

APPENDICES A TO D

To Accompany 1986 Final Report on the
Chemainus Project, 92B/13, 92C/16

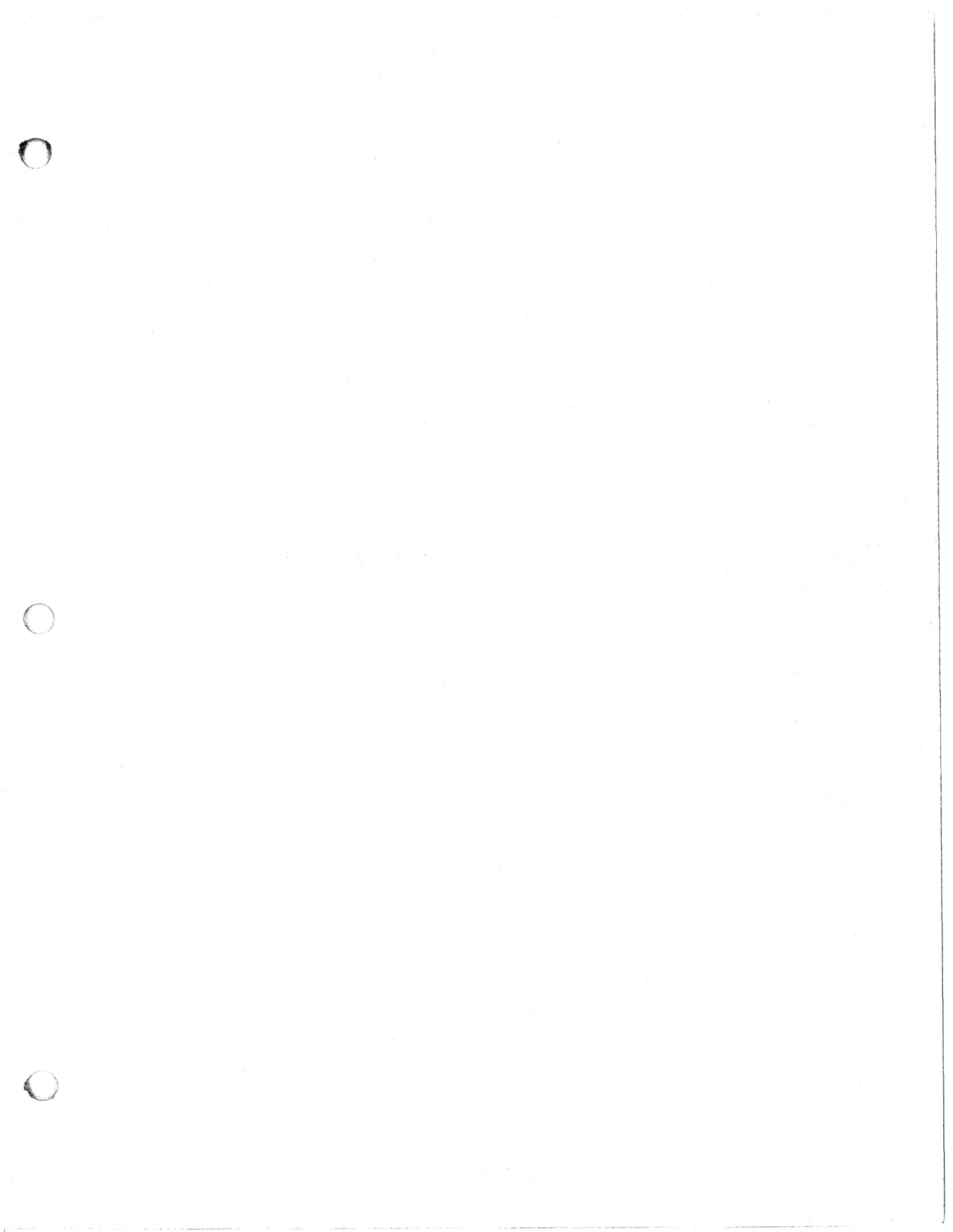
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CHEMAINUS





APPENDIX A

LITHOGEOCHEMISTRY - SAMPLING TECHNIQUES AND THEORY

LITHOGEOCHEMISTRY

Lithochemical sampling was conducted on a slightly biased basis over the Chip claims. A Kuroko-type massive sulphide model was applied to exploration, therefore the lithologies and frequency of samples collected within individual lithologies vary accordingly.

The stratigraphy of the project-area was sufficiently understood that one had high confidence in the potential of specific units for hosting volcanogenic massive sulphide (VMS) deposits. Accordingly, the Nanaimo Group was ignored. The Sediment-Sill Unit (SSU) was sampled infrequently.

Nearly all outcrops of volcanoclastic-pyroclastic rocks within Myra Formation stratigraphy were sampled. Intermediate and mafic composition volcanic flows were less intensively sampled. Given that these rocks had a much lower permeability than the volcanoclastic rocks at the time of deposition they would have been less susceptible to hydrothermal alteration.

Intensive, high density sampling was carried out where the potential for massive sulphide mineralization was high (ie. Anita showing, 1986 diamond drill holes, (see Enns, 1987) and it was advantageous to know the younging direction.

Rock samples ranged from 0.5 to 1.5 kg of unweathered material. Whole rock geochemical analysis was performed by X-Ray Assay Laboratories Limited of Don Mills, Ontario. Major and minor oxides were analyzed by X-ray fluorescence spectrometry (XRF). Trace and rare earth elements were analyzed by neutron activation (NAA) and direct current plasma (DCP) techniques.

Selected samples were analysed by Acme Analytical Laboratories Ltd. of Vancouver, B.C. for base and precious metals. Base metals and silver were analysed by inductively coupled plasma (ICP) techniques. Gold was analysed by atomic absorption spectrometry (AAS).

Table 14 shows the number and distribution of rock samples sent to selected laboratories.

Data was entered into the Kidd Creek Mines Ltd. PDP-11 Digital computer system. In-house computer programs were used in data manipulation.

TABLE 14

DISTRIBUTION OF ROCK SAMPLES SENT TO VARIOUS ANALYTICAL LABORATORIES
AND COMPILATION OF ANALYTICAL METHODS APPLIED

LABORATORY	NO. SAMPLES	TECHNIQUES	PACKAGE
XRAL	172	XRF	Whole rock 17 element analysis plus LOI
XRAL	7	XRF + DCP	Whole rock 17 element analysis plus LOI and base, precious metal analysis
XRAL	68	XRF + NA	Whole rock 17 element analysis plus LOI and Group 2 multi-element analysis
ACME	54	ICP + AA	Cu, Pb, Ag, Au
ACME	5	ICP + AA	Cu, Pb, Zn, Ag, Au, Ba, As

Alteration Criteria for Volcanic Rocks

To test the possibility that samples from the Chemainus project-area had undergone alkali metasomatism, all analyses were plotted on Hughes diagrams (not included) and numerical alteration indices were calculated (Table 6).

The Hughes diagram $[(\text{Na}_2\text{O}+\text{K}_2\text{O}) \text{ vs } 100 \times \text{K}_2\text{O}/(\text{K}_2\text{O}+\text{Na}_2\text{O})]$ (Hughes, 1972) contains a broad field termed the "igneous spectrum" in which most unaltered or very slightly altered Cenozoic volcanic rocks plot. Various authors have modified the field to incorporate volcanic rocks from ensimatic magmatic arcs (Stauffer et al, 1975; Kemp, 1982). Those samples which plot outside of the modified "igneous spectrum" are considered to have undergone significant alkali metasomatism (either depletion or enrichment).

Hydrothermal alteration of metavolcanic units associated with VMS deposits is most typically characterized by enrichment of MgO, FeO, and occasionally K₂O, and depletion of CaO, Na₂O and K₂O (Riverin et al, 1980). Alteration indices serve two purposes:

- (1) to identify unaltered or only slightly altered volcanic rocks, and
- (2) to delimit fossil geothermal circulation systems and to target zones indicative of intense metasomatism which may be closely related to mineralization (Kemp, 1982).

Ishikawa et al, (1976) recognized alkali and alkali earth metasomatism associated with Kuroko deposits. They suggested that extensive anomalies would be best defined by an alteration index given as $\text{A.I.} = [(\text{MgO} + \text{K}_2\text{O})/(\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}) \times 100]$. Izawa et al, (1976) suggested that an A.I. value of 50 would represent the upper threshold for unaltered felsic rock, however, this is a relatively qualitative value.

Kemp (1982) calculated the alteration indices for numerous published analyses from modern and ancient magmatic arc terranes. The A.I. values ranged from less than 20 to the upper 50's. The only type of unaltered volcanic rock that had an index value consistently greater than 60 was picritic basalt. This reflects the rock's high MgO and low alkali content.

The author proposes using the following system for recognition of geochemical anomalies based on the Ishikawa alteration index.

Alteration Index	Classification
< 50	Background
> 50 and < 60	Weakly anomalous
> 60 and < 70	Moderately anomalous
> 70	Strongly anomalous

Spitz et al, (1978), in a detailed petrochemical study around the Louvem copper deposit in the Abitibi greenstone belt recommended the use of the Al_2O_3/Na_2O ratio to delimit hydrothermally altered volcanic rocks associated with mineralization. They found that mafic and intermediate composition rocks displayed ratios ranging from less than 3.5 up to 4.9 for felsic volcanic rocks. They considered any rock with a ratio greater than 10.0 to be altered.

Kemp (1982) calculated the Al_2O_3/Na_2O ratios for published analyses from magmatic arc terranes. He determined that the ratios suggested by Spitz et al, (1978) were not directly correlative with the broader data base. He found that the ratio varied from 1.5 to about 6.5 for unaltered mafic to felsic volcanic rocks. The proposed value of 10.0 (Spitz et al, 1978) remained valid as a threshold of alteration in these cases.

Rare Earth Elements and Implications for Volcanogenic Massive Sulphide Exploration

Much of the data published concerning the geochemistry of rare earth elements (REE) and their role in detection of massive sulphide deposits has been derived from Archaean examples (Campbell et al, 1982; Campbell et al, 1984; Whitford, 1985). Conclusions drawn from such a data base may be applicable to younger massive sulphide deposits (Dostal, pers. comm., 1987).

An important characteristic of Archaean Cu-Zn VMS deposits is their close association with felsic volcanic rocks; however, the presence of felsic volcanics does not necessarily imply the presence of VMS.

Campbell et al, (1982) proposed that "fertile" felsic volcanic rocks, those associated with massive sulphide mineralization, could be distinguished from "barren" felsic rocks on the basis of distinctive REE distribution patterns. Leshner et al, (1986) divided the felsic metavolcanic rocks in the Superior Province of the Canadian Shield into three major groups on the basis of trace element abundances and ratios (Table 15). FIII and FII (Sturgeon Lake) rocks were found to host major deposits, namely the Kamiskotia, Kidd Creek, Matagami and Noranda deposits.

The geochemical variations in type FI, FII and FIII rocks (Table 15) are interpreted to reflect differences in the petrogenesis of the felsic magmas, specifically, their formation or degree of fractional crystallization in high level magma chambers, which also influenced the formation of massive sulphide deposits. Type FI and most FII felsic volcanics are thought to have escaped significant fractional crystallization accounting for their distinctive geochemical signatures and the lack of massive sulphide mineralization.

The data currently available for central Canadian Shield deposits indicate that REE geochemistry of felsic metavolcanic rocks may be used as a guide to indentify prospective volcanic belts for massive sulphide

mineralization in the Superior Province. Acquisition of a broader data base and further study of known western Canadian deposits will test this hypothesis in the Cordillera.

Grouping Criteria for Volcanic Rocks

The chemistry of magmas is controlled by genetic processes (Gast, 1968; Shaw, 1970). REE have proven to be especially sensitive to genetic processes such as fractional crystallization, and variations in the degree of partial melting and the nature of melt residue (Campbell et al, 1982). The REE and Y, plus high field-strength elements (HFS: high charge, small ionic radius) such as Th, U, Zr, and Hf are comparatively immobile except during severe metamorphism, weathering and hydrothermal alteration (Hanson, 1980; Lesher et al, 1986).

Because of this feature the examination of REE chemistry is an effective means of distinguishing between different volcanic rock types.

REE patterns for selected volcanic lithologies are shown below (Figures A 16 to 23) Four volcanic rock-types in the Chemainus project-area have been classified on the basis of REE patterns. A summary of REE patterns, contents and trace element contents is given in Table 16. In order to maintain a consistency between REE values in this report and those quoted by Lesher et al, (1986), the chondrite normalizing values for La and Lu are those of the Leedy chondrite divided by 1.2. The $[La/Lu]_{cn}$ values given in Table 16 are medians of a limited population. This was considered to be the most representative figure.

Mean and median trace element contents for the four selected volcanic rock types are low; however the chlorite schists (mafic volcaniclastic rocks) do have higher contents than the felsic rocks.

TABLE 6

COMPARISON OF NUMERICAL ALTERATION INDICES WITH HUGHES'
"IGNEOUS SPECTRUM" POSITION - CHIP CLAIMS - 1983 THROUGH 1986.

SAMPLE	ISHIKAWA ALTERATION INDEX	SPITZ & DARLING INDEX	HUGHES DIAGRAM INTERPRETATION	MASUDA-CORYELL INTERPRETATION
AB13601	82.49	24.52	ALTERED	
AB13602	82.30	14.89	ALTERED	
* AB13603	22.84	2.21	ALTERED	
AB13605	50.71	10.08	ALTERED	
* AB13606	74.41	9.21	UNALTERED	
* AB13607	28.46	3.81	ALTERED	
* AB13608	22.08	67.33	ALTERED	
AB13609	24.62	5.12	UNALTERED	
AB13610	36.37	6.11	UNALTERED	
AB13611	42.49	5.78	UNALTERED	
* AB13612	14.47	4.35	ALTERED	
AB13613	82.44	31.00	ALTERED	
* AB13614	45.00	2.83	ALTERED	
AB13615	38.24	3.10	UNALTERED	
* AB13616	53.33	3.00	ALTERED	
AB15501	39.33	4.35	UNALTERED	
* AB15502	45.85	11.96	ALTERED	
AB15503	51.78	46.18	ALTERED	
AB15504	51.30	13.58	ALTERED	
AB15505	42.29	5.44	UNALTERED	
* AB15506	58.01	6.58	ALTERED	
AB15507	67.60	34.46	ALTERED	
* AB15508	47.97	11.57	ALTERED	
* AB15509	36.17	10.89	ALTERED	
AB15510	56.98	10.00	ALTERED	
* AB15511	35.28	9.29	ALTERED	
* AB15512	55.75	9.39	ALTERED	
* AB15513	30.94	3.85	ALTERED	
* AB15514	38.40	7.46	ALTERED	
AB15515	60.88	18.22	ALTERED	
AB15516	46.65	4.17	UNALTERED	
* AB15517	66.00	4.89	UNALTERED	
* AB15518	69.94	9.17	ALTERED	
AB15519	86.65	28.44	ALTERED	
* AB15520	33.22	8.56	ALTERED	
AB15521	58.24	5.62	ALTERED/UNALTERED	
AB15522	38.66	7.21	UNALTERED	
* AB15523	20.42	3.42	ALTERED	
* AB15524	21.41	3.23	ALTERED	

* AB15525	33.92	3.37	ALTERED
* AB15526	47.31	14.00	ALTERED
AB15527	31.50	5.14	UNALTERED
* AB15528	50.46	9.22	ALTERED
* AB15529	48.62	6.13	ALTERED
AB15530	34.79	7.61	UNALTERED
* AB15531	33.71	38.16	UNALTERED
AB15532	39.49	4.14	UNALTERED
AB15533	40.92	5.90	UNALTERED
* AB15534	34.58	4.45	ALTERED
* AB15535	49.79	10.00	ALTERED
* AB15536	64.08	8.32	ALTERED
AB15537	25.89	7.70	UNALTERED
* AB15538	35.36	3.24	ALTERED
AB15539	64.79	13.55	ALTERED
* AB15540	42.69	11.19	ALTERED
* AB15541	50.14	4.75	UNALTERED
AB15542	40.78	6.44	UNALTERED
AB15543	40.70	3.74	UNALTERED
AB15544	83.56	20.72	ALTERED
* AB15545	19.88	4.76	ALTERED
* AB15546	23.53	4.82	ALTERED
AB15547	42.86	5.43	UNALTERED
AB15548	95.34	78.75	ALTERED
AB15549	58.73	15.54	ALTERED
* AB15551	52.32	8.00	ALTERED
AB15552	30.53	7.52	UNALTERED
AB15553	34.80	9.37	UNALTERED
* AB15554	50.34	4.80	UNALTERED
AB15555	36.69	5.57	UNALTERED
AB15556	42.90	4.77	UNALTERED
* AB15557	61.38	7.53	ALTERED
* AB15558	17.82	2.08	ALTERED
* AB15559	50.97	4.77	UNALTERED
AB15560	30.24	3.36	UNALTERED
AB15561	54.45	385.00	ALTERED
* AB15562	21.38	2.77	ALTERED
* AB15563	33.95	2.67	ALTERED/UNALTERED
* AB15564	37.41	2.25	ALTERED
AB15565	33.74	2.81	UNALTERED
* AB15567	25.43	2.29	ALTERED
* AB15570	42.15	5.35	ALTERED
* AB15571	22.54	3.61	ALTERED
AB15572	41.35	5.43	UNALTERED
AB15573	49.51	5.80	UNALTERED
* AB15576	30.41	3.68	ALTERED
AB15577	43.51	4.28	UNALTERED
AB15581	38.70	8.12	UNALTERED
* AB15582	59.66	8.51	ALTERED

AB15583	31.28	9.49	ALTERED/UNALTERED
* AB15584	32.77	9.95	ALTERED
AB15585	47.84	5.46	UNALTERED
* AB15586	79.87	8.67	ALTERED
* AB15587	24.50	7.72	ALTERED
* AB15589	58.34	6.82	UNALTERED
AB15590	47.34	4.68	UNALTERED
* AB15591	57.07	6.27	UNALTERED
AB15593	34.19	4.96	UNALTERED
* AB15595	36.99	24.53	ALTERED
AB15596	88.77	20.68	ALTERED
AB15597	27.05	3.46	UNALTERED
* AB15599	31.46	13.05	ALTERED
* AB15603	46.95	4.77	ALTERED
AB15604	46.21	4.10	UNALTERED
* AB15605	34.68	3.28	ALTERED
AB15606	69.03	27.31	ALTERED
AB15609	43.10	3.83	UNALTERED
AB15610	48.82	4.11	UNALTERED
* AB15611	55.32	4.24	UNALTERED
* AB15612	53.51	6.57	ALTERED
* AB15613	47.44	88.50	ALTERED
* AB15614	59.31	6.73	ALTERED
* AB15615	50.35	4.22	UNALTERED
* AB15616	20.58	2.49	ALTERED
AB15617	38.07	4.01	UNALTERED
AB15618	46.68	4.29	UNALTERED
* AB15619	57.90	6.43	ALTERED
* AB15620	61.38	5.63	ALTERED
AB15624	40.86	4.26	UNALTERED
AB15625	35.23	6.52	UNALTERED
AB15626	56.45	12.52	ALTERED
AB15627	67.98	12.26	ALTERED
* AB15628	59.70	5.80	ALTERED
AB15629	32.70	4.93	UNALTERED
* AB15630	33.14	2.89	ALTERED
* AB15631	51.86	5.79	ALTERED
* AB15632	27.27	2.86	ALTERED/UNALTERED
AB15633	44.10	4.33	UNALTERED
* AB15634	24.64	2.37	ALTERED
AB15637	44.18	2.87	UNALTERED
* AB15638	18.41	2.14	ALTERED
* AB15639	34.06	2.84	ALTERED
* AB15640	14.61	2.07	ALTERED
AB15641	23.95	3.31	UNALTERED
AB15642	25.86	4.38	UNALTERED
AB15643	24.20	3.17	UNALTERED
* AB15644	29.31	9.12	ALTERED
AB15645	24.81	3.45	UNALTERED

AB15647	29.29	5.72	UNALTERED	
* AB15648	38.65	5.21	ALTERED	
AB15649	35.27	4.35	UNALTERED	
* AB15650	21.79	2.22	ALTERED	
* AB15651	78.35	8.23	UNALTERED	
* AB15652	50.02	5.13	UNALTERED	
* AB15653	65.62	6.84	ALTERED	ALTERED
AB15654	43.10	4.72	UNALTERED	
* AB15655	32.52	3.81	ALTERED	
* AB15656	36.43	12.37	UNALTERED	
* AB15658	36.61	28.51	UNALTERED	
AB15662	23.19	9.10	UNALTERED	
AB15666	35.55	7.26	UNALTERED	
* AB15667	28.83	3.51	ALTERED	
AB15668	38.75	6.21	UNALTERED	
* AB15669	63.45	8.97	ALTERED	
* AB15670	33.62	3.84	ALTERED/UNALTERED	
AB15671	27.14	6.13	UNALTERED	
AB15672	92.71	25.00	ALTERED	ALTERED
AB15673	47.85	5.11	UNALTERED	
* AB15674	28.27	12.05	ALTERED	
* AB15675	54.09	6.33	ALTERED	
* AB15676	53.65	4.57	UNALTERED	
AB15677	71.57	10.28	ALTERED	
AB15678	35.15	6.72	UNALTERED	
* AB15679	29.99	14.63	ALTERED	
AB15680	33.47	5.47	UNALTERED	
AB15682	38.05	5.55	UNALTERED	
AB15683	45.23	4.05	UNALTERED	
AB15684	25.09	2.86	UNALTERED	
AB15685	73.24	10.00	ALTERED	
AB15686	45.54	5.69	UNALTERED	
AB15687	46.47	4.77	UNALTERED	
* AB15688	79.47	8.09	ALTERED	
* AB15689	62.45	5.16	ALTERED	
AB15690	32.84	4.97	UNALTERED	
* AB15692	70.91	5.70	UNALTERED	
* AB15693	50.54	4.60	ALTERED	
AB15694	83.42	32.86	ALTERED	
* AB15695	49.54	10.90	ALTERED	
* AB15696	55.57	4.07	UNALTERED	
* AB15697	60.03	4.49	ALTERED	
AB15698	84.78	16.68	ALTERED	
AB15699	30.62	8.97	UNALTERED	
* AB15700	67.53	8.28	ALTERED	
AB15801	45.81	4.83	UNALTERED	
* AB15802	61.66	6.52	ALTERED	
* AB15803	51.56	4.93	UNALTERED	
AB15804	35.10	6.13	UNALTERED	

AB15805	39.34	3.23	UNALTERED	
* AB15806	59.60	5.55	UNALTERED	
AB15807	19.77	3.23	UNALTERED	
* AB15847	48.32	7.68	ALTERED	
* AB15848	51.15	6.16	ALTERED	
AB15849	36.58	3.53	UNALTERED	
* AB15850	22.25	2.84	ALTERED/UNALTERED	
* AB15904	40.98	4.56	ALTERED	
* AB15905	36.28	3.72	ALTERED	
AB15909	43.87	6.14	UNALTERED	
* AB15910	38.01	5.89	ALTERED	
AB15911	61.11	10.00	ALTERED	
* AB15912	57.70	9.08	ALTERED	
AB15914	41.01	3.68	UNALTERED	
AB15920	53.04	20.57	ALTERED	
* AB15921	20.99	2.12	ALTERED	
AB15923	38.55	2.61	UNALTERED	
AB15924	95.83	90.71	ALTERED	
* AB15926	69.39	8.66	ALTERED	ALTERED
AB15928	96.06	75.33	ALTERED	
AB15929	97.19	66.32	ALTERED	
AB15951	32.57	8.26	UNALTERED	
* AB15954	30.79	3.28	ALTERED	
AB15955	49.20	4.04	UNALTERED	
* AB15956	58.31	6.75	UNALTERED	
* AB15957	43.49	16.97	ALTERED	
AB15958	28.63	5.40	UNALTERED	
AB15959	46.19	4.43	UNALTERED	
* AB15960	50.51	6.68	ALTERED	
AB15961	50.57	17.64	ALTERED	
* AB15962	36.95	12.08	ALTERED	
* AB15963	40.83	7.10	ALTERED	
AB15964	49.72	6.72	UNALTERED	
AB15965	42.66	3.25	UNALTERED	
* AB15966	60.00	4.27	UNALTERED	ALTERED
* AB15967	71.76	8.14	ALTERED	
AB15972	52.59	8.22	ALTERED/UNALTERED	
AB15973	40.80	3.72	UNALTERED	
AB15975	23.50	2.31	UNALTERED	
AB15976	92.76	80.00	ALTERED	
AB15977	26.25	3.05	UNALTERED	
AB17601	32.54	3.61	UNALTERED	
AB17602	33.44	3.84	UNALTERED	
AB17603	35.73	3.38	UNALTERED	
* AB17604	56.91	4.98	UNALTERED	
AB17605	42.99	3.97	UNALTERED	
AB17606	26.67	2.96	UNALTERED	
* AB17607	69.46	7.61	ALTERED	
AB17608	40.02	2.96	UNALTERED	

