Non-linear regressions [Y = b1*(b2^x)] for lichens

Element	Source	b1	b2	R-sq	P
Antimony (Sb)	mill	1.711	0.9989696	0.67	<0.0001
	pit	1.97962	0.9976726	0.75	0.008
	pond	1.047	0.9993857	0.46	0.022
	all 3	1.526441	0.9987375	0.62	<0.0001
Arsenic (As)	mill	17.61	0.998	0.61	<0.0001
	pit	24.03	0.99739	0.75	0.004
	pond	12.8	0.997988	0.35	0.029
	all 3	16.85	0.9979159	0.56	<0.0001
Copper (Cu)	mill	3.02	0.9995556	0.84	<0.0001
	pit	4.29	0.99906	0.88	<0.0001
	pond	5.04	0.99911	0.51	0.003
	all 3	3.76	0.99939	0.65	<0.0001
Lead (Pb)	mill	16.9	0.99785	0.66	<0.00001
	pit	20.13	0.99723	0.78	<0.00001
	pond	28.15	0.99555	0.4	<0.00001
	all 3	18.93	0.99726	0.58	<0.00001
Silver (Ag)	mill	1.58	0.99834	0.64	<0.00001
	pit	0.65	0.99841	0.88	<0.00001
	pond	0.412	0.99917	0.53	<0.00001
	all 3	1.24	0.99783	0.53	<0.00001

Lichen Statistical Analysis

Antimony (Sb) - lichen

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill Zone	1.743	0.8165	14	17	5.6507	0.0000	1.7396	0.0000	2.1098	Pass
Control	0.260	0.1054	10							
Mill Zone	1.743	0.8165	14	14	5.7392	0.0000	1.7613	0.0001	2.1448	Pass
Transects	0.332	0.1583	75							
Pit Zone	1.257	0.2929	7	9	4.3568	0.0009	1.8331	0.0018	2.2622	Pass
Control	0.260	0.1054	10							
Pit Zone	1.257	0.2929	7	7	4.4131	0.0016	1.8946	0.0031	2.3646	Pass
Transects	0.332	0.1583	75							
Pond Zone	1.320	1.1151	10	11	3.0341	0.0057	1.7959	0.0114	2.2010	Pass
Control	0.260	0.1054	10							
Pond Zone	1.320	1.1151	10	9	2.9311	0.0084	1.8331	0.0167	2.2622	Pass
Transects	0.332	0.1583	75							

Arsenic (As) - lichen

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill Zone	15.579	80.7095	14	17	4.8804	0.0001	1.7396	0.0001	2.1098	Pass
Control	2.960	9.2027	10							
Mill Zone	15.579	80.7095	14	14	4.9994	0.0001	1.7613	0.0002	2.1448	Pass
Transects	3.379	14.2560	75							
Pit Zone	12.329	27.5790	7	9	4.2496	0.0011	1.8331	0.0021	2.2622	Pass
Control	2.960	9.2027	10							
Pit Zone	12.329	27.5790	7	7	4.4040	0.0016	1.8946	0.0031	2.3646	Pass
Transects	3.379	14.2560	75							
Pond Zone	13.870	129.4712	10	10	2.9297	0.0075	1.8125	0.0150	2.2281	Pass
Control	2.960	9.2027	10							
Pond Zone	13.870	129.4712	10	9	2.8945	0.0089	1.8331	0.0178	2.2622	Pass
Transects	3.379	14.2560	75							

Cadmium (Cd) – lichen

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill Zone	0.682	0.0750	14	15	0.7111	0.2440	1.7531	0.4880	2.1314	Fail
Control	0.577	0.1651	10							
Mill Zone	0.682	0.0750	14	20	3.7152	0.0007	1.7247	0.0014	2.0860	Pass
Transects	0.380	0.0952	75							
Pit Zone	0.801	0.1148	7	14	1.2372	0.1182	1.7613	0.2364	2.1448	Fail
Control	0.577	0.1651	10							
Pit Zone	0.801	0.1148	7	7	3.1726	0.0078	1.8946	0.0156	2.3646	Pass
Transects	0.380	0.0952	75							
Pond Zone	0.455	0.0922	10	17	-0.760	0.2287	1.7396	0.4573	2.1098	Fail
Control	0.577	0.1651	10							
Pond Zone	0.455	0.0922	10	12	0.7350	0.2382	1.7823	0.4765	2.1788	Fail
Transects	0.380	0.0952	75							

Significance tests found above were conducted using a two sampled t-test assuming unequal variances ($\alpha = 0.05$ for all tests). Tests were termed a "pass" if the computed t-stat was greater than the t critical value for a two tailed test. In order to allow a sufficient samples size for the t-tests, those samples below the detection limit were estimated as half.

Copper (Cu) - lichen

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill Zone	3.321	1.0295	14	20	2.0030	0.0295	1.7247	0.0589	2.0860	Fail
Control	2.490	0.9877	10							
Mill Zone	3.321	1.0295	14	17	4.5953	0.0001	1.7396	0.0003	2.1098	Pass
Transects	1.981	0.8632	75							
Pit Zone	3.871	1.9824	7	10	2.2352	0.0247	1.8125	0.0494	2.2281	Pass
Control	2.490	0.9877	10							
Pit Zone	3.871	1.9824	7	6	3.4817	0.0066	1.9432	0.0131	2.4469	Pass
Transects	1.981	0.8632	75							
Pond Zone	6.630	20.5268	10	10	2.8225	0.0090	1.8125	0.0181	2.2281	Pass
Control	2.490	0.9877	10							
Pond Zone	6.630	20.5268	10	9	3.2356	0.0051	1.8331	0.0102	2.2622	Pass
Transects	1.981	0.8632	75							

