.3 micron	ASTM D422	Percent						
Percent retained 1.3 micron	ASTM D422	Percent						
Percent retained 12500 micron sieve	ASTM D422	Percent						
Percent retained 13 micron	ASTM D422	Percent						
Percent retained 150 micron sieve	ASTM D422	Percent						
Percent retained 19000 micron sieve	ASTM D422	Percent						
Percent retained 2000 micron sieve	ASTM D422	Percent						
Percent retained 22 micron	ASTM D422	Percent						
Percent retained 250 micron sieve	ASTM D422	Percent						
Percent retained 25K micron sieve	ASTM D422	Percent						
Percent retained 3.2 micron	ASTM D422	Percent						
Percent retained 32 micron	ASTM D422	Percent						
Percent retained 425 micron sieve	ASTM D422	Percent						
Percent retained 4750 micron sieve	ASTM D422	Percent						
Percent retained 7 micron	ASTM D422	Percent						
Percent retained 75 micron sieve	ASTM D422	Percent						
Percent retained 850 micron sieve	ASTM D422	Percent						
Percent retained 9 micron	ASTM D422	Percent						
Percent retained 9500 micron sieve	ASTM D422	Percent						
Atterberg Limits Classification								
Liquid Limit	ASTM D4318	Percent						
Plastic Limit	ASTM D4318	Percent						
Plasticity Index	ASTM D4318	Percent						
Total Solids								
%TS	SM 2540G	Percent						
Selective Sequential Extraction Mercury								
Hg(F0)	BRL SOP No. BR-0013	ng/g						
Hg(F1)	BRL SOP No. BR-0013	ng/g						
Hg(F2)	BRL SOP No. BR-0013	ng/g						
Hg(F3)	BRL SOP No. BR-0013	ng/g						
Hg(F4)	BRL SOP No. BR-0013	ng/g						
Hg(F5)	BRL SOP No. BR-0013	ng/g						
Hg(F6)	BRL SOP No. BR-0013	ng/g						
Arsenic Speciation								
As(III)	EPA 1632	mg/kg						
As(Inorg)	EPA 1632	mg/kg						
As(V)	EPA 1632	mg/kg						
Mercury								
Mercury	SW7470A-Leachate	mg/L					**0.004**	

Table 4-3 Surface Soil Laboratory Results**

							General Geographic Area							Main Processing Area				
							Source Area / Other Area							West of Red Devil Creek (continued)				
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10MP56SS 9/18/2010 6:05:00 PM	10MP57SS 9/19/2010 10:10:00 AM	10MP58SS 9/19/2010 9:30:00 AM	10MP59SS 9/21/2010 5:25:00 PM	10MP86SS (Duplicate of 10MP59SS) 9/21/2010 5:45:00 PM	10MP5051525354SS 9/19/2010 10:50:00 AM	10MP50SS 9/19/2010 10:50:00 AM	10MP51SS 9/19/2010 11:35:00 AM	10MP52SS 9/19/2010 12:05:00 PM	10MP53SS 9/19/2010 11:36:00 AM	10MP54SS 9/19/2010 10:48:00 AM	10MP41SS 9/19/2010 3:45:00 PM
Total Metals																		
Aluminum	SW6010B-Total	mg/kg	NA	NA			7750	7730	8980	3370	4170	9170	10600	11100	12800	6490	6340	8450
Antimony	SW6010B-Total	mg/kg	41	3.6			183 J	1630 J	716 J	170 J	170 J	10100 J	210 J	23300 J	18500 J	1480 J		
Arsenic	SW6010B-Total	mg/kg	4.5	3.9			333	2000	1080	1130	950	3610	826	4610	5000	3000	1360	516
Barium	SW6010B-Total	mg/kg	20300	1100			119	269	256	191	219	431	135	732	663	291	186	102
Beryllium	SW6010B-Total	mg/kg	200	42			0.3	0.6	0.5	0.6	0.7	0.8	0.4	1 U	1 U	0.8	0.7	0.4
Cadmium	SW6010B-Total	mg/kg	79	5			0.2 U	0.6 U	0.2 U	0.5 U	0.5 U	1 U	0.2 U	2 U	2 U	0.5 U	0.5 U	0.2 U
Calcium	SW6010B-Total	mg/kg	NA	NA			1760	2580	2570	9210	7870	3830	2470	7250	6260	2590	2020	2420
Chromium	SW6010B-Total	mg/kg	300	25			17	22	24.3	12	13	28	20.1	41	40	24	18	18.9
Cobalt	SW6010B-Total	mg/kg	NA	NA			8.2	14.9	13.7	23.1	23	17	8.1	17	15	17.8	18.7	9.5
Copper	SW6010B-Total	mg/kg	4100	460			20.8	51.5	38.5	66.8	68.3	79	26.8	109	93	68.6	55.9	24.5
Iron	SW6010B-Total	mg/kg	NA	NA			17300	31700	25500	38000	33700	40100	19700	33600	29700	41000	39600	22300
Lead	SW6010B-Total	mg/kg	400	NA			5	18	14	14	14	20	11	20 U	20 U	44	12	6
Magnesium	SW6010B-Total	mg/kg	NA	NA			3030	4870	3910	7730	7060	4280	3370	7240	5750	2260	1640	3380
Manganese	SW6010B-Total	mg/kg	NA	NA			309	559	415	991	822	605	267	644	562	501	1110	313
Nickel	SW6010B-Total	mg/kg	2000	86			24 J	49 J	44 J	60 J	64 J	54	24	60	60	48	48	31
Potassium	SW6010B-Total	mg/kg	NA	NA			770	1810	1230	1290	1560	2190	940	2570	3300	1990	1190	890
Silver	SW6010B-Total	mg/kg	510	11.2			0.3 U	0.8 U	0.3 U	0.8 U	0.8 U	2 U	0.4 U	3 U	3 U	0.8 U	0.8 U	0.3 U
Sodium	SW6010B-Total	mg/kg	NA	NA			90	140	110	130 U	130 U	260 U	120	540 U	520 U	170	130 U	80
Thallium	SW6010B-Total	mg/kg	8.1	1.9			5 U	10 U	6 U	10 U	10 U	30 U	6 U	50 U	50 U	10 U	10 U	6 U
Vanadium	SW6010B-Total	mg/kg	710	3400			24.7	28	28.4	24.3	23.4	32	30.6	28	30	29.8	30.9	30.8
Zinc	SW6010B-Total	mg/kg	30400	4100			48	97	82	104	106	113	108	100	120	107	103	60
Mercury																		
Mercury	SW7471A-Total	mg/kg	18	1.4			19.1	150	114	115	98	144	318	119	183	183	24.4	8
Diesel Range Hydrocarbons																		
Diesel Range Hydrocarbons	AK102/AK103 TPHD	mg/kg			10250	250												
Motor Oil	AK102/AK103 TPHD	mg/kg			10000	11000												
n-Triacontane	AK102/AK103 TPHD	mg/kg																
o-Terphenyl	AK102/AK103 TPHD	mg/kg																
Moisture Content																		
Moisture Content	ASTM D2216	Percent																
Grain Size																		
Percent passing < 1.3 micron	ASTM D422	Percent																
Percent retained 1.3 micron	ASTM D422	Percent																
Percent retained 12500 micron sieve	ASTM D422	Percent																
Percent retained 13 micron	ASTM D422	Percent																
Percent retained 150 micron sieve	ASTM D422	Percent																
Percent retained 19000 micron sieve	ASTM D422	Percent																
Percent retained 2000 micron sieve	ASTM D422	Percent																
Percent retained 22 micron	ASTM D422	Percent																
Percent retained 250 micron sieve	ASTM D422	Percent																
Percent retained 25K micron sieve	ASTM D422	Percent																
Percent retained 3.2 micron	ASTM D422	Percent																
Percent retained 32 micron	ASTM D422	Percent																
Percent retained 425 micron sieve	ASTM D422	Percent																
Percent retained 4750 micron sieve	ASTM D422	Percent																
Percent retained 7 micron	ASTM D422	Percent																
Percent retained 75 micron sieve	ASTM D422	Percent																
Percent retained 850 micron sieve	ASTM D422	Percent																
Percent retained 9 micron	ASTM D422	Percent																
Percent retained 9500 micron sieve	ASTM D422	Percent																
Atterberg Limits Classification																		
Liquid Limit	ASTM D4318	Percent																
Plastic Limit	ASTM D4318	Percent																
Plasticity Index	ASTM D4318	Percent																
Total Solids																		
%TS	SM 2540G	Percent						87.37		93.5	93.64				90.89			88.08
Selective Sequential Extraction Mercury																		
Hg(F0)	BRL SOP No. BR-0013	ng/g						11.2		3.79					11.9			2.98
Hg(F1)	BRL SOP No. BR-0013	ng/g						2170		170					2970			154
Hg(F2)	BRL SOP No. BR-0013	ng/g						36		0.8					36.5			3.96
Hg(F3)	BRL SOP No. BR-0013	ng/g						1950 J		6250 J					4080 J			3690 J
Hg(F4)	BRL SOP No. BR-0013	ng/g						28500		15600					32300			1220
Hg(F5)	BRL SOP No. BR-0013	ng/g						1110000		436000					296000			22300
Hg(F6)	BRL SOP No. BR-0013	ng/g						58200 J		26300 J					16900 J			1640 M
Arsenic Speciation																		
As(III)	EPA 1632	mg/kg						76.4		12.1	12.5				90.4			6.93
As(Inorg)	EPA 1632	mg/kg						1950		815	716				2580			374 M
As(V)	EPA 1632	mg/kg						1870		803	704				2490			367
Mercury																		
Mercury	SW7470A-Leachate	mg/L								0.0003 J	0.0004 J	0.0076						0.0009 J

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Main Processing Area										
Source Area / Other Area							No Description										
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10MP16SS 9/18/2010 11:10:00 AM	10MP89SS (Duplicate of 10MP16SS) 9/18/2010 12:00:00 PM	10MP17SS 9/20/2010 10:15:00 AM	10MP82SS (Duplicate of 10MP17SS) 9/20/2010 10:30:00 AM	10MP27SS 9/18/2010 3:30:00 PM	10MP26SS 9/18/2010 3:56:00 PM	10MP28SS 9/18/2010 2:05:00 PM	10MP29SS 9/20/2010 11:05:00 AM	10MP30SS 9/18/2010 3:00:00 PM	10MP67SS 9/18/2010 1:25:00 PM	10OP01SS 9/18/2010 11:35:00 AM
Total Metals																	
Aluminum	SW6010B-Total	mg/kg	NA	NA			6570	6080	15700	13800	12700	14600	12200	14200	8560	12400	21700
Antimony	SW6010B-Total	mg/kg	41	3.6			1570 J	1200 J	6180 J	7300 J	8480	15100	4780	16700	720	9830 J	3520 J
Arsenic	SW6010B-Total	mg/kg	4.5	3.9			6950	5340	5540	5090	6100	6420	5350	6170	2930	5240	5340
Barium	SW6010B-Total	mg/kg	20300	1100			358	339	1020	807	735	890	682	870	263	622	1710
Beryllium	SW6010B-Total	mg/kg	200	42			0.7	0.7	1	0.9	1	1	0.9	1 U	0.7	0.9	0.8
Cadmium	SW6010B-Total	mg/kg	79	5			0.5 U	0.5 U	0.5 U	1 U	1 U	1 U	0.5 U	2 U	0.6 U	1 U	0.5 U
Calcium	SW6010B-Total	mg/kg	NA	NA			6630 J	6920 J	5000 J	5240	4600	8150	5140	7670	3670	5970	3240
Chromium	SW6010B-Total	mg/kg	300	25			40	36	51	46	37	49	33	41	22	36	101
Cobalt	SW6010B-Total	mg/kg	NA	NA			22.3	21.4	18.9	22	19	18	16.6	18	15.8	18	20.1
Copper	SW6010B-Total	mg/kg	4100	460			54.1	54.2	81.9	80	139	97	77	94	63.7	79	45
Iron	SW6010B-Total	mg/kg	NA	NA			41500	38200	35900	35000	42600	35500	38700	36700	31200	31500	19500
Lead	SW6010B-Total	mg/kg	400	NA			16	14 J	57	70	220	10 U	43	20 U	57	10	15
Magnesium	SW6010B-Total	mg/kg	NA	NA			6880	7180	5230	5700	5200	6710	5790	7450	4460	6090	2550
Manganese	SW6010B-Total	mg/kg	NA	NA			714	726	690	693	708	829	617	739	539	673	711
Nickel	SW6010B-Total	mg/kg	2000	86			56	56	64	66 J	61	62	53	60	52	60 J	66
Potassium	SW6010B-Total	mg/kg	NA	NA			2160	1910	4220	3700	3840	3870	3860	3980	1920	3300	4720
Silver	SW6010B-Total	mg/kg	510	11.2			0.8 U	0.8 U	0.8 U	2 U	2 U	2 U	0.8 U	3 U	0.9 U	2 U	0.8 U
Sodium	SW6010B-Total	mg/kg	NA	NA			140	140	390	390	340	370	350	530 U	140 U	320	430
Thallium	SW6010B-Total	mg/kg	8.1	1.9			10 U	10 U	10 U	30 U	30 U	30 U	10 U	50 U	10 U	30 U	10 U
Vanadium	SW6010B-Total	mg/kg	710	3400			27.6	26.3	34.8	34	32	34	31.1	35	29.4	32	37.5
Zinc	SW6010B-Total	mg/kg	30400	4100			93	93 J	123	127	108	122	108	120	94	100	103
Mercury																	
Mercury	SW7471A-Total	mg/kg	18	1.4			290	265	460	479	250	1620	820	440	400	730	170
Diesel Range Hydrocarbons																	
Diesel Range Hydrocarbons	AK102/AK103 TPHD	mg/kg			10250	250											
Motor Oil	AK102/AK103 TPHD	mg/kg			10000	11000											
n-Triacontane	AK102/AK103 TPHD	mg/kg															
o-Terphenyl	AK102/AK103 TPHD	mg/kg															
Moisture Content																	
Moisture Content	ASTM D2216	Percent							10.27					10.25			
Grain Size																	
Percent passing < 1.3 micron	ASTM D422	Percent							2.6					1.6			
Percent retained 1.3 micron	ASTM D422	Percent							1.3					1.6			
Percent retained 12500 micron sieve	ASTM D422	Percent							3.8					6.5			
Percent retained 13 micron	ASTM D422	Percent							2.6					1.6			
Percent retained 150 micron sieve	ASTM D422	Percent							5.2					4.2			
Percent retained 19000 micron sieve	ASTM D422	Percent							5.4					7			
Percent retained 2000 micron sieve	ASTM D422	Percent							16.5					13.9			
Percent retained 22 micron	ASTM D422	Percent							1.3					2.1			
Percent retained 250 micron sieve	ASTM D422	Percent							6.7					5.2			
Percent retained 25K micron sieve	ASTM D422	Percent							0.1 U					10.9			
Percent retained 3.2 micron	ASTM D422	Percent							2.6					2.3			
Percent retained 32 micron	ASTM D422	Percent							4.9					3.1			
Percent retained 425 micron sieve	ASTM D422	Percent							9.1					7.1			
Percent retained 4750 micron sieve	ASTM D422	Percent							12.2					10.5			
Percent retained 7 micron	ASTM D422	Percent							0.9					1.4			
Percent retained 75 micron sieve	ASTM D422	Percent							5.9					4.7			
Percent retained 850 micron sieve	ASTM D422	Percent							13.1					9.1			
Percent retained 9 micron	ASTM D422	Percent							0.1 U					0.9			
Percent retained 9500 micron sieve	ASTM D422	Percent							5.8					6.4			
Atterberg Limits Classification																	
Liquid Limit	ASTM D4318	Percent															
Plastic Limit	ASTM D4318	Percent															
Plasticity Index	ASTM D4318	Percent															
Total Solids																	
%TS	SM 2540G	Percent					92.7		88.8	89.25	88.89	91.04		91.56		88.27	87.12
Selective Sequential Extraction Mercury																	
Hg(F0)	BRL SOP No. BR-0013	ng/g					11		34.1		128	253				137	
Hg(F1)	BRL SOP No. BR-0013	ng/g					3610 J		9730 J		1980 J	15600 J				15000 J	
Hg(F2)	BRL SOP No. BR-0013	ng/g					17 J		124 J		34.4 J	1280 J				193 J	
Hg(F3)	BRL SOP No. BR-0013	ng/g					12900 J		9780 J		33300 J	14500 J				10600 J	
Hg(F4)	BRL SOP No. BR-0013	ng/g					55900 J		39100 J		26900 J	42100 J				52400 J	
Hg(F5)	BRL SOP No. BR-0013	ng/g					782000		425000		5060000	1560000				941000	
Hg(F6)	BRL SOP No. BR-0013	ng/g					15400 J		13500 J		106000 J	30700 J				35700 J	
Arsenic Speciation																	
As(III)	EPA 1632	mg/kg					242		336	384	449	222		373			144
As(Inorg)	EPA 1632	mg/kg					12800 J-M		5890 J-M	6790 J-M	7780 J-M	7080 J-M		7420 J-M			6750 J-M
As(V)	EPA 1632	mg/kg					12600		5550	6410	7330	6860		7050			6610
Mercury																	
Mercury	SW7470A-Leachate	mg/L					0.0047		0.0033	0.27 J	0.0015 J	0.012 J		0.007 J			0.0048 J

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Outside of Main Processing Area and Area of Surface Mining / Exploration														
Source Area / Other Area							Background Alluvial Deposits: Red Devil Creek Alluvial Deposits Upstream of Main Processing Area														
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10RD05SS 9/17/2010 5:15:00 PM	10RD06SS 9/17/2010 2:10:00 PM	10RD07SS 9/17/2010 2:50:00 PM	10RD20SS 9/17/2010 2:30:00 PM	10RD10SS 9/17/2010 4:25:00 PM	10RD11SS 9/17/2010 3:47:00 PM	10RD12SS 9/17/2010 2:48:00 PM	10RD13SS 9/17/2010 2:10:00 PM	10RD14SS 9/15/2010 5:05:00 PM	10RD31SS (Duplicate of 10RD14SS) 9/15/2010 5:35:00 PM	10RD15SS 9/15/2010 4:20:00 PM	10RD16SS 9/15/2010 5:30:00 PM	10RD17SS 9/15/2010 5:55:00 PM	10RD18SS 9/15/2010 6:50:00 PM	10RD19SS 9/15/2010 6:25:00 PM
Total Metals																					
Aluminum	SW6010B-Total	mg/kg	NA	NA			11500	9070	10800	9440	9470	15900	14500	14100	14300	13800	14700	13400	14000	15600	16700
Antimony	SW6010B-Total	mg/kg	41	3.6			39 J	677 J	30 J	974 J	30 J	14 J	8 UJ	10 UJ	9 UJ	9 UJ	8 UJ	8 J	8 UJ	10 UJ	9 UJ
Arsenic	SW6010B-Total	mg/kg	4.5	3.9			67	1250	76	1310	220	41	25	20	13	16	8	8 U	8 U	40	12
Barium	SW6010B-Total	mg/kg	20300	1100			165	215	120	218	135	172	231	266	148	160 J	120	131	129	220	188
Beryllium	SW6010B-Total	mg/kg	200	42			0.4	0.5	0.5	0.7	0.5	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.5	0.5
Cadmium	SW6010B-Total	mg/kg	79	5			0.4	0.3 U	0.3	0.2 U	0.7	0.4	0.4	0.4 U	0.3 U	0.4 U	0.3 U	0.3 U	0.3	0.4	0.4 U
Calcium	SW6010B-Total	mg/kg	NA	NA			3560 J	2300 J	1930 J	2610	2040	6380	6590	10100	4620	5450	2320	3040	2560	6490	3210
Chromium	SW6010B-Total	mg/kg	300	25			22.8	25.7	21.5	24	20	28.4	22.5	21	21.6	21.4	21.8	20.2	21.7	24	26.3
Cobalt	SW6010B-Total	mg/kg	NA	NA			9.6	11.9	12.2	12.4	16.7	8.5	11.6	8.2	7.4	7.5	6.3	6.5	6.7	10.8	8.5
Copper	SW6010B-Total	mg/kg	4100	460			22.2	35.7	32.3	81.8	39.3	17.9	17.9	18.8	16.5	16.8	15.3	14.7	17.3	22.8	23.7
Iron	SW6010B-Total	mg/kg	NA	NA			18400	23300	21100	27100	31700	20600	23100	16700	17100	17500	20300	15000	15600	26300	19300
Lead	SW6010B-Total	mg/kg	400	NA			7 J	11 J	8 J	11	12	7	7	6	6	6	6	5	6	9	8
Magnesium	SW6010B-Total	mg/kg	NA	NA			3560	3320	2720	4470	2230	3720	3750	3420	3800	3780	3610	3470	3580	3760	3870
Manganese	SW6010B-Total	mg/kg	NA	NA			221	356	312	434	570	321	816	465	276	344	144	135	139	251	148
Nickel	SW6010B-Total	mg/kg	2000	86			25	35	32	38	50 J	23 J	26	24	20	21	19	19	20	28	25
Potassium	SW6010B-Total	mg/kg	NA	NA			900	1350	950	1560	990	790	860	790	740	740	680	700	740	1030	800
Silver	SW6010B-Total	mg/kg	510	11.2			0.4 U	0.4 U	0.4 U	0.3 U	0.8 U	0.5 U	0.5 U	0.6 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6 U	0.6 U
Sodium	SW6010B-Total	mg/kg	NA	NA			90	80	70	120	140 U	90	80 U	100 U	90	90	90	90	90	100	100
Thallium	SW6010B-Total	mg/kg	8.1	1.9			7 U	6 U	6 U	5 U	10 U	9 U	8 U	10 U	9 U	9 U	8 U	8 U	8 U	10 U	9 U
Vanadium	SW6010B-Total	mg/kg	710	3400			35.7	29.7	37.8	28.8	37.3	41	36.6	30.8	34.7	33.4	37.6	32.9	35.4	39.8	41.6
Zinc	SW6010B-Total	mg/kg	30400	4100			76 J	76 J	69 J	80	100	48	61	39	53	54	49	49	51	67	58
Mercury																					
Mercury	SW7471A-Total	mg/kg	18	1.4			3.8	186	16	75	6.4	6.6	0.79	0.6	0.96	1.23	0.13	0.25	0.14	1.57	1.86
Diesel Range Hydrocarbons																					
Diesel Range Hydrocarbons	AK102/AK103 TPHD	mg/kg			10250	250															
Motor Oil	AK102/AK103 TPHD	mg/kg			10000	11000															
n-Triacontane	AK102/AK103 TPHD	mg/kg																			
o-Terphenyl	AK102/AK103 TPHD	mg/kg																			
Moisture Content																					
Moisture Content	ASTM D2216	Percent																			
Grain Size																					
Percent passing < 1.3 micron	ASTM D422	Percent																			
Percent retained 1.3 micron	ASTM D422	Percent																			
Percent retained 12500 micron sieve	ASTM D422	Percent																			
Percent retained 13 micron	ASTM D422	Percent																			
Percent retained 150 micron sieve	ASTM D422	Percent																			
Percent retained 19000 micron sieve	ASTM D422	Percent																			
Percent retained 2000 micron sieve	ASTM D422	Percent																			
Percent retained 22 micron	ASTM D422	Percent																			
Percent retained 250 micron sieve	ASTM D422	Percent																			
Percent retained 25K micron sieve	ASTM D422	Percent																			
Percent retained 3.2 micron	ASTM D422	Percent																			
Percent retained 32 micron	ASTM D422	Percent																			
Percent retained 425 micron sieve	ASTM D422	Percent																			
Percent retained 4750 micron sieve	ASTM D422	Percent																			
Percent retained 7 micron	ASTM D422	Percent																			
Percent retained 75 micron sieve	ASTM D422	Percent																			
Percent retained 850 micron sieve	ASTM D422	Percent																			
Percent retained 9 micron	ASTM D422	Percent																			
Percent retained 9500 micron sieve	ASTM D422	Percent																			
Atterberg Limits Classification																					
Liquid Limit	ASTM D4318	Percent																			
Plastic Limit	ASTM D4318	Percent																			
Plasticity Index	ASTM D4318	Percent																			
Total Solids																					
%TS	SM 2540G	Percent						73.57				56.44	58.17							53.21	59.53
Selective Sequential Extraction Mercury																					
Hg(F0)	BRL SOP No. BR-0013	ng/g						3.82 U				5.68 U	5.29 U							5.84 U	4.11 U
Hg(F1)	BRL SOP No. BR-0013	ng/g						1550				10.8	2.2							1.65	2.59
Hg(F2)	BRL SOP No. BR-0013	ng/g						63				56.9	1.25							0.63 B	0.85
Hg(F3)	BRL SOP No. BR-0013	ng/g						4510 J				4140 J	485 J							482 J	1210 J
Hg(F4)	BRL SOP No. BR-0013	ng/g						64500				259	21.1							23.7	33.3
Hg(F5)	BRL SOP No. BR-0013	ng/g						597000				2000	24.8							65	22.1
Hg(F6)	BRL SOP No. BR-0013	ng/g						28800 J				7.94 U	8.44 U							689 J	7.61 U
Arsenic Speciation																					
As(III)	EPA 1632	mg/kg						33.7				1.68	0.971							3.91	0.976
As(Inorg)	EPA 1632	mg/kg						1410				48.2 J-M	36.1 J-M							14.1 J-M	16.9 J-M
As(V)	EPA 1632	mg/kg						1380				46.5	35.1							10.2	15.9
Mercury																					
Mercury	SW7470A-Leachate	mg/L						0.04				0.0007 J	0.0001 U							0.0001 U	0.0001 U