AB17609	12.03	5.33	UNALTERED	
* AB17610	11.66	2.64	ALTERED	
AB17611	37.64	3.95	UNALTERED	
AB17612	31.76	3.19	UNALTERED	
AB17613	44.71	4.45	UNALTERED	
AB17614	31.66	7.68	UNALTERED	
AB17615	26.98	4.77	UNALTERED	
AB17616	37.56	5.13	UNALTERED	
AB17617	82.92	20.14	ALTERED	
AB17618	68.47	18.03	ALTERED	
AB17619	43.24	11.55	ALTERED	
* AB17620	72.70	8.02	ALTERED	
* AB17621	63.52	4.13	UNALTERED	
* AB17801	41.67	4.33	ALTERED	ALTERED
* AB17802	70.00	8.04	ALTERED	
AB17821	96.16	62.50	ALTERED	ALTERED
AB17822	60.38	5.00	ALTERED/UNALTERED	
* AB17823	42.27	5.86	ALTERED/UNALTERED	
* AB17824	51.22	5.23	UNALTERED	
* AB17825	51.54	4.66	UNALTERED	
* AB17826	72.61	8.02	ALTERED	
AB17827	82.13	11.47	ALTERED	
* AB17828	70.48	7.72	ALTERED	
* AB17829	27.35	2.79	ALTERED	
AB17830	78.85	12.79	ALTERED	
* AB17831	45.22	3.18	ALTERED	
AB17832	45.99	3.51	UNALTERED	
* AB17833	32.57	3.69	ALTERED	
* AB17834	65.74	5.89	ALTERED	
AB17840	36.66	6.73	UNALTERED	
AB17841	77.67	18.49	ALTERED	
* AB17847	65.38	7.97	ALTERED	
* AB17848	41.49	5.88	ALTERED	
AB17849	36.71	4.05	UNALTERED	
* AB17850	40.41	7.04	ALTERED	
AB17852	94.42	46.80	ALTERED	
* AB17863	62.81	5.92	ALTERED	
AB17864	59.62	5.45	ALTERED/UNALTERED	
* AB17865	48.25	5.62	ALTERED	
* AB17866	59.46	5.80	ALTERED	
AB17867	31.18	3.48	UNALTERED	
* AB17868	30.63	4.65	ALTERED	
AB17869	35.15	5.25	UNALTERED	
* AB17870	45.38	12.87	ALTERED	
AB17871	46.56	4.58	UNALTERED	
* AB17872	61.60	8.21	UNALTERED	
AB17873	77.59	15.00	ALTERED	
* AB17874	77.15	8.60	UNALTERED	
AB17875	52.03	13.58	ALTERED	

AB17876	80.31	28.11	ALTERED
AB17877	60.00	5.82	ALTERED/UNALTERED
* AB17878	75.33	9.52	ALTERED
* AB17879	55.85	5.15	UNALTERED
* AB17880	42.70	3.52	ALTERED
* AB17881	43.98	4.05	ALTERED
* AB17883	42.62	5.71	ALTERED
AB17884	41.56	5.32	UNALTERED
* AB17902	69.35	5.78	UNALTERED
AB17903	49.86	4.74	UNALTERED
AB17904	45.30	3.97	UNALTERED
* AB17905	51.09	3.85	UNALTERED
* AB17906	43.99	6.82	ALTERED
* AB17907	53.05	4.62	UNALTERED
AB17908	37.86	8.96	UNALTERED
* AB17909	60.26	6.32	ALTERED
AB17910	40.14	4.69	UNALTERED
AB17911	41.86	3.95	UNALTERED
AB17912	81.70	28.90	ALTERED
* AB17913	57.33	6.17	ALTERED
AB17914	31.36	4.13	UNALTERED
AB17915	43.87	5.03	UNALTERED
* AB17916	47.55	5.90	ALTERED/UNALTERED
* AB17917	48.75	7.24	ALTERED
AB17918	74.60	10.92	ALTERED
AB17919	39.13	3.58	UNALTERED
AB17920	36.38	3.04	UNALTERED
* AB17921	26.12	2.51	ALTERED
* AB17922	59.53	6.38	ALTERED
* AB17923	25.51	3.08	ALTERED
* AB17924	46.23	6.41	ALTERED
* AB17925	64.23	8.59	ALTERED
* AB17926	55.63	6.54	ALTERED
AB17927	49.40	3.57	UNALTERED
AB17928	54.07	5.23	ALTERED/UNALTERED
* AB17929	54.41	5.37	UNALTERED
AB17930	90.97	32.26	ALTERED
AB17931	46.61	4.97	UNALTERED
AB17933	40.56	3.42	UNALTERED
* AB17934	36.70	3.07	ALTERED/UNALTERED
AB17935	49.57	4.18	UNALTERED
AB17984	57.82	11.04	ALTERED
AB17985	86.45	28.12	ALTERED
AB17986	85.81	42.12	ALTERED
AB17987	39.86	4.59	UNALTERED
AB17988	72.53	18.17	ALTERED
AB17989	84.40	34.36	ALTERED
AB17990	88.10	41.58	ALTERED
AB17991	69.46	18.05	ALTERED

AB17992	39.23	4.40	UNALTERED
AB17993	28.68	4.30	UNALTERED
AB17994	55.92	8.62	ALTERED/UNALTERED
AB17995	41.40	3.90	UNALTERED
AB17996	65.95	7.82	ALTERED/UNALTERED
AB17997	45.36	5.20	UNALTERED
AB17998	53.02	4.95	ALTERED/UNALTERED
AB17999	69.12	11.95	ALTERED
AB18000	29.44	3.29	UNALTERED
AB18600	49.58	5.57	UNALTERED
* AB18614	29.14	2.84	ALTERED
AB18615	40.46	3.33	UNALTERED
AB18616	43.99	3.69	UNALTERED
AB18617	42.28	4.10	UNALTERED
AB18618	42.87	4.03	UNALTERED
* AB18619	48.95	8.08	ALTERED
AB18620	38.80	3.47	UNALTERED
* AB18621	53.72	5.08	UNALTERED
AB18622	40.50	3.50	UNALTERED
AB18642	85.91	36.47	ALTERED
AB18643	59.19	10.51	ALTERED

* Indicates an apparent conflict in interpretation between plot position in Hughes' modified "igneous spectrum", Ishikawa alteration index and Spitz-Darling alteration index.

TABLE 15

RARE EARTH AND TRACE ELEMENT CHARACTERISTICS OF FELSIC METAVOLCANIC ROCKS IN THE SUPERIOR PROVINCE - CANADIAN SHIELD

	FI TYPE	FII TYPE	FIII TYPE	
			a	b
Rock Type	Dacites and rhyodacites	Rhyodacites and rhyolites	Rhyolites and high-silica rhyolites	
REE Pattern	Steep	Gently sloping	Flat	Flat
Eu anomaly	Weakly negative to moderately positive (Eu/Eu*)=0.87-2.0	Variable anomalies (Eu/Eu*)=0.35-1.4	Variable (Eu/Eu*)=0.37-0.94	Pronounced negative (Eu/Eu*)=0.20-0.61
(La/Lu) _{cn}	6-34	2-6	1-4	1-4
Zr/Y	9-31	6-11	4-7	2-6
HFS elements	Low abundances	Intermediate abundances	Intermediate abundances	High abundances
Sr	High abundances	Intermediate abundances	Intermediate abundances	Low abundances
Areas	Bowman, Skead (Otto, Boston Creek, St. Anthony Lake) Kakagi Lake, Lake of the Woods, Shoal Lake, Sturgeon Lake (Cycles 1b and 3), Confederation Lake (Cycle 1)	Misema Lake (Bernhardt and South Magusi-Dasserat sections), Wabigoon Lake, Sturgeon Lake (Cycles 1a, 1b, 2) and Confederation Lake (Cycle II)	Rouyn-Noranda area (Zones II and IV) including Don, Waite, Amulet, and Beecham rhyolites	Kamiskotia, Kidd Creek Garrison, Matagami, Noranda (NW rhyolite) Confederation Lake (Cycle III)

TABLE 16

RARE EARTH AND TRACE ELEMENT CHARACTERISTICS OF SELECTED
VOLCANIC ROCKS ON THE CHIP CLAIMS

REE Pattern	Felsic Volcaniclastics n=15	Sericite Schist n=6	Chlorite-Sericite Schist n=7	Chlorite Schist n=7
Eu Anomaly	Strongly negative	Absent	Mildly negative	Mildly neg.
\bar{x} La (ppm)	14.77	14.38	14.23	21.51
ϕ La (ppm)	14.20	14.30	13.00	18.90
\bar{x} Lu (ppm)	0.33	0.33	0.30	0.42
ϕ Lu (ppm)	0.35	0.34	0.31	0.37
ϕ [La/Lu] _{cn}	4.33	4.53	4.73	6.00
\bar{x} Zr (ppm)	94.00	91.67	97.14	78.57
ϕ Zr (ppm)	90.00	90.00	90.00	100.00
\bar{x} Y (ppm)	14.33	15.00	10.71	20.00
ϕ Y (ppm)	10.00	10.00	10.00	20.00
\bar{x} Sr (ppm)	105.67	115.00	170.00	225.71
ϕ Sr (ppm)	80.00	100.00	120.00	250.00

n = number of samples

\bar{x} = arithmetic mean

ϕ = median

(cn) Chondrite-normalizing values for [La/Lu]_{cn} are those of the Leedy chondrite divided by 1.20 (see Taylor et al, 1977).

SEPARATION OF ALKALINE AND SUB-ALKALINE VOLCANIC SUITES
(after Macdonald, 1968)

Figures A1 to A5

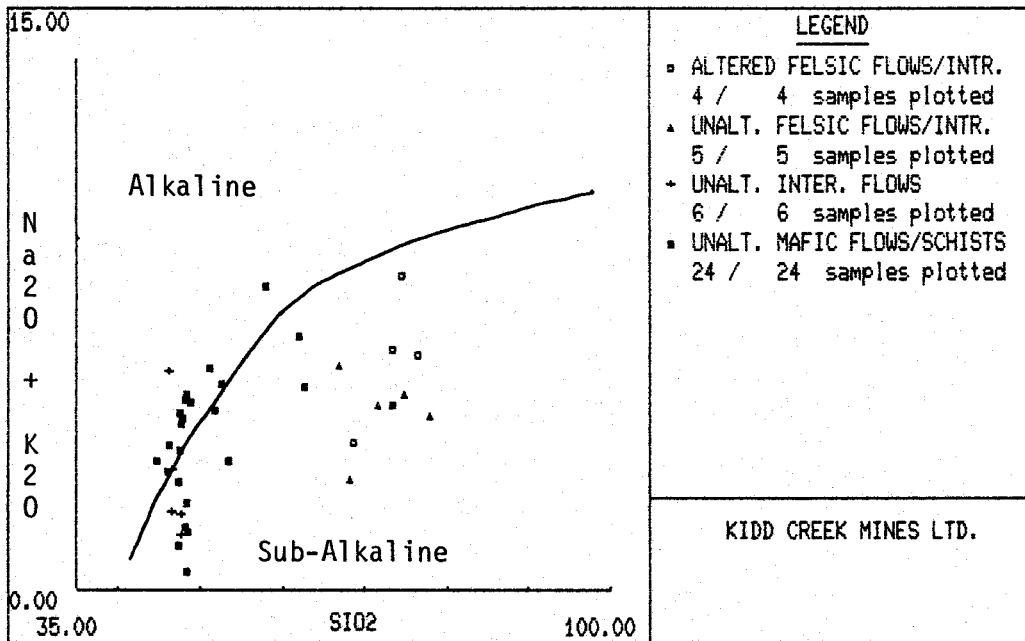


Figure A 1 - Flows

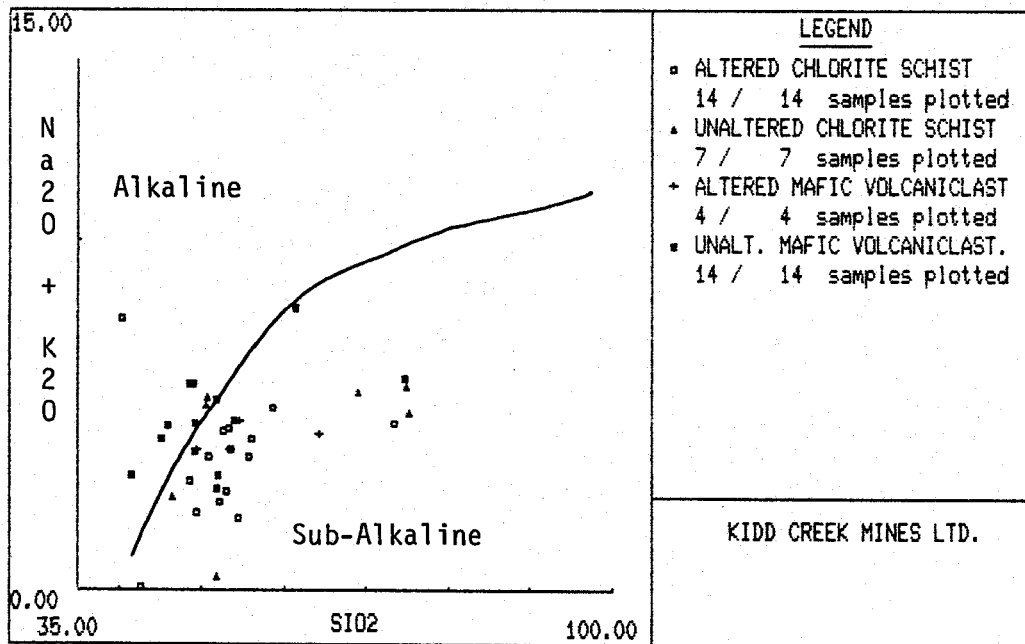


Figure A 2 - Mafic volcanoclastic rocks

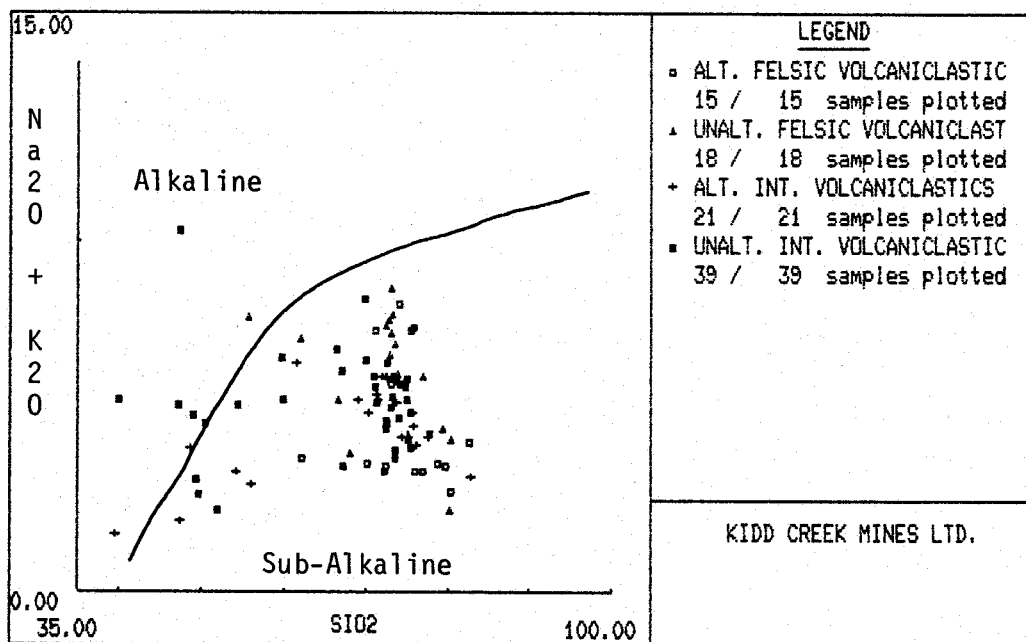


Figure A 3 - Felsic and intermediate volcaniclastic rocks

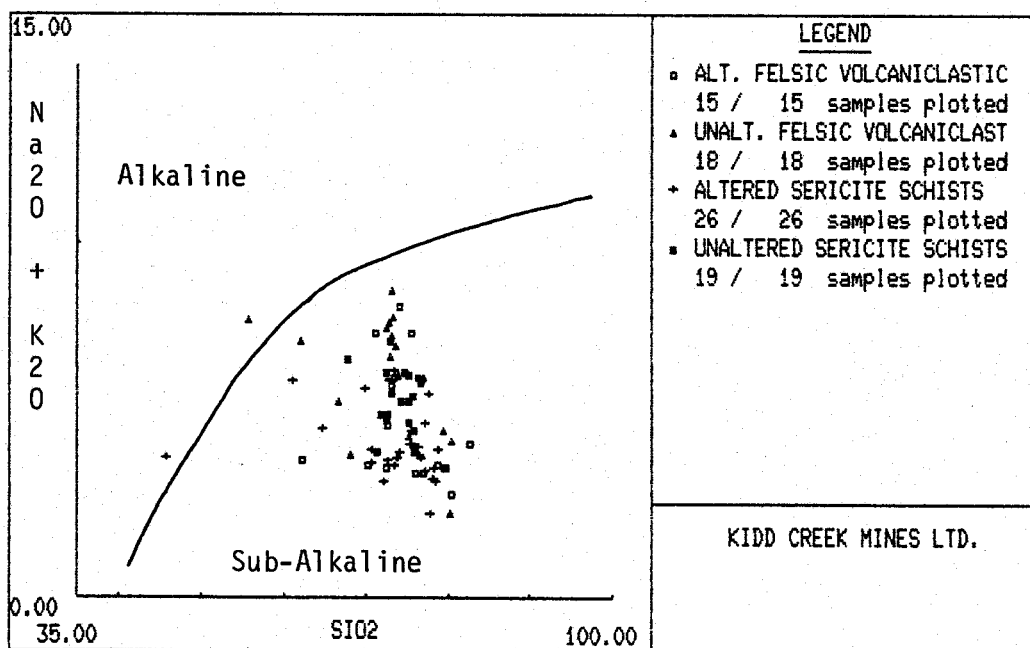


Figure A 4 - Felsic volcaniclastic rocks, sericite schists

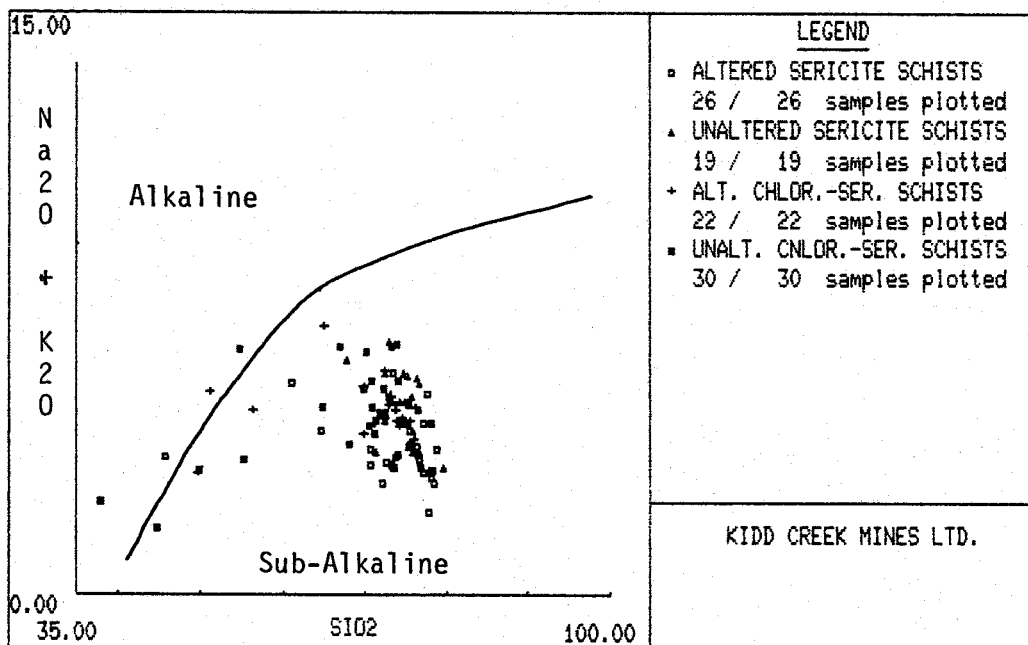


Figure A 5 - Sericite, chlorite-sericite schists

SEPARATION OF CALC-ALKALINE AND THOLEIITIC
VOLCANIC SUITES

(after Irvine and Baragar, 1971)

Figures A6 to A10

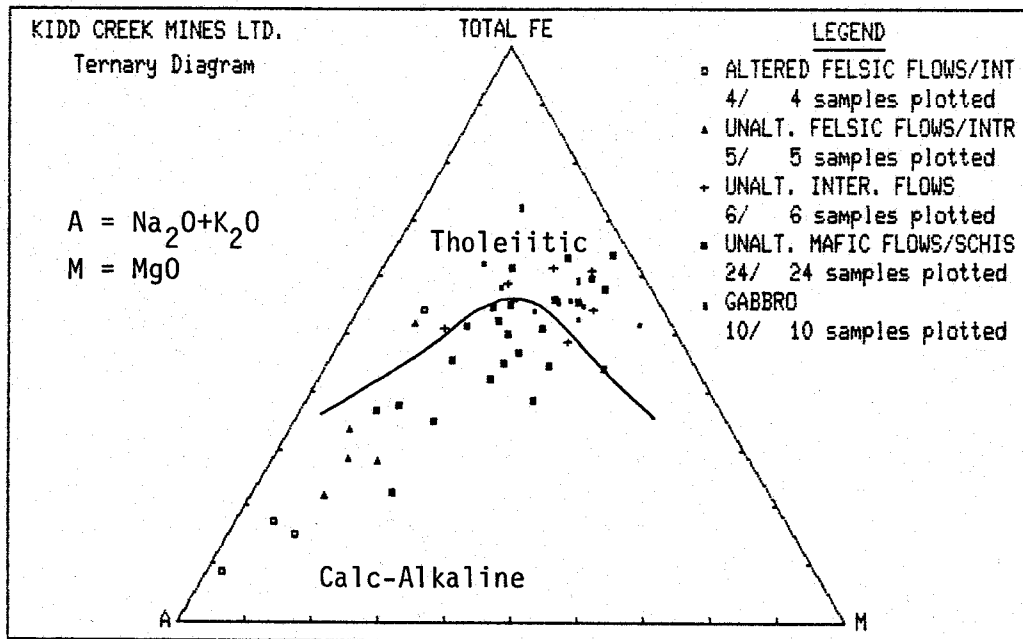


Figure A 6 - Flows and gabbro.

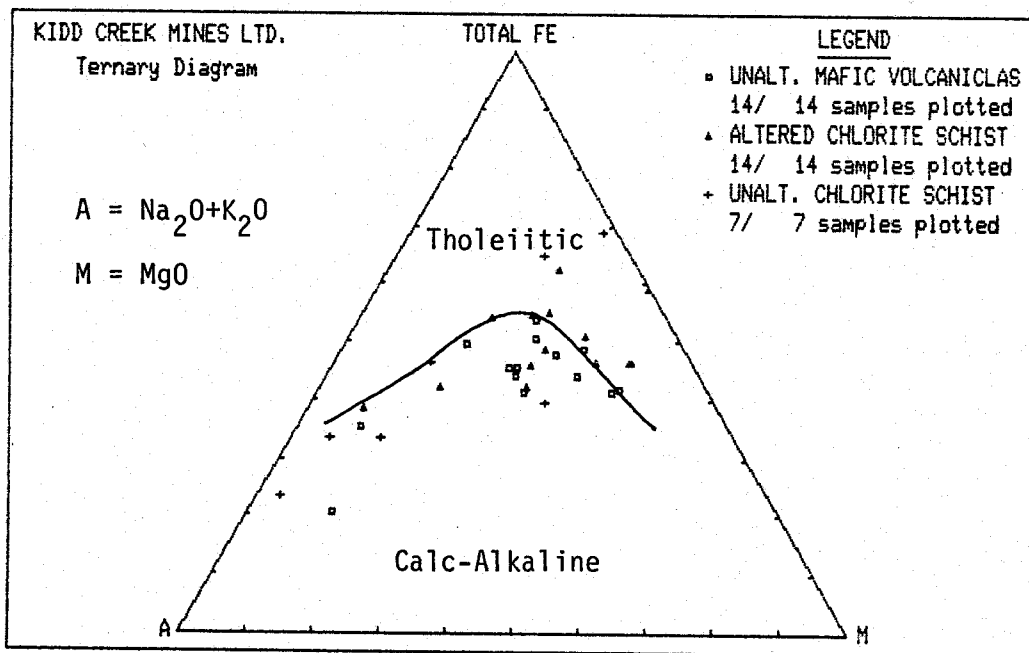


Figure A 7 - Mafic volcaniclastic rocks.