Lead (Pb) - lichen

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill Zone	13.800	48.4200	14	15	6.1653	0.0000	1.7531	0.0000	2.1314	Pass
Control	1.900	2.6689	10							
Mill Zone	13.800	48.4200	14	14	5.7883	0.0000	1.7613	0.0000	2.1448	Pass
Transects	2.879	7.6033	75							
Pit Zone	10.800	20.9633	7	7	4.9280	0.0008	1.8946	0.0017	2.3646	Pass
Control	1.900	2.6689	10							
Pit Zone	10.800	20.9633	7	6	4.5018	0.0020	1.9432	0.0041	2.4469	Pass
Transects	2.879	7.6033	75							
Pond Zone	14.200	151.4578	10	9	3.1330	0.0060	1.8331	0.0121	2.2622	Pass
Control	1.900	2.6689	10							
Pond Zone	14.200	151.4578	10	9	2.8994	0.0088	1.8331	0.0176	2.2622	Pass
Transects	2.879	7.6033	75							

Mercury (Hg) - lichen

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill Zone	0.018	0.0002	14	16	1.7352	0.0510	1.7459	0.1019	2.1199	Fail
Control	0.012	0.0000	10							
Mill Zone	0.018	0.0002	14	19	1.2100	0.1206	1.7291	0.2411	2.0930	Fail
Transects	0.014	0.0002	75							
Pit Zone	0.014	0.0001	7	8	0.5774	0.2898	1.8595	0.5795	2.3060	Fail
Control	0.012	0.0000	10							
Pit Zone	0.014	0.0001	7	10	0.0203	0.4921	1.8125	0.9842	2.2281	Fail
Transects	0.014	0.0002	75							
Pond Zone	0.020	0.0003	10	10	1.6317	0.0669	1.8125	0.1338	2.2281	Fail
Control	0.012	0.0000	10							
Pond Zone	0.020	0.0003	10	11	1.2824	0.1130	1.7959	0.2261	2.2010	Fail
Transects	0.014	0.0002	75							

Significance tests found above were conducted using a two sampled t-test assuming unequal variances ($\alpha = 0.05$ for all tests). Tests were termed a "pass" if the computed t-stat was greater than the t critical value for a two tailed test. In order to allow a sufficient samples size for the t-tests, those samples below the detection limit were estimated as half.

Silver (Ag) - lichen

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill Zone	1.431	0.8029	14	13	5.2430	0.0001	1.7709	0.0002	2.1604	Pass
Control	0.168	0.0065	10							
Mill Zone	1.431	0.8029	14	14	4.4956	0.0003	1.7613	0.0005	2.1448	Pass
Transects	0.340	0.1134	75							
Pit Zone	0.504	0.0065	7	13	8.4454	0.0000	1.7709	0.0000	2.1604	Pass
Control	0.168	0.0065	10							
Pit Zone	0.504	0.0065	7	34	3.3225	0.0011	1.6909	0.0021	2.0322	Pass
Transects	0.340	0.1134	75							
Pond Zone	0.413	0.0768	10	11	2.6832	0.0106	1.7959	0.0213	2.2010	Pass
Control	0.168	0.0065	10							
Pond Zone	0.413	0.0768	10	13	0.7612	0.2301	1.7709	0.4601	2.1604	Fail
Transects	0.340	0.1134	75							

Silver (Ag) - lichen

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill Zone	11.893	16.6669	14	11	-1.611	0.0677	1.7959	0.1354	2.2010	Fail
Control	17.880	126.1129	10							
Mill Zone	11.893	16.6669	14	73	-1.071	0.1437	1.6660	0.2874	1.9930	Fail
Transects	14.017	205.4185	75							
Pit Zone	16.686	13.1848	7	12	-0.313	0.3796	1.7823	0.7591	2.1788	Fail
Control	17.880	126.1129	10							
Pit Zone	16.686	13.1848	7	31	1.2411	0.1119	1.6955	0.2239	2.0395	Fail
Transects	14.017	205.4185	75							
Pond Zone	13.850	60.4472	10	16	-0.933	0.1823	1.7459	0.3647	2.1199	Fail
Control	17.880	126.1129	10							
Pond Zone	13.850	60.4472	10	19	-0.056	0.4778	1.7291	0.9556	2.0930	Fail
Transects	14.017	205.4185	75							

Significance tests found above were conducted using a two sampled t-test assuming unequal variances ($\alpha = 0.05$ for all tests). Tests were termed a “pass” if the computed t-stat was greater than the t critical value for a two tailed test. In order to allow a sufficient samples size for the t-tests, those samples below the detection limit were estimated as half.

Plant Data Statistical Analysis

Antimony (Sb) – Labrador Tea

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill, Pit, Pond Zone	0.0563	0.0003	16	15	1.4639	0.0819	1.7531	0.1639	2.1314	Fail
Control	0.0500	0.0000	10							
Mill, Pit, Pond Zone	0.0563	0.0003	16	20	-0.5257	0.3024	1.7247	0.6049	2.0860	Fail
Transects	0.0639	0.0035	18							
Mill Zone	0.0611	0.0005	9	8	1.5119	0.0845	1.8595	0.1690	2.3060	Fail
Control	0.0500	0.0000	10							
Mill Zone	0.0611	0.0005	9	24	-0.1768	0.4306	1.7109	0.8612	2.0639	Fail
Transects	0.0639	0.0035	18							
Pit Zone	0.0500	0.0000	4	17	-1.0000	0.1657	1.7396	0.3313	2.1098	Fail
Transects	0.0639	0.0035	18							
Pond Zone	0.0500	0.0000	3	3	2.5584	0.0417	2.3534	0.0833	3.1824	Fail
Control	0.0500	0.0000	10							
Pond Zone	0.0500	0.0000	3	17	-1.0000	0.1657	1.7396	0.3313	2.1098	Fail
Transects	0.0639	0.0035	18							
Road	0.0500	0.0000	2	9	-1.9640	0.0406	1.8331	0.0811	2.2622	Fail
Control	0.0500	0.0000	10							
Riparian Zones	0.2313	0.2235	8	7	1.0843	0.1571	1.8946	0.3141	2.3646	Fail
Control	0.0500	0.0000	10							
Riparian Zones	0.2313	0.2235	8	7	0.9978	0.1758	1.8946	0.3516	2.3646	Fail
Transects	0.0639	0.0035	18							