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Outside of Main Processing Area and Area of Surface Mining / Exploration																	
Source Area / Other Area							Background Upland Soils: Upland Area Apparently Upgradient of Mine Impacts											Dam / Upgradient from Main Processing Area			Red Devil Creek Alluvial Deposits and/or Soil Downstream of Main Processing Area			
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10UP01SS 9/17/2010 5:10:00 PM	10UP02SS 9/23/2010 2:50:00 PM	10UP03SS 9/23/2010 3:55:00 PM	10UP04SS 9/23/2010 4:40:00 PM	10UP05SS 9/23/2010 5:20:00 PM	10UP06SS 9/23/2010 6:10:00 PM	10UP07SS 9/23/2010 6:55:00 PM	10UP08SS 9/23/2010 7:45:00 PM	10UP09SS 9/24/2010 7:20:00 PM	10UP30SS (Duplicate of 10UP09SS) 9/24/2010 7:45:00 PM	10UP10SS 9/24/2010 7:50:00 PM	10RD08SS 9/15/2010 3:15:00 PM	10RD09SS 9/15/2010 2:15:00 PM	10RD30SS (Duplicate of 10RD08SS) 9/15/2010 3:40:00 PM	10RD01SS 9/16/2010 4:33:00 PM	10RD02SS 9/16/2010 5:15:00 PM	10RD03SS 9/16/2010 5:41:00 PM	10RD04SS 9/16/2010 6:00:00 PM
Total Metals																								
Aluminum	SW6010B-Total	mg/kg	NA	NA			18300	14400	17400	14100	15900	17600	15300	19600	17500	18800	19500	13800	17300	12600	16100	10200	11700	11800
Antimony	SW6010B-Total	mg/kg	41	3.6			7 UJ	10 U	10 UJ	9 UJ	8 UJ	7 UJ	7 UJ	20 UJ	7 UJ	7 UJ	7 UJ	10 U	20 UJ	20 UJ	7 U	530 J	479 J	381 J
Arsenic	SW6010B-Total	mg/kg	4.5	3.9			11	10	10 U	9 U	8	11	7 U	20	23	19	16	30	20	30	39	1280	950	1210
Barium	SW6010B-Total	mg/kg	20300	1100			78.4	63.5	145	115	95.6	76.5	69.4	105	94.5	84.9	101	157	162	136	204	287	265	248
Beryllium	SW6010B-Total	mg/kg	200	42			0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.5	0.5	0.5	0.5	0.6	0.6	0.6
Cadmium	SW6010B-Total	mg/kg	79	5			0.3 U	0.4 U	0.4 U	0.4 U	0.3 U	0.3 U	0.3 U	0.6 U	0.3	0.4	0.3 U	0.6	0.7 U	0.6 U	0.6	0.6 U	0.3	0.3 U
Calcium	SW6010B-Total	mg/kg	NA	NA			972	620	4090	1150	1040	863	551	1080	796	834	1010	1230 J	3240	1020	6450 J	4540 J	10400 J	3300 J
Chromium	SW6010B-Total	mg/kg	300	25			23.9	18	23	19.2	21.4	24	19.1	30	26.7	28.5	27.6	25	28	24	31.1	26	26	29.6
Cobalt	SW6010B-Total	mg/kg	NA	NA			5.6	3.4	5.9	5.1	6.5	5.7	5.6	11.9	7.7	9.4	6.5	15.6	16	16.1	11.2	14.5	10.5	15.5
Copper	SW6010B-Total	mg/kg	4100	460			18.3	11.6	12.8	9.4	12.2	13.4	13.2	17	20.7	21.8	13.7	35.5	23.4	36.8	28.2	40.3	29.5	38.1
Iron	SW6010B-Total	mg/kg	NA	NA			22800	20300	18400	15500	20300	25300	17900	32400	33100	31900	26600	31700	37300	31700	29800	30600	27700	28600
Lead	SW6010B-Total	mg/kg	400	NA			9	7	9	8	8	9	7	10	9	10	9	11 J	9	10	8 J	11 J	7 J	10 J
Magnesium	SW6010B-Total	mg/kg	NA	NA			2980	1520	3200	2140	2920	2560	2130	3570	2870	3230	3190	3380	4660	3200	5850	5240	7040	4760
Manganese	SW6010B-Total	mg/kg	NA	NA			157	112	118	106	142	139	182	455	268	296	198	595	936	581	635	622	542	545
Nickel	SW6010B-Total	mg/kg	2000	86			18	9	17	14	16	16	14	24	23	26	19	44	33 J	43	33	43	35	46
Potassium	SW6010B-Total	mg/kg	NA	NA			650	470	570	550	560	570	440	800	760	810	730	940	890	820	1560	1710	1870	1710
Silver	SW6010B-Total	mg/kg	510	11.2			0.4 U	0.6 U	0.6 U	0.6 U	0.5 U	0.4 U	0.4 U	0.9 U	0.4 U	0.4 U	0.4 U	0.9 U	1 U	0.9 U	0.4 U	0.8 U	0.4 U	0.4 U
Sodium	SW6010B-Total	mg/kg	NA	NA			70	100 U	100	90 U	80	90	70 U	160 U	70 U	70 U	80	140 U	180 U	150 U	250	170	220	140
Thallium	SW6010B-Total	mg/kg	8.1	1.9			7 U	10 U	10 U	9 U	8 U	7 U	7 U	20 U	7 U	7 U	7 U	10 U	20 U	20 U	7 U	10 U	6 U	6 U
Vanadium	SW6010B-Total	mg/kg	710	3400			44.8	35.1	43.7	34	38.2	45.8	35.6	62.9	57.8	57.9	57.6	42.5	48	41.7	42.4	30.3	30.7	34.9
Zinc	SW6010B-Total	mg/kg	30400	4100			45	23	47	39	45	41	33	58	56	59	45	89 J	73	90	93 J	93 J	83 J	110 J
Mercury																								
Mercury	SW7471A-Total	mg/kg	18	1.4			0.18 J	0.23	0.19	0.2	0.19	0.23	0.15	0.32	0.25	0.25	0.22	0.9	2	3 U	1.74	43	28	99
Diesel Range Hydrocarbons																								
Diesel Range Hydrocarbons	AK102/AK103 TPHD	mg/kg			10250	250																		
Motor Oil	AK102/AK103 TPHD	mg/kg			10000	11000																		
n-Triacontane	AK102/AK103 TPHD	mg/kg																						
o-Terphenyl	AK102/AK103 TPHD	mg/kg																						
Moisture Content																								
Moisture Content	ASTM D2216	Percent																						
Grain Size																								
Percent passing < 1.3 micron	ASTM D422	Percent																						
Percent retained 1.3 micron	ASTM D422	Percent																						
Percent retained 12500 micron sieve	ASTM D422	Percent																						
Percent retained 13 micron	ASTM D422	Percent																						
Percent retained 150 micron sieve	ASTM D422	Percent																						
Percent retained 19000 micron sieve	ASTM D422	Percent																						
Percent retained 2000 micron sieve	ASTM D422	Percent																						
Percent retained 22 micron	ASTM D422	Percent																						
Percent retained 250 micron sieve	ASTM D422	Percent																						
Percent retained 25K micron sieve	ASTM D422	Percent																						
Percent retained 3.2 micron	ASTM D422	Percent																						
Percent retained 32 micron	ASTM D422	Percent																						
Percent retained 425 micron sieve	ASTM D422	Percent																						
Percent retained 4750 micron sieve	ASTM D422	Percent																						
Percent retained 7 micron	ASTM D422	Percent																						
Percent retained 75 micron sieve	ASTM D422	Percent																						
Percent retained 850 micron sieve	ASTM D422	Percent																						
Percent retained 9 micron	ASTM D422	Percent																						
Percent retained 9500 micron sieve	ASTM D422	Percent																						
Atterberg Limits Classification																								
Liquid Limit	ASTM D4318	Percent																						
Plastic Limit	ASTM D4318	Percent																						
Plasticity Index	ASTM D4318	Percent																						
Total Solids																								
%TS	SM 2540G	Percent													63.8		64.94		85.26					81.39
Selective Sequential Extraction Mercury																								
Hg(F0)	BRL SOP No. BR-0013	ng/g													4.15 U		4.53 U		3.29 U					12.5
Hg(F1)	BRL SOP No. BR-0013	ng/g													1.26		0.54 B		38.3					1910
Hg(F2)	BRL SOP No. BR-0013	ng/g													4.11		1.62		4.9					206
Hg(F3)	BRL SOP No. BR-0013	ng/g													207 J		116 J		2550 J					5260 J
Hg(F4)	BRL SOP No. BR-0013	ng/g													12.9		9.66		360					23900
Hg(F5)	BRL SOP No. BR-0013	ng/g													9.72 M		6.76		999					158000
Hg(F6)	BRL SOP No. BR-0013	ng/g													7.1 U		6.32 U		5.49 U					7040 J
Arsenic Speciation																								
As(III)	EPA 1632	mg/kg													0.506 B		0.408		2.36					27.8
As(Inorg)	EPA 1632	mg/kg													17.4		15.3 J-M		197 J-M					1190 J-M
As(V)	EPA 1632	mg/kg													16.9		14.9		195					1160
Mercury																								
Mercury	SW7470A-Leachate	mg/L													0.0001 U		0.0001 U		0.0001 UJ					0.037

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Surface Mined Area									
Source Area / Other Area							Central Surface Mined Area				Sluiced Areas					
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10SM20SS 9/19/2010 4:26:00 PM	10SM21SS 9/19/2010 3:48:00 PM	10SM22SS 9/19/2010 2:12:00 PM	10SM23SS 9/19/2010 1:34:00 PM	10DS01SS 9/19/2010 5:40:00 PM	10DS02SS 9/19/2010 5:50:00 PM	10DS03SS 9/16/2010 2:45:00 PM	10RS01SS 9/19/2010 3:00:00 PM	10RS02SS 9/19/2010 3:30:00 PM	10RS03SS 9/16/2010 3:54:00 PM
Total Metals																
Aluminum	SW6010B-Total	mg/kg	NA	NA			**13900**	**16800**	**14600**	**13000**	**4770**	**7770**	**8200**	**14600**	**14000**	**10600**
Antimony	SW6010B-Total	mg/kg	41	3.6			6 UJ	6 UJ	6 UJ	**508 J**	**40 J**	**40 J**	**21 J**	**34 J**	**9 J**	6 UJ
Arsenic	SW6010B-Total	mg/kg	4.5	3.9			**9**	**39**	**17**	**223**	**1010**	**550**	**355**	**29**	**30**	**110**
Barium	SW6010B-Total	mg/kg	20300	1100			**121**	**220**	**147**	**163**	**171**	**174**	**166**	**202 J**	**188 J**	**154 J**
Beryllium	SW6010B-Total	mg/kg	200	42			**0.4**	**0.5**	**0.5**	**0.4**	**0.8**	**0.6**	**0.6**	**0.5**	**0.6**	**0.4**
Cadmium	SW6010B-Total	mg/kg	79	5			**0.3**	**0.3**	**0.4**	0.2 U	0.6 U	0.6 U	**0.5**	**0.6**	**0.6**	**0.4**
Calcium	SW6010B-Total	mg/kg	NA	NA			**1590**	**2200**	**2580**	**1990**	**1080**	**2530**	**1760**	**7220**	**5950**	**1860**
Chromium	SW6010B-Total	mg/kg	300	25			**21**	**27.2**	**27**	**22.5**	**20**	**21**	**18.9**	**30.5**	**29.4**	**20.6**
Cobalt	SW6010B-Total	mg/kg	NA	NA			**5.9**	**11.1**	**12.1**	**9.5**	**17**	**12.6**	**17.5**	**11**	**10.9**	**13.4**
Copper	SW6010B-Total	mg/kg	4100	460			**18.7**	**28.2**	**25.3**	**25**	**57.4**	**37.5**	**49.3**	**28**	**26.9**	**31.4**
Iron	SW6010B-Total	mg/kg	NA	NA			**17900**	**23700**	**23800**	**20100**	**46400**	**32100**	**28800**	**29900**	**29300**	**24800**
Lead	SW6010B-Total	mg/kg	400	NA			**6**	**9**	**7**	**6**	**12**	**9**	**10**	**9**	**8**	**8**
Magnesium	SW6010B-Total	mg/kg	NA	NA			**3430**	**4270**	**4260**	**3890**	**880**	**3000**	**2090**	**5860**	**5830**	**2960**
Manganese	SW6010B-Total	mg/kg	NA	NA			**153**	**476**	**367**	**316**	**759**	**598**	**833**	**655**	**609**	**719**
Nickel	SW6010B-Total	mg/kg	2000	86			**19**	**28**	**23**	**25**	**54**	**42**	**39**	**33**	**32**	**32**
Potassium	SW6010B-Total	mg/kg	NA	NA			**600**	**820**	**810**	**750**	**1270**	**1290**	**1210**	**1290**	**1360**	**880**
Silver	SW6010B-Total	mg/kg	510	11.2			0.4 U	0.3 U	0.4 U	0.3 U	0.8 U	0.9 U	0.4 U	0.4 U	0.4 U	0.4 U
Sodium	SW6010B-Total	mg/kg	NA	NA			**90**	**110**	**110**	**100**	140 U	**150**	**70**	**210**	**210**	**70**
Thallium	SW6010B-Total	mg/kg	8.1	1.9			6 U	6 U	6 U	6 U	10 U	10 U	6 U	7 U	7 U	6 U
Vanadium	SW6010B-Total	mg/kg	710	3400			**35.8**	**46.8**	**47.9**	**35.5**	**33.2**	**31**	**32.2**	**40.3**	**39.6**	**33.6**
Zinc	SW6010B-Total	mg/kg	30400	4100			**45**	**67**	**61**	**56**	**116**	**98**	**93**	**103**	**93**	**72**
Mercury																
Mercury	SW7471A-Total	mg/kg	18	1.4			**0.11 J**	**2 J**	**0.05 J**	**8.2 J**	**71**	**22**	**16**	**1.25**	**1.15**	**3.57**
Diesel Range Hydrocarbons																
Diesel Range Hydrocarbons	AK102/AK103 TPHD	mg/kg			10250	250										
Motor Oil	AK102/AK103 TPHD	mg/kg			10000	11000										
n-Triacontane	AK102/AK103 TPHD	mg/kg														
o-Terphenyl	AK102/AK103 TPHD	mg/kg														
Moisture Content																
Moisture Content	ASTM D2216	Percent														
Grain Size																
Percent passing < 1.3 micron	ASTM D422	Percent														
Percent retained 1.3 micron	ASTM D422	Percent														
Percent retained 12500 micron sieve	ASTM D422	Percent														
Percent retained 13 micron	ASTM D422	Percent														
Percent retained 150 micron sieve	ASTM D422	Percent														
Percent retained 19000 micron sieve	ASTM D422	Percent														
Percent retained 2000 micron sieve	ASTM D422	Percent														
Percent retained 22 micron	ASTM D422	Percent														
Percent retained 250 micron sieve	ASTM D422	Percent														
Percent retained 25K micron sieve	ASTM D422	Percent														
Percent retained 3.2 micron	ASTM D422	Percent														
Percent retained 32 micron	ASTM D422	Percent														
Percent retained 425 micron sieve	ASTM D422	Percent														
Percent retained 4750 micron sieve	ASTM D422	Percent														
Percent retained 7 micron	ASTM D422	Percent														
Percent retained 75 micron sieve	ASTM D422	Percent														
Percent retained 850 micron sieve	ASTM D422	Percent														
Percent retained 9 micron	ASTM D422	Percent														
Percent retained 9500 micron sieve	ASTM D422	Percent														
Atterberg Limits Classification																
Liquid Limit	ASTM D4318	Percent														
Plastic Limit	ASTM D4318	Percent														
Plasticity Index	ASTM D4318	Percent														
Total Solids																
%TS	SM 2540G	Percent						84.13		84.24	85.13			64.35		
Selective Sequential Extraction Mercury																
Hg(F0)	BRL SOP No. BR-0013	ng/g						4.57		3.32 U	3.82 U			4.94 U		
Hg(F1)	BRL SOP No. BR-0013	ng/g						21.9		147	446			3.46		
Hg(F2)	BRL SOP No. BR-0013	ng/g						3.08		8.33	125			0.63 B		
Hg(F3)	BRL SOP No. BR-0013	ng/g						648 J		2880 J	7810 J			1090 J		
Hg(F4)	BRL SOP No. BR-0013	ng/g						311		1420	194000			268		
Hg(F5)	BRL SOP No. BR-0013	ng/g						1490		8040	1630000			254		
Hg(F6)	BRL SOP No. BR-0013	ng/g						5.62 U		351 J	79600 J			7.58 U		
Arsenic Speciation																
As(III)	EPA 1632	mg/kg						**0.543**		**4.6**	**3.78**			**1.82**		
As(Inorg)	EPA 1632	mg/kg						**60.3 J-M**		**311**	**1330**			**25.1**		
As(V)	EPA 1632	mg/kg						**59.8**		**306**	**1330**			**23.3**		
Mercury																
Mercury	SW7470A-Leachate	mg/L						0.0001 U		**0.001 J**	**0.0016 J**			0.0001 U		

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Surface Mined Area																	
Source Area / Other Area							Southern Surface-Mined Area																	
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10SM13SS 9/24/2010 10:40:00 AM	10SM14SS 9/24/2010 11:40:00 AM	10SM15SS 9/23/2010 6:40:00 PM	10SM16SS 9/23/2010 7:25:00 PM	10SM17SS 9/24/2010 1:50:00 PM	10SM18SS 9/23/2010 4:30:00 PM	10SM19SS 9/23/2010 5:20:00 PM	10SM10SS 9/21/2010 2:39:00 PM	10SM11SS 9/21/2010 12:40:00 PM	10SM12SS 9/21/2010 11:07:00 AM	10SM40SS (Duplicate of 10SM12SS) 9/21/2010 11:30:00 AM	10SM04SS 9/24/2010 3:50:00 PM	10SM05SS 9/24/2010 3:10:00 PM	10SM06SS 9/24/2010 4:30:00 PM	10SM01SS 9/24/2010 4:00:00 PM	10SM02SS 9/24/2010 5:15:00 PM	10SM03SS 9/24/2010 5:45:00 PM	10SM41SS (Duplicate of 10SM03SS) 9/24/2010 6:00:00 PM
Total Metals																								
Aluminum	SW6010B-Total	mg/kg	NA	NA			9170	16300	14800	11000	12800	5660	6670	15300	19500	12600	11900	7530	4720	5440	4340	5300	5950	5450
Antimony	SW6010B-Total	mg/kg	41	3.6			40 J	6 UJ	6 UJ	10 UJ	20 J	10 UJ	20 J	5 UJ	6 UJ	10 UJ	6 UJ	20 J	140 J	30 J	40 J	80 J	90 J	30 J
Arsenic	SW6010B-Total	mg/kg	4.5	3.9			670	10	21	350	361	230	670	12	11	90	71	1470	5120	890	1710	3620	2290	1730
Barium	SW6010B-Total	mg/kg	20300	1100			215	165	165	248	177	253	148	174	97	176	171	339 J	306 J	317 J	173 J	212 J	193 J	168
Beryllium	SW6010B-Total	mg/kg	200	42			0.8	0.4	0.5	0.8	0.6	1.3	0.9	0.4	0.4	0.6	0.5	0.8	0.9	1.3	1.2	1	0.9	0.8
Cadmium	SW6010B-Total	mg/kg	79	5			0.6 U	0.3	0.4	0.6 U	0.4	0.6	0.5 U	0.3	0.4	0.6 U	0.4	0.6 U	0.6 U	0.8	0.5 U	0.6 U	0.6 U	0.5 U
Calcium	SW6010B-Total	mg/kg	NA	NA			1310	2510	2320	1630	1940	2460	2090	2560	2010	2440	2320	1350	1750	1050	2280	1490	1650	1530
Chromium	SW6010B-Total	mg/kg	300	25			21	26.1	24.6	21	23.8	12	17	25.6	26.9	27	22.2	23	19	11	16	17	32	25
Cobalt	SW6010B-Total	mg/kg	NA	NA			34.8	9.5	15.7	18.6	14	19.2	18.6	9.4	10.8	13.4	12.2	24.3	38.8	35.3	31.8	26	19	18.2
Copper	SW6010B-Total	mg/kg	4100	460			56.1	23.5	29.2	53.4	37.9	71.9	57.3	24.7	17.8	34.2	33.3	56.5	87.1	79.3	89	60	66.5	59
Iron	SW6010B-Total	mg/kg	NA	NA			38400	22300	23500	37300	26400	35200	34300	22400	25100	27500	22600	41300	59100	55800	42700	48900	42100	44500
Lead	SW6010B-Total	mg/kg	400	NA			14	7	8	12	9	16	12	6	8	10	9	16	16	32	18	13	14	13
Magnesium	SW6010B-Total	mg/kg	NA	NA			1890	4810	4090	2420	3470	710	1760	4430	4890	3680	3390	1350	490	750	460	700	1200	1310
Manganese	SW6010B-Total	mg/kg	NA	NA			1150	307	479	1050	526	1250	776	340	323	529	393	1130	4230	1430	844	854	723	817
Nickel	SW6010B-Total	mg/kg	2000	86			47	26	29	52	37	57	59	24	27	32	31	55	86	78	78	67	64	59
Potassium	SW6010B-Total	mg/kg	NA	NA			1380	850	970	1510	1090	1500	1520	730	870	1110	1030	1670	1750	1820	2050	1780	1670	1290
Silver	SW6010B-Total	mg/kg	510	11.2			0.9 U	0.3 U	0.4 U	0.9 U	0.3 U	0.8 U	0.8 U	0.3 U	0.4 U	0.9 U	0.3 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Sodium	SW6010B-Total	mg/kg	NA	NA			140 U	120	100	150 U	90	140 U	130 U	120	100	140 U	90	140 U	140 U	140 U	130 U	140 U	140 U	140 U
Thallium	SW6010B-Total	mg/kg	8.1	1.9			10 U	6 U	6 U	10 U	39.5	10 U	10 U	5 U	6 U	10 U	6 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vanadium	SW6010B-Total	mg/kg	710	3400			36.4	42.4	41.4	39.5	104	23	30.6	42	44.3	43.6	36.1	36	32.3	25.3	23.4	29.4	32.1	30.7
Zinc	SW6010B-Total	mg/kg	30400	4100			108	60	64	104	8.8 J	139	110	57	64	74	71	116	159	159	136	122	120	109
Mercury																								
Mercury	SW7471A-Total	mg/kg	18	1.4			23 J	0.14 J	0.62 J	8.8 J	12 J	11 J	14 J	0.15 J	0.17 J	5.4 J	3.6 J	31	102	25	29	44	21	24 J
Diesel Range Hydrocarbons																								
Diesel Range Hydrocarbons	AK102/AK103 TPHD	mg/kg			10250	250																		
Motor Oil	AK102/AK103 TPHD	mg/kg			10000	11000																		
n-Triacontane	AK102/AK103 TPHD	mg/kg																						
o-Terphenyl	AK102/AK103 TPHD	mg/kg																						
Moisture Content																								
Moisture Content	ASTM D2216	Percent												16.29	27.5	15.51								
Grain Size																								
Percent passing < 1.3 micron	ASTM D422	Percent												6.5	4.7	7.7								
Percent retained 1.3 micron	ASTM D422	Percent												3.3	3.9	3								
Percent retained 12500 micron sieve	ASTM D422	Percent												0.1 U	0.1 U	8								
Percent retained 13 micron	ASTM D422	Percent												16.3	13.4	7.7								
Percent retained 150 micron sieve	ASTM D422	Percent												1.8	1	3.4								
Percent retained 19000 micron sieve	ASTM D422	Percent												0.1 U	0.1 U	0.1 U								
Percent retained 2000 micron sieve	ASTM D422	Percent												0.1	0.1 U	7.5								
Percent retained 22 micron	ASTM D422	Percent												17.2	18.9	12.5								
Percent retained 250 micron sieve	ASTM D422	Percent												1	0.6	3.1								
Percent retained 25K micron sieve	ASTM D422	Percent												0.1 U	0.1 U	0.1 U								
Percent retained 3.2 micron	ASTM D422	Percent												5.7	3.9	5.4								
Percent retained 32 micron	ASTM D422	Percent												34.4	36.7	14.9								
Percent retained 425 micron sieve	ASTM D422	Percent												0.5	0.3	2.8								
Percent retained 4750 micron sieve	ASTM D422	Percent												0.1	0.1 U	6								
Percent retained 7 micron	ASTM D422	Percent												3.3	3.1	2.4								
Percent retained 75 micron sieve	ASTM D422	Percent												5.5	3	4.4								
Percent retained 850 micron sieve	ASTM D422	Percent												0.3	0.2	5.1								
Percent retained 9 micron	ASTM D422	Percent												4.1	10.2	3.6								
Percent retained 9500 micron sieve	ASTM D422	Percent												0.1 U	0.1 U	2.4								
Atterberg Limits Classification																								
Liquid Limit	ASTM D4318	Percent														23.4								
Plastic Limit	ASTM D4318	Percent														19.9								
Plasticity Index	ASTM D4318	Percent														3.5								
Total Solids																								
%TS	SM 2540G	Percent					84.52					84.07	88.29			84.5			86.21				88.61	87.39
Selective Sequential Extraction Mercury																								
Hg(F0)	BRL SOP No. BR-0013	ng/g					4.06					3.76 U	2.74 U			3.27 U			54.2				6.36	
Hg(F1)	BRL SOP No. BR-0013	ng/g					233					50	189			32.2			544				1350	
Hg(F2)	BRL SOP No. BR-0013	ng/g					89.8					73.2	130			2.42			924				2880	
Hg(F3)	BRL SOP No. BR-0013	ng/g					1190 J					2350 J	1020 J			837 J			3080 J				2540 J	
Hg(F4)	BRL SOP No. BR-0013	ng/g					3980					114 U	3770			306			9660				8470	
Hg(F5)	BRL SOP No. BR-0013	ng/g					33300					10800 J	25500			3030			56100				71000	
Hg(F6)	BRL SOP No. BR-0013	ng/g					3230 J					1750	3250 J			11.1 U			5200 J				6420 J	
Arsenic Speciation																								
As(III)	EPA 1632	mg/kg					3.34					3.58	2.43			0.742			27.2				15.9	15.6
As(Inorg)	EPA 1632	mg/kg					579					781	853			99.1			6510 J-M				3640 J-M	2790 J-M
As(V)	EPA 1632	mg/kg					576					777	851			98.4			6480				3620	2770
Mercury																								
Mercury	SW7470A-Leachate	mg/L					0.0013 J					0.0003 J	0.002 J			0.0001 U			0.0016				0.0013	