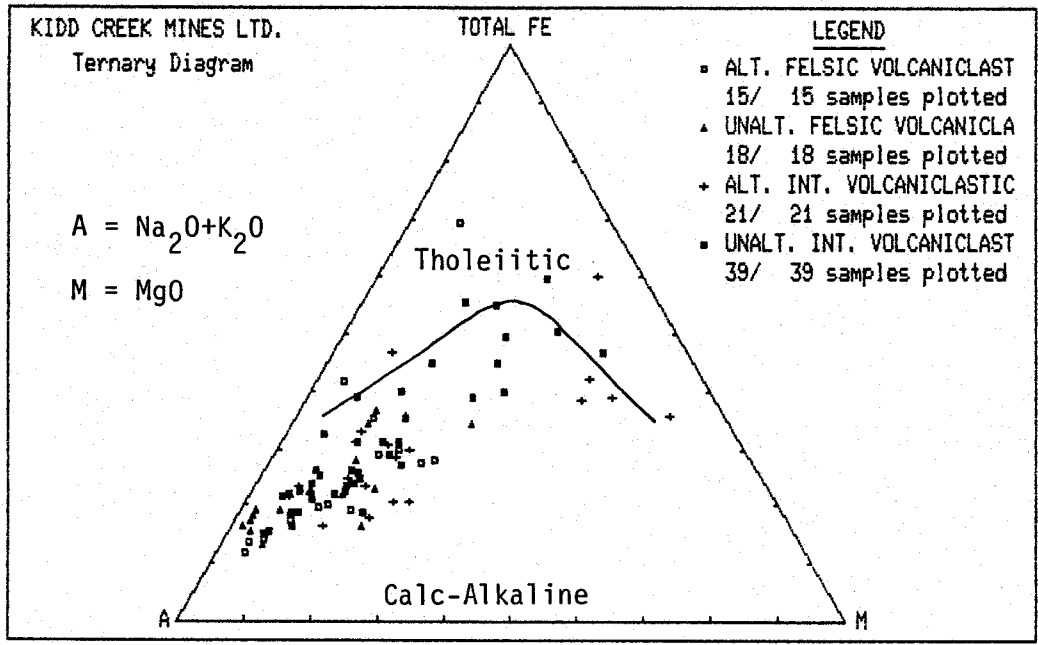


Figure A 8 - Felsic, intermediate volcaniclastic rocks.

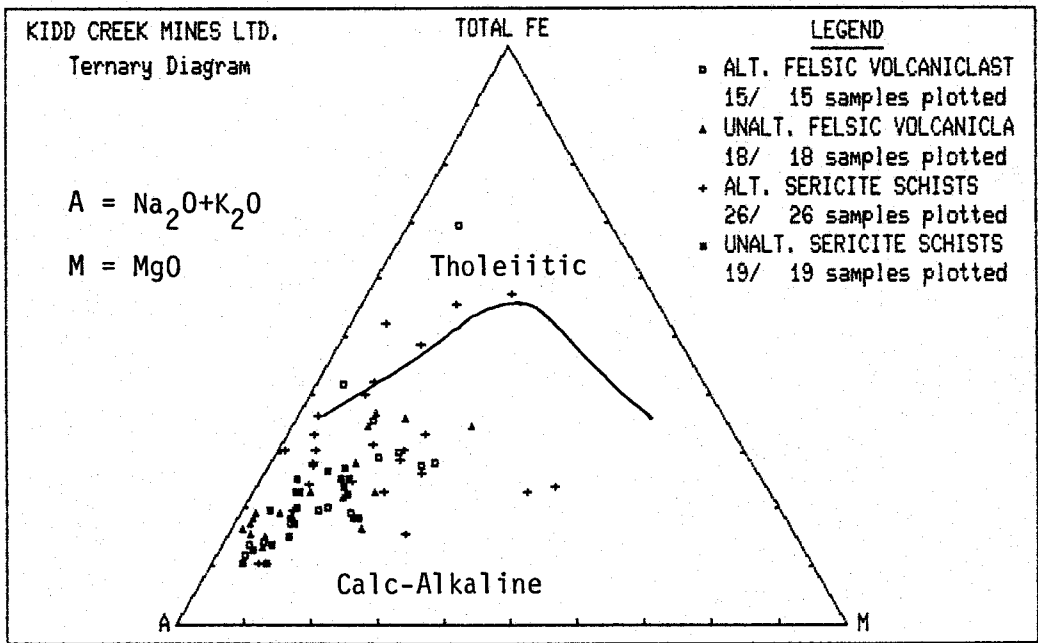


Figure A 9 - Felsic volcaniclastic rocks, sericite schists.

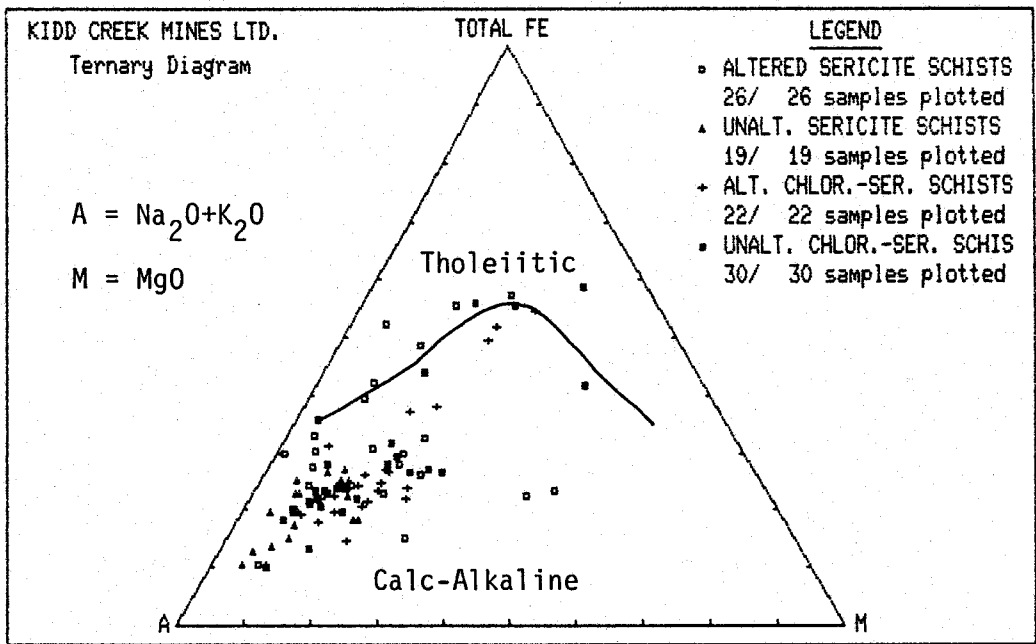


Figure A 10 - Sericite, chlorite sericite schists.

SILICA vs TOTAL IRON (as Fe^{*}O)/MAGNESIUM PLOT
AND SEPARATION OF SUB-ALKALINE LAVA SUITES

(after Miyashiro, 1974)