Antimony (Sb) - Willow

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill, Pit, Pond Zone	0.0889	0.0041	18	17	2.4043	0.0139	1.7396	0.0279	2.1098	Pass
Control	0.0500	0.0000	11							
Mill, Pit, Pond Zone	0.0889	0.0040	18	13	-0.7897	0.2219	1.7709	0.4439	2.1604	Fail
Transects	0.1423	0.0566	13							
Mill Zone	0.1045	0.0057	11	10	2.3905	0.0190	1.8125	0.0379	2.2281	Pass
Control	0.0500	0.0000	11							
Mill Zone	0.1045	0.0057	11	15	-0.5409	0.2983	1.7531	0.5965	2.1314	Fail
Transects	0.1423	0.0566	13							
Pit Zone	0.0625	0.0006	4	3	1.0000	0.1955	2.3534	0.3910	3.1824	Fail
Control	0.0500	0.0000	11							
Pit Zone	0.0625	0.0006	4	13	-1.1883	0.1280	1.7709	0.2560	2.1604	Fail
Transects	0.1423	0.0566	13							
Pond Zone	0.0667	0.0008	3	2	1.0000	0.2113	2.9200	0.4226	4.3027	Fail
Control	0.0500	0.0000	11							
Pond Zone	0.0667	0.0008	3	13	-1.1114	0.1433	1.7709	0.2865	2.1604	Fail
Transects	0.1423	0.0566	13							
MWR	3.5000	9.5400	4	3	2.2340	0.0558	2.3534	0.1116	3.1824	Fail
Control	0.0500	0.0000	11							
PWR	0.2125	0.1056	4	3	1.0000	0.1955	2.3534	0.3910	3.1824	Fail
Control	0.0500	0.0000	11							
Tailings Pond	0.6000	0.0200	2	1	5.5000	0.0572	6.3138	0.1145	12.7062	Fail
Control	0.0500	0.0000	11							
Riparian Zones	0.0550	0.0003	10	9	1.0000	0.1717	1.8331	0.3434	2.2622	Fail
Control	0.0500	0.0000	11							
Riparian Zones	0.0550	0.0003	10	12	-1.3194	0.1058	1.7823	0.2117	2.1788	Fail
Transects	0.1423	0.0566	13							
Pit	0.0500	#DIV/0!	1	0	3.1623	#NUM!	#NUM!	#NUM!	#NUM!	Fail
Control	0.0500	0.0000	11							
Tailings Pond	0.6000	0.0200	2	1	5.5000	0.0572	6.3138	0.1145	12.7062	Fail
Control	0.0500	0.0000	11							

Mill, Pit and Pond Zones based on overall trends of elevated metal concentrations found in lichens and include the plots below.
Mill = G1, G2, G3, H1, H2, H3, U1, U2, I1, I2, J1, J2, K1, K2, L1
Pond = B1, B2, B3, S1, S2, S3, C1, C2, C3 Pit = O1, O2, P1, P2, R1, R2

Significance tests found above were conducted using a two sampled t-test assuming unequal variances (α = 0.05 for all tests). Tests were termed a "pass" if the computed t-stat was greater than the t critical value for a two tailed test. In order to allow a sufficient samples size for the t-tests, those samples below the detection limit were estimated as half.

Plant Data Statistical Analysis

Arsenic (As) – Labrador Tea

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill, Pit, Pond Zone	0.4313	0.0796	16	15	5.1616	0.0001	1.7531	0.0001	2.1314	Pass
Control	0.0650	0.0006	10							
Mill, Pit, Pond Zone	0.4313	0.0796	16	20	-0.2061	0.4194	1.7247	0.8388	2.0860	Fail
Transects	0.4806	0.9403	18							
Mill Zone	0.5222	0.0794	9	8	4.8505	0.0006	1.8595	0.0013	2.3060	Pass
Control	0.0650	0.0006	10							
Mill Zone	0.5222	0.0794	9	22	0.1686	0.4338	1.7171	0.8676	2.0739	Fail
Transects	0.4806	0.9403	18							
Pit Zone	0.2250	0.0225	4	3	2.1224	0.0620	2.3534	0.1239	3.1824	Fail
Control	0.0650	0.0006	10							
Pit Zone	0.2250	0.0225	4	20	-1.0624	0.1504	1.7247	0.3007	2.0860	Fail
Transects	0.4806	0.9403	18							
Pond Zone	0.4333	0.1233	3	2	1.8153	0.1056	2.9200	0.2111	4.3027	Fail
Control	0.0650	0.0006	10							
Pond Zone	0.4333	0.1233	3	9	-0.1546	0.4403	1.8331	0.8806	2.2622	Fail
Transects	0.4806	0.9403	18							
Road	0.7500	0.0050	2	1	13.5429	0.0235	6.3138	0.0469	12.7062	Pass
Control	0.0650	0.0006	10							
Riparian Zones	2.3250	17.2164	8	7	1.5406	0.0837	1.8946	0.1673	2.3646	Fail
Control	0.0650	0.0006	10							
Riparian Zones	2.3250	17.2164	8	7	1.2423	0.1271	1.8946	0.2541	2.3646	Fail
Transects	0.4806	0.9403	18							