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area													
Source Area / Other Area							Trenches						
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10SM24SS 9/21/2010 12:05:00 PM	10SM25SS 9/21/2010 1:00:00 PM	10SM26SS 9/21/2010 1:45:00 PM	10SM27SS 9/23/2010 3:20:00 PM	10SM28SS 9/19/2010 4:35:00 PM	10SM29SS 9/19/2010 4:55:00 PM	10SM30SS 9/19/2010 5:30:00 PM
Total Metals													
Aluminum	SW6010B-Total	mg/kg	NA	NA			**11900**	**9000**	**12400**	**11000**	**13900**	**13200**	**20300**
Antimony	SW6010B-Total	mg/kg	41	3.6			10 UJ	10 UJ	6 UJ	10 UJ	**109 J**	6 UJ	7 UJ
Arsenic	SW6010B-Total	mg/kg	4.5	3.9			10 U	**40**	**13**	**20**	**177**	**11**	**46**
Barium	SW6010B-Total	mg/kg	20300	1100			**149**	**103**	**132**	**180**	**145**	**136**	**213**
Beryllium	SW6010B-Total	mg/kg	200	42			**0.5**	**0.5**	**0.4**	**0.5**	**0.4**	**0.4**	**0.6**
Cadmium	SW6010B-Total	mg/kg	79	5			**0.7**	**0.6**	**0.4**	**0.8**	0.2 U	**0.2**	**0.3**
Calcium	SW6010B-Total	mg/kg	NA	NA			**940**	**600**	**1400**	**1420**	**1780**	**2350**	**2490**
Chromium	SW6010B-Total	mg/kg	300	25			**24**	**22**	**20.2**	**21**	**22.8**	**23.8**	**30.2**
Cobalt	SW6010B-Total	mg/kg	NA	NA			**17.3**	**18.5**	**11.1**	**19.1**	**9.8**	**8.7**	**12.2**
Copper	SW6010B-Total	mg/kg	4100	460			**53.1**	**46.4**	**28.2**	**40.5**	**23.5**	**19.7**	**31.7**
Iron	SW6010B-Total	mg/kg	NA	NA			**36700**	**37100**	**23200**	**29500**	**19900**	**21000**	**28100**
Lead	SW6010B-Total	mg/kg	400	NA			**12**	**11**	**8**	**11**	**6**	**6**	**11**
Magnesium	SW6010B-Total	mg/kg	NA	NA			**3690**	**1660**	**3130**	**2450**	**3950**	**4350**	**4970**
Manganese	SW6010B-Total	mg/kg	NA	NA			**870**	**1030**	**517**	**1090**	**435**	**319**	**481**
Nickel	SW6010B-Total	mg/kg	2000	86			**46**	**55**	**26**	**35**	**26**	**22**	**33**
Potassium	SW6010B-Total	mg/kg	NA	NA			**690**	**760**	**810**	**1280**	**740**	**830**	**1100**
Silver	SW6010B-Total	mg/kg	510	11.2			0.8 U	0.8 U	0.4 U	0.9 U	0.3 U	0.4 U	0.4 U
Sodium	SW6010B-Total	mg/kg	NA	NA			140 U	140 U	**80**	150 U	**80**	**110**	**120**
Thallium	SW6010B-Total	mg/kg	8.1	1.9			10 U	10 U	6 U	10 U	6 U	6 U	7 U
Vanadium	SW6010B-Total	mg/kg	710	3400			**41.6**	**43.7**	**37.3**	**37.8**	**36.4**	**40**	**51.9**
Zinc	SW6010B-Total	mg/kg	30400	4100			**108**	**109**	**62**	**85**	**52**	**50**	**75**
Mercury													
Mercury	SW7471A-Total	mg/kg	18	1.4			**0.26 J**	**0.9 J**	**0.64 J**	**1.9 J**	**17 J**	**0.17 J**	**1.9 J**
Diesel Range Hydrocarbons													
Diesel Range Hydrocarbons	AK102/AK103 TPHD	mg/kg			10250	250							
Motor Oil	AK102/AK103 TPHD	mg/kg			10000	11000							
n-Triacontane	AK102/AK103 TPHD	mg/kg											
o-Terphenyl	AK102/AK103 TPHD	mg/kg											
Moisture Content													
Moisture Content	ASTM D2216	Percent											
Grain Size													
Percent passing < 1.3 micron	ASTM D422	Percent											
Percent retained 1.3 micron	ASTM D422	Percent											
Percent retained 12500 micron sieve	ASTM D422	Percent											
Percent retained 13 micron	ASTM D422	Percent											
Percent retained 150 micron sieve	ASTM D422	Percent											
Percent retained 19000 micron sieve	ASTM D422	Percent											
Percent retained 2000 micron sieve	ASTM D422	Percent											
Percent retained 22 micron	ASTM D422	Percent											
Percent retained 250 micron sieve	ASTM D422	Percent											
Percent retained 25K micron sieve	ASTM D422	Percent											
Percent retained 3.2 micron	ASTM D422	Percent											
Percent retained 32 micron	ASTM D422	Percent											
Percent retained 425 micron sieve	ASTM D422	Percent											
Percent retained 4750 micron sieve	ASTM D422	Percent											
Percent retained 7 micron	ASTM D422	Percent											
Percent retained 75 micron sieve	ASTM D422	Percent											
Percent retained 850 micron sieve	ASTM D422	Percent											
Percent retained 9 micron	ASTM D422	Percent											
Percent retained 9500 micron sieve	ASTM D422	Percent											
Atterberg Limits Classification													
Liquid Limit	ASTM D4318	Percent											
Plastic Limit	ASTM D4318	Percent											
Plasticity Index	ASTM D4318	Percent											
Total Solids													
%TS	SM 2540G	Percent								79.82	81.85		
Selective Sequential Extraction Mercury													
Hg(F0)	BRL SOP No. BR-0013	ng/g								9.31	4.21		
Hg(F1)	BRL SOP No. BR-0013	ng/g								24.8	318		
Hg(F2)	BRL SOP No. BR-0013	ng/g								3.56	177		
Hg(F3)	BRL SOP No. BR-0013	ng/g								1570 J	1870 J		
Hg(F4)	BRL SOP No. BR-0013	ng/g								157	6550		
Hg(F5)	BRL SOP No. BR-0013	ng/g								443	16900		
Hg(F6)	BRL SOP No. BR-0013	ng/g								5.36 U	774 J		
Arsenic Speciation													
As(III)	EPA 1632	mg/kg								**0.307**	**14.7**		
As(Inorg)	EPA 1632	mg/kg								**24.9 J-M**	**352 J-M**		
As(V)	EPA 1632	mg/kg								**24.6**	**337**		
Mercury													
Mercury	SW7470A-Leachate	mg/L								**0.0002 J**	**0.0014 J**		

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area													Main Processing Area										
Source Area / Other Area							West of Red Devil Creek						West of Red Devil Creek										
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10MP64SS 9/17/2010 10:45:00 AM	10MP65SS 9/17/2010 11:05:00 AM	10MP63SS 9/17/2010 10:10:00 AM	10MP66SS 9/17/2010 12:30:00 PM	10MP85SS 9/17/2010 1:10:00 PM	10MP60SS 9/20/2010 5:15:00 PM	10MP45SS 9/21/2010 4:00:00 PM	10MP46SS 9/21/2010 4:50:00 PM	10MP47SS 9/20/2010 6:15:00 PM	10MP48SS 9/16/2010 4:45:00 PM	10MP49SS 9/16/2010 5:45:00 PM	10MP424344SS 9/19/2010 9:15:00 AM	10MP42SS 9/19/2010 9:15:00 AM	10MP43SS 9/19/2010 9:50:00 AM	10MP44SS 9/19/2010 10:20:00 AM	10MP61SS 9/16/2010 6:25:00 PM	10MP62SS 9/20/2010 6:40:00 PM
Semi-Volatile Organic Compunds																							
1-Methylnaphthalene	SW8270D	µg/kg	280000	6200									**27**	20 U	**74**								
2-Methylnaphthalene	SW8270D	µg/kg	280000	6100									**79**	20 U	**200**								
bis(2-Ethylhexyl)phthalate	SW8270D	µg/kg	NA	NA									**17 J**	**13 J**	20 U								
Chrysene	SW8270D	µg/kg	490000	360000									**17 J**	20 U	**16 J**								
Dibenzofuran	SW8270D	µg/kg	NA	NA									19 U	20 U	**10 J**								
Fluorene	SW8270D	µg/kg	2300000	220000									19 U	20 U	**20**								
Naphthalene	SW8270D	µg/kg	28000	20000									**26**	20 U	**70**								
Phenanthrene	SW8270D	µg/kg	20600000	3000000									19 U	20 U	**48**								
Phenol	SW8270D	µg/kg	23200	68									19 U	20 U	20 U								
Pyrene	SW8270D	µg/kg	NA	NA									19 U	20 U	20 U								
Sulfur	SW8270D	µg/kg	NA	NA										**1300 J**	**230 J**								
Unknown Aromatic	SW8270D	µg/kg	NA	NA									**260 J**	120 U	**390 J**								
Unknown Freon	SW8270D	µg/kg	NA	NA										190 U									
Unknown Hydrocarbon	SW8270D	µg/kg	NA	NA									**330 J**	160 U	**350 J**								
Unknown Organic Acid	SW8270D	µg/kg	NA	NA																			
Unknown Sterol	SW8270D	µg/kg	NA	NA									**360 J**		**180 J**								
Synthetic Presipitation Leaching Procedure Target Ana;lyte List Metals																							
Aluminum	SW6010B-Leachate SPLP	mg/l																0.39 J					
Antimony	SW6010B-Leachate SPLP	mg/l																**1.58**					
Arsenic	SW6010B-Leachate SPLP	mg/l																0.59 J					
Barium	SW6010B-Leachate SPLP	mg/l																0.009 J					
Cadmium	SW6010B-Leachate SPLP	mg/l																0.002 U					
Calcium	SW6010B-Leachate SPLP	mg/l																**1.19**					
Chromium	SW6010B-Leachate SPLP	mg/l																0.005 U					
Copper	SW6010B-Leachate SPLP	mg/l																**0.004**					
Iron	SW6010B-Leachate SPLP	mg/l																**0.7 J**					
Magnesium	SW6010B-Leachate SPLP	mg/l																**0.78**					
Manganese	SW6010B-Leachate SPLP	mg/l																**0.007 J**					
Nickel	SW6010B-Leachate SPLP	mg/l																**0.0039 J**					
Potassium	SW6010B-Leachate SPLP	mg/l																0.5 U					
Sodium	SW6010B-Leachate SPLP	mg/l																**0.6 J**					
Vanadium	SW6010B-Leachate SPLP	mg/l																0.003 U					
Zinc	SW6010B-Leachate SPLP	mg/l																0.01 U					
Mercury	SW7470A-Leachate SPLP	mg/l																**0.0039 J**					
Toxicity Characteristic Leaching Procedure RCRA Metals																							
Arsenic	SW6010B-Leachate TCLP	mg/l	5.0[2]															**1**					
Barium	SW6010B-Leachate TCLP	mg/l	100.0[2]															**0.53**					
Mercury	SW7470A-Leachate TCLP	mg/l	0.2[2]															**0.0013**					

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter

**Only detected compounds listed in this table

*ADEC (2008) Chronic Standard

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area								
Source Area / Other Area								
Analyte	**Method**	**Units**	**ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation**	**ADEC Cleanup Level (2009) Table B1 Migration to Groundwater**	**ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation**	**ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater**	10MP55565758SS 9/18/2010 7:43:00 PM	10MP55SS 9/18/2010 7:43:00 PM
Semi-Volatile Organic Compunds								
1-Methylnaphthalene	SW8270D	µg/kg	280000	6200				
2-Methylnaphthalene	SW8270D	µg/kg	280000	6100				
bis(2-Ethylhexyl)phthalate	SW8270D	µg/kg	NA	NA				
Chrysene	SW8270D	µg/kg	490000	360000				
Dibenzofuran	SW8270D	µg/kg	NA	NA				
Fluorene	SW8270D	µg/kg	2300000	220000				
Naphthalene	SW8270D	µg/kg	28000	20000				
Phenanthrene	SW8270D	µg/kg	20600000	3000000				
Phenol	SW8270D	µg/kg	23200	68				
Pyrene	SW8270D	µg/kg	NA	NA				
Sulfur	SW8270D	µg/kg	NA	NA				
Unknown Aromatic	SW8270D	µg/kg	NA	NA				
Unknown Freon	SW8270D	µg/kg	NA	NA				
Unknown Hydrocarbon	SW8270D	µg/kg	NA	NA				
Unknown Organic Acid	SW8270D	µg/kg	NA	NA				
Unknown Sterol	SW8270D	µg/kg	NA	NA				
Synthetic Presipitation Leaching Procedure Target Ana;lyte List Metals								
Aluminum	SW6010B-Leachate SPLP	mg/l					**2.42**	
Antimony	SW6010B-Leachate SPLP	mg/l					**0.96**	
Arsenic	SW6010B-Leachate SPLP	mg/l					**0.92**	
Barium	SW6010B-Leachate SPLP	mg/l					**0.103**	
Cadmium	SW6010B-Leachate SPLP	mg/l					0.002 U	
Calcium	SW6010B-Leachate SPLP	mg/l					**2.94**	
Chromium	SW6010B-Leachate SPLP	mg/l					**0.007**	
Copper	SW6010B-Leachate SPLP	mg/l					**0.008**	
Iron	SW6010B-Leachate SPLP	mg/l					**1.45**	
Magnesium	SW6010B-Leachate SPLP	mg/l					**2.35**	
Manganese	SW6010B-Leachate SPLP	mg/l					**0.018**	
Nickel	SW6010B-Leachate SPLP	mg/l					**0.004**	
Potassium	SW6010B-Leachate SPLP	mg/l					**1**	
Sodium	SW6010B-Leachate SPLP	mg/l					**10.1**	
Vanadium	SW6010B-Leachate SPLP	mg/l					**0.008**	
Zinc	SW6010B-Leachate SPLP	mg/l					0.01 U	
Mercury	SW7470A-Leachate SPLP	mg/l					**0.015**	
Toxicity Characteristic Leaching Procedure RCRA Metals								
Arsenic	SW6010B-Leachate TCLP	mg/l	5.0[2]				**0.9**	
Barium	SW6010B-Leachate TCLP	mg/l	100.0[2]				**0.83**	
Mercury	SW7470A-Leachate TCLP	mg/l	0.2[2]				**0.004**	

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter

**Only detected compounds listed in this table

*ADEC (2008) Chronic Standard

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Main Processing Area											
Source Area / Other Area							West of Red Devil Creek (continued)											
Analyte	**Method**	**Units**	**ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation**	**ADEC Cleanup Level (2009) Table B1 Migration to Groundwater**	**ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation**	**ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater**	10MP56SS 9/18/2010 6:05:00 PM	10MP57SS 9/19/2010 10:10:00 AM	10MP58SS 9/19/2010 9:30:00 AM	10MP59SS 9/21/2010 5:25:00 PM	10MP86SS (Duplicate of 10MP59SS) 9/21/2010 5:45:00 PM	10MP5051525 354SS 9/19/2010 10:50:00 AM	10MP50SS 9/19/2010 10:50:00 AM	10MP51SS 9/19/2010 11:35:00 AM	10MP52SS 9/19/2010 12:05:00 PM	10MP53SS 9/19/2010 11:36:00 AM	10MP54SS 9/19/2010 10:48:00 AM	10MP41SS 9/19/2010 3:45:00 PM
Semi-Volatile Organic Compunds																		
1-Methylnaphthalene	SW8270D	µg/kg	280000	6200														
2-Methylnaphthalene	SW8270D	µg/kg	280000	6100														
bis(2-Ethylhexyl)phthalate	SW8270D	µg/kg	NA	NA														
Chrysene	SW8270D	µg/kg	490000	360000														
Dibenzofuran	SW8270D	µg/kg	NA	NA														
Fluorene	SW8270D	µg/kg	2300000	220000														
Naphthalene	SW8270D	µg/kg	28000	20000														
Phenanthrene	SW8270D	µg/kg	20600000	3000000														
Phenol	SW8270D	µg/kg	23200	68														
Pyrene	SW8270D	µg/kg	NA	NA														
Sulfur	SW8270D	µg/kg	NA	NA														
Unknown Aromatic	SW8270D	µg/kg	NA	NA														
Unknown Freon	SW8270D	µg/kg	NA	NA														
Unknown Hydrocarbon	SW8270D	µg/kg	NA	NA														
Unknown Organic Acid	SW8270D	µg/kg	NA	NA														
Unknown Sterol	SW8270D	µg/kg	NA	NA														
Synthetic Presipitation Leaching Procedure Target Ana;lyte List Metals																		
Aluminum	SW6010B-Leachate SPLP	mg/l								**0.27**	**0.54 J**	**2.96**						**0.36 J**
Antimony	SW6010B-Leachate SPLP	mg/l								**0.11**	**0.12**	**9.14**						0.05 U
Arsenic	SW6010B-Leachate SPLP	mg/l								**0.37**	**0.33 J**	**2**						0.05 U
Barium	SW6010B-Leachate SPLP	mg/l								**0.029**	**0.036 J**	**0.112**						**0.007 J**
Cadmium	SW6010B-Leachate SPLP	mg/l								0.002 U	0.002 U	0.002 U						0.002 U
Calcium	SW6010B-Leachate SPLP	mg/l								**3.84**	**3.76**	**1.7**						**0.73**
Chromium	SW6010B-Leachate SPLP	mg/l								0.005 U	0.005 U	**0.008**						0.005 U
Copper	SW6010B-Leachate SPLP	mg/l								0.002 U	0.002 U	**0.011**						**0.005**
Iron	SW6010B-Leachate SPLP	mg/l								**0.05**	**0.1 J**	**4.33**						**0.48 J**
Magnesium	SW6010B-Leachate SPLP	mg/l								**4.94**	**4.91**	**0.98**						**0.9**
Manganese	SW6010B-Leachate SPLP	mg/l								0.001 U	**0.002 J**	**0.039**						**0.012 J**
Nickel	SW6010B-Leachate SPLP	mg/l								**0.0003 J**	**0.0004 J**	**0.0076**						**0.0009 J**
Potassium	SW6010B-Leachate SPLP	mg/l								0.5 U	0.5 U	**1.1**						0.5 U
Sodium	SW6010B-Leachate SPLP	mg/l								**5.9**	**8.3 J**	**8**						0.5 U
Vanadium	SW6010B-Leachate SPLP	mg/l								0.003 U	0.003 U	**0.012**						0.003 U
Zinc	SW6010B-Leachate SPLP	mg/l								0.01 U	0.01 U	**0.02**						0.01 U
Mercury	SW7470A-Leachate SPLP	mg/l								**0.0002**	**0.0004 J**	**0.174**						**0.0009 J**
Toxicity Characteristic Leaching Procedure RCRA Metals																		
Arsenic	SW6010B-Leachate TCLP	mg/l	5.0[2]							0.2 U	0.2 U	**2.8**						
Barium	SW6010B-Leachate TCLP	mg/l	100.0[2]							**1.15**	**1.24**	**0.29**						
Mercury	SW7470A-Leachate TCLP	mg/l	0.2[2]							**0.0003 J**	**0.0002**	**0.0076**						