Figures A11 to A15

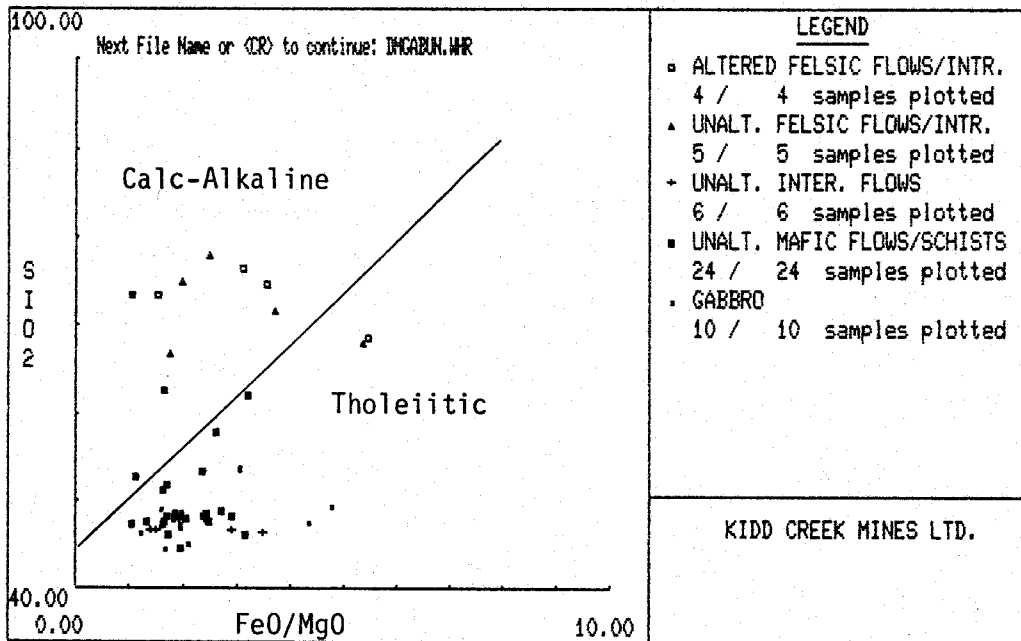


Figure A 11 - Flows and Gabbro

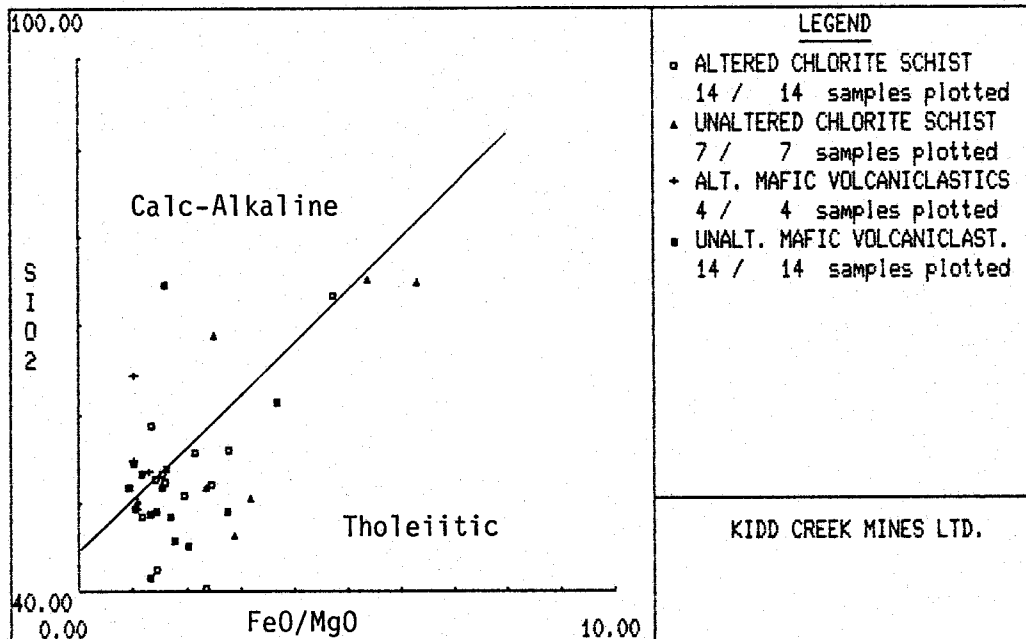


Figure A 12 -Mafic volcaniclastic rocks

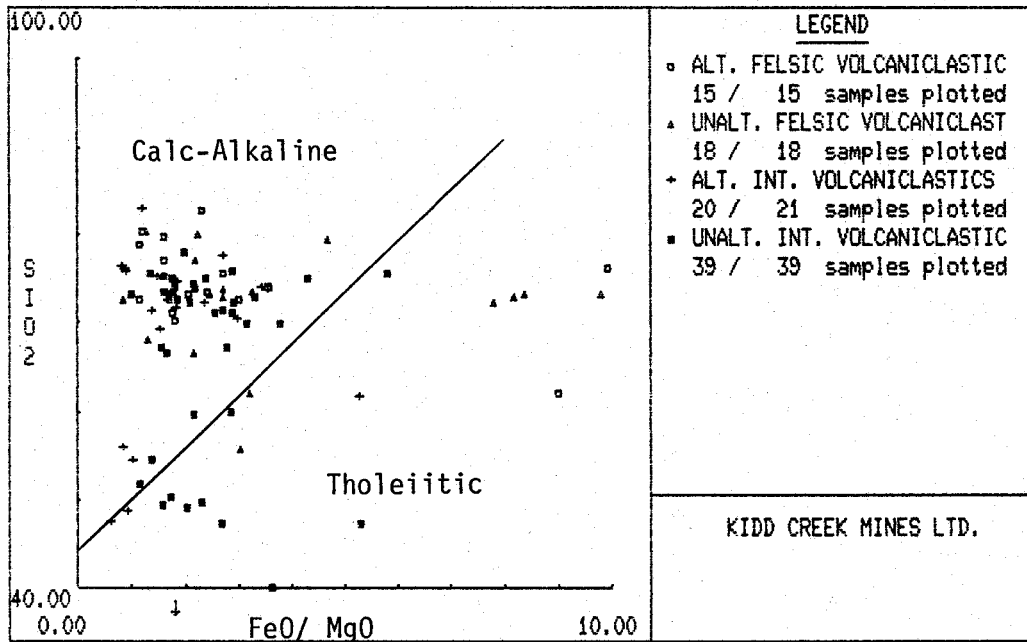


Figure A 13 - Felsic, intermediate volcanoclastic rocks

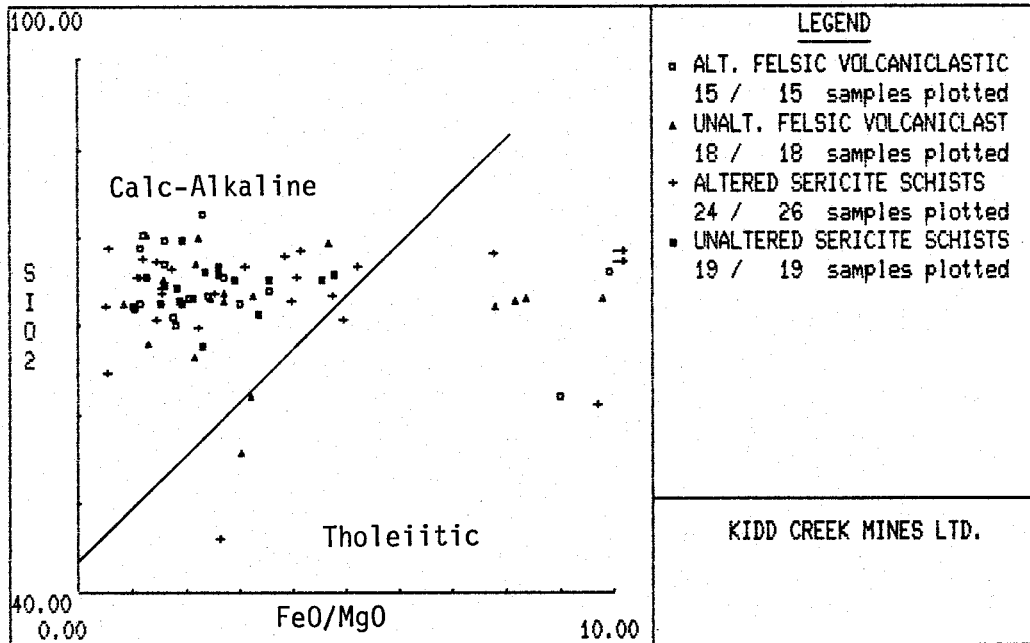


Figure A 14 - Felsic volcanoclastic rocks, sericite schists

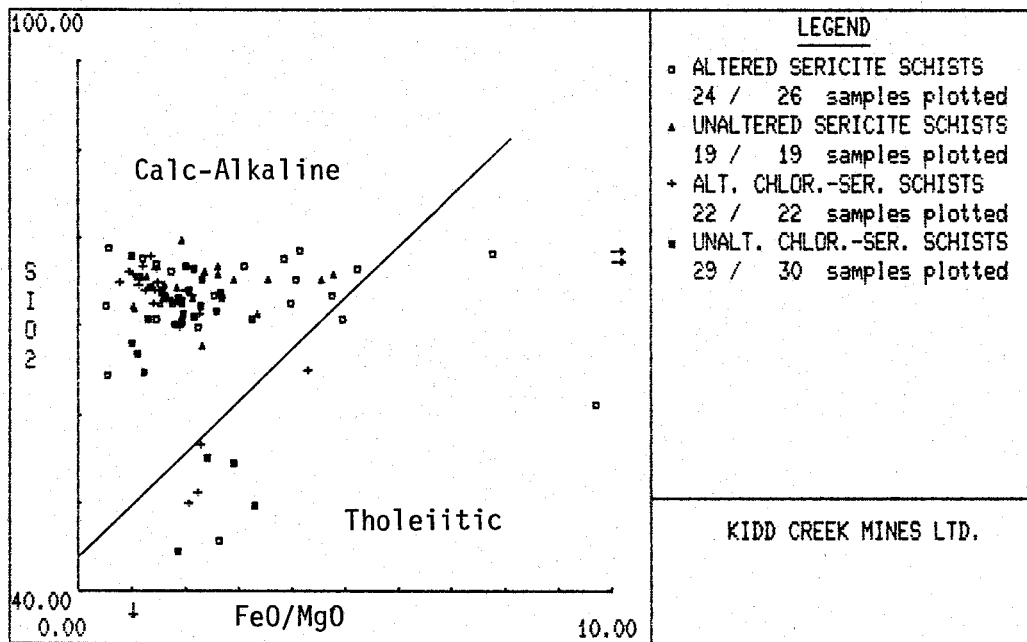


Figure A 15 - Sericite, chlorite-sericite schists

MASUDA-CORYELL DIAGRAMS

Figures A16 to A23

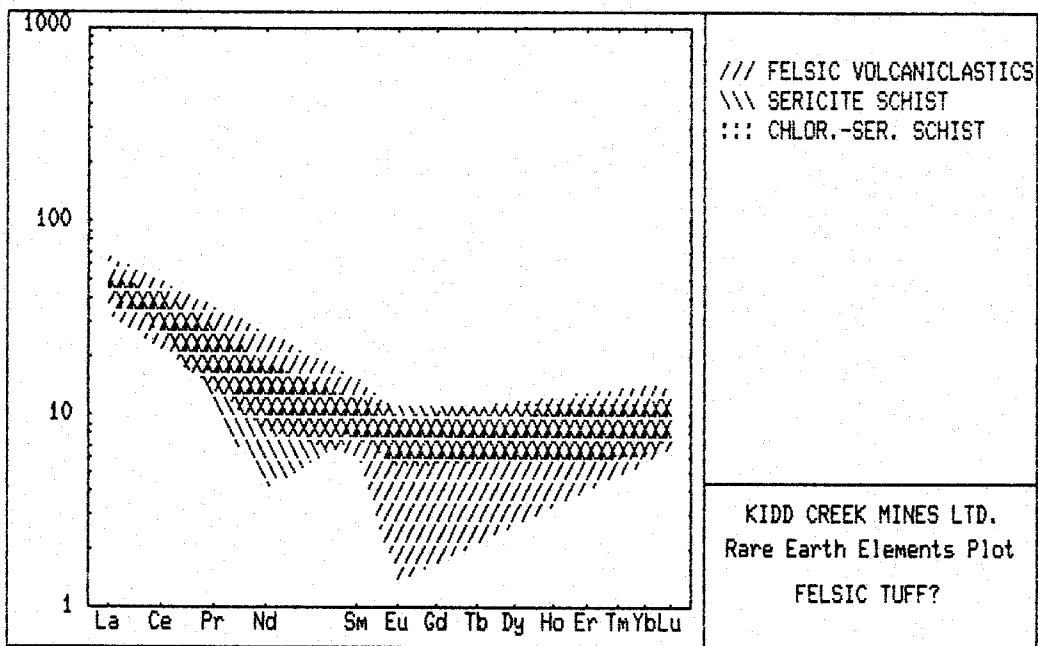


Figure A 16 - Superposition of felsic tuff fields

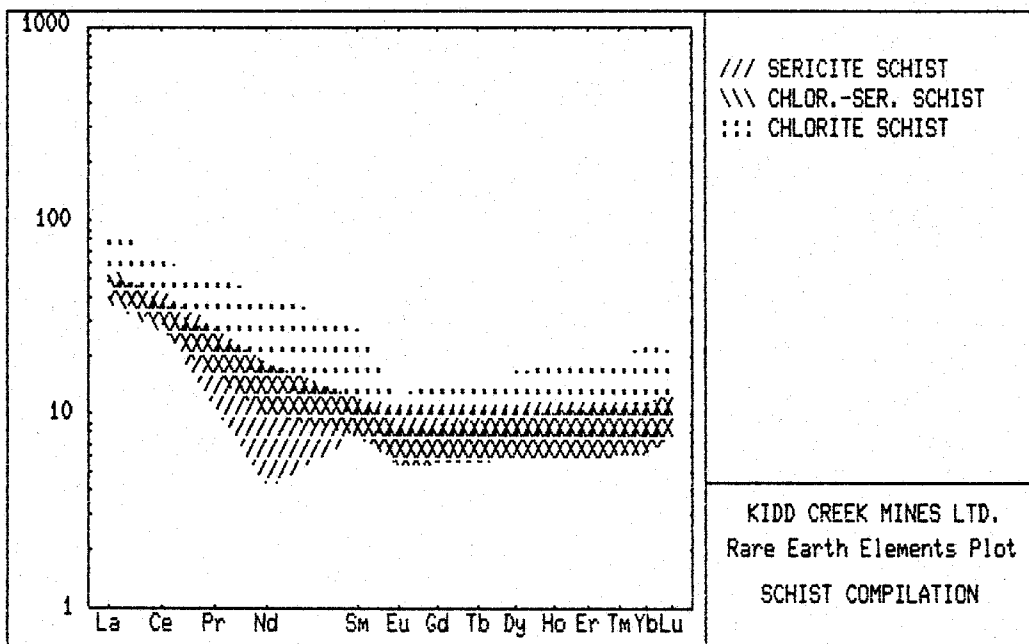


Figure A 17 - Superposition of schists

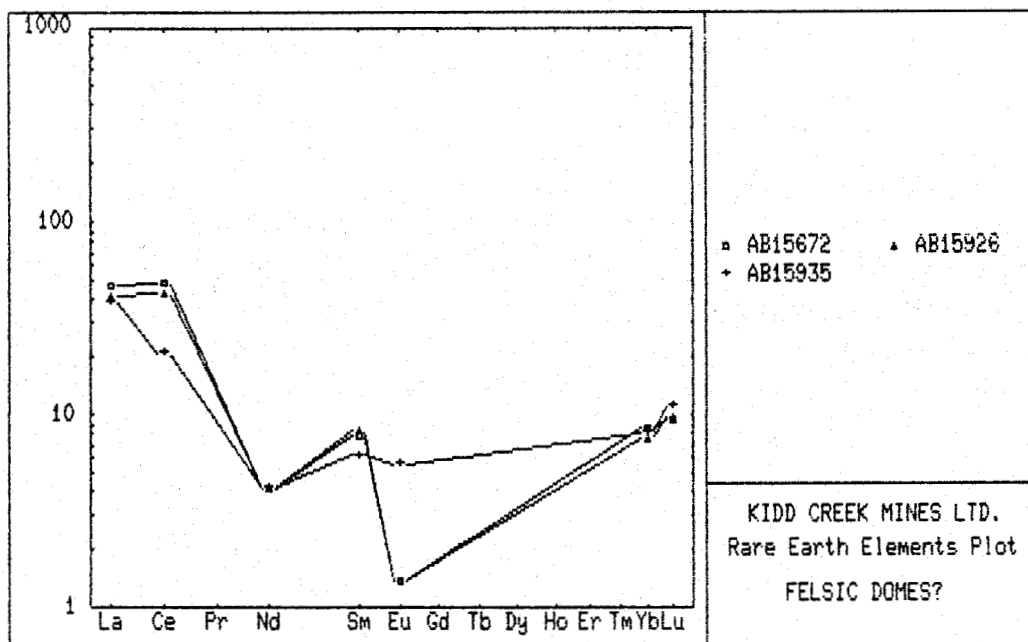


Figure A 18 - Felsic Domes

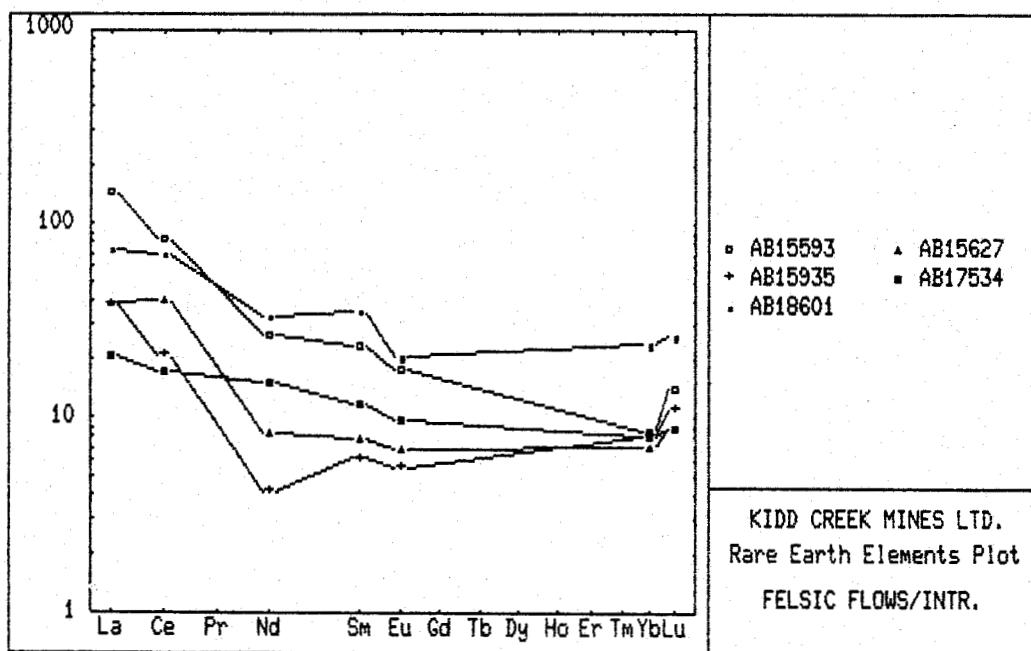


Figure A 19 - Felsic flows/intrusions

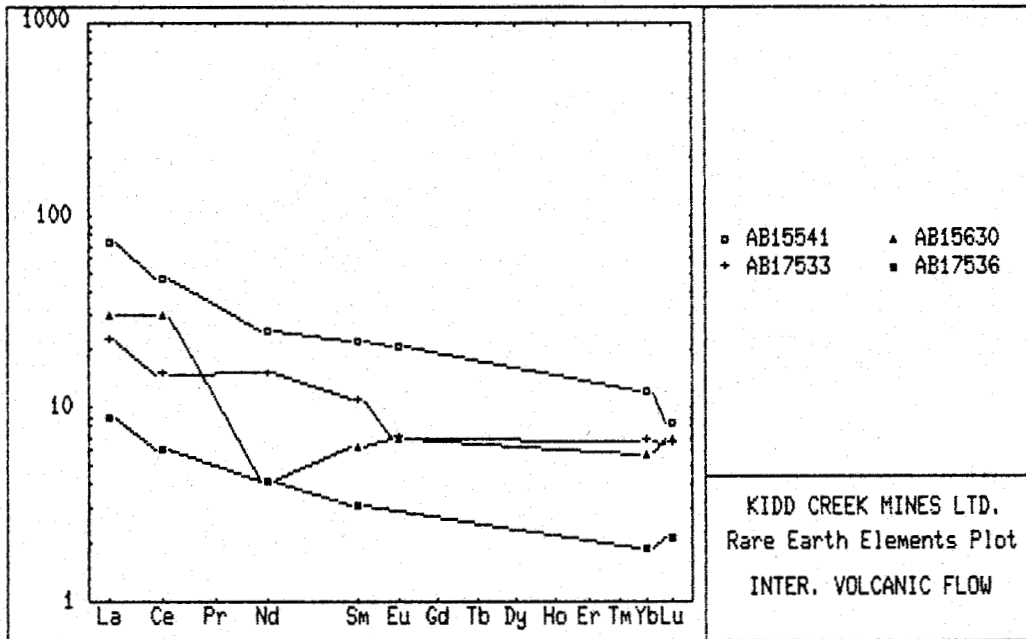


Figure A 20 - Intermediate volcanic flows

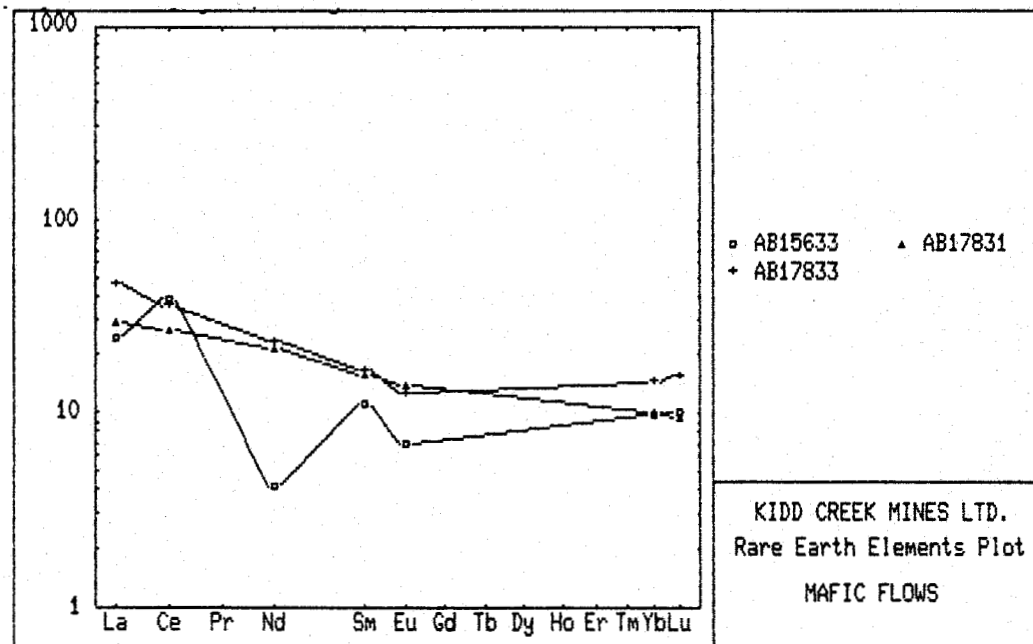


Figure A 21 - Mafic volcanic flows

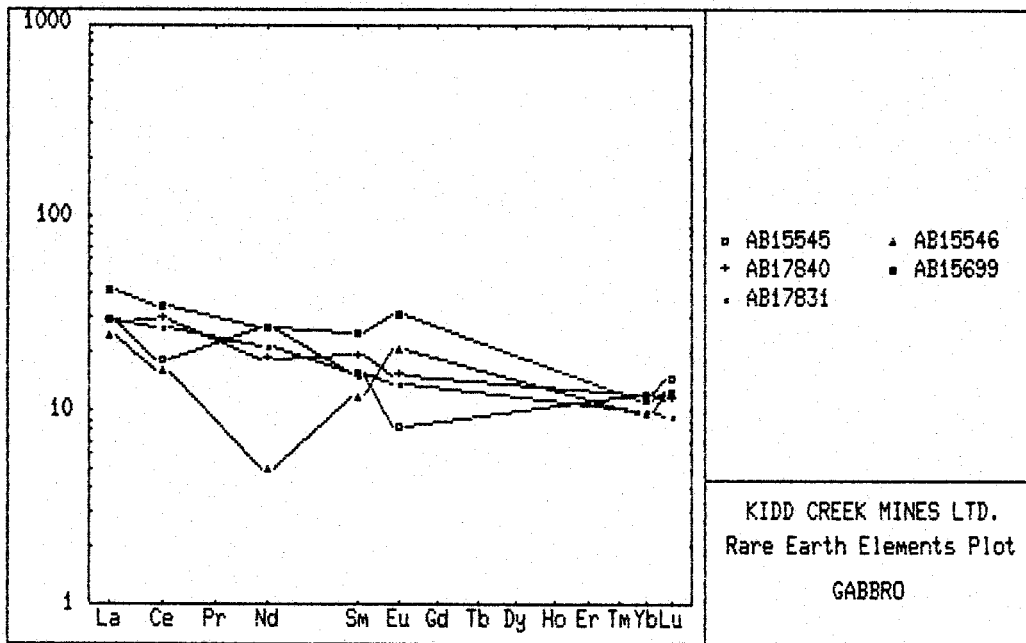


Figure A 22 - Gabbro

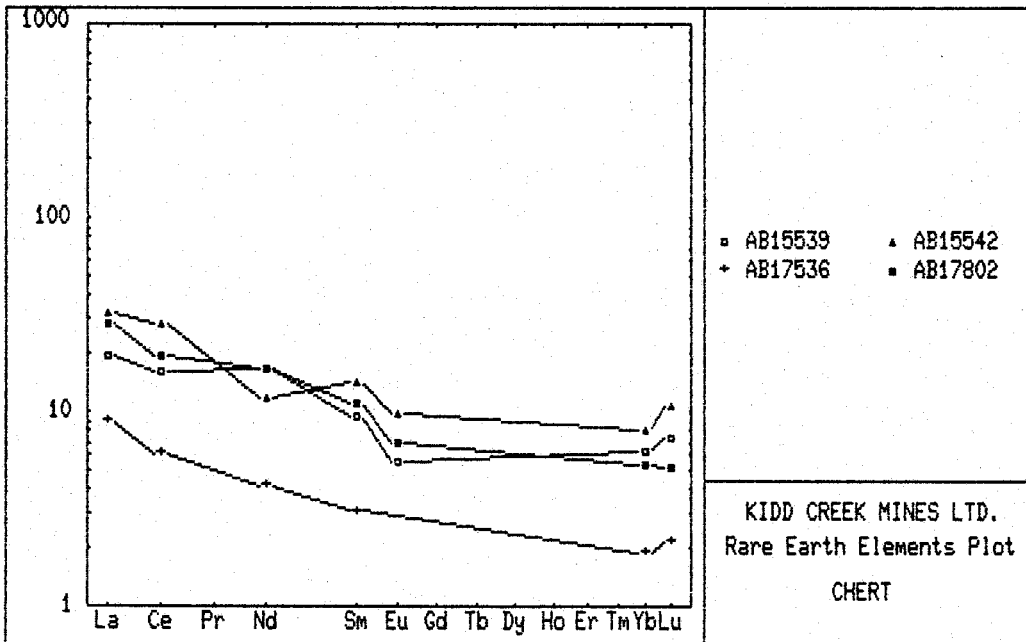


Figure A 23 - Chert

TiO₂ vs SiO₂ DIAGRAMS

Figures A24 to A28

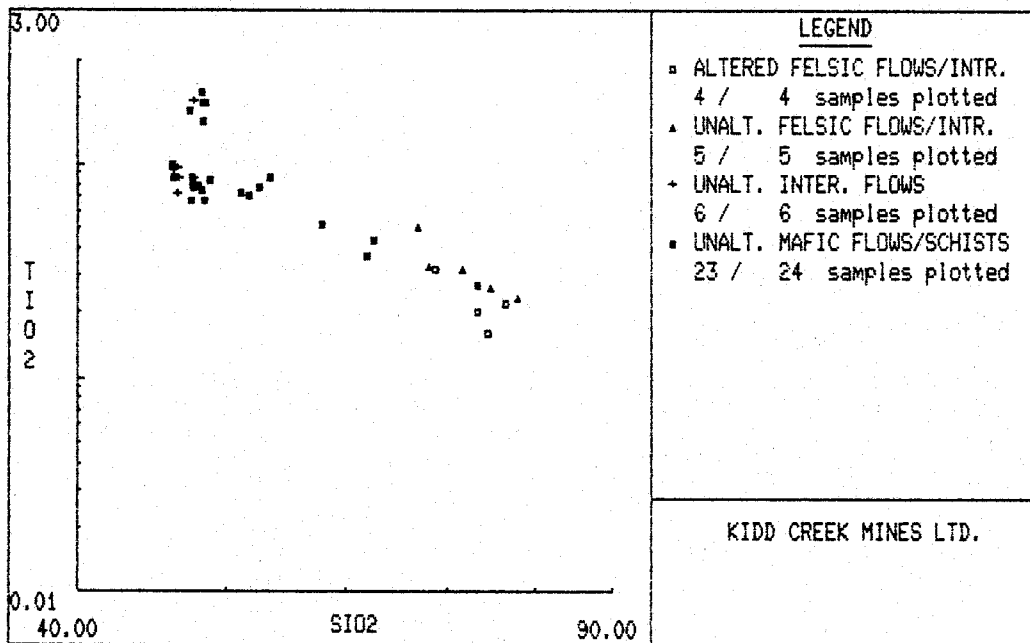


Figure A 24 - Flows.

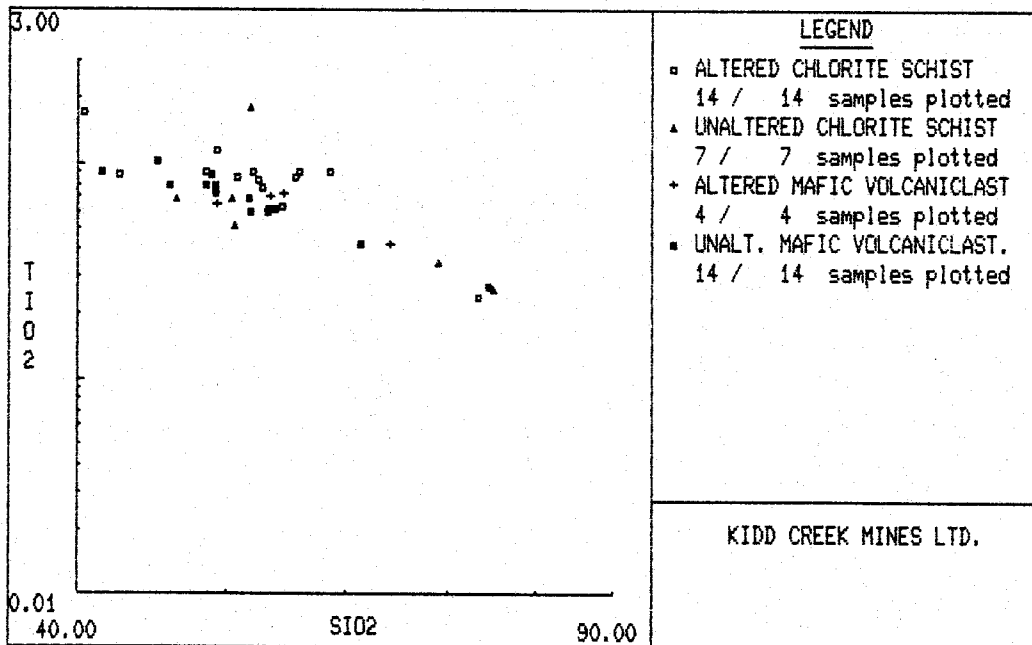


Figure A 25 - Mafic volcaniclastic rocks.

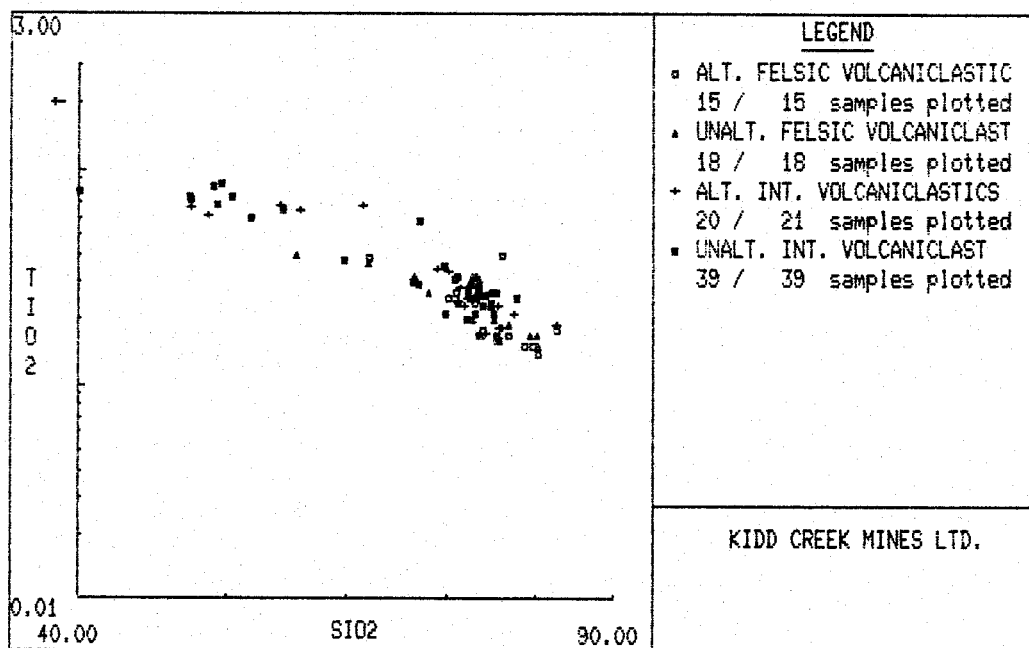


Figure A 26 - Felsic, intermediate volcaniclastic rocks.

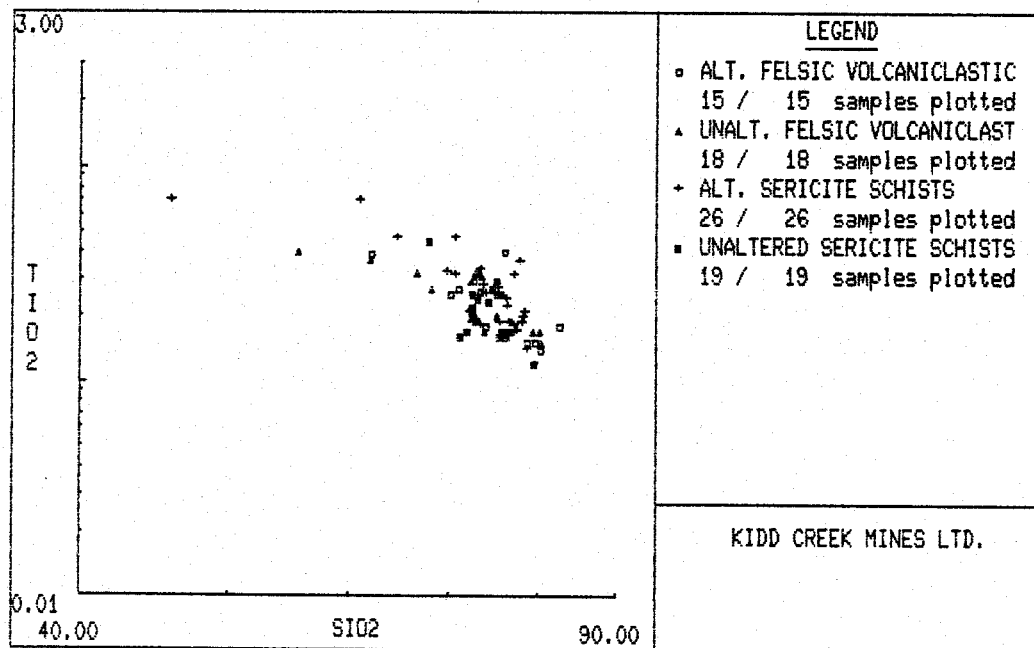


Figure A 27 - Felsic volcaniclastic rocks, sericite schists.