Arsenic (As) – Willow

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill, Pit, Pond Zone	0.9500	0.4929	18	18	5.1196	0.0000	1.7341	0.0001	2.1009	Pass
Control	0.0955	0.0052	11							
Mill, Pit, Pond Zone	0.9500	0.4929	18	18	0.1148	0.4549	1.7341	0.9099	2.1009	Fail
Transects	0.9077	1.4087	13							
Mill Zone	1.0818	0.3796	11	10	5.2733	0.0002	1.8125	0.0004	2.2281	Pass
Control	0.0955	0.0052	11							
Mill Zone	1.0818	0.3796	11	19	0.4607	0.3251	1.7291	0.6503	2.0930	Fail
Transects	0.9077	1.4087	13							
Pit Zone	0.8125	1.0340	4	3	1.4090	0.1268	2.3534	0.2536	3.1824	Fail
Control	0.0955	0.0052	11							
Pit Zone	0.8125	1.0340	4	6	-0.1572	0.4401	1.9432	0.8803	2.4469	Fail
Transects	0.9077	1.4087	13							
Pond Zone	0.6500	0.4725	3	2	1.3952	0.1488	2.9200	0.2977	4.3027	Fail
Control	0.0955	0.0052	11							
Pond Zone	0.6500	0.4725	3	5	-0.4998	0.3192	2.0150	0.6384	2.5706	Fail
Transects	0.9077	1.4087	13							
MWR	56.2250	4085.4692	4	3	1.7563	0.0886	2.3534	0.1773	3.1824	Fail
Control	0.0955	0.0052	11							
PWR	1.8250	5.4625	4	3	1.4798	0.1177	2.3534	0.2355	3.1824	Fail
Control	0.0955	0.0052	11							
Tailings Pond	6.4000	7.2200	2	1	3.3180	0.0932	6.3138	0.1864	12.7062	Fail
Control	0.0955	0.0052	11							
Riparian Zones	0.4350	0.0711	10	10	3.8977	0.0015	1.8125	0.0030	2.2281	Pass
Control	0.0955	0.0052	11							
Riparian Zones	0.4350	0.0711	10	14	-1.3910	0.0930	1.7613	0.1859	2.1448	Fail
Transects	0.9077	1.4087	13							
Pit	0.5000	#DIV/0!	1	0	18.4482	#NUM!	#NUM!	#NUM!	#NUM!	Fail
Control	0.0909	0.0054	11							
Tailings Pond	6.4000	7.2200	2	1	3.3203	0.0931	6.3138	0.1862	12.7062	Fail
Control	0.0909	0.0054	11							

Mill, Pit and Pond Zones based on overall trends of elevated metal concentrations found in lichens and include the plots below.
Mill = G1, G2, G3, H1, H2, H3, U1, U2, I1, I2, J1, J2, K1, K2, L1
Pond = B1, B2, B3, S1, S2, S3, C1, C2, C3 Pit = O1, O2, P1, P2, R1, R2

Significance tests found above were conducted using a two sampled t-test assuming unequal variances ($\alpha = 0.05$ for all tests). Tests were termed a "pass" if the computed t-stat was greater than the t critical value for a two tailed test. In order to allow a sufficient samples size for the t-tests, those samples below the detection limit were estimated as half.

Plant Data Statistical Analysis

Copper (Cu) – Labrador Tea

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill, Pit, Pond Zone	3.5438	0.2933	16	16	0.0553	0.4783	1.7459	0.9566	2.1199	Fail
Control	3.5300	0.4357	10							
Mill, Pit, Pond Zone	3.5438	0.2933	16	32	1.3802	0.0886	1.6939	0.1771	2.0369	Fail
Transects	3.2833	0.3109	18							
Mill Zone	3.7222	0.3794	9	17	0.6565	0.2601	1.7396	0.5203	2.1098	Fail
Control	3.5300	0.4357	10							
Mill Zone	3.7222	0.3794	9	15	1.8003	0.0460	1.7531	0.0920	2.1314	Fail
Transects	3.2833	0.3109	18							
Pit Zone	3.1250	0.0092	4	10	-1.8912	0.0439	1.8125	0.0879	2.2281	Fail
Control	3.5300	0.4357	10							
Pit Zone	3.1250	0.0092	4	20	-1.1320	0.1355	1.7247	0.2710	2.0860	Fail
Transects	3.2833	0.3109	18							
Pond Zone	3.5667	0.1733	3	5	0.1152	0.4564	2.0150	0.9128	2.5706	Fail
Control	3.5300	0.4357	10							
Pond Zone	3.5667	0.1733	3	3	1.0342	0.1885	2.3534	0.3771	3.1824	Fail
Transects	3.2833	0.3109	18							
Road	3.0000	0.0000	2	9	-2.5392	0.0159	1.8331	0.0318	2.2622	Fail
Control	3.5300	0.4357	10							
Riparian Zones	3.6750	0.8193	8	12	0.3795	0.3555	1.7823	0.7109	2.1788	Fail
Control	3.5300	0.4357	10							
Riparian Zones	3.6750	0.8193	8	9	1.1321	0.1434	1.8331	0.2868	2.2622	Fail
Transects	3.2833	0.3109	18							