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter

**Only detected compounds listed in this table

*ADEC (2008) Chronic Standard

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Main Processing Area										
Source Area / Other Area							No Description										
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10MP16SS 9/18/2010 11:10:00 AM	10MP89SS (Duplicate of 10MP16SS) 9/18/2010 12:00:00 PM	10MP17SS 9/20/2010 10:15:00 AM	10MP82SS (Duplicate of 10MP17SS) 9/20/2010 10:30:00 AM	10MP27SS 9/18/2010 3:30:00 PM	10MP26SS 9/18/2010 3:56:00 PM	10MP28SS 9/18/2010 2:05:00 PM	10MP29SS 9/20/2010 11:05:00 AM	10MP30SS 9/18/2010 3:00:00 PM	10MP67SS 9/18/2010 1:25:00 PM	10OP01SS 9/18/2010 11:35:00 AM
Semi-Volatile Organic Compunds																	
1-Methylnaphthalene	SW8270D	µg/kg	280000	6200													
2-Methylnaphthalene	SW8270D	µg/kg	280000	6100													
bis(2-Ethylhexyl)phthalate	SW8270D	µg/kg	NA	NA													
Chrysene	SW8270D	µg/kg	490000	360000													
Dibenzofuran	SW8270D	µg/kg	NA	NA													
Fluorene	SW8270D	µg/kg	2300000	220000													
Naphthalene	SW8270D	µg/kg	28000	20000													
Phenanthrene	SW8270D	µg/kg	20600000	3000000													
Phenol	SW8270D	µg/kg	23200	68													
Pyrene	SW8270D	µg/kg	NA	NA													
Sulfur	SW8270D	µg/kg	NA	NA													
Unknown Aromatic	SW8270D	µg/kg	NA	NA													
Unknown Freon	SW8270D	µg/kg	NA	NA													
Unknown Hydrocarbon	SW8270D	µg/kg	NA	NA													
Unknown Organic Acid	SW8270D	µg/kg	NA	NA													
Unknown Sterol	SW8270D	µg/kg	NA	NA													
Synthetic Presipitation Leaching Procedure Target Ana;lyte List Metals																	
Aluminum	SW6010B-Leachate SPLP	mg/l					**0.13**		**0.18**	**2.75 J**	**0.09**	**0.13**		**0.1**			**0.2**
Antimony	SW6010B-Leachate SPLP	mg/l					**2.79**		**7.74**	**7.95**	**10.7**	**11.2**		**31.3**			**1.95**
Arsenic	SW6010B-Leachate SPLP	mg/l					**3.87**		**4.9**	**5.35 J**	**3.66**	**4.89**		**6**			**4.43**
Barium	SW6010B-Leachate SPLP	mg/l					**0.007**		**0.013**	**0.138 J**	**0.009 J**	**0.007 J**		0.006 U			**0.032**
Cadmium	SW6010B-Leachate SPLP	mg/l					0.002 U		0.002 U	0.002 U	0.002 U	0.002 U		0.004 U			0.002 U
Calcium	SW6010B-Leachate SPLP	mg/l					**1.63**		**2.03**	**2.36**	**2.41**	**1.46**		**1.4**			**1.78**
Chromium	SW6010B-Leachate SPLP	mg/l					0.005 U		0.005 U	**0.008**	0.005 U	0.005 U		0.01 U			0.005 U
Copper	SW6010B-Leachate SPLP	mg/l					0.002 U		0.002 U	**0.01**	0.002 U	0.002 U		0.004 U			0.002 U
Iron	SW6010B-Leachate SPLP	mg/l					**0.11**		**0.13**	**2.04 J**	**0.07**	**0.06**		0.1 U			**0.09**
Magnesium	SW6010B-Leachate SPLP	mg/l					**1.97**		**2.22**	**2.07**	**1.81**	**2.4**		**5.3**			**1.21**
Manganese	SW6010B-Leachate SPLP	mg/l					**0.003**		**0.005**	**0.038 J**	**0.011**	**0.003**		**0.004**			**0.007**
Nickel	SW6010B-Leachate SPLP	mg/l					**0.0047**		**0.0033**	**0.27 J**	**0.0015 J**	**0.012 J**		**0.007 J**			**0.0048 J**
Potassium	SW6010B-Leachate SPLP	mg/l					**0.8**		**1.2**	**0.9**	**1.3**	**1.2**		**2**			**0.7**
Sodium	SW6010B-Leachate SPLP	mg/l					0.5 U		**0.6**	**10.3 J**	**0.5**	0.5 U		1 U			0.5 U
Vanadium	SW6010B-Leachate SPLP	mg/l					**0.004**		**0.007**	**0.015**	**0.004**	**0.009**		**0.008**			**0.013**
Zinc	SW6010B-Leachate SPLP	mg/l					0.01 U		0.01 U	**0.02**	0.01 U	0.01 U		0.02 U			0.01 U
Mercury	SW7470A-Leachate SPLP	mg/l					**0.0057**		**0.0147**	**0.27 J**	**0.0015 J**	**0.012 J**		**0.007 J**			**0.0048 J**
Toxicity Characteristic Leaching Procedure RCRA Metals																	
Arsenic	SW6010B-Leachate TCLP	mg/l	5.0[2]				**3.2**		**11**	**10.7**	**7.3**	**9**		**13.8**			**29.1**
Barium	SW6010B-Leachate TCLP	mg/l	100.0[2]				**1.19**		**1.01**	**0.89**	**0.72**	**0.45**		**0.42**			**2.92**
Mercury	SW7470A-Leachate TCLP	mg/l	0.2[2]				**0.0047**		**0.0033**	**0.0055**	**0.0028**	**0.0055**		**0.0013**			**0.0003**

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter

**Only detected compounds listed in this table

*ADEC (2008) Chronic Standard

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Outside of Main Processing Area and Area of Surface Mining / Exploration														
Source Area / Other Area							Background Alluvial Deposits: Red Devil Creek Alluvial Deposits Upstream of Main Processing Area														
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10RD05SS 9/17/2010 5:15:00 PM	10RD06SS 9/17/2010 2:10:00 PM	10RD07SS 9/17/2010 2:50:00 PM	10RD20SS 9/17/2010 2:30:00 PM	10RD10SS 9/17/2010 4:25:00 PM	10RD11SS 9/17/2010 3:47:00 PM	10RD12SS 9/17/2010 2:48:00 PM	10RD13SS 9/17/2010 2:10:00 PM	10RD14SS 9/15/2010 5:05:00 PM	10RD31SS (Duplicate of 10RD14SS) 9/15/2010 5:35:00 PM	10RD15SS 9/15/2010 4:20:00 PM	10RD16SS 9/15/2010 5:30:00 PM	10RD17SS 9/15/2010 5:55:00 PM	10RD18SS 9/15/2010 6:50:00 PM	10RD19SS 9/15/2010 6:25:00 PM
Semi-Volatile Organic Compunds																					
1-Methylnaphthalene	SW8270D	µg/kg	280000	6200																	
2-Methylnaphthalene	SW8270D	µg/kg	280000	6100																	
bis(2-Ethylhexyl)phthalate	SW8270D	µg/kg	NA	NA																	
Chrysene	SW8270D	µg/kg	490000	360000																	
Dibenzofuran	SW8270D	µg/kg	NA	NA																	
Fluorene	SW8270D	µg/kg	2300000	220000																	
Naphthalene	SW8270D	µg/kg	28000	20000																	
Phenanthrene	SW8270D	µg/kg	20600000	3000000																	
Phenol	SW8270D	µg/kg	23200	68																	
Pyrene	SW8270D	µg/kg	NA	NA																	
Sulfur	SW8270D	µg/kg	NA	NA																	
Unknown Aromatic	SW8270D	µg/kg	NA	NA																	
Unknown Freon	SW8270D	µg/kg	NA	NA																	
Unknown Hydrocarbon	SW8270D	µg/kg	NA	NA																	
Unknown Organic Acid	SW8270D	µg/kg	NA	NA																	
Unknown Sterol	SW8270D	µg/kg	NA	NA																	
Synthetic Presipitation Leaching Procedure Target Ana;lyte List Metals																					
Aluminum	SW6010B-Leachate SPLP	mg/l						**1.93**				**2.08 J**	**0.06**							**0.13**	**0.16**
Antimony	SW6010B-Leachate SPLP	mg/l						**1.29**				0.05 U	0.05 U							0.05 U	0.05 U
Arsenic	SW6010B-Leachate SPLP	mg/l						**0.66**				0.05 UJ	0.05 U							0.05 U	0.05 U
Barium	SW6010B-Leachate SPLP	mg/l						**0.071**				**0.074 J**	0.003 U							**0.004**	**0.004**
Cadmium	SW6010B-Leachate SPLP	mg/l						0.002 U				0.002 U	0.002 U							0.002 U	0.002 U
Calcium	SW6010B-Leachate SPLP	mg/l						**1.01**				**2.17**	**1.28**							**1.4**	**0.57**
Chromium	SW6010B-Leachate SPLP	mg/l						0.005 U				0.005 U	0.005 U							0.005 U	**0.076**
Copper	SW6010B-Leachate SPLP	mg/l						**0.008**				**0.002**	0.002 U							0.002 U	**0.004**
Iron	SW6010B-Leachate SPLP	mg/l						**1.78**				**1.47 J**	0.05 U							**0.34**	**0.49**
Magnesium	SW6010B-Leachate SPLP	mg/l						**0.61**				**0.91**	**0.61**							**0.51**	**0.16**
Manganese	SW6010B-Leachate SPLP	mg/l						**0.025**				**0.022 J**	**0.003**							**0.004**	**0.022**
Nickel	SW6010B-Leachate SPLP	mg/l						**0.04**				**0.0007 J**	0.0001 U							0.0001 U	0.0001 U
Potassium	SW6010B-Leachate SPLP	mg/l						**0.5**				0.5 U	0.5 U							0.5 U	0.5 U
Sodium	SW6010B-Leachate SPLP	mg/l						**8.2**				**8.7 J**	0.5 U							**0.7**	**0.5**
Vanadium	SW6010B-Leachate SPLP	mg/l						**0.006**				**0.005**	0.003 U							0.003 U	**0.003**
Zinc	SW6010B-Leachate SPLP	mg/l						0.01 U				0.01 U	0.01 U							0.01 U	**0.06**
Mercury	SW7470A-Leachate SPLP	mg/l						**0.04**				**0.0007 J**	0.0001 U							0.0001 U	0.0001 U
Toxicity Characteristic Leaching Procedure RCRA Metals																					
Arsenic	SW6010B-Leachate TCLP	mg/l	5.0[2]																		
Barium	SW6010B-Leachate TCLP	mg/l	100.0[2]																		
Mercury	SW7470A-Leachate TCLP	mg/l	0.2[2]																		

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter

**Only detected compounds listed in this table

*ADEC (2008) Chronic Standard

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Outside of Main Processing Area and Area of Surface Mining / Exploration																	
Source Area / Other Area							Background Upland Soils: Upland Area Apparently Upgradient of Mine Impacts											Dam / Upgradient from Main Processing Area			Red Devil Creek Alluvial Deposits and/or Soil Downstream of Main Processing Area			
Analyte	**Method**	**Units**	**ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation**	**ADEC Cleanup Level (2009) Table B1 Migration to Groundwater**	**ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation**	**ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater**	10UP01SS 9/17/2010 5:10:00 PM	10UP02SS 9/23/2010 2:50:00 PM	10UP03SS 9/23/2010 3:55:00 PM	10UP04SS 9/23/2010 4:40:00 PM	10UP05SS 9/23/2010 5:20:00 PM	10UP06SS 9/23/2010 6:10:00 PM	10UP07SS 9/23/2010 6:55:00 PM	10UP08SS 9/23/2010 7:45:00 PM	10UP09SS 9/24/2010 7:20:00 PM	10UP30SS (Duplicate of 10UP09SS) 9/24/2010 7:45:00 PM	10UP10SS 9/24/2010 7:50:00 PM	10RD08SS 9/15/2010 3:15:00 PM	10RD09SS 9/15/2010 2:15:00 PM	10RD30SS (Duplicate of 10RD08SS) 9/15/2010 3:40:00 PM	10RD01SS 9/16/2010 4:33:00 PM	10RD02SS 9/16/2010 5:15:00 PM	10RD03SS 9/16/2010 5:41:00 PM	10RD04SS 9/16/2010 6:00:00 PM
Semi-Volatile Organic Compunds																								
1-Methylnaphthalene	SW8270D	µg/kg	280000	6200																				
2-Methylnaphthalene	SW8270D	µg/kg	280000	6100																				
bis(2-Ethylhexyl)phthalate	SW8270D	µg/kg	NA	NA																				
Chrysene	SW8270D	µg/kg	490000	360000																				
Dibenzofuran	SW8270D	µg/kg	NA	NA																				
Fluorene	SW8270D	µg/kg	2300000	220000																				
Naphthalene	SW8270D	µg/kg	28000	20000																				
Phenanthrene	SW8270D	µg/kg	20600000	3000000																				
Phenol	SW8270D	µg/kg	23200	68																				
Pyrene	SW8270D	µg/kg	NA	NA																				
Sulfur	SW8270D	µg/kg	NA	NA																				
Unknown Aromatic	SW8270D	µg/kg	NA	NA																				
Unknown Freon	SW8270D	µg/kg	NA	NA																				
Unknown Hydrocarbon	SW8270D	µg/kg	NA	NA																				
Unknown Organic Acid	SW8270D	µg/kg	NA	NA																				
Unknown Sterol	SW8270D	µg/kg	NA	NA																				
Synthetic Presipitation Leaching Procedure Target Ana;lyte List Metals																								
Aluminum	SW6010B-Leachate SPLP	mg/l													**0.24**		**0.25**		**1.19 J**					**1.86**
Antimony	SW6010B-Leachate SPLP	mg/l													0.05 U		0.05 U		0.05 U					**0.62**
Arsenic	SW6010B-Leachate SPLP	mg/l													0.05 U		0.05 U		**0.05 J**					**0.54**
Barium	SW6010B-Leachate SPLP	mg/l													**0.007**		**0.013**		**0.056 J**					**0.068**
Cadmium	SW6010B-Leachate SPLP	mg/l													0.002 U		0.002 U		0.002 U					0.002 U
Calcium	SW6010B-Leachate SPLP	mg/l													**0.21**		**0.25**		**1.49**					**1.26**
Chromium	SW6010B-Leachate SPLP	mg/l													0.005 U		0.005 U		0.005 U					**0.005**
Copper	SW6010B-Leachate SPLP	mg/l													0.002 U		0.002 U		**0.003**					**0.007**
Iron	SW6010B-Leachate SPLP	mg/l													**0.18**		**0.2**		**2.64 J**					**2.01**
Magnesium	SW6010B-Leachate SPLP	mg/l													**0.15**		**0.11**		**0.75**					**0.61**
Manganese	SW6010B-Leachate SPLP	mg/l													**0.015**		**0.012**		**0.046 J**					**0.041**
Nickel	SW6010B-Leachate SPLP	mg/l													0.0001 U		0.0001 U		0.0001 UJ					**0.037**
Potassium	SW6010B-Leachate SPLP	mg/l													0.5 U		0.5 U		0.5 U					**0.6**
Sodium	SW6010B-Leachate SPLP	mg/l													0.5 U		0.5 U		0.5 UJ					**6.5**
Vanadium	SW6010B-Leachate SPLP	mg/l													0.003 U		0.003 U		**0.004**					**0.006**
Zinc	SW6010B-Leachate SPLP	mg/l													0.01 U		0.01 U		0.01 U					0.01 U
Mercury	SW7470A-Leachate SPLP	mg/l													0.0001 U		0.0001 U		0.0001 UJ					**0.037**
Toxicity Characteristic Leaching Procedure RCRA Metals																								
Arsenic	SW6010B-Leachate TCLP	mg/l	5.0[2]																					
Barium	SW6010B-Leachate TCLP	mg/l	100.0[2]																					
Mercury	SW7470A-Leachate TCLP	mg/l	0.2[2]																					

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter

**Only detected compounds listed in this table

*ADEC (2008) Chronic Standard

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Surface Mined Area									
Source Area / Other Area							Central Surface Mined Area				Sluiced Areas					
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10SM20SS 9/19/2010 4:26:00 PM	10SM21SS 9/19/2010 3:48:00 PM	10SM22SS 9/19/2010 2:12:00 PM	10SM23SS 9/19/2010 1:34:00 PM	10DS01SS 9/19/2010 5:40:00 PM	10DS02SS 9/19/2010 5:50:00 PM	10DS03SS 9/16/2010 2:45:00 PM	10RS01SS 9/19/2010 3:00:00 PM	10RS02SS 9/19/2010 3:30:00 PM	10RS03SS 9/16/2010 3:54:00 PM
Semi-Volatile Organic Compunds																
1-Methylnaphthalene	SW8270D	µg/kg	280000	6200												
2-Methylnaphthalene	SW8270D	µg/kg	280000	6100												
bis(2-Ethylhexyl)phthalate	SW8270D	µg/kg	NA	NA												
Chrysene	SW8270D	µg/kg	490000	360000												
Dibenzofuran	SW8270D	µg/kg	NA	NA												
Fluorene	SW8270D	µg/kg	2300000	220000												
Naphthalene	SW8270D	µg/kg	28000	20000												
Phenanthrene	SW8270D	µg/kg	20600000	3000000												
Phenol	SW8270D	µg/kg	23200	68												
Pyrene	SW8270D	µg/kg	NA	NA												
Sulfur	SW8270D	µg/kg	NA	NA												
Unknown Aromatic	SW8270D	µg/kg	NA	NA												
Unknown Freon	SW8270D	µg/kg	NA	NA												
Unknown Hydrocarbon	SW8270D	µg/kg	NA	NA												
Unknown Organic Acid	SW8270D	µg/kg	NA	NA												
Unknown Sterol	SW8270D	µg/kg	NA	NA												
Synthetic Presipitation Leaching Procedure Target Ana;lyte List Metals																
Aluminum	SW6010B-Leachate SPLP	mg/l						**0.26**		**0.66**	**0.25**			**0.06**		
Antimony	SW6010B-Leachate SPLP	mg/l						0.05 U		**1.43**	**0.06**			0.05 U		
Arsenic	SW6010B-Leachate SPLP	mg/l						0.05 U		**0.09**	0.05 U			0.05 U		
Barium	SW6010B-Leachate SPLP	mg/l						**0.005**		**0.016**	**0.008**			**0.012**		
Cadmium	SW6010B-Leachate SPLP	mg/l						0.002 U		0.002 U	0.002 U			0.002 U		
Calcium	SW6010B-Leachate SPLP	mg/l						**0.19**		**0.44**	**0.37**			**7.02**		
Chromium	SW6010B-Leachate SPLP	mg/l						0.005 U		0.005 U	0.005 U			0.005 U		
Copper	SW6010B-Leachate SPLP	mg/l						0.002 U		**0.005**	**0.004**			**0.002**		
Iron	SW6010B-Leachate SPLP	mg/l						**0.2**		**0.57**	**0.47**			**0.2**		
Magnesium	SW6010B-Leachate SPLP	mg/l						**0.07**		**0.33**	**0.14**			**0.86**		
Manganese	SW6010B-Leachate SPLP	mg/l						**0.004**		**0.018**	**0.021**			**0.005**		
Nickel	SW6010B-Leachate SPLP	mg/l						0.0001 U		**0.001 J**	**0.0016 J**			0.0001 U		
Potassium	SW6010B-Leachate SPLP	mg/l						0.5 U		0.5 U	**1**			0.5 U		
Sodium	SW6010B-Leachate SPLP	mg/l						**0.6**		**0.6**	**0.6**			0.5 U		
Vanadium	SW6010B-Leachate SPLP	mg/l						0.003 U		0.003 U	0.003 U			0.003 U		
Zinc	SW6010B-Leachate SPLP	mg/l						0.01 U		0.01 U	0.01 U			0.01 U		
Mercury	SW7470A-Leachate SPLP	mg/l						0.0001 U		**0.001 J**	**0.0016 J**			0.0001 U		
Toxicity Characteristic Leaching Procedure RCRA Metals																
Arsenic	SW6010B-Leachate TCLP	mg/l	5.0[2]													
Barium	SW6010B-Leachate TCLP	mg/l	100.0[2]													
Mercury	SW7470A-Leachate TCLP	mg/l	0.2[2]													

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter

**Only detected compounds listed in this table

*ADEC (2008) Chronic Standard

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area							Surface Mined Area																	
Source Area / Other Area							Southern Surface-Mined Area																	
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10SM13SS 9/24/2010 10:40:00 AM	10SM14SS 9/24/2010 11:40:00 AM	10SM15SS 9/23/2010 6:40:00 PM	10SM16SS 9/23/2010 7:25:00 PM	10SM17SS 9/24/2010 1:50:00 PM	10SM18SS 9/23/2010 4:30:00 PM	10SM19SS 9/23/2010 5:20:00 PM	10SM10SS 9/21/2010 2:39:00 PM	10SM11SS 9/21/2010 12:40:00 PM	10SM12SS 9/21/2010 11:07:00 AM	10SM40SS (Duplicate of 10SM12SS) 9/21/2010 11:30:00 AM	10SM04SS 9/24/2010 3:50:00 PM	10SM05SS 9/24/2010 3:10:00 PM	10SM06SS 9/24/2010 4:30:00 PM	10SM01SS 9/24/2010 4:00:00 PM	10SM02SS 9/24/2010 5:15:00 PM	10SM03SS 9/24/2010 5:45:00 PM	10SM41SS (Duplicate of 10SM03SS) 9/24/2010 6:00:00 PM
Semi-Volatile Organic Compunds																								
1-Methylnaphthalene	SW8270D	µg/kg	280000	6200																				
2-Methylnaphthalene	SW8270D	µg/kg	280000	6100																				
bis(2-Ethylhexyl)phthalate	SW8270D	µg/kg	NA	NA																				
Chrysene	SW8270D	µg/kg	490000	360000																				
Dibenzofuran	SW8270D	µg/kg	NA	NA																				
Fluorene	SW8270D	µg/kg	2300000	220000																				
Naphthalene	SW8270D	µg/kg	28000	20000																				
Phenanthrene	SW8270D	µg/kg	20600000	3000000																				
Phenol	SW8270D	µg/kg	23200	68																				
Pyrene	SW8270D	µg/kg	NA	NA																				
Sulfur	SW8270D	µg/kg	NA	NA																				
Unknown Aromatic	SW8270D	µg/kg	NA	NA																				
Unknown Freon	SW8270D	µg/kg	NA	NA																				
Unknown Hydrocarbon	SW8270D	µg/kg	NA	NA																				
Unknown Organic Acid	SW8270D	µg/kg	NA	NA																				
Unknown Sterol	SW8270D	µg/kg	NA	NA																				
Synthetic Presipitation Leaching Procedure Target Ana;lyte List Metals																								
Aluminum	SW6010B-Leachate SPLP	mg/l					**0.4**					**0.34**	**1.01**			**0.14**			**0.13**				**0.28**	
Antimony	SW6010B-Leachate SPLP	mg/l					**0.11**					0.05 U	0.05 U			0.05 U			0.05 U				0.05 U	
Arsenic	SW6010B-Leachate SPLP	mg/l					0.05 U					0.05 U	**0.07**			0.05 U			**0.56**				**0.17**	
Barium	SW6010B-Leachate SPLP	mg/l					**0.011**					**0.006**	**0.015**			**0.003**			**0.003**				**0.006**	
Cadmium	SW6010B-Leachate SPLP	mg/l					0.002 U					0.002 U	0.002 U			0.002 U			0.002 U				0.002 U	
Calcium	SW6010B-Leachate SPLP	mg/l					**0.59**					**0.31**	**0.44**			**0.42**			**0.3**				**0.42**	
Chromium	SW6010B-Leachate SPLP	mg/l					0.005 U					0.005 U	0.005 U			0.005 U			0.005 U				0.005 U	
Copper	SW6010B-Leachate SPLP	mg/l					**0.006**					0.002 U	**0.005**			**0.004**			0.002 U				**0.003**	
Iron	SW6010B-Leachate SPLP	mg/l					**0.69**					**0.25**	**1.5**			**0.16**			**0.29**				**0.52**	
Magnesium	SW6010B-Leachate SPLP	mg/l					**0.14**					**0.05**	**0.12**			**0.1**			**0.05**				**0.09**	
Manganese	SW6010B-Leachate SPLP	mg/l					**0.066**					**0.01**	**0.03**			**0.019**			**0.008**				**0.013**	
Nickel	SW6010B-Leachate SPLP	mg/l					**0.0013 J**					**0.0003 J**	**0.002 J**			0.0001 U			**0.0016**				**0.0013**	
Potassium	SW6010B-Leachate SPLP	mg/l					0.5 U					0.5 U	**0.5**			0.5 U			**0.7**				**0.8**	
Sodium	SW6010B-Leachate SPLP	mg/l					**0.8**					**0.6**	**0.8**			0.5 U			**0.5**				**0.6**	
Vanadium	SW6010B-Leachate SPLP	mg/l					0.003 U					0.003 U	**0.004**			0.003 U			0.003 U				0.003 U	
Zinc	SW6010B-Leachate SPLP	mg/l					0.01 U					0.01 U	**0.01**			0.01 U			0.01 U				0.01 U	
Mercury	SW7470A-Leachate SPLP	mg/l					**0.0013 J**					**0.0003 J**	**0.002 J**			0.0001 U			**0.0016**				**0.0013**	
Toxicity Characteristic Leaching Procedure RCRA Metals																								
Arsenic	SW6010B-Leachate TCLP	mg/l	5.0[2]																					
Barium	SW6010B-Leachate TCLP	mg/l	100.0[2]																					
Mercury	SW7470A-Leachate TCLP	mg/l	0.2[2]																					