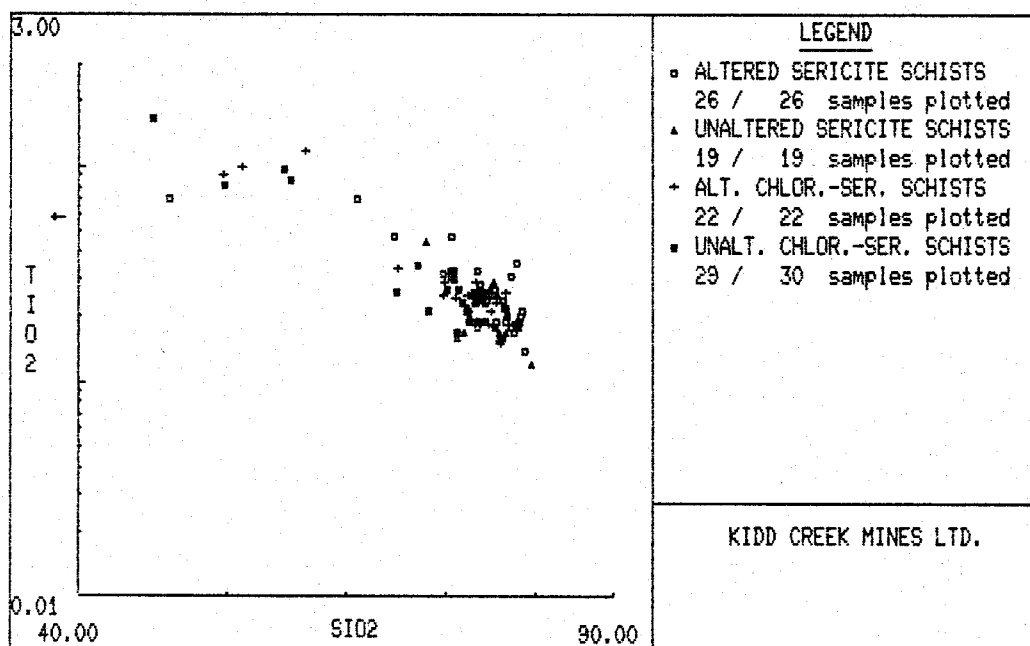


Figure A 28 - Sericite, chlorite-sericite schists

SiO_2 vs Zr/TiO_2 DIAGRAMS

Figures A29 to A33

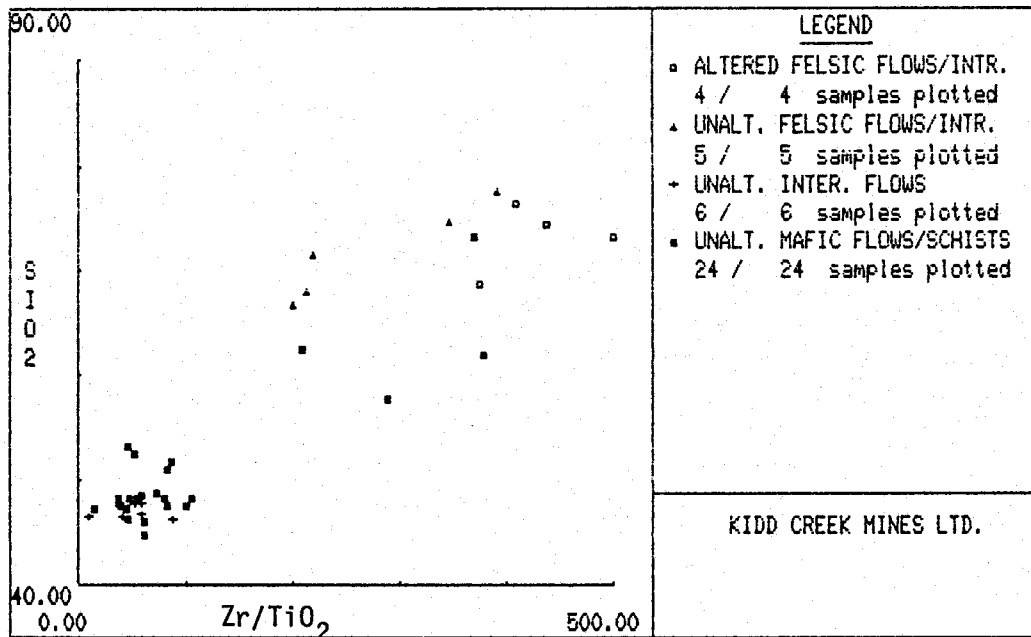


Figure A 29 - Flows

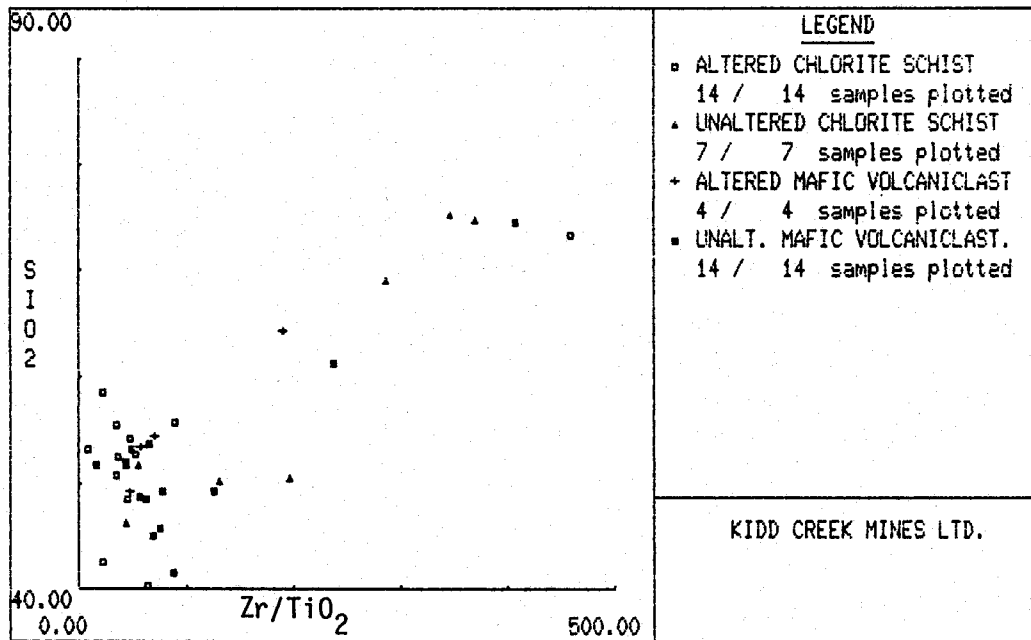


Figure A 30 - Mafic volcaniclastic rocks

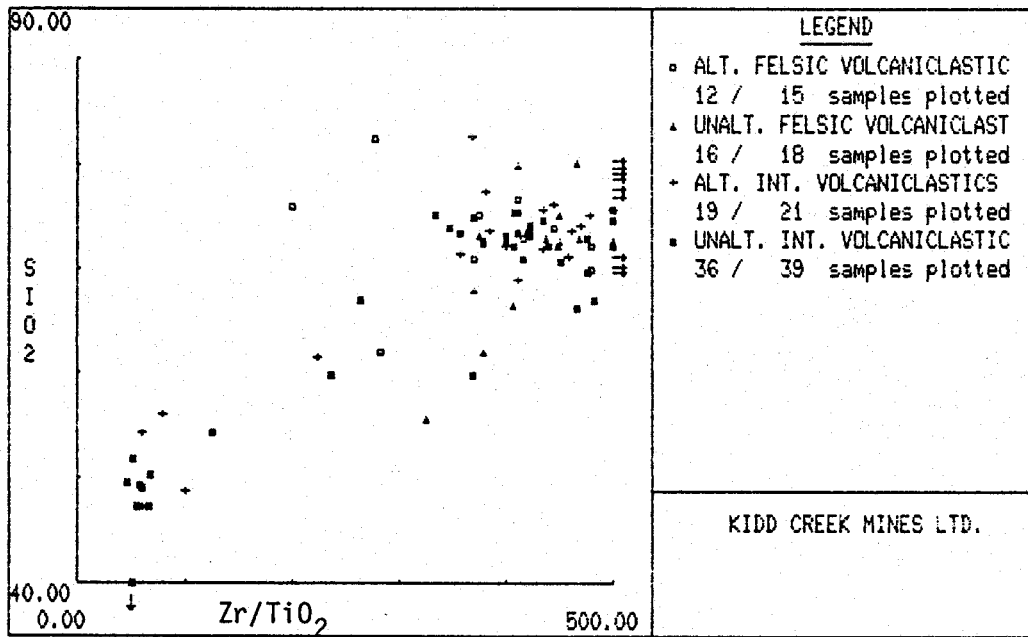


Figure A 31 - Felsic intermediate volcaniclastic rocks

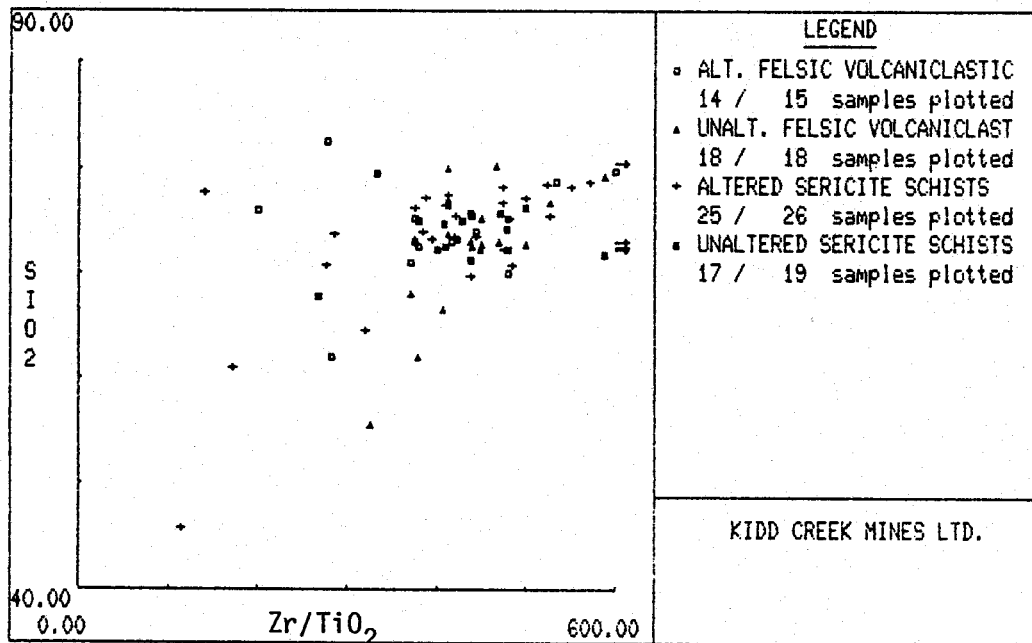


Figure A 32 - Felsic volcaniclastic rocks, sericite schists

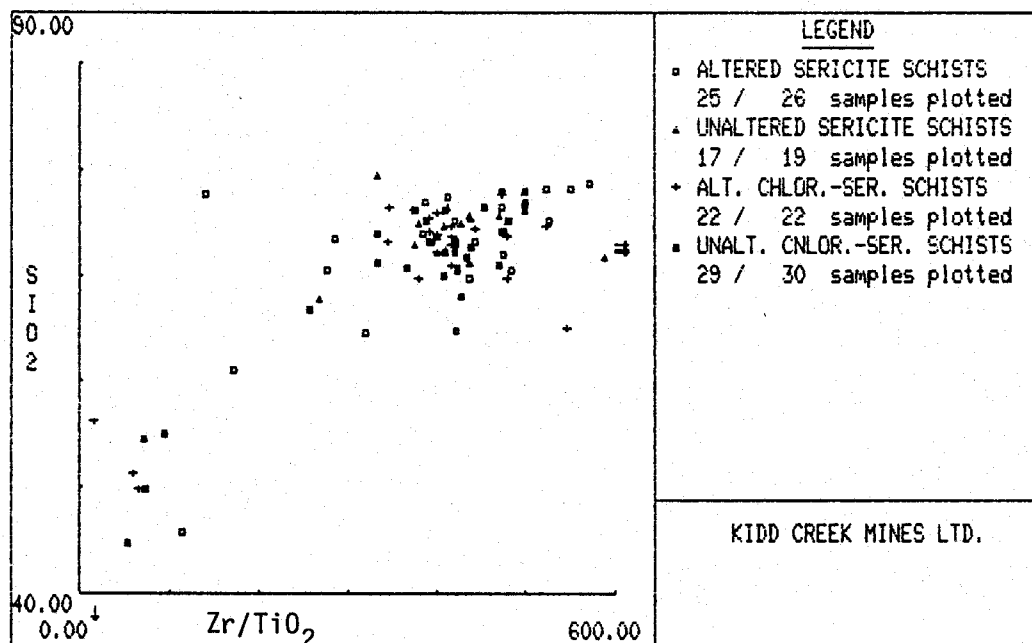
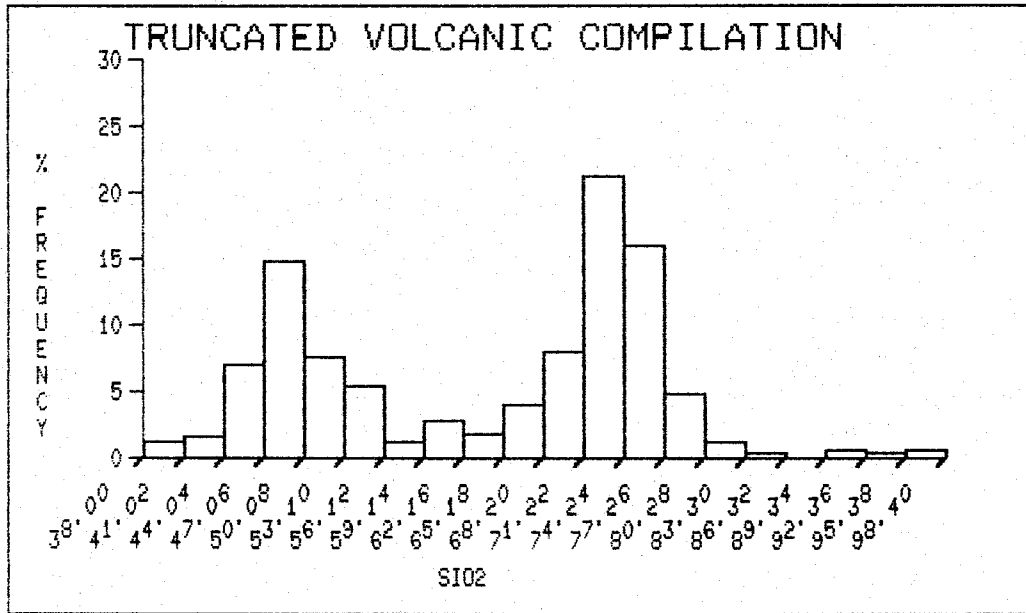


Figure A 33 - Sericite, chlorite-sericite schists

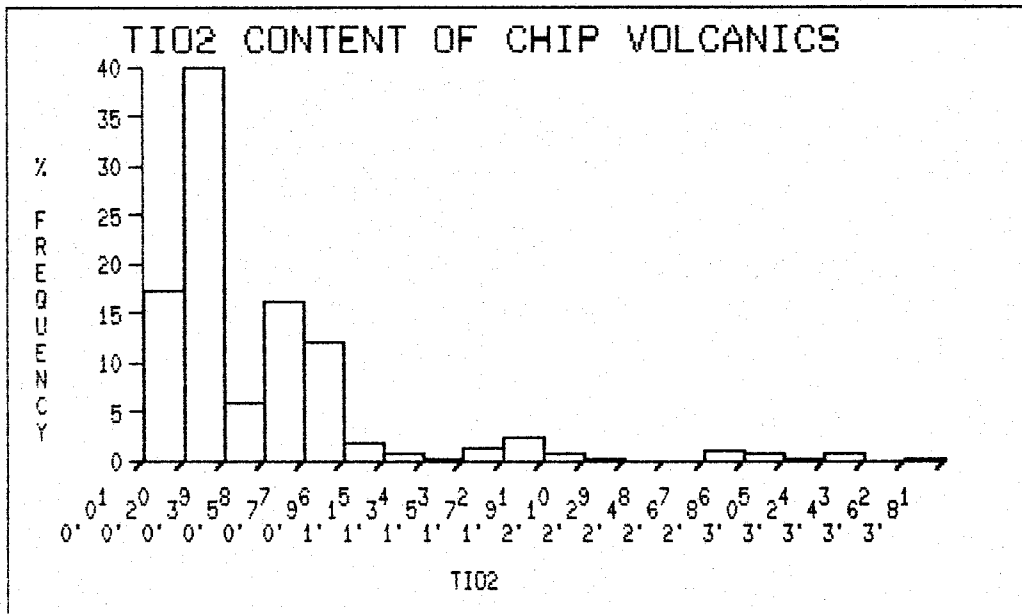




SI02 CONTENT OF CHIP VOLCANICS

NUMBER OF SAMPLES :	332
MINIMUM :	5.28
MAXIMUM :	98.30
MEAN :	63.82
STANDARD DEVIATION :	13.08
MEDIAN :	70.10
MODE :	72.30
SKEWNESS :	-1.44
KURTOSIS :	2.80
NUMBER OF CLASSES :	20
CLASS INTERVAL :	4.66

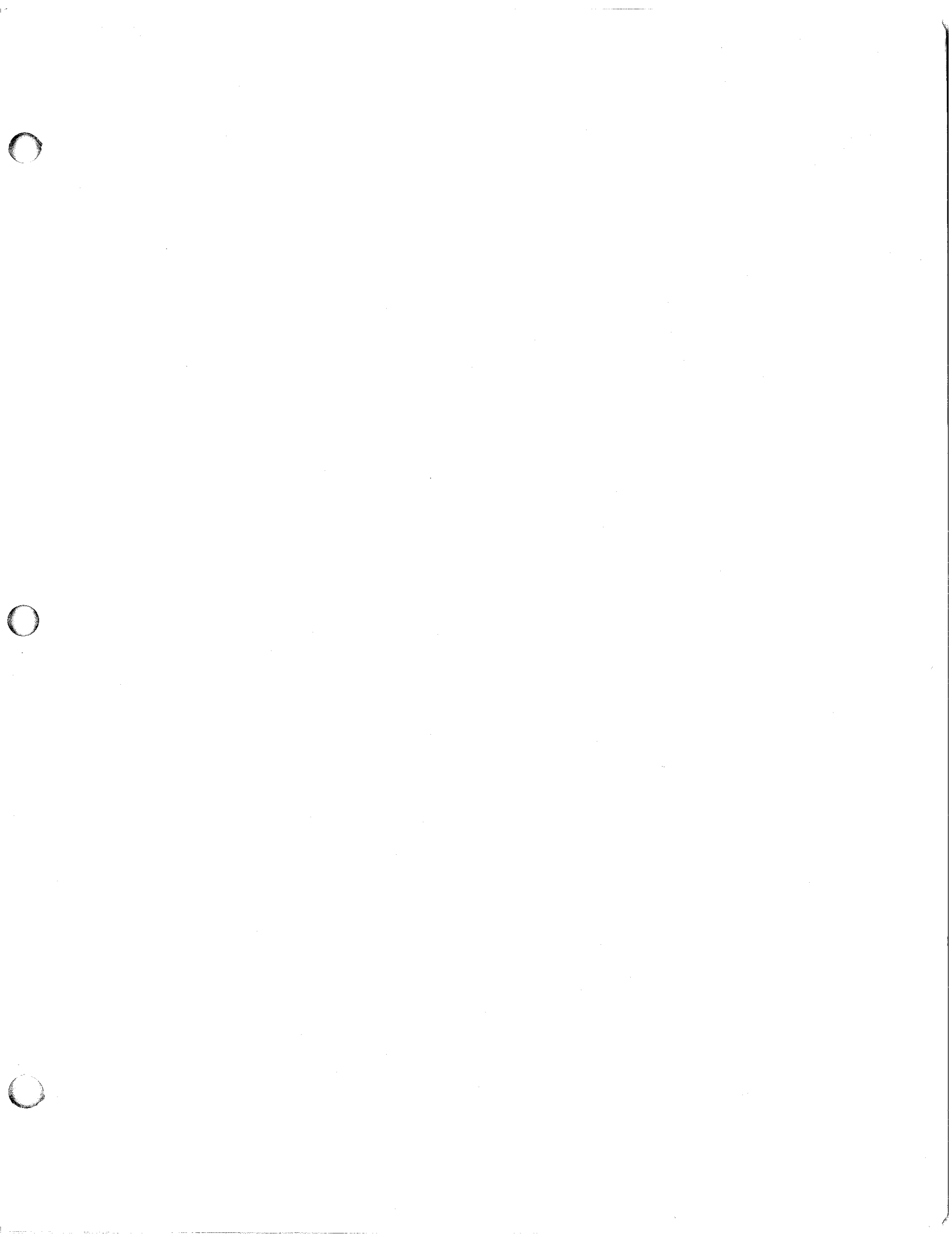
Figure A 34 - Truncated SiO₂ histogram and statistics -
Volcanic rocks - Chip claims.



TiO₂ CONTENT OF CHIP VOLCANICS

NUMBER OF SAMPLES :	332
MINIMUM :	0.01
MAXIMUM :	3.63
MEAN :	0.57
STANDARD DEVIATION :	0.58
MEDIAN :	0.32
MODE :	0.25
SKEWNESS :	1.29
KURTOSIS :	11.76
NUMBER OF CLASSES :	20
CLASS INTERVAL :	0.19

Figure A 35 - TiO₂ histogram and statistics - Volcanic rocks - Chip claims



APPENDIX B

MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA - CHIP CLAIMS

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

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SAMP NO.->	AB13614	AB13615	AB13616	AB15501	AB15502	AB15503
SI02	93.40	83.60	95.80	49.80	71.10	39.60
AL203	0.17	5.48	0.09	17.60	12.80	15.70
FE203	5.01	3.59	1.31	9.81	1.65	15.20
MNO	0.01	0.03	0.01	0.15	0.04	0.24
MGO	0.06	1.10	0.06	6.00	0.69	7.62
CAO	0.05	0.83	0.04	6.78	3.95	7.93
NA2O	0.06	1.77	0.03	4.05	1.07	0.34
K2O	0.03	0.51	0.02	1.02	3.56	1.26
TIO2	0.01	0.24	0.01	0.82	0.17	2.02
P2O5	0.02	0.09	0.02	0.32	0.05	0.18
CR2O3	0.00	0.00	0.00	< 0.01	< 0.01	0.01
LOI	0.23	1.47	1.31	3.70	4.77	10.10
TOTAL	99.05	98.71	98.70	100.05	99.85	100.20
RB	< 10.00	< 10.00	< 10.00	30.00	100.00	60.00
SR	< 10.00	90.00	< 10.00	560.00	70.00	200.00
Y	0.00	0.00	0.00	20.00	10.00	20.00
ZR	< 10.00	< 10.00	< 10.00	50.00	80.00	100.00
NB	0.00	0.00	0.00	20.00	20.00	20.00
BA	0.00	0.00	0.00	220.00	1020.00	460.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15504	AB15505	AB15506	AB15507	AB15508	AB15509
SI02	43.90	47.40	61.00	49.70	46.50	48.30
AL203	16.70	14.20	17.70	19.30	17.70	17.10
FE203	13.60	10.80	8.20	11.10	12.40	11.30
MNO	0.19	0.18	0.02	0.30	0.23	0.21
MGO	8.48	9.21	0.76	4.90	7.37	4.96
CAO	7.79	10.60	0.27	3.16	7.19	10.80
NA2O	1.23	2.61	2.69	0.56	1.53	1.57
K2O	1.02	0.47	3.33	2.86	0.67	2.05
TI02	0.94	0.67	0.70	0.90	0.96	0.85
P205	0.30	0.11	0.36	0.36	0.45	0.34
CR203	< 0.01	0.03	< 0.01	< 0.01	< 0.01	< 0.01
LOI	5.47	3.93	5.08	5.93	4.93	2.23
TOTAL	99.63	100.21	100.11	99.08	99.94	99.72
RB	20.00	30.00	100.00	70.00	40.00	30.00
SR	620.00	430.00	200.00	130.00	790.00	610.00
Y	20.00	< 10.00	10.00	20.00	20.00	30.00
ZR	30.00	10.00	120.00	60.00	10.00	40.00
NB	30.00	30.00	20.00	10.00	20.00	20.00
BA	320.00	250.00	850.00	700.00	370.00	860.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15510	AB15511	AB15512	AB15513	AB15514	AB15515
SI02	76.00	45.10	47.30	49.00	49.30	73.30
AL203	11.70	15.60	12.40	18.30	17.30	13.30
FE203	1.23	8.31	9.56	10.80	10.30	3.06
MNO	0.01	0.16	0.18	0.17	0.15	0.07
MGO	1.17	4.33	13.70	4.80	5.87	0.58
CAO	1.91	10.30	10.10	6.61	8.59	1.50
NA2O	1.17	1.68	1.32	4.75	2.32	0.73
K2O	2.91	2.20	0.69	0.29	0.93	2.89
TIO2	0.16	0.69	0.66	0.83	0.69	0.33
P205	0.04	0.17	0.16	0.34	0.24	0.07
CR203	< 0.01	< 0.01	0.13	< 0.01	< 0.01	< 0.01
LOI	3.70	10.90	3.93	4.31	4.39	3.23
TOTAL	100.01	99.45	100.13	100.21	100.09	99.07
RB	< 10.00	60.00	< 10.00	20.00	20.00	80.00
SR	180.00	200.00	210.00	540.00	660.00	60.00
Y	10.00	20.00	20.00	20.00	20.00	20.00
ZR	60.00	30.00	40.00	50.00	40.00	130.00
NB	< 10.00	10.00	10.00	20.00	20.00	10.00
BA	1200.00	950.00	290.00	200.00	450.00	1260.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