Copper (Cu) - Willow

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill, Pit, Pond Zone	3.8556	0.5826	18	23	0.3964	0.3477	1.7139	0.6955	2.0687	Fail
Control	3.7455	0.4927	11							
Mill, Pit, Pond Zone	3.8556	0.5826	18	18	0.5379	0.2986	1.7341	0.5972	2.1009	Fail
Transects	3.6462	1.5494	13							
Mill Zone	3.7455	0.6327	11	20	0.0000	0.5000	1.7247	1.0000	2.0860	Fail
Control	3.7455	0.4927	11							
Mill Zone	3.7455	0.6327	11	21	0.2362	0.4078	1.7207	0.8155	2.0796	Fail
Transects	3.6462	1.5494	13							
Pit Zone	4.0750	0.3492	4	6	0.9068	0.1997	1.9432	0.3995	2.4469	Fail
Control	3.7455	0.4927	11							
Pit Zone	4.0750	0.3492	4	11	0.9438	0.1828	1.7959	0.3656	2.2010	Fail
Transects	3.6462	1.5494	13							
Pond Zone	3.9667	1.0833	3	3	0.3472	0.3757	2.3534	0.7514	3.1824	Fail
Control	3.7455	0.4927	11							
Pond Zone	3.9667	1.0833	3	3	0.4625	0.3376	2.3534	0.6752	3.1824	Fail
Transects	3.6462	1.5494	13							
MWR	7.6750	7.4025	4	3	2.8542	0.0324	2.3534	0.0649	3.1824	Fail
Control	3.7455	0.4927	11							
PWR	6.6000	8.2333	4	3	1.9684	0.0718	2.3534	0.1437	3.1824	Fail
Control	3.7455	0.4927	11							
Riparian Zones	3.9700	0.6334	10	19	0.9744	0.1711	1.7291	0.3421	2.0930	Fail
Control	3.6273	0.6642	11							
Riparian Zones	3.9700	0.6334	10	20	0.7580	0.2286	1.7247	0.4573	2.0860	Fail
Transects	3.6462	1.5494	13							
Pit	6.0000	#DIV/0!	1	0	9.6561	#NUM!	#NUM!	#NUM!	#NUM!	Fail
Control	3.6273	0.6642	11							
Tailings Pond	7.8500	22.4450	2	1	1.2228	0.2182	6.3138	0.4364	12.7062	Fail
Control	3.7455	0.4927	11							

Mill, Pit and Pond Zones based on overall trends of elevated metal concentrations found in lichens and include the plots below.
Mill = G1, G2, G3, H1, H2, H3, U1, U2, I1, I2, J1, J2, K1, K2, L1
Pond = B1, B2, B3, S1, S2, S3, C1, C2, C3 Pit = O1, O2, P1, P2, R1, R2

Significance tests found above were conducted using a two sampled t-test assuming unequal variances ($\alpha = 0.05$ for all tests). Tests were termed a "pass" if the computed t-stat was greater than the t critical value for a two tailed test. In order to allow a sufficient samples size for the t-tests, those samples below the detection limit were estimated as half.

Plant Data Statistical Analysis

Lead (Pb) – Labrador Tea

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill, Pit, Pond Zone	0.2844	0.0622	16	20	1.5875	0.0640	1.7247	0.1281	2.0860	Fail
Control	0.1300	0.0557	10							
Mill, Pit, Pond Zone	0.2844	0.0622	16	20	-0.3566	0.3626	1.7247	0.7251	2.0860	Fail
Transects	0.3611	0.7634	18							
Mill Zone	0.3167	0.0725	9	16	1.5993	0.0647	1.7459	0.1293	2.1199	Fail
Control	0.1300	0.0557	10							
Mill Zone	0.3167	0.0725	9	22	-0.1978	0.4225	1.7171	0.8450	2.0739	Fail
Transects	0.3611	0.7634	18							
Pit Zone	0.1250	0.0075	4	12	-0.0580	0.4774	1.7823	0.9547	2.1788	Fail
Control	0.1300	0.0557	10							
Pit Zone	0.1250	0.0075	4	18	-1.1220	0.1383	1.7341	0.2766	2.1009	Fail
Transects	0.3611	0.7634	18							
Pond Zone	0.4000	0.0900	3	3	1.4317	0.1238	2.3534	0.2476	3.1824	Fail
Control	0.1300	0.0557	10							
Pond Zone	0.4000	0.0900	3	9	0.1445	0.4441	1.8331	0.8883	2.2622	Fail
Transects	0.3611	0.7634	18							
Road	0.3000	0.0000	2	9	2.2785	0.0243	1.8331	0.0487	2.2622	Fail
Control	0.1300	0.0557	10							
Riparian Zones	0.6333	0.0933	3	3	2.6282	0.0392	2.3534	0.0784	3.1824	Fail
Control	0.1300	0.0557	10							
Riparian Zones	0.6333	0.0933	3	4	-0.5901	0.2934	2.1318	0.5869	2.7764	Fail
Transects	1.2300	4.9570	5							

Lead (Pb) – Willow

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill, Pit, Pond Zone	0.6167	0.2259	18	16	1.2716	0.1108	1.7459	0.2217	2.1199	Fail
Control	0.3273	0.4317	11							
Mill, Pit, Pond Zone	0.6167	0.2259	18	25	0.7538	0.2290	1.7081	0.4580	2.0595	Fail
Transects	0.4808	0.2594	13							
Mill Zone	0.6909	0.2109	11	18	1.5045	0.0749	1.7341	0.1498	2.1009	Fail
Control	0.3273	0.4317	11							
Mill Zone	0.6909	0.2109	11	22	1.0624	0.1498	1.7171	0.2996	2.0739	Fail
Transects	0.4808	0.2594	13							
Pit Zone	0.5125	0.3706	4	6	0.5100	0.3141	1.9432	0.6283	2.4469	Fail
Control	0.3273	0.4317	11							
Pit Zone	0.5125	0.3706	4	4	0.0946	0.4646	2.1318	0.9292	2.7764	Fail
Transects	0.4808	0.2594	13							
Pond Zone	0.4833	0.2308	3	4	0.4578	0.3354	2.1318	0.6708	2.7764	Fail
Control	0.3273	0.4317	11							
Pond Zone	0.4833	0.2308	3	3	0.0082	0.4970	2.3534	0.9939	3.1824	Fail
Transects	0.4808	0.2594	13							
MWR	30.6500	883.5233	4	3	2.0401	0.0670	2.3534	0.1340	3.1824	Fail
Control	0.3273	0.4317	11							
PWR	2.5750	3.1492	4	3	2.4724	0.0449	2.3534	0.0899	3.1824	Fail
Control	0.3273	0.4317	11							
Riparian Zones	0.1400	0.0232	10	11	-0.8938	0.1953	1.7959	0.3906	2.2010	Fail
Control	0.3227	0.4342	11							
Riparian Zones	0.1400	0.0232	10	15	-2.2832	0.0187	1.7531	0.0374	2.1314	Pass - Opposite
Transects	0.4808	0.2594	13							
Pit	0.3000	#DIV/0!	1	0	-0.1144	#NUM!	#NUM!	#NUM!	#NUM!	Fail
Control	0.3227	0.4342	11							
Tailings Pond	6.1500	0.0450	2	6	23.4331	0.0000	1.9432	0.0000	2.4469	Pass
Control	0.3273	0.4317	11							