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter

**Only detected compounds listed in this table

*ADEC (2008) Chronic Standard

Table 4-3 Surface Soil Laboratory Results**

General Geographic Area													
Source Area / Other Area							Trenches						
Analyte	Method	Units	ADEC Cleanup Level (2009) Method 2 Under 40-inch Zone Direct Contact /Outdoor Inhalation	ADEC Cleanup Level (2009) Table B1 Migration to Groundwater	ADEC Cleanup Level (2009) Table B2 Under 40-inch Ingestion/Inhalation	ADEC Cleanup Level (2009) Table B2 Under 40-inch Migration to Groundwater	10SM24SS 9/21/2010 12:05:00 PM	10SM25SS 9/21/2010 1:00:00 PM	10SM26SS 9/21/2010 1:45:00 PM	10SM27SS 9/23/2010 3:20:00 PM	10SM28SS 9/19/2010 4:35:00 PM	10SM29SS 9/19/2010 4:55:00 PM	10SM30SS 9/19/2010 5:30:00 PM
Semi-Volatile Organic Compunds													
1-Methylnaphthalene	SW8270D	µg/kg	280000	6200									
2-Methylnaphthalene	SW8270D	µg/kg	280000	6100									
bis(2-Ethylhexyl)phthalate	SW8270D	µg/kg	NA	NA									
Chrysene	SW8270D	µg/kg	490000	360000									
Dibenzofuran	SW8270D	µg/kg	NA	NA									
Fluorene	SW8270D	µg/kg	2300000	220000									
Naphthalene	SW8270D	µg/kg	28000	20000									
Phenanthrene	SW8270D	µg/kg	20600000	3000000									
Phenol	SW8270D	µg/kg	23200	68									
Pyrene	SW8270D	µg/kg	NA	NA									
Sulfur	SW8270D	µg/kg	NA	NA									
Unknown Aromatic	SW8270D	µg/kg	NA	NA									
Unknown Freon	SW8270D	µg/kg	NA	NA									
Unknown Hydrocarbon	SW8270D	µg/kg	NA	NA									
Unknown Organic Acid	SW8270D	µg/kg	NA	NA									
Unknown Sterol	SW8270D	µg/kg	NA	NA									
Synthetic Presipitation Leaching Procedure Target Ana;lyte List Metals													
Aluminum	SW6010B-Leachate SPLP	mg/l								**0.78**	**0.35**		
Antimony	SW6010B-Leachate SPLP	mg/l								0.05 U	**0.38**		
Arsenic	SW6010B-Leachate SPLP	mg/l								0.05 U	0.05 U		
Barium	SW6010B-Leachate SPLP	mg/l								**0.021**	**0.012**		
Cadmium	SW6010B-Leachate SPLP	mg/l								0.002 U	0.002 U		
Calcium	SW6010B-Leachate SPLP	mg/l								**0.6**	**0.41**		
Chromium	SW6010B-Leachate SPLP	mg/l								0.005 U	0.005 U		
Copper	SW6010B-Leachate SPLP	mg/l								**0.006**	**0.003**		
Iron	SW6010B-Leachate SPLP	mg/l								**0.98**	**0.58**		
Magnesium	SW6010B-Leachate SPLP	mg/l								**0.21**	**0.23**		
Manganese	SW6010B-Leachate SPLP	mg/l								**0.066**	**0.044**		
Nickel	SW6010B-Leachate SPLP	mg/l								**0.0002 J**	**0.0014 J**		
Potassium	SW6010B-Leachate SPLP	mg/l								**0.9**	0.5 U		
Sodium	SW6010B-Leachate SPLP	mg/l								**0.9**	0.5 U		
Vanadium	SW6010B-Leachate SPLP	mg/l								0.003 U	0.003 U		
Zinc	SW6010B-Leachate SPLP	mg/l								0.01 U	0.01 U		
Mercury	SW7470A-Leachate SPLP	mg/l								**0.0002 J**	**0.0014 J**		
Toxicity Characteristic Leaching Procedure RCRA Metals													
Arsenic	SW6010B-Leachate TCLP	mg/l	5.0[2]										
Barium	SW6010B-Leachate TCLP	mg/l	100.0[2]										
Mercury	SW7470A-Leachate TCLP	mg/l	0.2[2]										

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter

**Only detected compounds listed in this table

*ADEC (2008) Chronic Standard

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10MP03	9/18/2010	1025	Sand and gravel. Black, moist, well graded silt through gravel. Sand and gravel are subangular. Gravels are a combination of graywacke, argillites, and calcines, somewhat loose. Calcines: scattered throughout, red w large pore spaces. Minerals: graywacke with a white opaque mineral.	Yes	Yes	No
10MP80	9/18/2010	1055	Sand and gravel. Black, moist, well graded silt through gravel. Sand and gravel are subangular. Gravels are a combination of graywacke, argillites, and calcines, somewhat loose. Calcines: scattered throughout, red w large pore spaces. Minerals: graywacke with a white opaque mineral.	Yes	Yes	No
10MP04	9/18/2010	1110	Sand and gravel - gravel is fine up to 3/4 inch. Black, moist, well graded silt through gravel, sand and gravel are subangular, gravels are a combination of graywacke, argillites and calcines, somewhat loose. Calcines: scattered throughout area, red, some with large pores. Minerals: graywacke with white opaque minerals.	Yes	Yes	No
10MP05	9/18/2010	1130	Sand and gravel - gravel is fine up to 3/4 inch. Black, moist, well graded silt through gravel, sand and gravel are subangular, gravels are a combination of graywacke, argillites and calcines, somewhat loose. Calcines: scattered throughout area, red, some with large pores. Minerals: graywacke with white opaque minerals.	Yes	Yes	No
10MP06	9/17/2010	1420	Silt and gravel (50/50). Black to brown. Somewhat loose well graded silt through gravel up to 3/4", mainly calcines and graywacke (gray) present, graywacke's tend to have rust colored staining, no cinnabar or stibnite noted, but white opaque mineral vein deposits noted in sample graywackes, calcines vary in color from orange to red, blackish to light brown.	Yes	Yes	No
10MP07	9/17/2010	1230	Silt and gravel (50/50). Bare rock surface, black to brown, somewhat loose, some sand, well graded silt through gravel up to 3/4". Argillites (black), graywacke (weathered rust color on outside), calcines red and black (very prevalent) with pores --> easy to crumble. Calcines - red and black + orange gravel size mixed throughout. Minerals: some white mineral veins noted in graywacke and black shale argillites.	Yes	Yes	No
10MP08	9/17/2010	1200	Silt and gravel. Brown to black, moist, somewhat loose, some medium sand, some gravel, angular to subangular, little rounded pieces. Argillites - calcines - graywackes present, stibnite/cinnabar vein in one piece of graywacke. Calcines: scattered throughout, red porous, soft. Minerals: stibnite/cinnabar in one piece of graywacke.	Yes	Yes	Yes
10MP09	9/18/2010	1300	Silt and gravel (50/50). Overall brown to black, moist, argillites, graywacke, and red calcines present, angular to subangular, little foreign granitic river rock scattered at surface, rand I size up to 4", well graded, some graywackes with brown weathering on outside. argillites are black shale. Stibnite and cinnabar bearing graywacke in vicinity. Some brown sandstone in area, white opaque mineral veins present.	Yes	Yes	No
10MP11(1)	9/16/2010	1747	Dark brown, moist, gravelly silt/salty gravel with sand. ~35% gravel, up to 2". ~35% silt. ~20% coarse sand. ~10 fine sand. Gravel is angular to sub rounded and comprised on sandstone, siltstone and one piece of dike material, one piece of slag. No burnt ore found in sample but some found near sample. No mineralized vein material.	No	No	No
10MP11(2)	9/19/2010	1240	Silt and gravel (50/50). Brown, somewhat dry, well graded, some sand, gravel up to 1.5", mostly graywacke (gray; not weathered on outside), little argillites (black shale) and calcines (brick red, porous) that are under 1/2 inch, gravel is subangular, several rounded nonnative river rock in area, no minerals of note.	Yes	No	Yes

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10MP88SS	9/19/2010	1300	Silt and gravel (50/50). Brown, somewhat dry, well graded, some sand, gravel up to 1.5", mostly graywacke (gray; not weathered on outside), little argillites (black shale) and calcines (brick red, porous) that are under 1/2 inch, gravel is subangular, several rounded nonnative river rock in area, no minerals of note.	Yes	No	Yes
10MP12(1)	9/16/2010	1720	Dark brown moist gravelly sand with silt. ~35% med-coarse sand and pebbles. 30% gravel, angular to rounded up to 2". 30% silt. Trace fine sand. Gravel consists mostly of sandstone and siltsotne, one rounded river rock, granitoid and one piece of burnt ore. no mineralized veins observed in sample.	No	No	Yes
10MP12(2)	9/18/2010	1023	Dark gray/brn, moist. Sandy gravel with silt. ~70% gravel from 1/4" to 3". ~20% med-coarse sand. ~10% silt. Gravel consists of angular to subrounded mostly sandstone & siltstone. Some of the sandstone was a rusty orange color. Some of the siltstone had white veins. Several pieces of red/orange cooked ore observed in sample, also a yellow mineral (possibly or pigment) observed in sample. One 1" rock appeared to be all mineral/ vein material.	Yes	Yes	No
10MP13(1)	9/16/2010	1658	Dark brown gravelly sand with some silt. 35% gravel. 30% sand. 20% pebbles. 15% silt. Gravel is angular to rounded. No burnt ore observed in sample. No mineralization observed in sable.	No	No	Yes
10MP13(2)	9/18/2010	0956	Dark brown/gray, moist. Sandy gravel w/ silt. ~70% gravel up to 4.5". ~20% med-coarse sand, ~10% silt. Gravel is subangular to subrounded. Consist manly of sandstone and siltstone. Some of the siltstone had white and orangish veins. Several high mineralized chunks of gravel observed, 2 of them which may have contained cinnabar. One piece of gravel appeared red/orange and was likely baked ore.	No	Yes	No
10MP14 (1640)	9/16/2010	1640	Dark brown/reddish brown gravelly sand/sandy gravel with silt. ~40 gravel up to 1.5". 40% fine to coarse sand. 20% silt. Gravel is subangular to sub rounded. Contains sandstone siltstone and a fair amount of cooked ore, particularly towards the bottom of the hole. no mineralized veins found in sample.	No	No	No
10MP14 (1753)	9/17/2010	1753	Sample recollected in road. Dark gray to med-brn sandy gravel with silt. ~60% gravel up to 5". ~30% silt and 10% med sand. Gravel is angular to rounded and is comprised mostly of sandstone and siltstone. 4 Small round river rocks were observed in sample. 1 piece of reddish orange sandstone with small ___ was observed in sample. It was likely burnt ore. Several pieces of silt stone had white veins. No mineralized (cinnabar) was observed in sample.	No	No	No
10MP15(1)	9/16/2010	1540	Medium brown moist gravelly silt, trace sand. 40% gravel, angular to subangular. 15% pebbles. 30% silt. 15% med-fine sand. Gravel is mainly sandstone and some siltstone. No burn ore or mineralized veins observed in sample.	No	Yes	No
10MP15(2)	9/17/2010	1820	Silt and Gravel. Brown and black, moist, very tight, mostly gravel, fine through 1", Mostly graywacke some reddish weathering to graywacke, well graded, mainly granular, little clay.	No	No	No
10MP18	9/16/2010	1445	Medium/dark brown, moist gravelly silt. 30% gravel, angular to subrounded. 20% pebbles. 40% silt. 10% med-fine sand. Gravel is composed on mainly sandstone and some siltstone. Some fragments of sandstone were rusty orange colored. No burnt ore or mineralized veins observed in sample.	No	No	No

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10MP10	9/21/2010	1835	Clayey silt + gravel (15/45/40). Brown, moist, well graded clay through gravel, gravel at surface is graywacke and argillites, subsurface has discolored (orange, red, black) graywacke - possibly burnt ore (contains cinnabar)- some rounded river rock in general area.	No	No	Yes
10MP19	9/23/2010	1815	Silt + gravel (40/60). Brown, moist, fine to organic layer, well graded silt through 1.5" gravel. Most gravel composed of gray, non-weathered subangular graywacke, very little argillite. No mineralization. Tightly compacted.	No	No	No
10MP01	9/18/2010	1553	Sandy gravel (25/75). Mostly black with some rusty weathering browns and deep reds, well graded silts through fine cobble, larger grains mostly graywacke, smaller grains (less than 1/2") largely argillites (black shale). Most graywackes weathered to rusty colors outside, some white opaque mineralization in graywacke. No noted cinnabar, stibnite, or realgar, calcines are absent.	No	Yes	No
10MP01(2)	9/24/2010	1845	Med -dark brown gravelly silt with sand. ~70% silt, 20% gravel and 10% fine sand. Gravel consists primarily of Kusko sandstone, one piece of siltstone, black. Sandstone was grey to brown, some was brownish grey. No rinds observed. No cinnabar, stibnite, realgar, free Hg, odor, sheen or evidence of cooked ore observed.	No	No	No
10MP02	9/18/2010	1520	Sandy gravel (50/50). Well graded. Gray-red-black mottled, crushed rock silt size through cobble, argillites and graywacke present, graywackes have high percentage of mineralization, minerals are mostly realgar and cinnabar, present. No stibnite noted. No calcines noted. Some white dike material in area, angular.	No	Yes	No
10MP81	9/18/2010	1605	Sandy gravel (50/50). Well graded. Gray-red-black mottled, crushed rock silt size through cobble, argillites and graywacke present, graywackes have high percentage of mineralization, minerals are mostly realgar and cinnabar, present. No stibnite noted. No calcines noted. Some white dike material in area, angular.	No	Yes	No
10MP16	9/18/2010	1110	Med to dark reddish brown moist gravelly sand with silt. ~25% gravel up to 1.5", ~10% silt, ~40% med to fine sand, 15% coarse sand, 10% pebbles. Gravel consists mostly of 'burnt' ore. Some of the material had a red/orange rind. Some was reddish orange vein-like material. Some was black siltstone, some was crystallized and possibly dike material, nothing in the sample appeared to be unprocessed ore. Reddish sandy lens observed in sample ~1/4" thick approx 3" down from ground surface.	Yes	No	No
10MP89SS	9/18/2010	1200	Med to dark reddish brown moist gravelly sand with silt. ~25% gravel up to 1.5", ~10% silt, ~40% med to fine sand, 15% coarse sand, 10% pebbles. Gravel consists mostly of 'burnt' ore. Some of the material had a red/orange rind. Some was reddish orange vein-like material. Some was black siltstone, some was crystallized and possibly dike material, nothing in the sample appeared to be unprocessed ore. Reddish sandy lens observed in sample ~1/4" thick approx 3" down from ground surface.	Yes	No	No

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10MP17	9/20/2010	1015	Silt and gravel (50/50). Brown-black-red, moist, somewhat compacted, well graded silt through gravel, up to 1.5", graywacke - argillites - and calcines, high density of red calcines which were collected into sample in sand size fragments (~2% of sample), some fine gravel pieces of stibnite noted, some granite (large portion of white mineral) in sample area, some graywacke weathered to rust color on outside, some brown sandstone type gravel, argillites are similar to back slate, several rusty nails found in borehole, subangular.	Yes	No	No
10MP82	9/20/2010	1030	Silt and gravel (50/50). Brown-black-red, moist, somewhat compacted, well graded silt through gravel, up to 1.5", graywacke - argillites - and calcines, high density of red calcines which were collected into sample in sand size fragments (~2% of sample), some fine gravel pieces of stibnite noted, some granite (large portion of white mineral) in sample area, some graywacke weathered to rust color on outside, some brown sandstone type gravel, argillites are similar to back slate, several rusty nails found in borehole, subangular.	Yes	No	No
10MP27	9/18/2010	1530	Dark brown, moist sandy gravel with silt. ~15% silt, ~30% med-coarse sand and 55% gravel, angular to sub round and 1/4" to 1.5". Gravel consists of sandstone siltstone and crystalline vein material. The sandstone was typically grey, but sometimes it had a rusty orange rind. The siltstone was dark grey to black. Some has white or yellow veins. The crystalline vein material appeared red, orange, and black and appeared to be cooked ore. No odor, no sheen and no identifiable stibnite cinnabar or realgar/orpiment observed in sample.	No	No	No
10MP26	9/18/2010	1556	Medium to dark reddish brown gravelly sand with silt. ~10% silt, 40% gravel, and 50% fine to very coarse sand. Gravel is subangular to sub rounded and is between 1/4 1.5 inches. It consists mainly of material which appears baked. Most of the sandstone has a red/orange rind with a grey center. Some is gray all the way through. Most of the siltstone has a light grey rind within dark grey to black center. Some has white or yellowish veins. Some of the gravel appears to be mineralized. Vein material is a dull rusty red/orange color. No odor, no sheen, no apparent cinnabar, stibnite, realgar/orpiment in sample.	No	Yes	No
10MP28	9/18/2010	1405	Medium gray/brown sandy gravel with silt. 10% silt. ~40% gravel, ~50% med-coarse sand. Gravel is angular to sub rounded and is from 1/4" to 1.5". Consists of sandstone, shale and mineralized vein material. Some sandstone is gray all the way through some is grey with an orange/red crust. Siltstone is dark grey to black, some has white/yellow vein material. Mineralized vein material appear burnt. it is reddish in color but shows no definite shinny crystals. no odor, no sheen, no uncooked ore.	No	Yes	No
10MP29	9/20/2010	1105	Silt and gravel (50/50). Brown-black-red-gray-white, dry, somewhat loose, silt through gravel - well graded. Up to 1", varied composition. Graywacke (no weathering on outside), Argillites (black generally smaller gravel size), some granitic type gravel (whitish minerals), red/black calcines (fine gravel through 1/2" size), white minerals noted associated with granite mineral and intrusion into graywacke and argillites (calcite?). some white mineral intrusion weathered brown.	Yes	Yes	No

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10MP30	9/18/2010	1500	Medium to Dark gray brown. Moist. Gravelly silt with sand. ~30% gravel + cobbles from 1/4" to 4". ~50% silt and 20% medium to coarse sand. Gravel consists of sandstone, siltstone. Dike material and mineralized vein material. Most sanstone is grey, some pieces had a orangish rind. Most silt was dark grey to black, some had white veins. Mineralized vien material appears dull orange/red and may have been baked. Dike material is dark grey and crystalline. No odor, no shee, no gross contamination.	No	Yes	No
10MP67	9/18/2010	1325	Med brn/gry sandy gravel with silt. ~15% silt, ~30% med-coarse sand. ~55% gravel, angular to subrounded 1/4" t0 1.5". Gravel consist of sandstone, siltstone, one baked ore: sandstone occurs as grey throughout or gray w/ and orange/red rind. Siltstone occurs as black though or with a gray rind. Some exhibit whit mineralized veins. One sold piece o stibnite (~1") was found and one piece of reddish orange vein material was found.	No	Yes	No
10MP23	9/18/2010	1753		No	No	No
10MP24	9/18/2010	1700	medium to dark grey/brn with silt. ~10% silt, ~40% gravel, 50% sand (med-very coarse). Gravel is angular to subrounded and between 1/4 to 2.5". It consists of sandstone, siltstone. Most of the siltstone has white or yellow veins, some pieces were very mineralized. Sandstone is gray with some rust orange veins/rinds. One piece of rock did have a red mineral, likely cinnabar and a orange mineral possibly realgar or orpiment. No odor, no sheen, no stibnite observed in sample. Woody debris, nail & insulation found in hole.	No	Yes	No
10MP83	9/18/2010	1745	medium to dark grey/brn with silt. ~10% silt, ~40% gravel, 50% sand (med-very coarse). Gravel is angular to subrounded and between 1/4 to 2.5". It consists of sandstone, siltstone. Most of the siltstone has white or yellow veins, some pieces were very mineralized. Sandstone is gray with some rust orange veins/rinds. One piece of rock did have a red mineral, likely cinnabar and a orange mineral possibly realgar or orpiment. No odor, no sheen, no stibnite observed in sample. Woody debris, nail & insulation found in hole.	No	Yes	No
10MP25	9/18/2010	1636	Medium to dark grey/brn gravelly sand with silt. This sample is identical to 10MP26SS except that the silt stone did not have a light grey rind. Also a nail was found in the sample.	No	No	No
10MP22	9/16/2010	1805	Dark brown, moist, silty gravel. ~60% gravel up to 3". ~30% silt. ~10% sand coarse. Gravel is angular to subrounded. Mostly sandstone and siltstone. One piece of burnt ore. One piece of silt stone with mineralized (white) vein.	No	Yes	No
10MP20	9/23/2010	1900	Silty gravel (20/80), poorly graded silt and gravel, likely near top of bedrock, argillite, angular to subangular, no calcines or minerals noted. Note: found old rectangular can, metallic, too rusted out to determine contents; also rotted wood in hole.	No	No	No

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10MP21	9/23/2010	1950	Silt + gravel (50/50). Moist, brown, tightly compacted. Graywacke - non-weathered, subangular, up to 1", well graded silt and gravel, no minerals present, no calcines present.	No	No	No
10MP87SS	9/23/2010	1920	Silt + gravel (50/50). Moist, brown, tightly compacted. Graywacke - non-weathered, subangular, up to 1", well graded silt and gravel, no minerals present, no calcines present.	No	No	No
10MP31	9/18/2010	1250	Medium brown, moist gravelly silt, trace sand. ~50% brown silt. ~15% med-coarse sand. ~35% subangular gravel from 1/2" to 5" gravel consists of gray/orange mottled sandstone. No crust was observed. No odor, no sheen, no gross contamination. No apparent burnt ore.	No	No	No
10MP32	9/20/2010	1230	Sand with silt (85/15). Brown, moist, 1" layer of silt on top of sand, silt is moist and cohesive, sand is loose, sand is poorly graded fine through medium. No gravel, mostly brown with black, orange, white, sand grains mixed throughout sand appears to have low density, grains are angular to subangular.	No	No	No
10MP33	9/17/2010	1020	Dark to medium brown gravelly silt, moist. ~20% angular to sub rounded gravel up to 4". ~70% silt. ~10% fine sand. Fine sand is concentrated in the top 3" of the hole as is the bark brown soil. The top of this hole may be infiltrated by flotation tailings but not a definitive layer. Gravel consists of sandstone. Several pieces were a rusty orange color.	No	No	No
10MP34	9/20/2010	1500	Sand with silt (85/15) Black and brown, moist, and is loose and barely cohesive, poorly graded fine to medium sand, no gravel, mostly brown with black, orange, white sand grains throughout, sand has a low density, grains are subangular to angular.	No	No	No
10MP35	9/17/2010	1230	Med to dark brown/grey. Moist gravelly sand with silt. ~20% silt, ~30% gravel upt to 2" sub angular to sub round. ~35% fine to med sand and 10% coarse to pebbles. Gravel consists of sandstone (some is rusty orange color). Some pieces of gravel apper reddish with weathered veins. Silt stone was also present. It is like that bunt ore is present. Also some of the silt stone had white vein material. no cinnabar observed in sample.	No	No	No
10MP36	9/20/2010	1550	Sand with silt (85/15) Black and brown, moist, and is loose and barely cohesive, poorly graded fine to medium sand, no gravel, mostly brown with black, orange, white sand grains throughout, sand has a low density, grains are subangular to angular.	No	No	No
10MP84SS	9/20/2010	1615	Sand with silt (85/15) Black and brown, moist, and is loose and barely cohesive, poorly graded fine to medium sand, no gravel, mostly brown with black, orange, white sand grains throughout, sand has a low density, grains are subangular to angular.	No	No	No
10MP37	9/17/2010	1125	Med-dark brown, moist gravelly silt. ~30% gravel, angular to sub rounded up to 3". ~40% silt, ~20% pebbles and 10% sand. Gravel consists of sandstone, some of which was a rusty orange color; not believed to be cooked ore. No silt stone or mineralized veins observed in sample.	No	No	No
10MP68	9/19/2010	1430	Silty sand (40/60). Brown, upper 3" moist, mostly fine sand; not well graded, silty gravel (50/50) from 3"-6" up to 3/4" graywacke (not weathered) no argillites or calcines, subangular. No minerals noted.	No	No	No
10MP38	9/17/2010	1302	Dark brown gray silty gravel with trace fine sand (moist). ~60% gravel, ~35% silt, ~5% fine sand. Gravel is angular to rounded. Majority are subrounded to subangular. Sandstone and siltstone. A couple pieces of sandstone were orange in color but did not appear burnt.	No	No	Yes