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SAMP NO.->	AB15516	AB15517	AB15518	AB15519	AB15520	AB15521
SI02	75.20	52.50	76.20	78.30	72.20	71.90
AL203	14.30	17.70	13.30	12.80	13.70	15.80
FE203	1.77	11.90	1.83	2.34	3.33	2.11
MNO	0.04	0.20	0.05	0.03	0.06	0.07
MGO	0.35	6.69	0.96	0.19	1.03	0.81
CAO	0.15	0.30	0.14	0.06	4.25	0.13
NA2O	3.43	3.62	1.45	0.45	1.60	2.81
K2O	2.78	0.92	2.74	3.12	1.88	3.29
TI02	0.25	0.84	0.24	0.20	0.20	0.23
P205	0.05	0.13	0.07	0.05	0.05	0.05
CR203	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
LOI	1.85	4.62	2.31	2.08	1.77	2.31
TOTAL	100.17	99.43	99.29	99.63	100.07	99.51
RB	60.00	30.00	70.00	80.00	30.00	90.00
SR	130.00	80.00	60.00	20.00	170.00	90.00
Y	10.00	10.00	10.00	< 10.00	10.00	20.00
ZR	120.00	30.00	90.00	110.00	100.00	100.00
NB	10.00	10.00	< 10.00	20.00	20.00	10.00
BA	830.00	430.00	1460.00	1680.00	990.00	1160.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.-->	AB15522	AB15523	AB15524	AB15525	AB15526	AB15527
SI02	51.90	60.70	63.40	54.40	47.30	50.40
AL203	12.90	16.70	15.50	17.10	18.90	16.90
FE203	9.70	5.59	5.22	7.73	8.35	8.21
MNO	0.17	0.11	0.11	0.12	0.11	0.13
MGO	7.54	2.38	2.45	5.06	1.42	4.28
CAO	11.00	6.06	5.33	5.37	10.20	9.41
NA2O	1.79	4.89	4.80	5.07	1.35	3.29
K2O	0.52	0.43	0.31	0.30	8.95	1.56
TI02	0.59	0.48	0.47	0.64	0.73	0.74
P205	0.22	0.27	0.26	0.39	0.42	0.28
CR203	0.03	< 0.01	< 0.01	< 0.01	< 0.01	0.01
LOI	3.69	1.93	1.70	2.93	7.39	4.16
TOTAL	100.05	99.54	99.56	99.12	105.12	99.37
RB	20.00	20.00	30.00	20.00	100.00	20.00
SR	310.00	610.00	700.00	430.00	640.00	770.00
Y	20.00	30.00	30.00	30.00	10.00	20.00
ZR	30.00	90.00	90.00	80.00	40.00	50.00
NB	10.00	20.00	20.00	20.00	30.00	10.00
BA	220.00	310.00	160.00	240.00	830.00	790.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15528	AB15529	AB15530	AB15531	AB15532	AB15533
SI02	45.70	72.40	44.70	51.80	75.50	46.20
AL203	14.20	13.60	13.70	14.50	13.50	18.30
FE203	12.00	2.18	12.80	13.10	3.02	11.90
MNO	0.19	0.07	0.20	0.21	0.06	0.20
MGO	9.88	1.12	6.27	5.01	0.47	6.20
CAO	9.33	2.07	10.10	9.53	0.31	7.41
NA2O	1.54	2.22	1.80	0.38	3.26	3.10
K2O	1.19	2.94	0.08	0.03	1.86	1.08
TIO2	0.75	0.19	1.67	1.80	0.27	0.86
P2O5	0.50	0.05	0.14	0.15	0.06	0.26
CR203	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
LOI	4.77	3.30	8.85	3.85	1.85	3.77
TOTAL	100.07	100.15	100.31	100.36	100.16	99.28
RB	50.00	90.00	20.00	10.00	50.00	30.00
SR	770.00	80.00	220.00	590.00	80.00	650.00
Y	20.00	< 10.00	10.00	20.00	< 10.00	< 10.00
ZR	60.00	80.00	90.00	100.00	110.00	40.00
NB	40.00	10.00	20.00	30.00	10.00	20.00
BA	670.00	1060.00	80.00	60.00	1040.00	530.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15534	AB15535	AB15536	AB15537	AB15538	AB15539
SI02	52.90	45.90	51.90	54.10	61.30	66.00
AL203	17.50	14.40	15.90	18.10	17.90	14.90
FE203	9.54	11.40	11.70	9.49	5.71	7.13
MNO	0.22	0.20	0.17	0.15	0.14	0.05
MGO	4.40	10.90	7.08	3.06	1.40	1.41
CAO	5.83	10.40	3.37	8.07	1.69	1.28
NA2O	3.93	1.44	1.91	2.35	5.53	1.10
K2O	0.76	0.84	2.34	0.58	2.55	2.97
TIO2	0.70	0.70	0.67	0.71	0.42	0.72
P2O5	0.31	0.18	0.18	0.38	0.27	0.07
CR203	< 0.01	< 0.01	0.00	0.00	0.00	0.00
LOI	3.00	3.47	4.31	2.93	2.70	3.62
TOTAL	99.10	99.83	99.53	99.92	99.61	99.25
RB	30.00	10.00	70.00	20.00	80.00	90.00
SR	720.00	410.00	390.00	1550.00	640.00	280.00
Y	20.00	10.00	< 10.00	30.00	20.00	10.00
ZR	60.00	20.00	10.00	60.00	100.00	50.00
NB	30.00	10.00	30.00	20.00	20.00	10.00
BA	1030.00	450.00	670.00	440.00	890.00	1120.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15540	AB15541	AB15542	AB15543	AB15544	AB15545
SiO2	49.60	48.90	61.00	76.20	70.60	47.70
AL2O3	17.80	16.80	18.60	13.60	17.20	20.10
FE2O3	12.60	9.69	4.77	0.87	2.44	12.90
MNO	0.19	0.17	0.08	0.03	0.03	0.19
MGO	4.92	6.55	3.07	0.33	1.53	2.69
CAO	6.64	5.28	3.47	0.57	0.12	6.86
NA2O	1.59	3.54	2.89	3.64	0.83	4.22
K2O	1.21	2.32	1.31	2.56	3.30	0.06
TiO2	0.86	0.88	0.78	0.16	0.31	1.01
P2O5	0.33	0.33	0.16	0.05	0.07	0.21
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	3.93	4.31	3.31	1.77	3.08	3.00
TOTAL	99.67	98.77	99.44	99.78	99.51	98.94
RB	20.00	40.00	30.00	70.00	100.00	30.00
SR	600.00	490.00	540.00	220.00	220.00	460.00
Y	30.00	20.00	10.00	10.00	20.00	< 10.00
ZR	40.00	50.00	50.00	80.00	150.00	40.00
NB	10.00	20.00	20.00	10.00	10.00	20.00
BA	330.00	750.00	940.00	880.00	1400.00	70.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.-->	AB15546	AB15547	AB15548	AB15549	AB15551	AB15552
SI02	53.80	45.90	50.80	46.80	53.20	53.40
AL203	17.60	18.30	18.90	18.80	15.20	18.80
FE203	10.70	12.20	13.30	9.79	9.47	8.32
MNO	0.21	0.18	0.19	0.15	0.05	0.16
MGO	3.18	6.16	6.10	6.08	5.55	3.18
CAO	6.85	6.55	0.23	5.27	5.61	7.40
NA2O	3.65	3.37	0.24	1.21	1.90	2.50
K2O	0.05	1.28	3.52	3.14	2.69	1.17
TIO2	0.85	0.80	0.87	0.73	0.60	0.87
P2O5	0.15	0.36	0.11	0.60	0.36	0.24
CR203	0.00	0.00	0.00	0.00	0.06	< 0.01
LOI	2.85	3.93	6.00	6.54	5.47	3.93
TOTAL	99.89	99.03	100.26	99.11	100.16	99.98
RB	10.00	30.00	110.00	60.00	110.00	20.00
SR	400.00	640.00	10.00	250.00	170.00	890.00
Y	< 10.00	10.00	20.00	20.00	< 10.00	20.00
ZR	30.00	60.00	30.00	60.00	< 10.00	40.00
NB	10.00	20.00	10.00	20.00	10.00	20.00
BA	110.00	600.00	220.00	500.00	240.00	590.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15553	AB15554	AB15555	AB15556	AB15557	AB15558
SI02	47.60	54.60	48.00	44.70	76.50	76.50
AL203	13.50	21.80	13.20	14.30	13.40	12.10
FE203	14.00	8.50	13.50	15.10	1.57	1.69
MNO	0.20	0.10	0.21	0.22	0.03	0.07
MGO	6.55	2.63	6.70	6.94	1.17	0.49
CAO	11.00	0.51	10.00	7.21	0.34	0.36
NA2O	1.44	4.54	2.37	3.00	1.78	5.82
K2O	0.09	2.49	0.47	0.73	2.20	0.85
TIO2	1.92	0.97	1.88	3.11	0.26	0.22
P205	0.17	0.21	0.16	0.65	0.04	0.06
CR203	0.01	< 0.01	0.01	0.01	< 0.01	< 0.01
LOI	3.23	3.54	3.08	2.77	2.70	1.62
TOTAL	99.71	99.89	99.58	98.74	99.99	99.78
RB	< 10.00	80.00	< 10.00	10.00	50.00	30.00
SR	240.00	80.00	250.00	330.00	290.00	270.00
Y	20.00	< 10.00	10.00	30.00	< 10.00	< 10.00
ZR	100.00	70.00	100.00	190.00	90.00	90.00
NB	30.00	20.00	20.00	60.00	10.00	30.00
BA	100.00	500.00	280.00	670.00	1150.00	580.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15559	AB15560	AB15561	AB15562	AB15563	AB15564
SI02	75.10	70.80	42.60	73.00	73.80	66.90
AL2O3	13.70	15.20	15.40	13.50	13.60	14.60
FE2O3	1.97	2.00	16.10	2.57	1.94	4.33
MNO	0.05	0.04	0.27	0.07	0.06	0.13
MGO	0.50	1.40	10.00	1.09	0.66	3.54
CAO	0.16	2.23	8.36	2.18	0.24	0.48
NA2O	2.87	4.53	0.04	4.88	5.09	6.48
K2O	2.65	1.53	0.04	0.83	2.08	0.62
TIO2	0.29	0.30	0.89	0.24	0.25	0.35
P2O5	0.07	0.08	0.21	0.05	0.07	0.07
CR2O3	< 0.01	< 0.01	0.02	< 0.01	< 0.07	< 0.01
LOI	2.08	1.70	6.23	1.47	1.62	2.47
TOTAL	99.45	99.82	100.16	99.88	99.45	99.98
RB	60.00	10.00	10.00	30.00	60.00	20.00
SR	150.00	430.00	400.00	250.00	90.00	140.00
Y	10.00	30.00	10.00	30.00	< 10.00	20.00
ZR	110.00	110.00	20.00	90.00	100.00	90.00
NB	20.00	20.00	20.00	10.00	10.00	20.00
BA	1070.00	970.00	90.00	1950.00	520.00	310.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

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SAMP NO.->	AB15565	AB15567	AB15570	AB15571	AB15572	AB15573
SI02	73.50	73.10	72.50	73.50	58.80	47.60
AL203	13.70	13.60	13.00	13.10	15.10	17.40
FE203	1.99	2.11	2.33	2.75	6.16	10.80
MNO	0.05	0.05	0.08	0.05	0.17	0.21
MGO	0.55	0.78	1.09	1.39	4.68	7.30
CAO	0.53	0.63	2.73	2.66	6.81	6.26
NA2O	4.87	5.94	2.43	3.63	2.78	3.00
K2O	2.20	1.46	2.67	0.44	2.08	1.78
TI02	0.31	0.32	0.22	0.28	0.69	0.76
P205	0.05	0.06	0.05	0.06	0.81	0.27
CR203	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01
LOI	1.47	1.47	2.08	1.62	2.16	4.82
TOTAL	99.22	99.52	99.19	99.49	100.25	100.21
RB	40.00	30.00	80.00	20.00	60.00	30.00
SR	130.00	120.00	340.00	490.00	850.00	480.00
Y	20.00	20.00	10.00	10.00	20.00	10.00
ZR	130.00	140.00	90.00	100.00	40.00	30.00
NB	10.00	20.00	10.00	< 10.00	20.00	20.00
BA	1150.00	1020.00	1000.00	700.00	1440.00	710.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15576	AB15577	AB15581	AB15582	AB15583	AB15584
SI02	51.70	75.60	48.50	48.50	46.10	49.80
AL203	17.20	13.40	13.00	21.70	20.60	18.10
FE203	8.96	0.81	13.70	11.20	12.10	8.06
MNO	0.16	0.02	0.20	0.13	0.24	0.17
MGO	4.78	0.57	6.70	2.12	3.47	2.20
CAO	7.30	0.92	9.09	2.63	8.11	6.16
NA2O	4.67	3.13	1.60	2.55	2.17	1.82
K2O	0.45	2.55	0.05	5.54	1.21	1.69
TIO2	0.70	0.25	1.89	0.85	0.98	0.82
P2O5	0.41	0.06	0.16	0.59	0.40	0.42
CR2O3	< 0.01	0.00	0.00	0.00	0.00	0.00
LOI	3.50	1.85	3.62	3.39	3.62	5.47
TOTAL	99.83	99.16	98.51	99.20	99.00	94.71
RB	20.00	70.00	10.00	120.00	50.00	50.00
SR	1200.00	150.00	160.00	340.00	820.00	390.00
Y	10.00	< 10.00	30.00	30.00	30.00	20.00
ZR	60.00	110.00	110.00	90.00	60.00	60.00
NB	20.00	20.00	30.00	20.00	10.00	20.00
BA	250.00	1220.00	140.00	1250.00	360.00	490.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15585	AB15586	AB15587	AB15589	AB15590	AB15591
SI02	55.60	75.40	48.00	49.80	75.50	52.40
AL203	16.50	13.00	19.00	20.20	12.30	16.50
FE203	5.53	1.14	9.16	10.60	2.35	12.20
MNO	0.19	0.02	0.16	0.11	0.05	0.17
MGO	1.65	0.38	1.22	2.84	1.58	6.46
CAO	3.99	0.09	8.85	2.51	0.84	2.44
NA2O	3.02	1.50	2.46	2.96	2.63	2.63
K2O	4.78	5.93	2.45	4.82	1.54	0.28
TIO2	0.40	0.16	0.94	0.94	0.17	0.87
P2O5	0.27	0.05	0.39	0.45	0.04	0.31
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	7.00	1.23	6.62	3.62	1.93	5.00
TOTAL	98.93	98.90	99.25	98.85	98.93	99.26
RB	100.00	110.00	60.00	120.00	60.00	10.00
SR	250.00	80.00	610.00	250.00	300.00	400.00
Y	30.00	< 10.00	10.00	20.00	< 10.00	30.00
ZR	130.00	60.00	50.00	70.00	70.00	40.00
NB	30.00	20.00	< 10.00	< 10.00	10.00	20.00
BA	820.00	1120.00	630.00	680.00	1120.00	480.00

KIDD CREEK MINES--WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15593	AB15595	AB15596	AB15597	AB15599	AB15603
SI02	59.80	46.50	77.50	66.50	45.30	43.20
AL203	16.90	13.00	12.20	12.60	17.10	13.70
FE203	6.97	11.40	0.78	2.87	10.20	14.40
MNO	0.15	0.23	0.01	0.11	0.23	0.22
MGO	2.20	8.55	0.58	1.20	3.22	8.55
CAO	4.81	14.80	0.13	4.56	9.54	6.88
NA2O	3.41	0.53	0.59	3.64	1.31	2.87
K2O	2.07	0.45	5.11	1.84	1.76	0.08
TIO2	0.38	0.71	0.17	0.32	0.75	3.29
P2O5	0.21	0.31	0.05	0.08	0.30	0.91
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	2.54	2.39	1.85	6.08	9.70	4.47
TOTAL	99.44	98.87	98.97	99.80	99.41	98.57
RB	70.00	< 10.00	70.00	30.00	90.00	10.00
SR	430.00	440.00	30.00	210.00	610.00	950.00
Y	20.00	10.00	< 10.00	20.00	10.00	30.00
ZR	140.00	50.00	70.00	130.00	40.00	530.00
NB	10.00	10.00	20.00	10.00	10.00	80.00
BA	1060.00	690.00	610.00	740.00	520.00	100.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15604	AB15605	AB15606	AB15609	AB15610	AB15611
SI02	44.50	45.40	44.00	74.20	76.50	72.30
AL2O3	12.70	13.50	14.20	13.60	12.40	14.20
FE2O3	13.20	13.00	13.90	1.71	2.05	2.08
MNO	0.18	0.18	0.33	0.04	0.06	0.06
MGO	9.19	6.49	8.30	0.72	0.85	1.33
CAO	8.05	8.48	4.47	0.53	0.23	0.18
NA2O	3.10	4.12	0.52	3.55	3.02	3.35
K2O	0.39	0.20	2.82	2.37	2.25	3.04
TIO2	2.83	2.77	3.00	0.26	0.22	0.25
P2O5	0.85	0.91	0.94	0.06	0.06	0.06
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	3.85	4.08	6.23	2.00	1.85	2.47
TOTAL	98.84	99.13	98.71	99.04	99.49	99.32
RB	30.00	10.00	40.00	50.00	60.00	60.00
SR	320.00	660.00	170.00	150.00	130.00	90.00
Y	30.00	30.00	20.00	10.00	20.00	20.00
ZR	390.00	450.00	500.00	110.00	100.00	100.00
NB	70.00	80.00	100.00	20.00	20.00	< 10.00
BA	130.00	160.00	1950.00	950.00	720.00	860.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15612	AB15613	AB15614	AB15615	AB15616	AB15617
SI02	71.40	40.10	71.20	73.60	69.90	74.00
AL203	14.00	17.70	13.80	14.00	12.90	12.50
FE203	2.38	11.80	2.40	2.03	2.36	2.37
MNO	0.08	0.19	0.07	0.06	0.10	0.08
MGO	1.17	2.93	1.56	0.84	0.67	1.18
CAO	1.78	8.94	1.47	0.20	3.08	1.76
NA2O	2.13	0.20	2.05	3.32	5.18	3.12
K2O	3.33	5.32	3.57	2.73	1.47	1.82
TIO2	0.28	0.78	0.24	0.26	0.21	0.23
P205	0.08	0.29	0.06	0.06	0.06	0.05
CR203	0.00	0.00	0.00	0.00	0.00	0.00
LOI	3.39	10.70	3.31	2.00	3.23	2.93
TOTAL	100.02	98.95	99.73	99.10	99.16	100.04
RB	90.00	90.00	90.00	60.00	50.00	60.00
SR	150.00	180.00	60.00	100.00	200.00	200.00
Y	< 10.00	20.00	< 10.00	10.00	20.00	< 10.00
ZR	100.00	40.00	110.00	110.00	100.00	80.00
NB	10.00	20.00	10.00	20.00	20.00	20.00
BA	930.00	1020.00	900.00	840.00	590.00	990.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

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SAMP NO.->	AB15618	AB15619	AB15620	AB15624	AB15625	AB15626
SI02	73.20	69.80	75.10	73.00	52.60	70.20
AL2O3	14.10	16.90	12.90	14.70	17.60	14.90
FE2O3	2.30	2.22	2.87	1.72	8.64	3.30
MNO	0.07	0.06	0.06	0.05	0.14	0.06
MGO	1.22	1.12	1.74	1.54	4.87	1.00
CAO	0.73	0.54	0.12	1.37	7.78	2.56
NA2O	3.29	2.63	2.29	3.45	2.70	1.19
K2O	2.30	3.24	2.09	1.79	0.83	3.86
TI02	0.25	0.29	0.23	0.21	0.71	0.33
P2O5	0.06	0.08	0.06	0.04	0.35	0.09
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	2.16	2.54	2.31	2.08	3.54	2.54
TOTAL	99.68	99.42	99.77	99.95	99.76	100.03
RB	40.00	90.00	50.00	60.00	20.00	120.00
SR	140.00	200.00	80.00	430.00	660.00	310.00
Y	30.00	10.00	20.00	10.00	20.00	40.00
ZR	100.00	110.00	110.00	100.00	80.00	170.00
NB	10.00	10.00	10.00	20.00	20.00	20.00
BA	1200.00	1650.00	960.00	1100.00	260.00	870.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15627	AB15628	AB15629	AB15630	AB15631	AB15632
SI02	68.70	75.80	47.90	73.40	73.20	74.80
AL203	13.00	13.00	18.90	12.70	14.70	12.60
FE203	7.08	1.45	10.80	2.29	1.64	2.02
MNO	0.03	0.04	0.19	0.09	0.04	0.05
MGO	1.17	1.50	4.76	1.96	0.70	0.92
CAO	0.97	0.42	8.13	1.25	0.95	1.19
NA2O	1.06	2.24	3.83	4.40	2.54	4.41
K2O	3.14	2.44	1.05	0.84	3.06	1.18
TIO2	0.32	0.18	0.80	0.27	0.29	0.26
P205	0.07	0.03	0.33	0.07	0.07	0.07
CR203	0.00	0.00	0.00	0.00	0.00	0.00
LOI	4.39	1.85	3.31	2.39	2.62	1.54
TOTAL	99.93	98.95	100.00	99.66	99.81	99.04
RB	70.00	90.00	30.00	< 10.00	80.00	< 10.00
SR	90.00	210.00	870.00	130.00	110.00	120.00
Y	10.00	< 10.00	20.00	< 10.00	10.00	< 10.00
ZR	120.00	90.00	30.00	100.00	100.00	90.00
NB	10.00	10.00	10.00	10.00	10.00	10.00
BA	1520.00	1150.00	420.00	420.00	920.00	400.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15633	AB15634	AB15637	AB15638	AB15639	AB15640
SI02	51.10	77.90	73.00	72.70	67.50	69.70
AL2O3	20.20	9.87	13.80	13.40	14.90	15.70
FE2O3	9.20	2.59	2.23	2.09	4.25	2.81
MNO	0.14	0.04	0.02	0.04	0.07	0.04
MGO	5.09	0.94	0.24	0.23	2.08	0.67
CAO	3.87	1.10	0.32	1.33	1.75	0.78
NA2O	4.66	4.16	4.81	6.25	5.24	7.58
K2O	1.64	0.78	3.82	1.48	1.53	0.76
TI02	0.73	0.23	0.32	0.32	0.43	0.36
P2O5	0.13	0.05	0.09	0.08	0.10	0.09
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	3.54	2.00	0.93	1.31	2.00	1.00
TOTAL	100.30	99.66	99.58	99.23	99.85	99.49
RB	30.00	20.00	50.00	30.00	60.00	10.00
SR	330.00	140.00	170.00	120.00	200.00	130.00
Y	30.00	10.00	30.00	30.00	30.00	50.00
ZR	60.00	90.00	150.00	160.00	140.00	190.00
NB	30.00	< 10.00	10.00	20.00	10.00	20.00
BA	1080.00	320.00	1420.00	740.00	680.00	410.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15641	AB15642	AB15643	AB15644	AB15645	AB15647
SI02	71.20	48.40	71.10	38.00	70.80	50.60
AL203	14.10	16.20	13.50	12.40	13.10	17.10
FE203	3.26	7.74	2.30	6.92	2.63	7.24
MNO	0.07	0.24	0.09	0.34	0.00	0.24
MGO	1.09	2.86	0.72	6.03	0.73	2.05
CAO	2.98	9.83	3.10	16.20	3.17	8.09
NA2O	4.26	3.70	4.26	1.36	3.80	2.99
K2O	1.19	1.86	1.63	1.25	1.57	2.54
TI02	0.32	0.67	0.24	0.57	0.33	0.51
P205	0.09	0.20	0.06	0.14	0.08	0.44
CR203	0.00	0.00	0.00	0.11	0.01	< 0.01
LOI	1.62	7.00	3.23	16.47	3.54	8.23
TOTAL	100.18	98.70	100.23	99.79	99.76	100.04
RB	30.00	60.00	50.00	40.00	20.00	70.00
SR	440.00	410.00	180.00	320.00	210.00	400.00
Y	40.00	30.00	20.00	< 10.00	30.00	30.00
ZR	170.00	70.00	100.00	10.00	140.00	100.00
NB	20.00	10.00	20.00	< 10.00	30.00	20.00
BA	570.00	440.00	520.00	320.00	1070.00	970.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15648	AB15649	AB15650	AB15651	AB15652	AB15653
SI02	71.70	75.20	57.90	54.40	51.70	76.10
AL203	13.40	11.10	18.50	13.50	13.40	12.80
FE203	2.00	1.86	7.53	11.60	10.30	1.71
MNO	0.04	0.05	0.08	0.24	0.19	0.00
MGO	0.70	1.05	2.60	10.10	9.97	1.87
CAO	2.70	2.68	2.06	1.27	7.60	0.32
NA2O	2.57	2.55	8.35	1.64	2.61	1.87
K2O	2.62	1.80	0.30	0.43	0.25	2.31
TI02	0.23	0.21	0.52	0.63	0.69	0.18
P205	0.06	0.05	0.40	0.14	0.11	0.04
CR203	0.01	0.01	< 0.01	0.06	0.07	< 0.01
LOI	4.00	3.46	1.47	6.16	3.00	2.08
TOTAL	100.03	100.03	99.71	100.17	99.89	99.29
RB	60.00	40.00	30.00	30.00	20.00	70.00
SR	180.00	150.00	620.00	100.00	390.00	260.00
Y	< 10.00	20.00	20.00	< 10.00	20.00	10.00
ZR	100.00	70.00	150.00	30.00	30.00	80.00
NB	10.00	10.00	20.00	20.00	20.00	20.00
BA	890.00	890.00	150.00	170.00	150.00	960.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15654	AB15655	AB15656	AB15658	AB15662	AB15666
SI02	45.60	47.50	47.30	48.30	47.20	48.30
AL203	19.70	18.70	14.60	13.40	18.30	14.30
FE203	8.24	10.30	12.00	14.00	11.30	12.80
MNO	0.19	0.16	0.18	0.26	0.23	0.19
MGO	5.50	5.57	6.64	6.67	3.98	6.72
CAO	6.18	6.96	10.60	11.20	12.70	11.10
NA2O	4.17	4.91	1.18	0.47	2.01	1.97
K2O	2.34	0.15	0.11	0.07	0.46	0.49
TIO2	0.76	0.80	1.77	1.89	0.65	1.58
P2O5	0.43	0.36	0.16	0.17	0.44	0.14
CR2O3	< 0.01	0.01	0.03	0.02	< 0.01	0.01
LOI	6.39	3.77	5.54	3.70	2.85	1.00
TOTAL	99.50	99.19	100.11	100.15	100.13	98.60
RB	60.00	10.00	20.00	10.00	30.00	30.00
SR	330.00	470.00	380.00	290.00	710.00	250.00
Y	30.00	10.00	10.00	40.00	20.00	10.00
ZR	50.00	80.00	80.00	90.00	40.00	60.00
NB	10.00	10.00	20.00	20.00	< 10.00	30.00
BA	530.00	110.00	60.00	90.00	380.00	120.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15667	AB15668	AB15669	AB15670	AB15671	AB15672
SI02	48.60	41.50	74.30	53.90	49.20	74.50
AL203	17.20	16.90	13.10	15.40	16.60	13.00
FE203	8.56	11.50	2.80	9.19	8.10	0.94
MNO	0.16	0.26	0.06	0.11	0.16	0.00
MGO	4.78	7.76	1.37	5.10	2.66	0.24
CAO	8.53	10.40	1.04	7.72	9.80	0.16
NA2O	4.90	2.72	1.46	4.01	2.71	0.52
K2O	0.66	0.54	2.97	0.84	2.00	8.41
TIO2	0.74	0.92	0.17	0.62	0.78	0.16
P2O5	0.49	0.53	0.05	0.22	0.43	0.05
CR203	< 0.01	0.01	0.01	0.04	< 0.01	0.01
LOI	5.00	6.54	2.31	2.85	7.47	1.00
TOTAL	99.63	99.58	99.64	100.00	99.91	98.99
RB	20.00	10.00	140.00	30.00	60.00	110.00
SR	440.00	520.00	130.00	370.00	540.00	90.00
Y	20.00	30.00	< 10.00	10.00	30.00	10.00
ZR	90.00	80.00	80.00	40.00	60.00	70.00
NB	30.00	30.00	10.00	10.00	10.00	10.00
BA	370.00	280.00	590.00	130.00	590.00	1050.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15673	AB15674	AB15675	AB15676	AB15677	AB15678
SI02	48.50	47.60	77.80	74.80	48.50	46.20
AL203	18.80	18.20	13.10	14.40	18.10	20.90
FE203	10.70	11.50	1.68	1.29	11.30	10.20
MNO	0.19	0.20	0.03	0.04	0.29	0.18
MGO	5.68	4.33	1.13	1.49	8.60	2.64
CAO	4.93	11.20	0.12	0.15	2.20	7.48
NA2O	3.68	1.51	2.07	3.15	1.76	3.11
K2O	2.22	0.68	1.45	2.33	1.37	3.10
TI02	0.80	0.86	0.19	0.21	0.90	0.92
P2O5	0.42	0.44	0.04	0.04	0.35	0.45
CR203	< 0.01	< 0.01	0.01	0.01	0.02	< 0.01
LOI	3.54	3.54	2.23	2.08	7.00	3.85
TOTAL	99.47	100.07	99.86	99.99	100.39	99.03
RB	40.00	30.00	50.00	50.00	30.00	60.00
SR	920.00	1040.00	330.00	120.00	180.00	610.00
Y	30.00	10.00	20.00	20.00	10.00	20.00
ZR	50.00	50.00	90.00	110.00	40.00	80.00
NB	10.00	10.00	20.00	10.00	10.00	20.00
BA	810.00	560.00	1170.00	1130.00	520.00	990.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15679	AB15680	AB15682	AB15683	AB15684	AB15685
SI02	46.60	46.50	45.10	72.80	75.30	69.70
AL203	19.60	15.60	19.30	13.80	11.30	14.90
FE203	10.50	10.60	13.00	2.64	1.85	4.53
MNO	0.16	0.17	0.22	0.05	0.07	0.07
MGO	3.27	6.79	5.76	0.72	0.72	2.17
CAO	11.10	11.80	7.17	0.72	2.56	0.41
NA2O	1.34	2.85	3.48	3.41	3.95	1.49
K2O	2.06	0.58	0.78	2.69	1.46	3.03
TI02	0.86	0.72	1.01	0.29	0.18	0.25
P205	0.35	0.31	0.45	0.07	0.05	0.06
CR203	< 0.01	0.01	< 0.01	< 0.01	0.01	0.01
LOI	4.39	3.54	3.70	2.39	2.62	3.39
TOTAL	100.23	99.47	99.97	99.58	100.07	100.01
RB	40.00	10.00	40.00	70.00	40.00	70.00
SR	720.00	870.00	520.00	170.00	150.00	90.00
Y	20.00	10.00	10.00	30.00	10.00	< 10.00
ZR	50.00	30.00	70.00	110.00	70.00	120.00
NB	10.00	20.00	30.00	10.00	20.00	10.00
BA	860.00	260.00	320.00	840.00	600.00	1010.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15686	AB15687	AB15688	AB15689	AB15690	AB15692
SI02	44.70	45.30	55.90	54.20	52.10	54.50
AL203	14.10	15.40	15.70	16.20	17.90	17.40
FE203	15.10	14.30	8.57	9.37	6.74	8.42
MNO	0.25	0.25	0.26	0.23	0.16	0.24
MGO	8.18	6.19	9.18	8.26	4.86	7.34
CAO	7.72	5.50	0.71	2.02	9.51	0.67
NA2O	2.48	3.23	1.94	3.14	3.60	3.05
K2O	0.35	1.39	1.08	0.32	1.55	1.73
TIO2	2.73	3.38	0.63	0.67	0.72	0.72
P2O5	0.58	0.76	0.11	0.12	0.11	0.13
CR203	0.03	< 0.01	0.00	0.00	0.00	0.00
LOI	3.00	3.08	5.16	4.77	2.46	5.47
TOTAL	99.22	98.79	99.24	99.30	99.72	99.67
RB	40.00	40.00	30.00	10.00	30.00	40.00
SR	360.00	180.00	20.00	90.00	240.00	50.00
Y	20.00	20.00	< 10.00	< 10.00	20.00	20.00
ZR	140.00	210.00	50.00	40.00	10.00	50.00
NB	40.00	50.00	20.00	20.00	< 10.00	20.00
BA	530.00	1940.00	900.00	660.00	1450.00	2550.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15693	AB15694	AB15695	AB15696	AB15697	AB15698
SI02	53.40	77.10	75.80	72.60	78.70	80.40
AL203	16.80	13.80	12.10	12.40	10.50	9.84
FE203	9.77	1.68	1.64	3.17	1.20	1.78
MNO	0.35	0.01	0.06	0.08	0.03	0.03
MGO	6.71	0.06	0.31	2.51	1.88	1.33
CAO	3.24	0.20	2.20	0.38	0.09	0.06
NA2O	3.65	0.42	1.11	3.05	2.34	0.59
K2O	0.33	3.06	2.94	1.78	1.77	2.29
TIO2	0.69	0.18	0.17	0.29	0.14	0.14
P2O5	0.15	0.05	0.05	0.06	0.02	0.02
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	4.62	2.77	3.00	2.93	2.08	2.23
TOTAL	99.71	99.33	99.38	99.25	98.75	98.71
RB	10.00	80.00	90.00	40.00	50.00	80.00
SR	140.00	90.00	80.00	130.00	110.00	30.00
Y	10.00	< 10.00	10.00	20.00	20.00	10.00
ZR	40.00	90.00	80.00	110.00	80.00	90.00
NB	10.00	10.00	10.00	10.00	10.00	20.00
BA	590.00	1720.00	1170.00	2630.00	2280.00	2300.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15699	AB15700	AB15801	AB15802	AB15803	AB15804
SI02	48.20	77.10	73.10	74.20	74.50	47.20
AL203	15.60	13.50	14.50	13.50	13.70	16.30
FE203	13.00	0.68	2.31	2.10	1.80	12.70
MNO	0.20	0.02	0.06	0.10	0.06	0.19
MGO	4.94	0.42	1.13	1.20	1.43	5.94
CAO	9.59	0.13	1.27	0.38	0.63	9.08
NA2O	1.74	1.63	3.00	2.07	2.78	2.66
K2O	0.06	3.24	2.48	2.74	2.20	0.41
TI02	2.16	0.31	0.26	0.23	0.18	1.75
P205	0.21	0.07	0.07	0.06	0.05	0.16
CR203	0.00	0.00	< 0.01	< 0.01	< 0.01	< 0.01
LOI	3.70	2.00	2.00	2.31	2.47	2.70
TOTAL	99.40	99.10	100.18	98.89	99.80	99.10
RB	10.00	70.00	60.00	60.00	70.00	20.00
SR	440.00	80.00	340.00	130.00	190.00	260.00
Y	30.00	30.00	30.00	< 10.00	10.00	30.00
ZR	120.00	120.00	110.00	90.00	80.00	90.00
NB	20.00	20.00	20.00	20.00	20.00	20.00
BA	120.00	1730.00	1010.00	1450.00	1550.00	260.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15805	AB15806	AB15807	AB15847	AB15848	AB15849
SI02	76.60	69.70	75.10	51.00	72.50	59.70
AL203	12.60	15.70	12.60	17.50	14.30	15.80
FE203	1.88	3.64	2.27	10.20	5.25	5.47
MNO	0.05	0.07	0.08	0.14	0.08	0.24
MGO	0.65	1.47	0.70	4.47	1.19	2.28
CAO	0.34	0.22	2.96	5.40	0.23	3.28
NA2O	3.90	2.83	3.90	2.28	2.32	4.47
K2O	2.10	3.03	0.99	2.71	1.48	2.19
TIO2	0.17	0.32	0.28	0.72	0.19	0.38
P2O5	0.04	0.08	0.06	0.43	0.06	0.08
CR2O3	< 0.01	< 0.01	< 0.01	0.00	0.00	0.00
LOI	1.39	2.47	1.23	4.23	2.62	4.47
TOTAL	99.72	99.53	100.17	99.08	100.22	98.36
RB	10.00	60.00	30.00	70.00	50.00	50.00
SR	110.00	110.00	200.00	350.00	100.00	280.00
Y	10.00	10.00	30.00	40.00	20.00	10.00
ZR	70.00	140.00	120.00	70.00	130.00	90.00
NB	10.00	10.00	10.00	10.00	20.00	20.00
BA	850.00	1060.00	570.00	630.00	1330.00	1370.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