Mill, Pit and Pond Zones based on overall trends of elevated metal concentrations found in lichens and include the plots below.
Mill = G1, G2, G3, H1, H2, H3, U1, U2, I1, I2, J1, J2, K1, K2, L1
Pond = B1, B2, B3, S1, S2, S3, C1, C2, C3 Pit = O1, O2, P1, P2, R1, R2

Significance tests found above were conducted using a two sampled t-test assuming unequal variances ($\alpha = 0.05$ for all tests). Tests were termed a "pass" if the computed t-stat was greater than the t critical value for a two tailed test. In order to allow a sufficient samples size for the t-tests, those samples below the detection limit were estimated as half.

Plant Data Statistical Analysis

Silver (Ag) – Labrador Tea

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill, Pit, Pond Zone	0.0081	0.0000	16	19	1.9091	0.0357	1.7291	0.0715	2.0930	Fail
Control	0.0055	0.0000	10							
Mill, Pit, Pond Zone	0.0081	0.0000	16	23	-0.3165	0.3772	1.7139	0.7545	2.0687	Fail
Transects	0.0092	0.0002	18							
Mill Zone	0.0094	0.0000	9	9	1.8146	0.0515	1.8331	0.1030	2.2622	Fail
Control	0.0055	0.0000	10							
Mill Zone	0.0094	0.0000	9	25	0.0751	0.4704	1.7081	0.9407	2.0595	Fail
Transects	0.0092	0.0002	18							
Pit Zone	0.0063	0.0000	4	4	0.5571	0.3036	2.1318	0.6072	2.7764	Fail
Control	0.0055	0.0000	10							
Pit Zone	0.0063	0.0000	4	20	-0.8894	0.1922	1.7247	0.3843	2.0860	Fail
Transects	0.0092	0.0002	18							
Pond Zone	0.0067	0.0000	3	2	0.6705	0.2858	2.9200	0.5716	4.3027	Fail
Control	0.0055	0.0000	10							
Pond Zone	0.0067	0.0000	3	16	-0.7226	0.2402	1.7459	0.4803	2.1199	Fail
Transects	0.0092	0.0002	18							
Road	0.0075	0.0000	2	1	0.7845	0.2883	6.3138	0.5765	12.7062	Fail
Control	0.0055	0.0000	10							
Riparian Zones	0.0275	0.0025	8	7	1.2801	0.1206	1.8946	0.2413	2.3646	Fail
Control	0.0050	0.0000	10							
Riparian Zones	0.0275	0.0025	8	7	1.0279	0.1691	1.8946	0.3382	2.3646	Fail
Transects	0.0092	0.0002	18							

Silver (Ag) – Willow

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mill, Pit, Pond Zone	0.0189	0.0003	18	27	1.0092	0.1609	1.7033	0.3219	2.0518	Fail
Control	0.0136	0.0001	11							
Mill, Pit, Pond Zone	0.0189	0.0003	18	28	0.1411	0.4444	1.7011	0.8888	2.0484	Fail
Transects	0.0181	0.0002	13							
Mill Zone	0.0241	0.0004	11	15	1.5212	0.0745	1.7531	0.1490	2.1314	Fail
Control	0.0136	0.0001	11							
Mill Zone	0.0241	0.0004	11	18	0.8241	0.2103	1.7341	0.4207	2.1009	Fail
Transects	0.0181	0.0002	13							
Pit Zone	0.0113	0.0000	4	10	-0.5285	0.3044	1.8125	0.6087	2.2281	Fail
Control	0.0136	0.0001	11							
Pit Zone	0.0113	0.0000	4	13	-1.3283	0.1035	1.7709	0.2069	2.1604	Fail
Transects	0.0181	0.0002	13							
Pond Zone	0.0100	0.0001	3	4	-0.6103	0.2873	2.1318	0.5746	2.7764	Fail
Control	0.0136	0.0001	11							
Pond Zone	0.0100	0.0001	3	5	-1.2535	0.1327	2.0150	0.2654	2.5706	Fail
Transects	0.0181	0.0002	13							
MWR	0.4300	0.1403	4	3	2.2226	0.0564	2.3534	0.1128	3.1824	Fail
Control	0.0136	0.0001	11							
PWR	0.0400	0.0023	4	3	1.0974	0.1763	2.3534	0.3527	3.1824	Fail
Control	0.0136	0.0001	11							
Riparian Zones	0.0390	0.0002	10	18	3.6167	0.0010	1.7341	0.0020	2.1009	Pass
Control	0.0164	0.0002	11							
Riparian Zones	0.0390	0.0002	10	19	3.3190	0.0018	1.7291	0.0036	2.0930	Pass
Transects	0.0181	0.0002	13							
Pit	0.0100	#DIV/0!	1	0	-1.5934	#NUM!	#NUM!	#NUM!	#NUM!	Fail
Control	0.0164	0.0002	11							
Tailings Pond	0.0850	0.0001	2	2	11.9781	0.0034	2.9200	0.0069	4.3027	Pass
Control	0.0136	0.0001	11							

Mill, Pit and Pond Zones based on overall trends of elevated metal concentrations found in lichens and include the plots below.
Mill = G1, G2, G3, H1, H2, H3, U1, U2, I1, I2, J1, J2, K1, K2, L1
Pond = B1, B2, B3, S1, S2, S3, C1, C2, C3 Pit = O1, O2, P1, P2, R1, R2

Significance tests found above were conducted using a two sampled t-test assuming unequal variances (α = 0.05 for all tests). Tests were termed a "pass" if the computed t-stat was greater than the t critical value for a two tailed test. In order to allow a sufficient samples size for the t-tests, those samples below the detection limit were estimated as half.