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10MP39	9/17/2010	1150	Medium gray/brown moist sandy gravel. 50% gravel up to 4" angular to subrounded. 15% silt, 30% med sand and 5% pebbles. Gravel consists of sandstone, siltstone and several pieces of what appears to be cooked ore. They are ~1" subrounded and a orangish red color. No crystals present but it looked like veins ran through the 'cooked ore'. No mineralized veins observed in sample.	No	No	No
10MP40	9/17/2010	1045	Dark gray brown gravelly silt with pebbles. 50% silt, 20% gravel, rounded to angular. One river rock found in hole. 15% pebbles. 5% medium to fine sand. Gravel consists of mainly sandstone with some siltstone.	No	No	Yes
10MP60	9/20/2010	1715	Silt and gravel (50/50). Brown, dry, well graded through 3" gravel, gravel is angular to subangular, sever compositions present, argillites, graywacke, calcines, the majority of graywackes are generally gray and not weathered, argillites are black. Calcines are mostly red (varying gravel size) with some black, some calcines have visible pores.	Yes	No	No
10MP63	9/17/2010	1010	Silt and Gravel. Tightly compacted silt and gravel, brown to black, little shale and calcines, some graywacke, angular to subangular, well graded, up to 1". Calcines: several gravel size up to 1", ~5%. Minerals: none noted.	Yes	No	No
10MP64	9/17/2010	1045	Silt and gravel. Black, moist, somewhat loose. Gravel mainly composed of graywacke up to 1", little argillites (less than 1/2"), subangular. Calcines: none noted. Minerals: none noted.	No	No	No
10MP65	9/17/2010	1105	Silt. Black, moist, somewhat loose, gravel layer of 1/2" to 1" on top, mostly graywacke, finer gravel up to 1/2" within borehole, mixture of argillites, graywacke, and calcines. Calcines: red, friable. Minerals: none noted.	Yes	No	No
10MP66	9/17/2010	1230	Silt and Gravel. Black, very tightly compacted, mostly gravel, well graded graywacke. Subangular, few with white mineralization,, area has some rounded river rock up to 1.5". Calcines: appears some small (less than 1/2") throughout. Minerals: few graywacke exhibiting opaque white mineral veins.	Yes	Yes	Yes
10MP85SS	9/17/2010	1310	Silt and Gravel. Black, very tightly compacted, mostly gravel, well graded graywacke. Subangular, few with white mineralization,, area has some rounded river rock up to 1.5". Calcines: appears some small (less than 1/2") throughout. Minerals: few graywacke exhibiting opaque white mineral veins.	Yes	Yes	Yes
10MP42	9/19/2010	0915	Med-dark brown sily gravel, moist to dry. 330% coarse gravel up to 2", 40% fine gravel (1/4-1/2"), 20% silt and 10% med-coarse sand. Gravel is angular to rounded and consists mostly of sandstone, most of which is gray. Some has orange micro veins, some is orange throughout. Siltstone is also present and dark grey to black in all pieces, no veins observed in siltstone. One piece (~2") of rock was comprised almost entirely of cinnabar and stibnite. One piece was reddish orange and had small veins likely baked ore. 2 rounded granitoid river rocks were in sample. no odor, no sheen, no realgar/orpiment.	No	No	Yes

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10MP43	9/19/2010	0950	Same as 10MP42SS except no cinnabor or stibnite found in sample and more (3 pieces) of red/orange sandstone w/ small veings were found in sample and one piece of siltstone with many white veins found in sample.	No	No	No
10MP44	9/19/2010	1020	Medium brown to grayish brown. Moist silty gravel. Trace sand. ~70% gravel from 1/4" to 3", ~20% silt and 10% med-coarse sand. Gravel is angular to rounded. Comprised mostly of sandstone, which varies in color from dark gray to rusty orange (and very crumbly) to a greenish brown. No rinds observed on sandstone. Siltstone was present in both angular pieces and polished river gravel, some had white veins all siltstone was black, normal. One piece of dark gray dike material noticed in sample as well as a small amount of woody debris. No odor, no sheen, no cinnabar, stibnite, realgar/orpiment in sample.	No	No	Yes
10MP45	9/21/2010	1600	Silty sand and gravel (15/50/35). Brown, dry; well graded silt through gravel, gravel is mostly angular and subangular, gravel is composed of graywacke and argillites (black). Graywacke is weathered in the area to rusty color (red/brown/orange/purple), weathering extends through gravel, some pieces have stibnite and cinnabar within, some graywacke have white opaque mineral veins.	No	Yes	No
10MP46	9/21/2010	1650	Silty gravel (30/90) black, dry, well graded silt through 2.5" gravel, angular to subangular, graywacke and argillites present, some graywacke weathered rust colors (red/brown/purple), cinnabar vein noted in one piece of graywacke. Some materials that may be calcines present (red appear to have been burnt), no stibnite or realgar noted. Some granite type river rocks noted.	Yes	No	No
10MP47	9/20/2010	1815	Silt and Gravel (50/50). Brown, dry. Compacted/tight. Well graded through 1.5", angular to subangular, graywacke (gray mostly non-weathered) argillites (black, smaller gravel size), little calcines present (red, fine gravel through 1/2"), few rounded river rock of various composition present. No cinnabar, stibnite, or realgar present.	Yes	No	Yes
10MP48	9/16/2010	1645	Silty gravel. Gray to black, slightly moist, very compacted, tight, little fine sand, gravel is mix of rounded river rock and subangular gravel, fine through coarse ground mixture of native graywacke and little granitic and non-native river rock. Calcines: little fine to medium gravel size.	Yes	No	Yes
10MP49	9/16/2010	1745	Silt and gravel. Silt, tight very compacted, brown to black, slightly moist, mostly angular graywacke, little rounded river rock, up to 1". No calcines noted. No minerals noted.	No	No	Yes
10MP55	9/18/2010	1943	Gravelly silt (30/70). Silt is brown moist, gravel is mostly fine to 1/2", mix argillite and graywacke, subangular, argillite is black, graywacke is gray, gravel concentration increased with depth, well graded, sand represented well. No calcines or minerals noted.	No	No	No
10MP56	9/18/2010	1805	Silty sand (40/60). Poorly sorted (no gravel). Fine to medium sand, loose, somewhat coherent, moist, subangular sand. No calcines or minerals.	No	No	No
10MP57	9/19/2010	1010	Silt and gravel (70/30). Brown to black, moist, poorly graded, silt and larger gravel (1"), angular to subangular, graywacke (dark gray). No mineralization, no calcines.	No	No	No

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10MP58	9/19/2010	0930	Silt and gravel (70/30). Brown to black, moist, well graded, gravel up to 1 inch, angular to subangular. Mostly graywacke, no argillites noted. Orangish material on sidewall - possible broken down calcines (silt/sand size), thin mineral veins weathered brown, graywacke is dark gray.	Yes	Yes	No
10MP59	9/21/2010	1725	Silty gravel (30/70). Dry, well graded silt through cobbles, angular to subangular graywacke and argillites (black shale), argillites have white mineral veins through them, graywackes are mostly weathered on surface to dark gray, cinnabar bearing gravel present but not very dense at this location, blast cord at location. tight/compact.	No	Yes	No
10MP86SS	9/21/2010	1745	Silty gravel (30/70). Dry, well graded silt through cobbles, angular to subangular graywacke and argillites (black shale), argillites have white mineral veins through them, graywackes are mostly weathered on surface to dark gray, cinnabar bearing gravel present but not very dense at this location, blast cord at location. tight/compact.	No	Yes	No
10MP61	9/16/2010	1825	Silt and gravel. Tight, very compacted, brown to black, slightly moist, subangular graywacke with wide range of gravel size - up to 4", mostly subangular. No calcines noted. No minerals noted.	No	No	No
10MP62	9/20/2010	1840	Silt and gravel (60/40). Brown to black, compacted/tight. Well graded through 3", mainly graywacke (gray, non-weathered), argillites not present, two calcines noted 1/4", 1 3/4" rounded gravel on top, no cinnabar, realgar, or stibnite noted.	Yes	No	Yes
10MP50	9/19/2010	1050	Brown to dark brown sandy silt with gravel. ~20% fine to very fine sand, ~15% gravel up to 1.5" and 65% silt. Gravel consits of sandstone and siltstone. Sandstone was gray or rusty orange. Some rusty orange pieces were that color through, some just has rusty orange veins. SIlstone was black, no veins. All gravel seemed well wethered. no rounded river rocks, no odor, no sheen, no cinnabar, stibnite, realgar or orpiment observed in sample. no evidence of baking sample.	No	No	No
10MP51	9/19/2010	1135	Dark grayish brown to black sandy gravel with silt. ~15% silt, ~25% med-coarse sand, 60% gravel from 1/4 to 1.5". Gravel is angular to sub angular and consists mostly of sandstone and silt stone. Sandstone occurs dark grey ~50% of sandstone has a lighter grey rind. Siltstone is dark gray to black and some has a lighter gray rind. One piece has white vein material. 3 pieces were highly mineralized with with and yellowish orange crystals. One piece was brick red and crumbly. One piece had cinnabar & stibnite crystals. no odor, no sheen.	No	Yes	No
10MP52	9/19/2010	1205	Silt and gravel (60/40). No vegetation at surface, black, somewhat dry, well graded, gravel up to 1", mostly rounded river rock, non-native, granitic pieces within area. Some sand, no calcines or mining ore minerals noted in immediate vicinity. No weathering of outside of rocks.	No	No	Yes
10MP53	9/19/2010	1136	Silt and gravel (50/50). Brown, dry, well graded gravel up to 3/4" and 1" + in general area, mostly angular to subangular with few rounded river rock in area, graywacke generally dark gray inside and weathered to rusty colors, some white opaque minerals in area, little black shale/argillites, some medium gravel size calcines (red/black) non friable, no cinnabar or realgar or stibnite observed.	Yes	Yes	Yes

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10MP54	9/19/2010	1048	Silt and gravel (50/50). Brown, dry, well graded, up to 2.5", angular to subangular, graywacke (weathered to rust colors). Some calcines scattered at surface (orange and red, friable, 1/4" to 1/2"). No mineralization noted.	Yes	No	No
10MP41	9/19/2010	1545	Silt and gravel (60/40). 2" organic layer, gray to brown, somewhat dry. Thin 1" layer of loess on top of Kuskokwim group soils, well graded, numerous argillites (black shale) and some graywacke (gray). Subangular, somewhat compact. Fine sand throughout. No calcines or minerals noted.	No	No	No
10SM20		1626	Medium grey to light brown mottled silt with sand, loess. ~85% silt, 15% very fine sand. No gravel. Slightly moist.	No	No	No
10SM21	9/19/2010	1548	Medium gray/brown sandy silt with gravel, moist. ~65% silt, 20% very fine sand, ~15% gravel. Gravel is sub-angular and up to 2". Gravel consists of grayish brown/orange sandstone. One piece of sandstone had a vein with a rusty red area on it, which may have been cinnabar. difficult to say. A test pit was dug to 18", no stratigraphy change observed other than roots/organic layer. No sheen, no odor, no stibnite, no realgar/orpiment observed in sample. Sample likely loess with gravel from Kusko group.	No	No	No
10SM22	9/19/2010	1412	Medium to light brown, moist, sandy silt, trace gravel; ~70% silt, 25% very fine sand, ~5% gravel from 1/4" to 1.5". Gravel is subangular and consists of grayish brown sandstone and dark grey siltstone. (stratigraphy: 0-3" roots and organics, 3-6" mineral soils, 6-6.5" dark brown organic/root layer, 6.5-18" mineral soil. mineral soil is likely loess.)	No	No	No
10SM23	9/19/2010	1334	Sandy silt, trace gravel. ~70% silt, 25% very fine sand and 5% gravel from 1/4" to 3/4". Likely loess with some gravel fragment form Kusko group. Gravel was sub angular and a rusty orange color sandstone. No sheen, no odor, no cinnabar, stibnite, realgar or orpiment. Note: I dug a hole to ~18", did not get to the bottom of loess deposit. I believe it to be reconstituted loess mixed with some Kusko group sediments.	No	No	No
10DS01	9/19/2010	1740	Medium to dark brown, moist sandy gravel with silt. ~20% silt, ~30% sand, med-coarse. ~50% gravel, subangular to subrounded between 1/4" and 4". Gravel consists of mostly sandstone and some siltstone, sandstone tends to be orangey brown to dark grey. Some is slightly banded between the two colors. Siltstone is dark grey to black. No siltstone had veins. One piece with undetermined lithology was light brown to dull orange. no odor, no sheen, no cinnabar, realgar/orpiment, or stibnite. no free Hg observed in sample.	No	No	No
10DS02	9/19/2010	1750	Gravelly silty sand, grayish brown color. 4” of organic soil, sand ranges in size from fine to medium grains, gravel ranges in size from ¼” to 2.5”, gravel consists of black to dark gray sandstone and yellow brown sandstone, all sandstone has a brownish weathered surface. Soil profile shows no obvious bedding, gravel is not mineralized.	No	No	No
10DS03	9/16/2010	1445	Silt + gravel. Gray/brown, very saturated. Somewhat compacted, mostly gravel, angular to subrounded, well graded, gravel up to 1", mostly graywacke, under peat.	No	No	No
10RS01	9/19/2010	1500	Grayish brown silt and very fine and fine sand	No	No	No

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10RS02	9/19/2010	1530	Organic rich silt and very fine to fine sand. Grayish brown, moist. Organics include roots, rootlets, and twigs. Organics from 0-6" with concentrated zone (layer) from 2-4". Sample collected 0-6" below organic layer on surface, which is 2" thick.	No	No	No
10RS03	9/16/2010	1554	Clayey silt. Gray, semi stiff, very moist, some clay, poorly sorted, no gravel, under peat.	No	No	No
10SM10	9/21/2010	1439	Silt (loess) brown with reddish iron staining deposits, poorly graded, little fine sand, no gravel. Somewhat cohesive, distinct gray, loess layer at 18" in geotech borehole. Layer has more clay content and is more cohesive than loess above.	No	No	No
10SM11	9/21/2010	1240	Silt (loess) brown, moist, poorly graded, little fine sand. No gravel. Somewhat loose, some iron staing layers.	No	No	No
10SM12	9/21/2010	1107	Clayey silt + gravel (15/40/45). Gray; moist, well graded clay through 2" gravel, sand absent, gravel is angular to subangular; graywacke is weathered throughout rock with rust colors, (reds/browns); well indurated balck argillites present, graywacke are brown throughout.	No	No	No
10SM40SS	9/21/2010	1130	Clayey silt + gravel (15/40/45). Gray; moist, well graded clay through 2" gravel, sand absent, gravel is angular to subangular; graywacke is weathered throughout rock with rust colors, (reds/browns); well indurated balck argillites present, graywacke are brown throughout.	No	No	No
10SM13	9/24/2010	1040	Med brown to gray silty gravel with sand, moist. 50% angular to subangular gravel from 1/4" to 2", 30% silt, ~20% graded sand fine-coarse. Gravel appears to be Kusko group sandstone. No siltstone observed. Sandstone ranges in color from browny orange to dark browny gray. 2 pieces were browny orange all the way through. Several pieces had a blk/bwn/orng staining in cracks. Several pies had a very thin rind. Several pieces were dark brn/gry. No apparent loess in sample. No sheen odor, cinnabar, stibnite, free Hg.	No	No	No
10SM14	9/24/2010	1140	Medium grey brown, slightly moist silt with fine sand (loess). ~90% silt, ~10% very fine sand; no gravel.	No	No	No
10SM15	9/23/2010	1840	Medium grey brown, moist silt with gravel. Likely loess. ~75% silt, ~10% gravel, ~15% very fine sand. Gravel is angular to subangular Kusko group sand and siltstone from 1/4-2". Also 2 red/rusty looking iron oxide concretions were found. Sandstone ranged from orangish brown to dark grey, no staining or rinds observed in gravel fragments. Siltstone has some orangish brown staining in cracks but mostly dark gray to black nor odor or sheen or mineralization.	No	No	No
10SM16	9/23/2010	1925	Medium brown moist gravelly silt. Unclear if it is loess. ~80% silt. ~15% gravel and trace coarse sand. Gravel is 1/4" to 3" angular to subangular sand and siltstone from Kusko group. Some of he siltstone had orangish veins ~1/8" thick. Sandstone was rusty orange in color to dark grey. Some has a rusty orange rind others did not. Some had black/brown/orange mottled staining in veins. No odor sheen, cinnabar, stibnite, realgar, orpiment.	No	No	No

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10SM17	9/24/2010	1350	Med-dark brown gravelly silt with sand, moist. ~25% angular to sub rounded gravel from 1/4" to 3", ~65% silt and 10% coarse sand. Gravel is comprised mostly of Kusko group sandstone, 1 piece of siltstone found in sample. Sandston was mostly rusty orange in color and somewhat crumbly. Some pieces were brownish gray. Some had staining (brown/orange/blk) in fractures. No odor, sheen, highly mineralized zones, or free Hg.	No	No	No
10SM18	9/23/2010	1630	Med to dark brown sandy gravel with silt. 80% gravel to small cobbles; angular to subrounded. 10% coarse sand and 10% silt and maybe clay. Strange fist size blobs of an orangey brown silty clay material were found in sample. Gravel consisted on Kusko group sandstone with some siltstone. Most pieces of sandstone were brownish grey and had staining occurring in cracks. Stain color ranged from brown to black to orange. Some pieces of sandstone were dark grey. Some were completely orangey brown. no odor, no sheen, no free Hg, no cinnabar, no stibnite, no orpiment/realgar.	No	No	No
10SM19	9/23/2010	1720	Med-dark brown sandy gravel with silt. Moist. ~60% gravel, 1/4" to 2.5" angular to sub angular. ~25 coarse to med sand. ~15% silt + fine sand. Gravel consists of Kusko group sand and silt stone. Mostly Sandstone which occurs from dark gray to rusty orange. Some staining occurs within cracks. some pieces break in concentric sphere's. Siltstone did not have mineralized veins and was black. no odor, sheen, stibnite, cinnabar, free Hg, realgar, orpiment or evidence of baking were present in sample. Test pit to 12" - no change in lithology.	No	No	No
10SM04	9/24/2010	1550	Silt, sand gravel, and cobble, overall color brown, moist. Silt content 0-20%, brown, sand gravel and cobble weathered graywacke, angular to subangular, brown to grayish brown on fresh surface, brown on weathered surfaces. Proportion of sand, gravel and cobble vary with depth but overall 50% cobble, 15-20% each gravel and sand.	No	No	No
10SM05	9/24/2010	1510	Poorly developed soil in Kuskokwim group bedrock. Bedrock with layering noted at 2-3" depth below mossy, duff- and twig- covered surface. Bedrock and gravel and cobble derived from it is interlayered graywacke and argillite. Soil fine consist of brown silt and sand derived from bedrock, including crumbly pieces of argillite (decomposed). Graywacke weathers brown and rusty brown on facture surfaces. Fresh surfaces are gray with brown- rusty brown weathering rind. noted on one fracture clear vein minerals (qtz or calcite?). No cinnabar or As or SB or other Hg mineral noted. No sig of contamination visually or by odor. All gravel and cobble angular.	No	Yes	No
10SM06	9/24/2010	1630	Thin soil, silt and clay, rusty and yellowish brown. Soil is similar to crack filling in underlying (>5") bedrock. Bedrock is decomposing argillite, rusty brown on weathered surface, dark gray on fresh surface. No evidence of mineralization. No sign of contamination.	No	No	No

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10SM01	9/24/2010	1600	Dark brown, moist, cobbley gravel with silt. ~85% cobbles & gravel from 1/4" to 6", angular to sub angular. ~10% silt and trace coarse sand. Gravel is difficult to identify. It is highly altered and weathered. Some pieces are sandstone ans siltstone, otheres appear to be dike material no fresh surfaces found. Gravel crumbled easily. Sandstone ranged in color from rusty orange to deep red to brown and black. Siltstone was black with some orange. Dike material was a light grey color. Some pieces had weathered xsecs yellowish white in color and occurring in thin (1/16") veins. No odor, no sheen, no free Hg. Note: dike in bedrock noted up gradient (W)	No	No	No
10SM02	9/24/2010	1715	Med-dark brown silty gravel. Moist. ~60% gravel, angular to subangular 1/2-4". ~30% silt and ~10% coarse sand. Gravel consists of sandstone ans siltstone of the Kusko group. Gravel seems to be much less altered or weathered than gravel from 10SM01SS. Sandstone is orangey brown to dark grey. On spherical pieces of sandstone was observed in sample (possibly concretion). Siltstone was dark grey t black. No gravel in sample was highly mineralized. No dike material noted in sample no odor, no sheen.	No	No	No
10SM03	9/24/2010	1745	moist, med-dark brown gravelly sand with silt. ~35% med sand. ~30% silt 35% gravel. Gravel is from 1/4-3" and angular to subangular and consists primarily of sandstone & siltstone of the kusko group. Sandstone ranges from rusty orange to brownish gray. Siltstone was dark gray to black. Some orangish staining noted in fractures. Rock does not seem highly altered or weathered. no x/s observed. no odor, no sheen	No	No	No
10SM41SS	9/24/2010	1800	moist, med-dark brown gravelly sand with silt. ~35% med sand. ~30% silt 35% gravel. Gravel is from 1/4-3" and angular to subangular and consists primarily of sandstone & siltstone of the kusko group. Sandstone ranges from rusty orange to brownish gray. Siltstone was dark gray to black. Some orangish staining noted in fractures. Rock does not seem highly altered or weathered. no x/s observed. no odor, no sheen	No	No	No
10SM07	9/24/2010	1725	2-5" soil developed, overlying bedrock. Bedrock is argillite and graywacke. Argillite is friable and soft, weathers gray, locally brown. Sandstone is blocky, breaking, dusty brown weathered fractures. Soil is sandy silt with some gravel. Silt is grayish brown to rusty brownish gray. moist. gravel and sand is angular to subangular. No evidence of mineralization, contamination.	No	No	No
10SM08	9/24/2010	1750	from 1 to 4 or 5" blow surface is soil derived from underlying bedrock. Bedrock is argillite ant sample location. Below 5" is solid bedrock. Soil 1-5" is sandy gravelly silt. Sand and gravel are soft friable pieces of argillite, weathered. Argillite is brownish gray. Silt is grayish brown. Moist. No evidence of mineralization or contamination.	No	No	No
10SM09	9/24/2010	1820	Material is broken argillite, mostly gravel and cobble size , with some sand sized fragments. Argillite is slightly weathered, soft and friable, though not as much as 10SM07SS and 10SM08SS. Argillite is dark gray.	No	No	No

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10SM24	9/21/2010	1205	Medium brown to gray slightly moist, gravelly cobble with silt. ~80% gravel and cobbles from 1/2" to 6", ~10% silt and 10% fine to coarse sand. Gravel is angular to subangular and is completely comprised of sandstone. Fresh faces are dark brown grey, weathered faces are a mottled orangey/brown/grey. Gravel tended to break along weathered areas, had to break rock several times to find a fresh face. Note: during digging of sample hole a small 'blob' of loess was found ~ 2" tall, 1/2" deep & 1 1/2" wide.	No	No	No
10SM25	9/21/2010	1300	Medium brown to gray gravelly cobble with silt. ~80% gravel & cobbles from 1/2" to 8", ~10% sand (fine, coarse). Gravel is same as 10SM24SS. No loess lens observed at this location. No odor, no sheen, no cinnabar, stibnite, realgar, orpiment, no free Hg, no evidence of cooked ore.	No	No	No
10SM26	9/21/2010	1345	Medium grey brown, moist sandy silt with gravel. ~70% silt. ~10% gravel and 20& very fine to medium sand. Gravel consist of angular to subangular pieces from 1/4" to 1.5". Lithology consists of sandstone and siltstone. One piece of rusty red gravel was found. It was likely a iron oxide concretion from the loess. Sandstone was dark grey to rusty orange, mottled in some pieces. Siltstone was dark grey to black. Material seemed to be loess with some Kusko gravel. No sheen, no odor, no free Hg, no realgar/orpiment, no cinnabar, no stibnite, no apparent burnt ore.	No	No	No
10SM27	9/23/2010	1520	Medium brown and medium grey silt with gravel. Moist. ~75% brown to grey mottled silt; ~15% angular to subangular gravel from 1/2" to 2". ~10% fine to coarse sand. Gravel consists of Kusko group sand and siltstone, mostly sandstone. The sandstone ranges from rusty brown to dark grey and in some pieces, mottled grey/brown/orange. The siltstone was very dark grey to black. No 'rinds' were observed on either the sand or siltstone. No odor, sheen, free Hg, cinnabar, veins, realgar, orpiment or stibnite were observed in sample. No change in lithology noted in 24" test pit.	No	No	No
10SM28	9/19/2010	1635	Silt (Loess). Gray, moist, somewhat loose, little fine sand, some iron staining, one piece of graywacke (rust stains on outside) in borehole. No mineral or calcines.	No	No	No
10SM29	9/19/2010	1655	Silt (Loess). Gray, moist, somewhat loose, little fine sand, some iron staining, no gravel, minerals or calcines.	No	No	No
10SM30	9/19/2010	1730	Silt (Loess). Gray, moist, somewhat loose, little fine sand, some iron staining, no gravel, minerals or calcines.	No	No	No
10RD08	9/15/2010	1515	Silt and gravel and cobbles. Silt is brown, moist, organic rich. Gravel and cobble is similar to that at 10RD09SS location, comprising sandstone (graywacke) that weathers rusty brown. Blocky, plate, to 12" across.	No	No	No
10RD30SS	9/15/2010	1540	Silt and gravel and cobbles. Silt is brown, moist, organic rich. Gravel and cobble is similar to that at 10RD09SS location, comprising sandstone (graywacke) that weathers rusty brown. Blocky, plate, to 12" across.	No	No	No
10RD09	9/15/2010	1415	Organic containing silt and gravel and cobble. Silt is medium brown, moist. Gravel and cobble are sandstone, likely graywacke of Kuskokwim group, consisting of dark gray dirty SS that weathers rusty brown. Most gravel and cobble highly angular, blocky. Fragments up to 10 inches. No odor- no evidence of red colored calcines such as observed in MPA. No evidence of cinnabar or other minerals.	No	No	No