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SAMP NO.->	AB15850	AB15904	AB15905	AB15909	AB15910	AB15911
SI02	72.20	79.30	51.70	48.80	75.80	78.10
AL2O3	13.00	11.50	17.00	18.00	11.90	13.10
FE2O3	2.00	0.99	9.53	12.80	0.81	1.90
MNO	0.08	0.02	0.17	0.13	0.06	0.04
MGO	0.79	0.19	5.53	4.25	0.28	0.22
CAO	2.77	0.85	6.62	5.58	2.71	0.09
NA2O	4.57	2.52	4.57	2.93	2.02	1.31
K2O	1.31	2.15	0.84	2.40	2.62	1.98
TIO2	0.22	0.17	0.68	0.83	0.16	0.19
P2O5	0.05	0.04	0.30	0.37	0.04	0.03
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	2.85	1.77	2.54	3.23	3.23	2.08
TOTAL	99.84	99.50	99.48	99.32	99.63	99.04
RB	30.00	70.00	40.00	50.00	60.00	60.00
SR	180.00	80.00	510.00	590.00	220.00	420.00
Y	< 10.00	10.00	10.00	10.00	< 10.00	20.00
ZR	90.00	100.00	30.00	60.00	70.00	90.00
NB	10.00	10.00	20.00	20.00	10.00	< 10.00
BA	1300.00	1010.00	260.00	580.00	1160.00	620.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO. ->	AB15912	AB15914	AB15920	AB15921	AB15923	AB15924
SI02	76.00	66.90	70.10	75.80	74.10	76.90
AL2O3	13.90	16.40	14.40	13.30	14.50	12.70
FE2O3	2.98	3.55	2.14	1.60	0.97	2.21
MNO	0.02	0.02	0.08	0.04	0.02	0.05
MGO	0.27	1.83	1.07	0.50	0.01	1.24
CAO	0.09	0.92	2.93	0.29	0.22	0.06
NA2O	1.53	4.46	0.70	6.26	5.55	0.14
K2O	1.94	1.91	3.03	1.24	3.61	3.36
TI02	0.40	0.50	0.25	0.16	0.04	0.17
P2O5	0.07	0.13	0.07	0.04	0.03	0.03
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	2.62	3.00	4.93	0.77	0.70	2.47
TOTAL	99.82	99.62	99.70	100.00	99.75	99.33
RB	50.00	60.00	70.00	30.00	90.00	100.00
SR	440.00	180.00	110.00	170.00	240.00	10.00
Y	30.00	10.00	20.00	< 10.00	30.00	< 10.00
ZR	80.00	100.00	120.00	80.00	100.00	70.00
NB	10.00	< 10.00	10.00	20.00	120.00	20.00
BA	590.00	750.00	1100.00	1010.00	1610.00	600.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15926	AB15928	AB15929	AB15951	AB15954	AB15955
SI02	73.40	79.70	72.10	48.70	51.00	74.20
AL203	12.90	11.30	12.60	20.40	16.70	13.20
FE203	1.56	1.20	2.66	10.20	7.70	2.33
MNO	0.06	0.00	0.00	0.20	0.16	0.05
MGO	0.92	0.68	4.59	3.53	5.08	1.15
CAO	1.28	0.02	0.03	8.09	7.63	0.24
NA2O	1.49	0.15	0.19	2.47	5.09	3.27
K2O	5.36	3.47	3.01	1.57	0.58	2.25
TIO2	0.20	0.15	0.21	0.90	0.83	0.23
P2O5	0.05	0.02	0.05	0.36	0.26	0.05
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	1.70	2.39	3.62	3.39	5.23	2.31
TOTAL	98.92	99.08	99.06	99.81	100.26	99.28
RB	60.00	90.00	70.00	50.00	10.00	60.00
SR	100.00	40.00	< 10.00	920.00	310.00	120.00
Y	< 10.00	10.00	20.00	20.00	20.00	20.00
ZR	100.00	90.00	100.00	50.00	30.00	110.00
NB	20.00	10.00	10.00	10.00	20.00	< 10.00
BA	1140.00	2950.00	2360.00	470.00	120.00	1000.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15956	AB15957	AB15958	AB15959	AB15960	AB15961
SI02	55.90	47.50	48.20	50.40	48.60	45.80
AL203	19.70	20.20	20.90	16.40	14.30	15.70
FE203	9.88	11.00	9.86	8.94	8.68	11.80
MNO	0.17	0.22	0.15	0.14	0.16	0.18
MGO	3.21	4.00	3.07	7.22	8.53	4.06
YAO	0.34	7.67	7.57	6.54	8.13	6.03
MA20	2.92	1.19	3.87	3.70	2.14	0.89
K2O	1.35	2.82	1.52	1.57	1.95	3.02
TIO2	0.90	0.85	0.75	0.69	0.60	0.70
P205	0.18	0.51	0.39	0.45	0.47	0.34
CR203	0.00	0.00	0.00	0.01	0.02	0.01
LOI	4.85	3.85	3.08	3.39	5.08	10.23
TOTAL	99.40	99.81	99.36	99.45	98.66	98.76
RE	40.00	100.00	30.00	40.00	60.00	70.00
SR	140.00	690.00	630.00	540.00	710.00	100.00
Y	30.00	30.00	20.00	10.00	20.00	20.00
ZR	80.00	70.00	60.00	90.00	60.00	80.00
NB	10.00	20.00	10.00	30.00	20.00	10.00
BA	400.00	820.00	440.00	770.00	1130.00	890.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB15962	AB15963	AB15964	AB15965	AB15966	AB15967
SI02	71.20	67.10	55.10	80.30	74.00	73.10
AL203	11.60	15.70	17.40	10.40	13.50	14.00
FE203	1.49	4.35	11.10	1.89	1.55	3.13
MNO	0.00	0.15	0.17	0.00	0.00	0.08
MGO	0.40	2.50	4.14	1.33	0.39	2.09
CAO	5.08	3.47	2.83	0.12	0.48	0.22
NA2O	0.96	2.21	2.59	3.20	3.16	1.72
K2O	3.14	1.42	1.22	1.14	5.07	2.84
TIO2	0.16	0.57	0.85	0.15	0.18	0.32
P2O5	0.05	0.11	0.35	0.04	0.05	0.07
CR2O3	0.01	0.01	< 0.01	0.02	0.01	0.00
LOI	4.31	2.46	4.24	1.70	1.24	2.85
TOTAL	98.40	100.05	99.99	100.29	99.63	100.42
RE	90.00	50.00	40.00	50.00	80.00	60.00
SR	80.00	460.00	500.00	100.00	140.00	60.00
Y	20.00	50.00	20.00	< 10.00	10.00	20.00
ZR	70.00	150.00	80.00	70.00	80.00	130.00
NB	30.00	20.00	20.00	20.00	20.00	20.00
BA	1340.00	1500.00	570.00	560.00	1510.00	870.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17601	AB17602	AB17603	AB17604	AB17605	AB17606
SI02	74.80	75.20	73.40	72.30	75.00	73.80
AL2O3	14.60	13.40	13.20	13.70	14.10	12.20
FE2O3	2.03	3.05	1.88	2.61	1.72	1.32
MNO	0.03	0.08	0.03	0.05	0.02	0.05
MGO	0.29	0.51	0.67	1.41	0.65	0.44
CAO	0.21	0.63	1.63	0.90	0.68	2.92
NA2O	4.04	3.49	3.91	2.75	3.55	4.12
K2O	1.76	1.56	2.41	3.41	2.54	2.12
TIO2	0.27	0.26	0.18	0.25	0.27	0.17
P2O5	0.06	0.06	0.04	0.06	0.06	0.05
CR2O3	0.01	0.01	0.01	< 0.01	0.01	0.01
LOI	1.70	1.85	1.77	1.85	1.39	2.39
TOTAL	99.80	100.10	99.13	99.30	99.99	99.59
RB	30.00	20.00	60.00	60.00	50.00	40.00
SR	140.00	130.00	110.00	250.00	130.00	190.00
Y	20.00	< 10.00	10.00	10.00	10.00	20.00
ZR	100.00	90.00	80.00	100.00	100.00	70.00
NB	10.00	20.00	< 10.00	20.00	10.00	20.00
BA	1030.00	930.00	930.00	1230.00	1390.00	850.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17607	AB17608	AB17609	AB17610	AB17611	AB17612
SI02	77.50	71.00	68.10	71.60	69.00	74.70
AL203	12.10	15.00	13.80	13.20	14.70	14.60
FE203	2.65	2.38	4.75	3.44	3.96	1.38
MNO	0.03	0.05	0.11	0.08	0.09	0.02
MGO	0.88	1.23	0.80	0.84	1.43	0.78
CAO	0.05	0.34	7.43	3.56	1.88	0.91
NA2O	1.59	5.07	2.59	5.00	3.72	4.57
K2O	2.85	2.38	0.57	0.29	1.95	1.77
TIO2	0.21	0.27	0.33	0.32	0.35	0.27
P2O5	0.04	0.06	0.10	0.11	0.09	0.06
CR2O3	0.01	0.01	0.01	0.01	< 0.01	0.01
LOI	1.93	2.31	1.62	1.70	3.08	1.24
TOTAL	99.84	100.10	100.21	100.15	100.26	100.30
RB	50.00	60.00	20.00	10.00	40.00	30.00
SR	40.00	240.00	380.00	170.00	180.00	150.00
Y	10.00	< 10.00	20.00	10.00	20.00	10.00
ZR	80.00	100.00	70.00	70.00	100.00	110.00
NB	10.00	20.00	20.00	20.00	10.00	20.00
BA	950.00	1070.00	480.00	220.00	940.00	1120.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17613	AB17614	AB17615	AB17616	AB17617	AB17618
SiO2	67.70	48.80	49.50	72.30	76.40	76.60
AL2O3	16.50	14.60	11.20	14.10	14.30	13.70
FE2O3	3.31	13.00	18.10	3.03	2.09	1.52
MNO	0.03	0.19	0.27	0.05	0.10	0.03
MGO	1.29	5.97	3.42	1.31	0.36	0.44
CAO	1.62	11.20	8.15	2.62	0.04	0.87
NA2O	3.71	1.90	2.35	2.75	0.71	0.76
K2O	3.02	0.10	0.46	1.92	3.28	3.10
TiO2	0.45	1.87	3.63	0.27	0.22	0.19
P2O5	0.14	0.18	0.34	0.07	0.04	0.06
CR2O3	< 0.01	0.01	< 0.01	0.01	< 0.01	< 0.01
LOI	2.23	2.31	1.70	1.70	2.46	2.54
TOTAL	100.01	100.13	99.12	100.13	100.01	99.82
RB	60.00	10.00	20.00	30.00	70.00	60.00
SR	130.00	220.00	200.00	160.00	60.00	90.00
Y	30.00	20.00	40.00	20.00	20.00	10.00
ZR	120.00	90.00	210.00	110.00	90.00	90.00
NB	10.00	10.00	40.00	10.00	20.00	20.00
BA	1500.00	80.00	220.00	1780.00	1630.00	1110.00

KIDD CREEK MINES--WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17619	AB17620	AB17621	AB17801	AB17802	AB17821
SI02	73.50	75.40	58.60	98.30	89.50	82.70
AL2O3	11.90	13.40	15.90	0.13	4.10	10.00
FE2O3	1.50	2.45	9.05	1.02	2.03	0.85
MNO	0.05	0.03	0.08	0.00	0.00	0.00
MGO	0.85	1.99	5.99	0.06	0.92	0.64
CAO	3.80	0.05	0.36	0.04	0.18	< 0.01
NA2O	1.03	1.67	3.85	0.03	0.51	0.16
K2O	2.83	2.59	1.34	< 0.01	0.69	3.12
TIO2	0.17	0.19	0.91	0.02	0.17	0.19
P2O5	0.06	0.02	0.20	0.03	0.03	0.03
CR2O3	0.01	0.01	0.02	0.00	0.00	0.00
LOI	4.47	2.31	3.62	0.62	1.24	1.85
TOTAL	100.17	100.11	99.92	100.25	99.36	99.54
RB	50.00	40.00	50.00	20.00	30.00	60.00
SR	150.00	140.00	90.00	< 10.00	< 10.00	< 10.00
Y	10.00	< 10.00	20.00	< 10.00	< 10.00	< 10.00
ZR	70.00	100.00	20.00	< 10.00	10.00	70.00
NB	30.00	10.00	< 10.00	10.00	10.00	20.00
BA	1040.00	1010.00	390.00	290.00	1400.00	3230.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