Fish Data Statistical Analysis

Arsenic (As) – slimy sculpin

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Zone of Influence (Vic 3 & 4)	1.4333	0.2052	15	16	8.3086	0.0000	1.7459	0.0000	2.1199	Pass
Rowlinson(Row)	0.4300	0.0090	10							
Zone of Influence (Vic 3 & 4)	1.4333	0.2052	15	16	9.3531	0.0000	1.7459	0.0000	2.1199	Pass
Victoria Control A - Vic 5	0.3000	0.0050	5							
Zone of Influence (Vic 3 & 4)	1.4333	0.2052	15	18	4.6498	0.0001	1.7341	0.0002	2.1009	Pass
Victoria Control B - Vic 1	0.8400	0.0130	5							

Cadmium (Cd) – slimy sculpin

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Zone of Influence (Vic 3 & 4)	0.2040	0.0112	15	19	5.7361	0.0000	1.7291	0.0000	2.0930	Pass
Rowlinson (Row)	0.0340	0.0013	10							
Zone of Influence (Vic 3 & 4)	0.2040	0.0112	15	14	6.3343	0.0000	1.7613	0.0000	2.1448	Pass
Victoria Control A - Vic 5	0.0300	0.0000	5							
Zone of Influence (Vic 3 & 4)	0.2040	0.0112	15	17	-1.5141	0.0742	1.7396	0.1484	2.1098	Fail
Victoria Control B - Vic 1	0.2540	0.0017	5							

Cobalt (Co) – slimy sculpin

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Zone of Influence (Vic 3 & 4)	0.3400	0.0083	15	12	0.5928	0.2821	1.7823	0.5643	2.1788	Fail
Rowlinson (Row)	0.3000	0.0400	10							
Zone of Influence (Vic 3 & 4)	0.3400	0.0083	15	10	6.6759	0.0000	1.8125	0.0001	2.2281	Pass
Victoria Control A - Vic 5	0.0900	0.0043	5							
Zone of Influence (Vic 3 & 4)	0.3400	0.0083	15	12	0.0000	0.5000	1.7823	1.0000	2.1788	Fail
Victoria Control B - Vic 1	0.3400	0.0030	5							

Copper (Cu) – slimy sculpin

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Zone of Influence (Vic 3 & 4)	3.8600	0.4883	15	14	-0.6367	0.2673	1.7613	0.5346	2.1448	Fail
Rowlinson (Row)	4.1000	1.0956	10							
Zone of Influence (Vic 3 & 4)	3.8600	0.4883	15	12	1.5552	0.0729	1.7823	0.1459	2.1788	Fail
Victoria Control A - Vic 5	3.4600	0.1680	5							
Zone of Influence (Vic 3 & 4)	3.8600	0.4883	15	17	0.5120	0.3076	1.7396	0.6153	2.1098	Fail
Victoria Control B - Vic 1	3.7600	0.0280	5							

Lead (Pb) – slimy sculpin

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Zone of Influence (Vic 3 & 4)	0.2500	0.0321	15	14	4.1881	0.0005	1.7613	0.0009	2.1448	Pass
Rowlinson (Row)	0.0550	0.0003	10							
Zone of Influence (Vic 3 & 4)	0.2500	0.0321	15	17	3.0818	0.0034	1.7396	0.0068	2.1098	Pass
Victoria Control A - Vic 5	0.0800	0.0045	5							
Zone of Influence (Vic 3 & 4)	0.2500	0.0321	15	8	1.3651	0.1047	1.8595	0.2094	2.3060	Fail
Victoria Control B - Vic 1	0.1400	0.0218	5							

Significance tests found above were conducted using a two sampled t-test assuming unequal variances ($\alpha = 0.05$ for all tests). Tests were termed a "pass" if the computed t-stat was greater than the t critical value for a two tailed test. In order to allow a sufficient samples size for the t-tests, those samples below the detection limit were estimated as half.

Fish Data Statistical Analysis

Selenium (Se) – slimy sculpin

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Zone of Influence (Vic 3 & 4)	3.2600	1.5711	15	16	6.1191	0.0000	1.7459	0.0000	2.1199	Pass
Rowlinson (Row)	1.2200	0.0640	10							
Zone of Influence (Vic 3 & 4)	3.2600	1.5711	15	18	6.8061	0.0000	1.7341	0.0000	2.1009	Pass
Victoria Control A - Vic 5	0.8600	0.0980	5							
Zone of Influence (Vic 3 & 4)	3.2600	1.5711	15	6	-2.0075	0.0457	1.9432	0.0915	2.4469	Fail
Victoria Control B - Vic 1	4.6600	1.9080	5							

Silver (Ag) – slimy sculpin

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Zone of Influence (Vic 3 & 4)	0.0120	0.0001	15	14	3.4003	0.0022	1.7613	0.0043	2.1448	Pass
Rowlinson (Row)	0.0050	0.0000	10							
Zone of Influence (Vic 3 & 4)	0.0120	0.0001	15	8	1.0994	0.1518	1.8595	0.3036	2.3060	Fail
Victoria Control A - Vic 5	0.0080	0.0000	5							
Zone of Influence (Vic 3 & 4)	0.0120	0.0001	15	18	2.6216	0.0086	1.7341	0.0173	2.1009	Pass
Victoria Control B - Vic 1	0.0060	0.0000	5							

Arsenic (As) – burbot liver

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Zone of Influence	8.8000	31.5000	4	5	0.6315	0.2777	2.0150	0.5554	2.5706	Fail
Victoria Control	6.6500	14.8633	4							

Selenium (Se) – burbot liver

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Zone of Influence	2.9250	3.1758	4	6	0.7944	0.2286	1.9432	0.4572	2.4469	Fail
Victoria Control	1.9250	3.1625	4							