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10RD05	9/17/2010	1715	Silt. Brown to black, moist, somewhat loose, little gravel on top, graywacke, subrounded. Calcines: none noted. Minerals: none noted.	No	No	No
10RD06	9/17/2010	1410	Silt. Brown to black, moist, somewhat loose, no gravel, alluvium. Calcines: none noted. Minerals: none noted.	No	No	No
10RD07	9/17/2010	1450	Silt and gravel. Black, moist, somewhat loose. Little gravel throughout, graywacke, angular to subangular up to 3/4". Calcines: none noted. Minerals: none noted.	No	No	No
10RD20	9/17/2010	1430	Silt and gravel. Brown to black, moist, somewhat tight, some gravel - mostly 1/2" to 1" graywacke subrounded, slightly well graded. Calcines: none noted. Minerals: none noted.	No	No	No
10RD01	9/16/2010	1633	Brown silt, abundant organics, moist, no odor, no gravel or rocks.	No	No	No
10RD02	9/16/2010	1715	Brown gravelly silt, moist, 60% angular to subangular gravel consisting of brown weathered sandstone, black sandstone, black siltstone, dike material and one small red calcines was identified, no odor or organics, 40%silt. Gravel ranges in size from 1/4" to 1.5". heavily compacted.	Yes	No	No
10RD03	9/16/2010	1741	Brown gravelly silt, moist, 20% angular to sub angular gravel consisting of brown/black sandstone and dike material. Gravel ranges in size from 1/4" to 1", loosely consolidated, no odor, some organics. 80% silt.	No	No	No
10RD04	9/16/2010	1800	Brown gravelly silt, moist, no odor, many organics, 30% gravel consisting of brown sandstone, dike rock and mineralized vein rock (possibly weathered cinnabar). Gravel is angular to subangular and ranges in size from 1/4" to 1.5".	No	Yes	No
10RD10	9/17/2010	1625	Dark to medium brown silty gravel with sand. Moist. ~40% subangular to subrounded gravel. Up to 6", ~25% silt, ~15% med-coarse sand, 20% pebbles. All gravel/rock was sandstone same was dark grey to black. Other pieces were rusty orange.	No	No	No
10RD11	9/17/2010	1547	Dark brown gravelly silt w/ sand. Moist. ~20% subangular to subrounded gravel. ~10% fine to very find sand. ~70% silt. Gravel consists of sandstone. One piece was ~8"; most were 1-3". Some sandstone was a rusty orange color.	No	No	No
10RD12	9/17/2010	1448	~6" of broken rock (sandstone) almost like a buried talus pile. Sample collected between 12" and 18" BGS. Consists of 80% silt and 20% fine to very fine sand. Rocks pulled out of the hole were up to 10", mostly flat. As small as 1". No rusty orange coloring. Only dark gray to black.	No	No	No
10RD13	9/17/2010	1410	Brown to dark brown silt and fine sand. ~80% moist silt, 20% very fine sand. No gravel however one large piece of sandstone (6") was removed from the hole.	No	No	No
10RD14	9/15/2010	1705	Upper 2" is dark brown organics. Below 2" is (2-8") brownish gray silt. 8-10" is layer of mixed silt and organics. 10-15" is mixed silt and cobble. Two pieces of sandstone to 7" across at bottom of test pit. Refusal at 15"	No	No	No
10RD31SS	9/15/2010	1735	Upper 2" is dark brown organics. Below 2" is (2-8") brownish gray silt. 8-10" is layer of mixed silt and organics. 10-15" is mixed silt and cobble. Two pieces of sandstone to 7" across at bottom of test pit. Refusal at 15"	No	No	No

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10RD15	9/15/2010	1620	>1ft thich moss. At about 15" from suface soil becomes silty. Silt is medium gray, possibly with some clay, slightly plastic. Recovered a single Olympia pull-top beer can approximatly 6" below top surface within organic mat layer.	No	No	No
10RD16	9/15/2010	1730	Brownish gray silt with organics, moist to wet.	No	No	No
10RD17	9/15/2010	1755	3-9" is brownish gray silt. Moist. 9-12" is mixed organics and silt, dark brown. Wet.	No	No	No
10RD18	9/15/2010	1850	2-6"brownish gray silt, wet. 6-7" dark brown organics (peat), wet. 7-9" brownish gray silt, wet. 9-11" dark brown pat, wet. 11-12" silt and gravel and cobble. Silt is brownish gray, wet. Gravel and cobble is angular to subangular rock probably Kuskokwim group graywacke.	No	No	No
10RD19	9/15/2010	1825	Brownish gray silt from 0-6" below surface organic layer	No	No	No
10UP01	9/17/2010	1710	8" BGS is soil. Apparently derived from Kuskokwim group. Mixed silt with minor sand and 15% gravel. Silt is moist med. Reddish brown. Minor sand to 2 mm, subangular. Gravel is 1 to 2 1/2" across, angular to subangular, elongate, apparently derived from blocky bedrock. gravel is brown - weathered graywacke. Fresh surface is also brown. Sand is rock up to 1 mm with fine brown matrix.	No	No	No
10UP02	9/23/2010	1450	5-15" organic rich sandy, gravelly, silt. Minor very fine sand. Overall color of sandy silt is dark brown. Gravel consists of angular to subangular graywacke to 1 1/2". Soil is moist. No odor, mineralization, visible or other evidence of contamination.	No	No	No
10UP03	9/23/2010	1555	5-9" Silt with minor small gravel, dark brown with localized Fe stained blobs, moist to very moist. Minor gravel is graywacke to 1/8", subrounded. 9-14" silt with minor gravel grayish brown with localized Fe staining. Gravel to 1/8", graywacke. 14" gravel and cobble with silt. Silt is brownish gray with Fe staining. Gravel and cobble angular graywacke to 3". refusal at 14".	No	No	No
10UP04	9/23/2010	1640	0-14" moss and twigs. 14-17" grayish brown silt, moist. 17"-deeper cobble and silt. Silt is brownish gray moist. Cobble is angular graywacke in platey pieces to 4". Cobble to >75% at base of hole at 20". No sign of mineralization, odor, visual contamination. Graywacke weathers rusty brown. Brown and grayish brown on fresh surface.	No	No	No
10UP05	9/23/2010	1720	6-12" silt with trace gravel, medium brown, moist, some organics. Gravel is graywacke to 3/8", subangular.12-15" Silt with 20% gravel and cobble. Silt medium brown moist. Gravel and cobble graywacke subangular to angular, brown on fresh surface. No Sign of mineralization or contamination. Gravel and cobble to 3".	No	No	No
10UP06	9/23/2010	1810	6-12" grayish brown silt with minor gravel. Moist. Locally brownish gray. Gravel to 2", graywacke, subangular. Weathers brown. Rusty brown on fresh surface. No sign of mineralization. No odor or sign of contamination.	No	No	No
10UP07	9/23/2010	1855	5-10" sandy, gravelly silt. Overall color grayish brown to brown. <5% sand fine to coarse, subangular. 10% gravel. Gravel subangular, graywacke. Moist. 10-14" as above except with 10% cobble to 4" consisting of platey angular pieces of graywacke. Graywacke brown on fresh surface, brown on weathered surface. No indication of mineralization. No sign of contamination.	No	No	No

Table 4-4 Visual Descriptions of Laboratory Samples

Sample Location ID	Sample Date	Sample Time	Soil Description	Red Porous Rock (aka calcines or burnt ore)	Mineralized Veins	Rounded Rocks
10UP08	9/23/2010	1945	2-8" Sandy, gravelly, cobbly silt. Overall color med. Brown. Sand med. coarse, subangular, ~5%. Gravel angular to subangular both graywacke and argillite, 20%. Cobble angular graywacke to 4", platey pieces of graywacke weathered rusty brown, brown on fresh surface. Soil is slightly moist. No mineralization, odor, evidence of contamination.	No	No	No
10UP09	9/24/2010	1920	Sandy, gravelly, cobbly, silt. Moist. Sand minor. Gravel 10%. Cobble to 30% at bottom of test pit. Gravel and cobble are subangular graywacke, brown on fresh surface, brown on weathered surface. Silt ~60% is grayish brown. No evidence of mineralization or contamination.	No	No	No
10UP30	9/24/2010	1945	Sandy, gravelly, cobbly, silt. Moist. Sand minor. Gravel 10%. Cobble to 30% at bottom of test pit. Gravel and cobble are subangular graywacke, brown on fresh surface, brown on weathered surface. Silt ~60% is grayish brown. No evidence of mineralization or contamination.	No	No	No
10UP10	9/24/2010	1950	Gravelly, cobbly, silt with minor sand. Gravel and cobble are graywacke; weathered brown and brown on fresh surfaces. Subangular. Silt is moist, grayish brown and rusty grayish brown. No sign of mineralization or contamination.	No	No	No
10OP01	9/18/2010	1135	Medium reddish brown, moist. Sandy gravel w/ silt. ~60% gravel up to 1", ~10% silt, ~20% med-coarse sand and ~10% pebbles. Gravel consists of subangular to subrounded apparently burnt ore. Some appeared to be siltstone with a reddish orange rind but black/gray in the center. Some looked like burnt sandstone with an orangish rind and light grey core with small ___. Some material looked burnt and looked like vein material. Some looked like burnt crystallized dike material.	Yes	Yes	No

Table 4-5 Surface Water Laboratory Results**

Analyte	Method	Units	Comparison Value*	Upstream from Main Processing Area			Main Processing Area					Downstream from Main Processing Area
				10RD01SW 9/22/2010 8:20:00 PM	10RD02SW 9/22/2010 7:30:00 PM	10RD03SW 9/22/2010 5:30:00 PM	10RD04SW 9/22/2010 4:35:00 PM	10RD05SW 9/22/2010 3:00:00 PM	10RD06SW 9/22/2010 12:46:00 PM	10RD09SW 9/22/2010 1:50:00 PM	10RD20SW (Duplicate of 10RD09SW) 9/22/2010 2:00:00 PM	10RD08SW 9/22/2010 11:05:00 AM
Total Solids												
Total Dissolved Solids	EPA 160.1	mg/L		102	84	81.5	87.5	110	83	116	112	220
Total Suspended Solids	EPA 160.2	mg/L		2	1 U	1.1 U	1.1 U	3.6	1.1 U	1.1 U	1 U	1.1 U
Mercury												
MeHg	EPA 1630	ng/L	-	0.074	0.101	0.091	0.115	0.491	0.141	0.144	0.144	0.129
Total Hg	EPA 1631	ng/L	0.77	3.17	2.83	1.92	15.8	43.4	208	183	187	385
Dissolved Hg	EPA 1632	ng/L	0.77	1.95	2.23	2.33	5.6	3.04	15.4	14.1	14.3	15.5
Arsenic Speciation												
As(III)	EPA 1632	µg/L		0.102	0.122		0.342	667	14.7		0.595	3.76
As(Inorg)	EPA 1632	µg/L		0.68	0.984		1.92	737	66.2		8.74	86.8
As(V)	EPA 1632	µg/L		0.578	0.862		1.58	70	51.5		8.14	83
Water Quality Parameters												
Chloride	EPA 300.0	mg/L		0.4	0.4	0.5	0.5	0.6	0.5	0.5	0.5	0.5
Sulfate	EPA 300.0	mg/L		11.2	10.8	10.1	10.3	28.5	13.2	13	12.8	13.1
Nitrate + Nitrite	EPA 353.2	mg-N/L		0.166	0.14	0.145	0.148	0.01 U	0.127	0.116	0.128	0.115
Alkalinity	SM 2320	mg/L CaCO3		81	79.5	78.9	77.3	229	87.8	85.4	86.1	87
Bicarbonate	SM 2320	mg/L CaCO3		81	79.5	78.9	77.3	229	87.8	85.4	86.1	87
Total Metals												
Calcium	SW6010B-Diss	µg/L		19200	19000	18600	18600	35000	19200	19400	19000	19400
Iron	SW6010B-Diss	µg/L	1000	50 U	150	100	140	2020	110	130	130	70
Magnesium	SW6010B-Diss	µg/L		10200	9990	9870	9930	34800	11500	11400	11200	11600
Potassium	SW6010B-Diss	µg/L		500 U	500 U	500 U	500 U	1130	500 U	500 U	500 U	500 U
Silicon	SW6010B-Diss	mg/L		3.3	3.25	3.32	3.32	4.11	3.46	3.4	3.38	3.5
Sodium	SW6010B-Diss	µg/L		1610	1680	1690	1770	13000	2430	2300	2240	2490
Antimony	SW6020-Diss	µg/L	-	1.3	1.2	1.4	10.4	3.2	130	101	104	158
Arsenic	SW6020-Diss	µg/L	150	0.6	0.9	0.8	7.8	857	74.2	67.8	69.1	75.4
Barium	SW6020-Diss	µg/L	-	24	24.3	22.8	23.6	98.7	28.6	28.2	28.5	29.5
Cobalt	SW6020-Diss	µg/L	-	0.2 U	0.2 U	0.2 U	0.2 U	4.9	0.2	0.2	0.2	0.2 U
Manganese	SW6020-Diss	µg/L	-	7.2	24.9	8.2	13.6	380	28.8	24.9	24.9	20.1
Nickel	SW6020-Diss	µg/L	52	0.5 U	0.5 U	0.5 U	0.5 U	17	1	0.8	1.5	0.8
Aluminum	SW6010B-Total	µg/L	87	80	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Calcium	SW6010B-Total	µg/L		18400	18500	18400	18600	34400	19600	18700	19300	19600
Iron	SW6010B-Total	µg/L	1000	110	190	140	190	2160	180	190	190	140
Magnesium	SW6010B-Total	µg/L		9680	9660	9690	9870	33700	11600	10900	11300	11600
Potassium	SW6010B-Total	µg/L		500 U	500 U	500 U	500 U	1130	500 U	500 U	500 U	500 U
Sodium	SW6010B-Total	µg/L		1580	1700	1730	1820	12800	2580	2320	2330	2590
Antimony	SW6020-Total	µg/L	-	1.4	1.3	1.5	11	26.7	141	108	108	170
Arsenic	SW6020-Total	µg/L	150	0.8	1	0.9	8.2	903	79.6	73.1	72.9	85.6
Barium	SW6020-Total	µg/L	-	26.4	25.2	23.4	24	102	29.5	29.2	28.9	30.8
Cobalt	SW6020-Total	µg/L	-	0.2 U	0.2 U	0.2 U	0.2 U	5.3	0.3	0.3	0.3	0.2
Copper	SW6020-Total	µg/L		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5
Manganese	SW6020-Total	µg/L	-	10.2	29.5	11.8	15.4	379	30.5	26.5	26.6	24.5
Nickel	SW6020-Total	µg/L	52	0.5 U	0.5 U	0.5 U	0.5 U	19.2	1.1	1.1	1	1
Vanadium	SW6020-Total	µg/L	-	0.3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Semi-Volatile Organic Compounds**												
1-Methylnaphthalene	SW8270D	µg/L				1 U	1 U	1.5	1 U	1 U	1 U	1 U
2-Methylnaphthalene	SW8270D	µg/L				1 U	1 U	1.5	1 U	1 U	1 U	1 U
Unknown Hydrocarbon	SW8270D	µg/L				2 J	6 U	5 U	7 U	3 J	5 U	4 U
Field Test Parameters												
Temperature	Field Test	°C		4.52	5.84	5.95	5.66	3.79	4.43	4.84	4.84	4.40
pH	Field Test	N/A		7.59	7.45	7.39	7.34	6.11	6.98	7.16	7.16	6.27
ORP	Field Test	mV		107	101	87	42	-143	113	57	57	2.53
Conductance	Field Test	mS/cm		0.201	0.194	0.190	0.190	0.524	0.072	0.215	0.215	0.229
Turbidity	Field Test	NTU		0.38	0.79	0.00	0.77	2.19	4.06	0.98	0.98	0.59
Dissolved Oxygen	Field Test	mg/L		12.71	14.1	13.13	16.32	16.29	15.06	14.55	14.55	13.9
Total Dissolved Solids	Field Test	g/L		0.130	0.1	0.123	0.124	0.335	0.046	0.14	0.14	0.149

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter

**Only detected compounds listed in this table

*ADEC (2008) Chronic Standard

Table 4-6 Surface Sediment Laboratory Results**

				General Geographic Area	Kuskokwim River Area						
				Sub-Area	Upriver from Red Devil Creek	Downriver from Red Devil Creek					
Analyte	Method	Units	NOAA TEL	NOA PEL	10KR13SD 9/23/2010 5:30:00 PM	10KR02SD 9/23/2010 4:30:00 PM	10KR03SD 9/23/2010 3:30:00 PM	10KR04SD 9/23/2010 3:00:00 PM	10KR07SD 9/23/2010 2:00:00 PM	10KR10SD 9/23/2010 1:20:00 PM	10KR11SD 9/23/2010 11:00:00 AM
Total Metals											
Aluminum	SW6010B-Total	mg/kg	NA	NA	11600	9750	17000	12600	4510	7080	10600
Antimony	SW6010B-Total	mg/kg	NA	NA	7 U	1280 J	10 J	8 U	40 J	10 U	7 U
Arsenic	SW6010B-Total	mg/kg	590000	1700000	15	1790	60	30	800	160	21
Barium	SW6010B-Total	mg/kg	NA	NA	152	418	227	161	145	151	138
Beryllium	SW6010B-Total	mg/kg	NA	NA	0.5	0.8	0.6	0.5	0.8	0.6	0.4
Cadmium	SW6010B-Total	mg/kg	59600	353000	0.5	0.6 U	0.6	0.4	0.6 U	0.6 U	0.4
Calcium	SW6010B-Total	mg/kg	NA	NA	4800	2920	6020	5920	1630	2950	6440
Chromium	SW6010B-Total	mg/kg	4340000	9000000	25.3	25	36	26.7	18	17	23.3
Cobalt	SW6010B-Total	mg/kg	NA	NA	10.9	14.8	12.8	9.9	18	15.1	9.2
Copper	SW6010B-Total	mg/kg	3570000	19700000	25.3 J	37.2 J	31 J	22 J	56.5 J	41.9 J	19.6 J
Iron	SW6010B-Total	mg/kg	NA	NA	27100	29100	33900	25100	48100	31200	23200
Lead	SW6010B-Total	mg/kg	3500000	91300	7	7	10	7	10	10	6
Magnesium	SW6010B-Total	mg/kg	NA	NA	4840	4530	6450	5410	990	2580	4970
Manganese	SW6010B-Total	mg/kg	NA	NA	451	750	712	429	684	735	451
Nickel	SW6010B-Total	mg/kg	1800000	3600000	32	48	35	28	55	38	27
Potassium	SW6010B-Total	mg/kg	NA	NA	1280	2190	1960	1440	1120	1070	1250
Sodium	SW6010B-Total	mg/kg	NA	NA	170	220	240	210	150 U	140 U	180
Vanadium	SW6010B-Total	mg/kg	NA	NA	36.3	27.3	48.5	36.9	32.5	31.4	31.8
Zinc	SW6010B-Total	mg/kg	12300000	31500000	84	83	105	80	119	99	75
Mercury	SW7471A-Total	mg/kg	17400	48600	0.09 J	56 J	2.1 J	0.82 J	13.2 J	3.6 J	0.52 J
Total Solids											
Total Solids	EPA 160.3	Percent			67.6	81.93	53.67	67.45	83.95	79.27	72.25
%TS	SM 2540G	Percent			71.66	82.55	52.01	66.31	82.63	85.54	71.05
Methyl Mercury											
MeHg	EPA 1630	ng/g			0.184	0.592	0.812	0.285	0.029 U	0.654	0.184
Arsenic Speciation											
As(III)	EPA 1632	mg/kg			1.34 B	42.5	15.1	2.63	2.49	3.24	1.46
As(Inorg)	EPA 1632	mg/kg			17.1	1940	56	31.7	1020	178	24.7
As(V)	EPA 1632	mg/kg			15.8	1900	40.9	29.1	1020	175	23.2
Total Organic Carbon											
Total Organic Carbon	EPA 9060M	Percent			0.794	0.594	1.64	0.612	0.586	0.513	0.426
Moisture Content											
Moisture Content	ASTM D2216	Percent			49.07	16.6	118.1	59.07	23.3	17	37.29
Grain Size											
Percent passing < 1.3 micron	ASTM D422	Percent			3.3	1.2	8.4	4.5	3.2	2.7	3.7
Percent retained 1.3 micron	ASTM D422	Percent			2	0.6	6.7	3	2.9	2.1	3.2
Percent retained 12500 micron sieve	ASTM D422	Percent			6.3	0.1 U	0.1	0.1 U	0.1 U	3.3	0.1 U
Percent retained 13 micron	ASTM D422	Percent			2.5	0.3	11.8	5.9	1.3	0.5	1.8
Percent retained 150 micron sieve	ASTM D422	Percent			5.4	5	0.7	4.7	10.5	9.6	7.5
Percent retained 19000 micron sieve	ASTM D422	Percent			0.1 U	0.1 U	0.2	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 2000 micron sieve	ASTM D422	Percent			6.6	19.7	0.2	1.4	21.6	15.9	4.7
Percent retained 22 micron	ASTM D422	Percent			4.1	0.9	11.8	7.4	1.9	1.9	4.6
Percent retained 250 micron sieve	ASTM D422	Percent			2.4	11.9	0.4	2	7.6	5.8	1
Percent retained 3.2 micron	ASTM D422	Percent			3.7	1.2	12.6	8.9	2.2	2.1	2.3
Percent retained 32 micron	ASTM D422	Percent			21.6	1	27.7	29.7	0.1	4.9	19.6
Percent retained 425 micron sieve	ASTM D422	Percent			1.7	18.5	0.1	0.7	8.1	5.2	0.8
Percent retained 4750 micron sieve	ASTM D422	Percent			8.6	8.3	0.1 U	1.6	5.8	13.9	4.2
Percent retained 7 micron	ASTM D422	Percent			1.6	0.3	4.2	3	1.3	1.9	1.8
Percent retained 75 micron sieve	ASTM D422	Percent			23.1	4.3	6.1	23.4	7.4	14.3	36.9
Percent retained 850 micron sieve	ASTM D422	Percent			3.2	23.2	0.2	0.5	24.7	8.7	1.4
Percent retained 9 micron	ASTM D422	Percent			1.6	0.6	8.4	2.2	1	1.3	3.7
Percent retained 9500 micron sieve	ASTM D422	Percent			2.3	2.9	0.1	1	0.5	5.9	2.7