Tin (Sn) – burbot liver

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Zone of Influence	0.3875	0.2373	4	3	0.9683	0.2022	2.3534	0.4043	3.1824	Fail
Victoria Control	0.1500	0.0033	4							

Arsenic (As) – burbot tissue

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Zone of Influence	2.0750	0.6158	4	4	2.5251	0.0325	2.1318	0.0650	2.7764	Fail
Victoria Control	1.0250	0.0758	4							

Selenium (Se) – burbot tissue

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Zone of Influence	5.0250	23.5758	4	3	1.7327	0.0908	2.3534	0.1816	3.1824	Fail
Victoria Control	0.8000	0.2067	4							

Significance tests found above were conducted using a two sampled t-test assuming unequal variances ($\alpha = 0.05$ for all tests). Tests were termed a “pass” if the computed t-stat was greater than the t critical value for a two tailed test. In order to allow a sufficient samples size for the t-tests, those samples below the detection limit were estimated as half.

Bird Data Statistical Analysis

Arsenic (As) – gray jay liver

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
MINE	0.75	0.005	2	1	14	0.022697871	6.313748599	0.045395742	12.7061503	Pass
ROW	0.05	0	2							

Cadmium (Cd) – gray jay liver

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
MINE	6.525	23.18805	2	2	0.728625	0.270999149	2.91998731	0.541998299	4.302655725	Fail
ROW	3.675	7.41125	2							

Copper (Cu) – gray jay liver

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
MINE	14.45	2.205	2	1	-0.9006	0.266617042	6.313748599	0.533234083	12.7061503	Fail
ROW	15.4	0.02	2							

Magnesium (Mg) – gray jay liver

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
MINE	9.55	1.125	2	2	5.144958	0.01788174	2.91998731	0.03576348	4.302655725	Pass
ROW	5.05	0.405	2							

Lead (Pb) – gray jay liver

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
MINE	0.25	0.005	2	1	4	0.07797913	6.313748599	0.155958261	12.7061503	Fail
ROW	0.05	0	2							

Silver (Ag) – gray jay liver

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
MINE	0.075	0.00245	2	1	0.714286	0.302568457	6.313748599	0.605136914	12.7061503	Fail
ROW	0.05	0	2							

Significance tests found above were conducted using a two sampled t-test assuming unequal variances ($\alpha = 0.05$ for all tests). Tests were termed a "pass" if the computed t-stat was greater than the t critical value for a two tailed test. In order to allow a sufficient samples size for the t-tests, those samples below the detection limit were estimated as half.

Shrew Data Statistical Analysis

Arsenic (As) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mine	0.4142857	0.4314286	7	6	1.1815688	0.1410409	1.9431803	0.2820817	2.4469118	Fail
Control	0.12	0.002	5							

Cadmium (Cd) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mine	0.9271429	0.5481571	7	11	0.8520341	0.2061806	1.7958848	0.4123613	2.2009852	Fail
Control	0.6033333	0.3967467	6							

Silver (Ag) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Mine	0.0257143	0.0001286	7	7	0.5077852	0.3136045	1.8945786	0.6272089	2.3646243	Fail
Control	0.0208333	0.0004442	6							

Aluminum (Al) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	30.583333	1405.6177	6	5	1.3671726	0.1149145	2.0150484	0.2298289	2.5705818	Fail
Mine	9.5857143	11.281429	7							

Barium (Ba) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	13.533333	44.226667	6	8	1.926291	0.0451178	1.859548	0.0902356	2.3060041	Fail
Mine	7.4857143	17.398095	7							

Calcium (Ca) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	40000	342052000	6	6	1.3557261	0.1119951	1.9431803	0.2239903	2.4469118	Fail
Mine	29142.857	49876190	7							

Chromium (Cr) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	0.225	0.02575	6	5	2.4292995	0.029716	2.0150484	0.059432	2.5705818	Fail
Mine	0.0642857	0.0005952	7							

Copper (Cu) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	16.8	80.476	6	5	1.4126603	0.1084337	2.0150484	0.2168674	2.5705818	Fail
Mine	11.585714	1.4814286	7							

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Shrew Data Statistical Analysis

Iron (Fe) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	595.16667	91585.367	6	6	1.5181167	0.0898918	1.9431803	0.1797836	2.4469118	Fail
Mine	398.28571	10882.571	7							

Lead (Pb) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	0.3666667	0.0266667	6	11	1.8478729	0.0458324	1.7958848	0.0916648	2.2009852	Fail
Mine	0.2	0.0258333	7							

Mercury (Hg) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	0.1268333	0.0071126	6	8	1.3114108	0.1130519	1.859548	0.2261039	2.3060041	Fail
Mine	0.0744286	0.00288	7							

Nickel (Ni) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	3.6833333	72.813667	6	5	1.0121683	0.1789518	2.0150484	0.3579037	2.5705818	Fail
Mine	0.1571429	0.0086905	7							

Phosphorous (P) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	77650	1.968E+09	6	5	3.1504394	0.0126832	2.0150484	0.0253664	2.5705818	Pass
Mine	20414.286	13898095	7							

Selenium (Se) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	2.9	2.568	6	5	2.3456344	0.0329584	2.0150484	0.0659168	2.5705818	Fail
Mine	1.3285714	0.1457143	7							

Silicon (Si) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	168.16667	4222.9667	6	5	3.7319865	0.0067716	2.0150484	0.0135432	2.5705818	Pass
Mine	67.428571	173.61905	7							

Titanium (Ti) – shrew (whole)

	Mean	Variance	N	df	t Stat	P(T<=t) one-tail	t Critical one-tail	P(T<=t) two-tail	t Critical two-tail	Status
Control	17.35	61.971	6	5	2.7851428	0.0193331	2.0150484	0.0386662	2.5705818	Pass
Mine	8.3	1.61	7							

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Control samples include those collected at the Rowlinson Creek control area as well as control samples collected by Gartner Lee Ltd. near Faro (Gartner Lee 2007).