Table 4-6 Surface Sediment Laboratory Results**

				General Geographic Area	Red Devil Creek Area										
				Sub-Area	Upstream from Main Processing Area			Main Processing Area					Downstream from Main Processing Area		
Analyte	Method	Units	NOAA TEL	NOA PEL	10RD01SD 9/24/2010 6:00:00 PM	10RD02SD 9/24/2010 5:00:00 PM	10RD03SD 9/24/2010 4:15:00 PM	10RD04SD 9/24/2010 3:15:00 PM	10RD05SD 9/24/2010 1:45:00 PM	10RD21SD (duplicate of 10RD05SD) 9/24/2010 1:55:00 PM	10RD06SD 9/24/2010 12:15:00 PM	10RD09SD 9/24/2010 1:00:00 PM	10RD07SD 9/24/2010 11:00:00 AM	10RD08SD 9/24/2010 9:30:00 AM	10RD20SD (duplicate of 10RD08SD) 9/24/2010 9:45:00 AM
Total Metals															
Aluminum	SW6010B-Total	mg/kg	NA	NA	10800	14700	9340	9350	910	710	10200	11900	9620	8440	9140
Antimony	SW6010B-Total	mg/kg	NA	NA	7 UJ	10 UJ	20 UJ	2510 J	1590 J	1200 J	4060 J	3600 J	3430 J	1900 J	2130 J
Arsenic	SW6010B-Total	mg/kg	590000	1700000	65	50	60	2290	130000	118000	2950	2920	2370	1890	2180
Barium	SW6010B-Total	mg/kg	NA	NA	159	278	146	401	1990	1920	459	521	542	379	429
Beryllium	SW6010B-Total	mg/kg	NA	NA	0.5	0.4	0.6	0.9	7 U	7 U	0.8	0.9	0.8	0.7	0.7
Cadmium	SW6010B-Total	mg/kg	59600	353000	0.3	0.6 U	0.6 U	0.6 U	10 U	10 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
Calcium	SW6010B-Total	mg/kg	NA	NA	2380	6170	1960	5530	23400	21800	3910	4080	5000	4190	4430
Chromium	SW6010B-Total	mg/kg	4340000	9000000	20.4	25	19	29	30 U	30 U	31	29	32	25	28
Cobalt	SW6010B-Total	mg/kg	NA	NA	12.3	13.7	16.5	17.8	50	50	21.5	20.5	22.3	14.7	16.4
Copper	SW6010B-Total	mg/kg	3570000	19700000	21.7	23.4	24.4	45.7	30 J	20 J	58.2 J	55.6 J	55.5 J	39.9 J	43.6 J
Iron	SW6010B-Total	mg/kg	NA	NA	32100	29200	38300	52000	344000	318000	39200	35200	34000	31000	33800
Lead	SW6010B-Total	mg/kg	3500000	91300	8	7	8	14	140 U	130 U	11	12	13	7	9
Magnesium	SW6010B-Total	mg/kg	NA	NA	2990	4110	2710	8690	6440	5170	5530	5440	7700	4960	5360
Manganese	SW6010B-Total	mg/kg	NA	NA	579	2610	1310	1350	986	1200	1560	1250	1690	784	902
Nickel	SW6010B-Total	mg/kg	1800000	3600000	32	30	38	67	240	230	61	64	62	49	52
Potassium	SW6010B-Total	mg/kg	NA	NA	1200	1300	900	2660	3480 U	3350 U	2810	2850	2770	2320	2490
Sodium	SW6010B-Total	mg/kg	NA	NA	70 U	150 U	150 U	240	3480 U	3350 U	250	270	230	210	220
Vanadium	SW6010B-Total	mg/kg	NA	NA	35.4	39.3	37.9	32.2	20 U	20 U	25	26.8	27.6	25.1	26.8
Zinc	SW6010B-Total	mg/kg	12300000	31500000	80	78	91	106	120	90	100	96	91	83	114
Mercury	SW7471A-Total	mg/kg	17400	48600	0.18	0.55	0.42	36	8.6 J	8.5 J	63 J	46 J	60 J	79 J	55 J
Total Solids															
Total Solids	EPA 160.3	Percent			80.45	35.76	79.36	78.5	21.76	18.5	79.3	85.92	78.97	81.54	83.46
%TS	SM 2540G	Percent			72.66	37.09	76.7	79.43	17.64	27.84	79.38	86.57	78.56	79.5	85.02
Methyl Mercury															
MeHg	EPA 1630	ng/g			0.177	7.02	0.218	0.766	12.7	14.4	0.993	0.69	0.578	1	0.928
Arsenic Speciation															
As(III)	EPA 1632	mg/kg			4.13	4.39	1.34	57.8	5960	4530	155	104	88.2	63.2	72.6
As(Inorg)	EPA 1632	mg/kg			52.8	54.8	55	2540	188000	113000	4340	3030	3770	2390	2450
As(V)	EPA 1632	mg/kg			48.7	50.4	53.7	2480	182000	108000	4180	2930	3680	2330 B	2380
Total Organic Carbon															
Total Organic Carbon	EPA 9060M	Percent			1.47	8.33	0.951	1.02	2.28	2.53	0.868	0.882	0.827	0.94	0.766
Moisture Content															
Moisture Content	ASTM D2216	Percent			31.18	217.4	26.11	31.35	716.3	640.6	18.65	20.49	23.38	19.64	19
Grain Size															
Percent passing < 1.3 micron	ASTM D422	Percent			2.3	5.7	0.6	0.1 U	28.3	28.8	1.7	0.2	1.4	0.9	2.2
Percent retained 1.3 micron	ASTM D422	Percent			2.3	4.3	1.1	0.3	23.6	20.3	1.4	1	2	1.8	3.3
Percent retained 12500 micron sieve	ASTM D422	Percent			5.7	0.1 U	4.8	1.1	0.1	3.9	1.7	1.7	0.1 U	3.3	0.9
Percent retained 13 micron	ASTM D422	Percent			1.7	7.8	1.4	1	1.9	1.7	1.1	0.5	1.7	0.6	2.8
Percent retained 150 micron sieve	ASTM D422	Percent			5.8	5.4	5.8	1.5	2.1	1.4	2.2	1.4	3.8	3.1	5.3
Percent retained 19000 micron sieve	ASTM D422	Percent			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Percent retained 2000 micron sieve	ASTM D422	Percent			19.3	1.6	16.1	40.8	2	5.1	28.2	34.1	20.2	26.2	20.7
Percent retained 22 micron	ASTM D422	Percent			2.3	7.8	1.1	0.3	1.9	1.7	1.4	0.2	1.7	0.9	1.4
Percent retained 250 micron sieve	ASTM D422	Percent			5.1	3	8.7	3.4	3	1.8	4.5	3.3	8.4	6.6	9.1
Percent retained 3.2 micron	ASTM D422	Percent			3.2	9.3	1.1	0.3	16.1	14.4	1.9	1	2.5	0.3	2
Percent retained 32 micron	ASTM D422	Percent			4.6	37.7	2.5	0.9	2.4	1.2	0.5	1	0.2	1	0.5
Percent retained 425 micron sieve	ASTM D422	Percent			3.8	1.5	9.1	8.4	2.9	1.8	10.8	10.7	16.9	12.9	13
Percent retained 4750 micron sieve	ASTM D422	Percent			18.5	0.2	22.7	11.3	4.1	6.7	17.6	10.3	9.8	14.5	11
Percent retained 7 micron	ASTM D422	Percent			1.2	2.8	0.6	0.3	3.8	4.2	1.1	0.7	1.1	0.6	1.7
Percent retained 75 micron sieve	ASTM D422	Percent			6.2	7.4	4.2	1	1.7	1.3	2	1.2	2.7	2.5	5
Percent retained 850 micron sieve	ASTM D422	Percent			8	1.9	11.3	26.6	2.5	2.5	18.8	29.1	21.1	21.7	16.3
Percent retained 9 micron	ASTM D422	Percent			1.4	3.6	1.7	0.3	3.8	1.7	1.7	0.5	1.7	0.3	0.8
Percent retained 9500 micron sieve	ASTM D422	Percent			8.5	0.1 U	7.2	2.4	0.1	1.4	3.4	3.2	4.8	2.8	4

Table 4-6 Surface Sediment Laboratory Results**

				General Geographic Area	Kuskokwim River Area						
				Sub-Area	Upriver from Red Devil Creek	Downriver from Red Devil Creek					
Analyte	Method	Units	NOAA TEL	NOA PEL	10KR13SD 9/23/2010 5:30:00 PM	10KR02SD 9/23/2010 4:30:00 PM	10KR03SD 9/23/2010 3:30:00 PM	10KR04SD 9/23/2010 3:00:00 PM	10KR07SD 9/23/2010 2:00:00 PM	10KR10SD 9/23/2010 1:20:00 PM	10KR11SD 9/23/2010 11:00:00 AM
Atterberg Limits Classification											
Liquid Limit	ASTM D4318	Percent					**44.3**				
Plastic Limit	ASTM D4318	Percent					**30.9**				
Plasticity Index	ASTM D4318	Percent					**13.4**				
Selective Sequential Extraction Mercury											
Hg(F0)	BRL SOP No. BR-0013	ng/g				3.49 U		3.88 U	6.13		3.97 U
Hg(F1) - Water Soluable	BRL SOP No. BR-0013	ng/g				**797 J**		**5.2 J**	**93.1 J**		**7.34 J**
Hg(F2) - stomach acid soluble (weak acid)	BRL SOP No. BR-0013	ng/g				**38.7 J**		0.7 U	**12.5 J**		**1.54 J**
Hg(F3) - Organo Complexed	BRL SOP No. BR-0013	ng/g				**1520 J**		**572 J**	**684 J**		**351 J**
Hg(F4) - Strong Complexed	BRL SOP No. BR-0013	ng/g				**10700 J**		**403 J**	**2040 J**		**343 J**
Hg(F5) - Cinnabar	BRL SOP No. BR-0013	ng/g				**175000**		**4380**	**831000**		**259**
Hg(F6)	BRL SOP No. BR-0013	ng/g				**288 J**		**91.5 J**	**16200 J**		**32.5 J**
Total Solids											
Total Solids	EPA 160.3	Percent			**67.6**	**81.93**	**53.67**	**67.45**	**83.95**	**79.27**	**72.25**
Methyl Mercury											
MeHg	EPA 1630	ng/g			**0.184**	**0.592**	**0.812**	**0.285**	0.029 U	**0.654**	**0.184**
Arsenic Speciation											
As(III)	EPA 1632	mg/kg			**1.34 B**	**42.5**	**15.1**	**2.63**	**2.49**	**3.24**	**1.46**
As(Inorg)	EPA 1632	mg/kg			**17.1**	**1940**	**56**	**31.7**	**1020**	**178**	**24.7**
As(V)	EPA 1632	mg/kg			**15.8**	**1900**	**40.9**	**29.1**	**1020**	**175**	**23.2**
Total Organic Carbon											
Total Organic Carbon	EPA 9060M	Percent			**0.794**	**0.594**	**1.64**	**0.612**	**0.586**	**0.513**	**0.426**
Total Solids											
%TS	SM 2540G	Percent			**71.66**	**82.55**	**52.01**	**66.31**	**82.63**	**85.54**	**71.05**

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter
**Only detected compounds listed in this table	

Table 4-6 Surface Sediment Laboratory Results**

				General Geographic Area	Red Devil Creek Area										
				Sub-Area	Upstream from Main Processing Area			Main Processing Area					Downstream from Main Processing Area		
Analyte	Method	Units	NOAA TEL	NOA PEL	10RD01SD 9/24/2010 6:00:00 PM	10RD02SD 9/24/2010 5:00:00 PM	10RD03SD 9/24/2010 4:15:00 PM	10RD04SD 9/24/2010 3:15:00 PM	10RD05SD 9/24/2010 1:45:00 PM	10RD21SD (duplicate of 10RD05SD) 9/24/2010 1:55:00 PM	10RD06SD 9/24/2010 12:15:00 PM	10RD09SD 9/24/2010 1:00:00 PM	10RD07SD 9/24/2010 11:00:00 AM	10RD08SD 9/24/2010 9:30:00 AM	10RD20SD (duplicate of 10RD08SD) 9/24/2010 9:45:00 AM
Atterberg Limits Classification															
Liquid Limit	ASTM D4318	Percent				**81.2**			**144**	**141**					
Plastic Limit	ASTM D4318	Percent				**60.2**			**94.5**	**93.8**					
Plasticity Index	ASTM D4318	Percent				**21**			**49.5**	**47.2**					
Selective Sequential Extraction Mercury															
Hg(F0)	BRL SOP No. BR-0013	ng/g			3.36 U		2.48 U	2.92 U	13.2 U		2.36 U			**18.5**	
Hg(F1) - Water Soluable	BRL SOP No. BR-0013	ng/g			**1.19 J**		**2.55 J**	**529 J**	**7.24 J**		**640 J**			**1180 J**	
Hg(F2) - stomach acid soluble (weak acid)	BRL SOP No. BR-0013	ng/g			0.63 U		**0.39 J**	**107 J**	**7.09 J**		**166 J**			**27.6 J**	
Hg(F3) - Organo Complexed	BRL SOP No. BR-0013	ng/g			**57.3 J**		**212 J**	**3840 J**	**6580 J**		**5090 J**			**1360 J**	
Hg(F4) - Strong Complexed	BRL SOP No. BR-0013	ng/g			**17.3 J**		**146 J**	**23700 J**	**1280 J**		**21900 J**			**17700 J**	
Hg(F5) - Cinnabar	BRL SOP No. BR-0013	ng/g			**24.7**		**643**	**969000**	**2550 M**		**100000**			**142000**	
Hg(F6)	BRL SOP No. BR-0013	ng/g			**4.98 J**		**25.9 J**	**22.9 J**	**63000 J**		**3040 J**			**7550 J**	
Total Solids															
Total Solids	EPA 160.3	Percent			**80.45**	**35.76**	**79.36**	**78.5**	**21.76**	**18.5**	**79.3**	**85.92**	**78.97**	**81.54**	**83.46**
Methyl Mercury															
MeHg	EPA 1630	ng/g			**0.177**	**7.02**	**0.218**	**0.766**	**12.7**	**14.4**	**0.993**	**0.69**	**0.578**	**1**	**0.928**
Arsenic Speciation															
As(III)	EPA 1632	mg/kg			**4.13**	**4.39**	**1.34**	**57.8**	**5960**	**4530**	**155**	**104**	**88.2**	**63.2**	**72.6**
As(Inorg)	EPA 1632	mg/kg			**52.8**	**54.8**	**55**	**2540**	**188000**	**113000**	**4340**	**3030**	**3770**	**2390**	**2450**
As(V)	EPA 1632	mg/kg			**48.7**	**50.4**	**53.7**	**2480**	**182000**	**108000**	**4180**	**2930**	**3680**	**2330 B**	**2380**
Total Organic Carbon															
Total Organic Carbon	EPA 9060M	Percent			**1.47**	**8.33**	**0.951**	**1.02**	**2.28**	**2.53**	**0.868**	**0.882**	**0.827**	**0.94**	**0.766**
Total Solids															
%TS	SM 2540G	Percent			**72.66**	**37.09**	**76.7**	**79.43**	**17.64**	**27.84**	**79.38**	**86.57**	**78.56**	**79.5**	**85.02**

Key

	Result exceeds Comparison Value
°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter
**Only detected compounds listed in this table	

Table 4-7 Groundwater Laboratory Results**

General Geographic Area				Main Processing Area						
Sub-Area				Gravel Pad/Monofill #3 Area		Settling Pond Area	Mine Openings / Monofill #1 / Former Shop Buildings / Tailings		Pre-1955 Retort Area	Power Plant/Former Drum Storage Area
	Method	Units	Comparison Values*	10MW01GW 9/20/2010 6:24:00 PM	10MW40GW (Duplicate of 10MW01GW) 9/20/2010 8:00:00 PM	10MW03GW 9/21/2010 7:55:00 PM	10MW04GW 9/21/2010 4:10:00 PM	10MW41GW (Duplicate of 10MW04GW) 9/21/2010 5:00:00 PM	10MW06GW 9/21/2010 1:30:00 PM	10MW07GW 9/21/2010 10:20:00 AM
Gasoline Range Hydrocarbons										
Bromobenzene	AK101	mg/l		**23.8**	**23.2**					
Trifluorotoluene	AK101	mg/l		**48.6**	**47.5**					
Diesel Range Hydrocarbons										
Diesel Range Hydrocarbons	AK102/AK103 TPHD	mg/l	1.5	0.1 U	0.1 U		**0.11**			
n-Triacontane	AK102/AK103 TPHD	mg/l		**44.8**	**44.8**		**44.6**			
o-Terphenyl	AK102/AK103 TPHD	mg/l		**37.2**	**40.5**		**37.2**			
Total Solids										
Total Dissolved Solids	EPA 160.1	mg/L		**230**		**158**	**343**	**349**	**218**	
Total Suspended Solids	EPA 160.2	mg/L		**20.4**		1.1 U	2.1 U	1 U	**2.4**	
Mercury										
MeHg	EPA 1630	ng/L	NA	**1.71**		0.05 U	**0.081**	**0.063**	0.049 U	
Total Hg	EPA 1631	ng/L	2.00	**16.7**		**16.5**	**150**	**148**	**1.85**	
Dissolved Hg	EPA 1631	ng/L	2.00	**8.5**		**6.47**	**149**	**139**	**0.41 U**	**12.1**
Arsenic Speciation										
As(III)	EPA 1632	µg/L		**7.23**	**6.66**					
As(Inorg)	EPA 1632	µg/L		**9.57**	**11.2**					
As(V)	EPA 1632	µg/L		**2.34**	**4.54**					
Water Quality Parameters										
Chloride	EPA 300.0	mg/L		**0.7**		**0.5**	**0.5**	**0.5**	**0.8**	**0.8**
Fluoride	EPA 300.0	mg/L		**0.1**		0.1 U	**0.1**	**0.1**	**0.1**	0.1 U
Sulfate	EPA 300.0	mg/L		**38.9**		**35.4**	**180**	**182**	**29**	**3.5**
Nitrate + Nitrite	EPA 353.2	mg-N/L		0.05 U		**0.109**	**0.011**	0.01 U	0.01 U	
Alkalinity	SM 2320	mg/L CaCO3		**124**		**113**	**92.8**	**93.3**	**180**	**30.3**
Bicarbonate	SM 2320	mg/L CaCO3		**124**		**113**	**92.8**	**93.3**	**180**	**30.3**
Calcium	SW6010B-Diss	µg/L	NA	**23900**		**22200**	**34000**	**34200**	**32000**	**7180**
Dissolved Metals										
Iron	SW6010B-Diss	µg/L	NA	**19100**		50 U	50 U	50 U	**1680**	**60**
Magnesium	SW6010B-Diss	µg/L	NA	**14900**		**22700**	**45200**	**45600**	**29100**	**2900**
Potassium	SW6010B-Diss	µg/L	NA	500 U		**870**	**880**	**880**	**730**	**500**
Silicon	SW6010B-Diss	mg/L	NA	**6.47**		**5.02**	**4.97**		**8.18**	
Sodium	SW6010B-Diss	µg/L	NA	**7040**		**2730**	**4850**	**4920**	**4120**	**2480**
Antimony	SW6020-Diss	µg/L	6	**1.4**		**724**	**30**	**30.5**	**5.2**	**4.9**
Arsenic	SW6020-Diss	µg/L	10	**9**		**55.8**	**8.8**	**9.3**	**26.3**	**0.4**
Barium	SW6020-Diss	µg/L	2000	**85.9**		**31.8**	**35.7**	**36**	**79.2**	**29**
Cadmium	SW6020-Diss	µg/L	5	0.2 U		0.2 U	**0.2 J**	**0.3 J**	0.2 U	0.2 U
Chromium	SW6020-Diss	µg/L		0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	**1.8**
Cobalt	SW6020-Diss	µg/L	NA	**0.7**		0.2 U	**1.7**	**1.6**	**1.4**	**0.2**
Copper	SW6020-Diss	µg/L	1000	0.5 U		0.5 U	**1.8**	**1.5**	0.5 U	**1.1**
Manganese	SW6020-Diss	µg/L	NA	**712**		0.5 U	**1030**	**1080**	**575**	**10.1**
Nickel	SW6020-Diss	µg/L	100	**0.9**		**1.1**	**34.6**	**36.3**	**2.3**	**1.8**
Selenium	SW6020-Diss	µg/L	50	0.5 U		**0.9**	0.5 U	0.5 U	0.5 U	0.5 U
Vanadium	SW6020-Diss	µg/L	260	**1.4**		0.2 U	0.2 U	0.2 U	0.2 U	**1**
Zinc	SW6020-Diss	µg/L	5000	4 U		4 U	**15**	**13**	4 U	**17**

Table 4-7 Groundwater Laboratory Results**

General Geographic Area				Main Processing Area						
Sub-Area				Gravel Pad/Monofill #3 Area		Settling Pond Area	Mine Openings / Monofill #1 / Former Shop Buildings / Tailings		Pre-1955 Retort Area	Power Plant/Former Drum Storage Area
	Method	Units	Comparison Values*	10MW01GW 9/20/2010 6:24:00 PM	10MW40GW (Duplicate of 10MW01GW) 9/20/2010 8:00:00 PM	10MW03GW 9/21/2010 7:55:00 PM	10MW04GW 9/21/2010 4:10:00 PM	10MW41GW (Duplicate of 10MW04GW) 9/21/2010 5:00:00 PM	10MW06GW 9/21/2010 1:30:00 PM	10MW07GW 9/21/2010 10:20:00 AM
Total Metals										
Calcium	SW6010B-Total	µg/L	NA	**26300**		**20200**	**33000**	**33000**	**32600**	
Iron	SW6010B-Total	µg/L	NA	**22400**		50 U	50 U	50 U	**1780**	
Magnesium	SW6010B-Total	µg/L	NA	**16300**		**20700**	**43700**	**44000**	**29700**	
Potassium	SW6010B-Total	µg/L	NA	500 U		**830**	**880**	**870**	**750**	
Sodium	SW6010B-Total	µg/L	NA	**7580**		**2580**	**4880**	**4890**	**4340**	
Antimony	SW6020-Total	µg/L	6	**1.8**		**748**	**29.1**	**29.3**	**5.4**	
Arsenic	SW6020-Total	µg/L	10	**10.6**		**57.8**	**8.8**	**8.9**	**28.1**	
Barium	SW6020-Total	µg/L	2000	**100**		**31.4**	**35**	**35**	**79.3**	
Cobalt	SW6020-Total	µg/L	NA	**0.7**		0.2 U	**1.6**	**1.6**	**1.4**	
Copper	SW6020-Total	µg/L	1000	0.5 U		0.5 U	**1.5**	**1.6**	0.5 U	
Manganese	SW6020-Total	µg/L	NA	**914**		0.5 U	**1040**	**1030**	**569**	
Nickel	SW6020-Total	µg/L	100	**1**		**1.3**	**35.4**	**35.7**	**2.3**	
Selenium	SW6020-Total	µg/L	50	0.5 U		**0.9**	0.5 U	0.5 U	0.5 U	
Vanadium	SW6020-Total	µg/L	260	**1.7**		**0.2**	0.2 U	0.2 U	0.2 U	
Zinc	SW6020-Total	µg/L	5000	4 U		4 U	**13**	**13**	4 U	
Volatile Organic Compounds**										
Bromobenzene	SW8021BMod	µg/L		**24.2**	**23.6**					
Trifluorotoluene	SW8021BMod	µg/L		**49.8**	**48.6**					
Semi-Volatile Organic Compounds**										
Unknown Hydrocarbon	SW8270D	µg/L		**2 J**	4 U		4 U			
Field Test Data										
Temperature	Field Test	°C		**13.16**	**13.16**	**5.41**	**6.67**	**6.67**	**5.14**	
pH	Field Test	N/A		**6.330**	**6.33**	**6.30**	**6.16**	**6.16**	**6.72**	
ORP	Field Test	mV		**-41**	**-41**	**0.00**	**0.00**	**0.00**	**0.00**	
Conductance	Field Test	mS/cm		**0.355**	**0.355**	**0.307**	**0.565**	**0.565**	**0.432**	
Turbidity	Field Test	NTU		**2.2**	**2.2**	**0.00**	**0.00**	**0.00**	**0.00**	
Dissolved Oxygen	Field Test	mg/L		**0.27**	**0.27**	**2.97**	**0.00**	**0.00**	**0.00**	

Key

°C	Degrees Celsius
ft	Feet
L/min	Liters per Minute
mS/cm	Millisiemens per Centimeter
mV	Millivolt
NTU	Nephelometric Turbidity Unit
ORP	Oxidation reduction potential
mg/L	Milligrams per Liter
µg/L	Microgram per Liter
ng/L	Nanogram per Liter
	Result exceeds Comparison Value

*ADEC Cleanup Level (2009) Table C

** Only detected compounds are shown