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SAMP NO. ->	AB17822	AB17823	AB17824	AB17825	AB17826	AB17827
SI02	75.50	70.50	73.60	72.90	76.10	56.30
AL203	12.60	14.70	14.90	13.80	13.00	16.40
FE203	2.39	3.24	2.01	2.63	1.50	11.50
MNO	0.00	0.00	0.00	0.00	0.00	0.18
MGO	2.09	1.52	0.51	1.41	0.94	4.53
CAO	0.42	2.68	0.74	0.67	0.13	0.38
NA2O	2.52	2.51	2.85	2.96	1.62	1.43
K2O	2.39	2.28	3.26	2.45	3.70	3.79
TI02	0.23	0.33	0.26	0.24	0.16	1.16
P205	0.06	0.07	0.07	0.06	0.05	0.30
CR203	0.00	0.00	0.00	0.00	0.00	0.00
LOI	2.08	2.23	1.85	2.00	1.85	4.24
TOTAL	100.28	100.06	100.05	99.12	99.05	100.21
RB	40.00	40.00	70.00	40.00	60.00	100.00
SR	110.00	260.00	110.00	170.00	80.00	20.00
Y	10.00	20.00	10.00	10.00	10.00	20.00
ZR	90.00	140.00	100.00	100.00	60.00	20.00
NB	20.00	10.00	10.00	10.00	10.00	20.00
BA	890.00	1000.00	1270.00	930.00	1020.00	490.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17828	AB17829	AB17830	AB17831	AB17832	AB17833
SI02	75.40	72.90	74.00	52.60	73.20	62.60
AL203	13.90	15.80	14.20	16.80	14.00	16.90
FE203	2.04	1.40	2.60	9.25	2.17	5.05
MNO	0.00	0.00	0.00	0.17	0.00	0.15
MGO	1.58	0.67	1.50	7.34	0.73	2.75
CAO	0.06	0.28	0.07	4.34	0.52	3.66
NA2O	1.80	5.67	1.11	5.28	3.99	4.58
K2O	2.86	1.57	2.90	0.60	3.11	1.23
TI02	0.19	0.19	0.26	0.76	0.23	0.43
P205	0.02	0.06	0.06	0.21	0.08	0.13
CR203	0.00	0.00	0.00	0.00	0.00	0.00
LOI	2.23	1.47	2.85	3.00	1.62	2.77
TOTAL	100.09	100.01	99.55	100.35	99.65	100.25
RB	40.00	40.00	70.00	20.00	60.00	20.00
SR	140.00	120.00	70.00	250.00	90.00	140.00
Y	10.00	30.00	10.00	10.00	< 10.00	20.00
ZR	80.00	140.00	100.00	40.00	90.00	90.00
NB	10.00	10.00	10.00	30.00	10.00	10.00
BA	1060.00	1040.00	1300.00	310.00	920.00	610.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17834	AB17840	AB17841	AB17847	AB17848	AB17849
SI02	73.70	49.20	73.60	73.30	68.00	71.80
AL2O3	13.90	14.60	13.50	13.70	12.40	12.40
FE2O3	2.38	11.90	3.06	3.83	2.72	1.60
MNO	0.00	0.18	0.00	0.00	0.00	0.00
MGO	1.72	6.80	1.76	0.73	2.42	1.38
CAO	0.10	10.60	0.69	0.26	4.39	2.87
NA2O	2.36	2.17	0.73	1.72	2.11	3.06
K2O	3.00	0.59	3.18	3.01	2.19	2.06
TIO2	0.24	1.60	0.28	0.24	0.21	0.17
P2O5	0.06	0.15	0.07	0.15	0.06	0.05
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	2.08	2.00	3.08	2.31	4.85	4.00
TOTAL	99.54	99.79	99.95	99.25	99.35	99.39
RB	60.00	10.00	60.00	50.00	50.00	40.00
SR	70.00	260.00	50.00	90.00	300.00	200.00
Y	10.00	20.00	< 10.00	30.00	< 10.00	10.00
ZR	100.00	90.00	80.00	110.00	90.00	100.00
NB	10.00	30.00	20.00	30.00	20.00	10.00
BA	1090.00	430.00	1250.00	1230.00	870.00	690.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17850	AB17852	AB17863	AB17864	AB17865	AB17866
SI02	73.20	78.70	74.70	73.90	74.30	75.90
AL203	14.50	11.70	13.50	14.00	12.30	12.30
FE203	2.33	1.21	2.66	2.65	1.92	1.98
MNO	0.00	0.00	0.04	0.06	0.07	0.05
MGO	1.31	0.95	1.62	1.67	1.28	1.90
CAO	2.32	0.01	0.26	0.18	2.10	0.75
NA2O	2.06	0.25	2.28	2.57	2.19	2.12
K2O	1.66	3.45	2.67	2.39	2.72	2.31
TIO2	0.26	0.15	0.24	0.25	0.19	0.15
P205	0.05	0.03	0.06	0.05	0.06	0.04
CR203	0.00	0.00	0.01	0.01	0.01	0.01
LOI	2.08	2.16	2.16	2.23	3.23	2.00
TOTAL	99.77	98.61	100.20	99.97	100.38	99.51
RB	50.00	70.00	50.00	70.00	70.00	60.00
SR	390.00	40.00	100.00	110.00	160.00	160.00
Y	< 10.00	10.00	20.00	< 10.00	10.00	< 10.00
ZR	110.00	80.00	100.00	100.00	90.00	60.00
NB	< 10.00	< 10.00	10.00	< 10.00	20.00	< 10.00
BA	1350.00	3390.00	1150.00	870.00	950.00	1140.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17867	AB17868	AB17869	AB17870	AB17871	AB17872
SI02	78.00	79.60	49.20	73.50	72.90	52.80
AL203	12.20	8.61	14.90	11.20	14.20	17.00
FE203	0.97	0.95	10.40	2.07	2.35	11.50
MNO	0.03	0.08	0.17	0.05	0.08	0.31
MGO	0.87	0.44	6.44	1.17	1.10	7.22
CAO	1.39	3.20	11.00	3.86	1.09	2.88
NA2O	3.51	1.85	2.84	0.87	3.10	2.07
K2O	1.35	1.79	1.06	2.76	2.55	0.72
TI02	0.18	0.12	0.72	0.19	0.25	0.76
P205	0.04	0.04	0.52	0.05	0.06	0.14
CR203	0.01	0.01	0.02	< 0.01	0.01	0.02
LOI	1.54	3.39	2.39	4.62	2.08	4.77
TOTAL	100.09	100.08	99.66	100.34	99.77	100.19
RB	40.00	40.00	20.00	40.00	50.00	20.00
SR	360.00	140.00	590.00	180.00	140.00	210.00
Y	< 10.00	< 10.00	10.00	< 10.00	20.00	10.00
ZR	90.00	40.00	90.00	80.00	110.00	40.00
NB	10.00	10.00	30.00	20.00	30.00	20.00
BA	970.00	770.00	620.00	1130.00	850.00	330.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17873	AB17874	AB17875	AB17876	AB17877	AB17878
SI02	75.30	49.30	72.40	77.70	71.00	55.60
AL2O3	15.00	17.20	14.40	10.40	14.90	17.90
FE2O3	1.94	11.80	2.67	4.72	4.33	11.60
MNO	0.01	0.12	0.06	0.03	0.06	0.13
MGO	0.43	10.20	0.80	1.10	1.73	4.86
CAO	0.06	1.08	2.01	0.38	0.14	0.33
NA2O	1.00	2.00	1.06	0.37	2.56	1.88
K2O	3.24	0.20	2.53	1.96	2.32	1.89
TI02	0.27	1.16	0.25	0.36	0.24	0.85
P2O5	0.05	0.52	0.06	0.32	0.06	0.21
CR2O3	< 0.01	0.04	< 0.01	< 0.01	0.01	0.03
LOI	2.39	6.00	3.70	2.16	2.85	4.85
TOTAL	99.69	99.62	99.94	99.50	100.20	100.13
RB	50.00	10.00	50.00	50.00	50.00	60.00
SR	90.00	100.00	160.00	< 10.00	210.00	110.00
Y	< 10.00	10.00	10.00	10.00	< 10.00	20.00
ZR	130.00	90.00	120.00	50.00	100.00	30.00
NB	10.00	30.00	10.00	10.00	20.00	20.00
BA	1330.00	220.00	1000.00	1240.00	1040.00	630.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17879	AB17880	AB17881	AB17883	AB17884	AB17902
SI02	64.90	53.30	51.90	72.40	53.70	64.50
AL203	18.50	13.00	12.20	13.20	17.70	15.20
FE203	4.27	10.40	10.20	1.93	9.49	3.23
MNO	0.07	0.18	0.18	0.06	0.10	0.14
MGO	0.89	8.03	9.78	1.14	2.32	5.34
CAO	0.30	7.46	9.73	2.78	4.25	0.64
NA2O	3.59	3.69	3.01	2.31	3.33	2.63
K2O	4.03	0.28	0.22	2.64	3.07	2.06
TI02	0.33	0.62	0.60	0.20	0.80	0.47
P205	0.21	0.17	0.14	0.14	0.48	0.10
CR203	< 0.01	0.03	0.06	0.01	< 0.01	0.00
LOI	2.85	2.46	2.16	3.54	4.62	4.16
TOTAL	99.94	99.63	100.18	100.35	99.86	98.47
RB	90.00	20.00	20.00	60.00	60.00	60.00
SR	100.00	170.00	230.00	150.00	280.00	190.00
Y	20.00	20.00	20.00	20.00	30.00	20.00
ZR	180.00	30.00	10.00	80.00	110.00	150.00
NB	30.00	10.00	20.00	10.00	30.00	20.00
BA	1300.00	210.00	260.00	1230.00	880.00	1820.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17903	AB17904	AB17905	AB17906	AB17907	AB17908
SI02	72.40	66.40	75.60	76.70	51.10	46.40
AL203	13.60	17.30	12.60	11.60	18.90	18.00
FE203	2.95	3.18	1.98	1.50	11.10	14.50
MNO	0.09	0.05	0.05	0.06	0.09	0.12
MGO	1.57	1.72	1.95	0.68	4.51	4.54
CAO	0.76	0.82	0.31	1.61	1.37	6.51
NA2O	2.87	4.36	3.27	1.70	4.09	2.01
K2O	2.04	2.57	1.79	1.92	1.66	0.65
TIO2	0.25	0.30	0.23	0.20	0.99	0.69
P205	0.06	0.08	0.06	0.05	0.36	0.26
CR203	0.00	0.00	0.00	0.00	0.00	0.00
LOI	2.31	2.39	2.00	2.54	5.54	5.47
TOTAL	98.90	99.17	99.84	98.56	99.71	99.15
RB	50.00	100.00	50.00	70.00	50.00	< 10.00
SR	210.00	160.00	110.00	220.00	190.00	420.00
Y	< 10.00	20.00	20.00	< 10.00	10.00	< 10.00
ZR	110.00	140.00	100.00	100.00	60.00	30.00
NB	20.00	20.00	< 10.00	10.00	10.00	20.00
BA	990.00	1120.00	900.00	1140.00	500.00	420.00

KIDD CREEK MINES--WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17909	AB17910	AB17911	AB17912	AB17913	AB17914
SI02	73.70	75.20	74.80	40.40	73.70	67.00
AL203	14.40	12.10	14.10	28.90	15.00	17.20
FE203	1.86	1.70	1.91	9.12	1.95	2.66
MNO	0.04	0.06	0.06	0.06	0.03	0.05
MGO	0.83	0.97	0.40	3.51	0.51	0.86
CAO	0.20	1.76	0.18	1.30	0.13	2.45
NA2O	2.28	2.58	3.57	1.00	2.43	4.16
K2O	2.93	1.94	2.30	6.76	2.93	2.16
TI02	0.25	0.20	0.24	1.71	0.26	0.29
P205	0.06	0.05	0.06	0.94	0.07	0.06
CR203	0.00	0.00	0.00	0.00	0.00	0.00
LOI	2.31	2.31	1.85	5.24	2.08	1.85
TOTAL	98.86	98.87	99.47	98.94	99.09	98.74
RB	< 10.00	70.00	60.00	120.00	90.00	< 10.00
SR	160.00	190.00	130.00	170.00	200.00	630.00
Y	< 10.00	10.00	20.00	40.00	< 10.00	< 10.00
ZR	120.00	90.00	120.00	110.00	120.00	140.00
NB	10.00	10.00	20.00	30.00	10.00	< 10.00
BA	1320.00	810.00	1110.00	3140.00	820.00	970.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17915	AB17916	AB17917	AB17918	AB17919	AB17920
SI02	70.90	64.80	80.10	52.10	77.80	72.30
AL203	16.70	16.00	11.30	18.90	11.20	13.70
FE203	1.36	3.06	1.94	14.40	2.15	1.82
MNO	0.04	0.07	0.05	0.17	0.06	0.04
MGO	0.48	2.23	0.79	5.28	0.98	0.21
CAO	0.94	2.64	0.08	0.33	0.51	1.19
NA2O	3.32	2.71	1.56	1.73	3.13	4.51
K2O	2.85	2.62	0.77	0.77	1.36	3.05
TI02	0.31	0.26	0.17	0.91	0.25	0.29
P205	0.07	0.08	0.03	0.14	0.06	0.06
CR203	0.00	0.00	0.00	0.00	0.00	0.00
LOI	1.93	4.00	2.16	5.00	2.00	1.39
TOTAL	98.90	98.47	98.95	99.73	99.50	98.56
RB	< 10.00	70.00	40.00	40.00	30.00	50.00
SR	280.00	170.00	620.00	280.00	70.00	220.00
Y	< 10.00	< 10.00	< 10.00	10.00	10.00	30.00
ZR	140.00	110.00	70.00	40.00	130.00	130.00
NB	10.00	10.00	20.00	20.00	10.00	10.00
BA	1560.00	950.00	990.00	370.00	750.00	1530.00

KIDD CREEK MINES--WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17921	AB17922	AB17923	AB17924	AB17925	AB17926
SI02	73.20	69.00	70.30	68.00	62.10	64.20
AL2O3	14.10	15.00	14.50	13.90	11.00	14.20
FE2O3	1.74	3.23	3.56	4.00	12.90	5.06
MNO	0.03	0.10	0.15	0.10	0.08	0.20
MGO	0.16	1.91	1.85	2.80	1.29	4.46
CAO	1.17	1.07	2.62	3.25	0.87	3.15
NA2O	5.62	2.35	4.71	2.17	1.28	2.17
K2O	2.24	3.12	0.66	1.86	2.57	2.21
TI02	0.32	0.34	0.35	0.27	0.39	0.42
P2O5	0.06	0.07	0.07	0.08	0.12	0.13
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	1.16	3.00	1.77	2.46	6.62	3.00
TOTAL	99.80	99.19	100.54	98.89	99.22	99.20
RB	30.00	100.00	40.00	50.00	< 10.00	60.00
SR	210.00	140.00	240.00	230.00	120.00	220.00
Y	< 10.00	30.00	10.00	10.00	10.00	20.00
ZR	120.00	140.00	140.00	100.00	110.00	80.00
NB	20.00	20.00	10.00	20.00	20.00	20.00
BA	1740.00	1240.00	410.00	860.00	2040.00	1470.00

KIDD CREEK MINES--WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17927	AB17928	AB17929	AB17930	AB17931	AB17933
SI02	72.50	73.00	73.30	61.50	47.20	82.60
AL2O3	13.70	14.60	15.30	17.10	16.70	9.30
FE2O3	1.76	1.52	1.22	7.57	13.50	1.18
MNO	0.00	0.00	0.00	0.03	0.27	0.04
MGO	1.85	0.67	0.46	1.29	4.53	0.46
CAO	0.41	0.43	0.30	0.19	4.13	0.24
NA2O	3.84	2.79	2.85	0.53	3.36	2.72
K2O	2.30	3.12	3.30	5.96	2.01	1.56
TI02	0.25	0.24	0.26	0.67	0.75	0.18
P2O5	0.06	0.11	0.12	0.42	0.36	0.05
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	2.00	2.16	2.16	4.70	6.00	1.24
TOTAL	98.67	98.64	99.27	99.96	98.81	99.57
RB	40.00	80.00	80.00	160.00	50.00	50.00
SR	150.00	40.00	30.00	10.00	570.00	120.00
Y	40.00	10.00	< 10.00	< 10.00	20.00	< 10.00
ZR	110.00	100.00	110.00	150.00	50.00	50.00
NB	10.00	30.00	20.00	40.00	30.00	10.00
BA	1040.00	1040.00	1170.00	2430.00	880.00	670.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB17934	AB17935	AB18600	AB18614	AB18615	AB18616
SI02	72.30	74.90	66.70	74.60	72.80	76.90
AL2O3	14.70	13.20	18.00	13.60	14.40	13.30
FE2O3	2.03	2.05	2.44	2.08	2.53	1.13
MNO	0.04	0.05	0.01	0.03	0.03	0.05
MGO	1.77	1.06	1.59	1.16	0.84	0.47
CAO	0.85	0.32	1.52	1.07	0.54	0.27
NA2O	4.79	3.16	3.23	4.79	4.33	3.60
K2O	1.50	2.36	3.08	1.25	2.47	2.57
TI02	0.21	0.23	0.33	0.27	0.20	0.19
P2O5	0.04	0.05	0.10	0.07	0.05	0.05
CR2O3	0.00	0.00	0.00	0.01	0.01	0.01
LOI	1.85	2.00	2.62	1.31	1.85	1.62
TOTAL	100.08	99.38	99.62	100.24	100.05	100.16
RB	50.00	60.00	90.00	40.00	60.00	50.00
SR	340.00	190.00	180.00	240.00	100.00	70.00
Y	< 10.00	< 10.00	0.00	20.00	10.00	20.00
ZR	130.00	100.00	130.00	110.00	90.00	100.00
NB	20.00	10.00	0.00	10.00	20.00	10.00
BA	830.00	1070.00	0.00	1150.00	1040.00	880.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

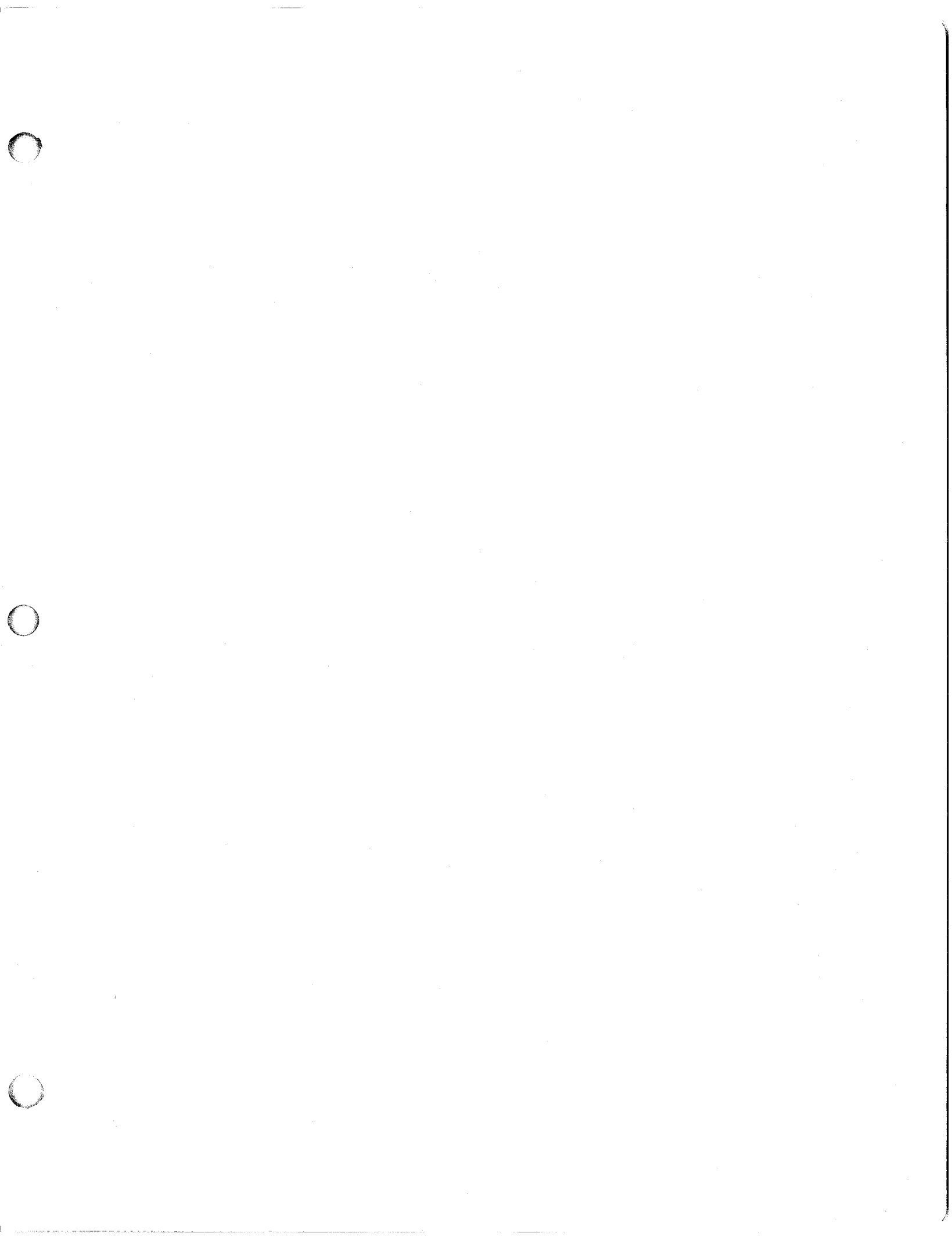
CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB18617	AB18618	AB18619	AB18620	AB18621	AB18622
SI02	62.00	72.50	71.30	70.10	49.30	74.00
AL203	16.90	14.30	13.90	14.90	16.10	13.00
FE203	5.65	1.62	2.08	2.31	10.30	2.34
MNO	0.13	0.05	0.09	0.07	0.22	0.06
MGO	1.59	0.79	0.96	1.16	8.62	1.03
CAO	2.27	1.54	2.65	1.63	4.92	1.30
NA2O	4.12	3.55	1.72	4.30	3.17	3.71
K2O	3.09	3.03	3.23	2.60	0.77	2.38
TIO2	0.37	0.25	0.27	0.27	0.63	0.24
P2O5	0.27	0.06	0.07	0.07	0.10	0.06
CR203	< 0.01	0.01	< 0.01	0.01	0.01	0.01
LOI	3.42	2.39	3.54	2.23	5.00	2.08
TOTAL	99.82	100.09	99.82	99.65	99.14	100.21
RB	80.00	50.00	40.00	50.00	20.00	50.00
SR	220.00	180.00	100.00	330.00	420.00	130.00
Y	10.00	< 10.00	10.00	20.00	10.00	10.00
ZR	140.00	100.00	90.00	110.00	30.00	80.00
NB	20.00	10.00	20.00	10.00	< 10.00	10.00
BA	1150.00	1480.00	1280.00	960.00	400.00	950.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - MAJOR OXIDE AND TRACE ELEMENT ANALYTICAL DATA

SAMP NO.->	AB18642	AB18643
SI02	78.40	70.60
AL2O3	12.40	16.60
FE2O3	1.48	3.52
MNO	0.00	0.13
MGO	0.32	0.64
CAO	0.18	0.33
NA2O	0.34	1.58
K2O	2.85	2.13
TIO2	0.21	0.47
P2O5	0.07	0.15
CR2O3	0.00	0.00
LOI	2.62	3.39
TOTAL	98.87	99.54
RB	60.00	30.00
SR	80.00	120.00
Y	10.00	30.00
ZR	110.00	130.00
NB	10.00	< 10.00
BA	1890.00	1210.00



APPENDIX C

MAJOR OXIDE, TRACE ELEMENT AND RARE EARTH ELEMENT
ANALYTICAL DATA - CHIP CLAIMS

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - ANALYSES FOR THOSE SAMPLE WITH MAJOR OXIDE, TRACE AND REE DATA

SAMP NO. ->	AB15536	AB15539	AB15541	AB15542	AB15543	AB15545
SI02	51.90	66.00	48.90	61.00	76.20	47.70
AL2O3	15.90	14.90	16.80	18.60	13.60	20.10
FE2O3	11.70	7.13	9.69	4.77	0.87	12.90
MNO	0.17	0.05	0.17	0.08	0.03	0.19
MGO	7.08	1.41	6.55	3.07	0.33	2.69
CAO	3.37	1.28	5.28	3.47	0.57	6.86
NA2O	1.91	1.10	3.54	2.89	3.64	4.22
K2O	2.34	2.97	2.32	1.31	2.56	0.06
TIO2	0.67	0.72	0.88	0.78	0.16	1.01
P2O5	0.18	0.07	0.33	0.16	0.05	0.21
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	4.31	3.62	4.31	3.31	1.77	3.00
TOTAL	99.53	99.25	98.77	99.44	99.78	98.94
RB	70.00	90.00	40.00	30.00	70.00	30.00
SR	390.00	280.00	490.00	540.00	220.00	460.00
Y	< 10.00	10.00	20.00	10.00	10.00	< 10.00
ZR	10.00	50.00	50.00	50.00	80.00	40.00
NB	30.00	10.00	20.00	20.00	10.00	20.00
BA	670.00	1120.00	750.00	940.00	880.00	70.00
CS	2.60	2.00	9.80	< 2.10	3.30	< 6.00
LA	16.40	6.10	23.30	10.30	18.50	9.30
CE	28.00	13.00	38.00	23.00	23.00	15.00
ND	13.00	10.00	15.00	7.00	8.00	16.00
SM	3.50	1.80	4.20	2.70	1.60	3.00
EU	0.90	0.40	1.50	0.70	0.80	< 1.20
YB	1.50	1.30	2.50	1.70	1.40	2.50
LU	0.28	0.24	0.27	0.35	0.34	0.47
HF	2.00	2.00	4.00	2.00	3.00	3.00
V	250.00	200.00	340.00	140.00	10.00	310.00
CR	250.00	30.00	30.00	70.00	10.00	20.00
MN	0.00	410.00	0.00	580.00	170.00	0.00
CO	39.00	14.00	34.00	7.00	2.00	32.00
NI	66.00	15.00	25.00	10.00	3.00	20.00
GE	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
SE	< 3.00	< 4.00	< 3.00	< 3.00	< 3.00	< 9.00
MO	< 5.00	< 5.00	5.00	< 5.00	< 5.00	< 5.00
CU	60.00	190.00	140.00	68.00	2.50	270.00
PB	2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00
ZN	100.00	43.00	100.00	93.00	26.00	84.00
CD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
AS	2.00	< 2.00	< 2.00	< 2.00	< 2.00	2.00
AG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
AU	10.00	10.00	< 10.00	< 10.00	< 10.00	< 10.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - ANALYSES FOR THOSE SAMPLE WITH MAJOR OXIDE, TRACE AND REE DATA

SAMP NO.->	AB15546	AB15549	AB15593	AB15596	AB15625	AB15627
SI02	53.80	46.80	59.80	77.50	52.60	68.70
AL2O3	17.60	18.80	16.90	12.20	17.60	13.00
FE2O3	10.70	9.79	6.97	0.78	8.64	7.08
MNO	0.21	0.15	0.15	0.01	0.14	0.03
MGO	3.18	6.08	2.20	0.58	4.87	1.17
CAO	6.85	5.27	4.81	0.13	7.78	0.97
NA2O	3.65	1.21	3.41	0.59	2.70	1.06
K2O	0.05	3.14	2.07	5.11	0.83	3.14
TIO2	0.85	0.73	0.38	0.17	0.71	0.32
P2O5	0.15	0.60	0.21	0.05	0.35	0.07
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	2.85	6.54	2.54	1.85	3.54	4.39
TOTAL	99.89	99.11	99.44	98.97	99.76	99.93
RB	10.00	60.00	70.00	70.00	20.00	70.00
SR	400.00	250.00	430.00	30.00	660.00	90.00
Y	< 10.00	20.00	20.00	< 10.00	20.00	10.00
ZR	30.00	60.00	140.00	70.00	80.00	120.00
NB	10.00	20.00	10.00	20.00	20.00	10.00
BA	110.00	500.00	1060.00	610.00	260.00	1520.00
CS	6.50	3.40	< 2.20	1.70	1.90	1.00
LA	7.70	30.10	46.60	16.00	18.50	12.30
CE	13.00	49.00	67.00	25.00	82.00	33.00
ND	< 6.00	25.00	16.00	10.00	16.00	5.00
SM	2.30	5.10	4.50	1.40	4.70	1.50
EU	1.50	0.70	1.30	< 0.20	1.60	0.50
YB	2.00	2.90	1.80	1.20	2.00	1.50
LU	0.39	0.54	0.46	0.25	0.32	0.29
HF	3.00	2.00	3.00	3.00	2.00	2.00
V	300.00	180.00	110.00	10.00	160.00	60.00
CR	50.00	10.00	20.00	10.00	40.00	10.00
MN	0.00	0.00	0.00	70.00	980.00	210.00
CO	33.00	26.00	10.00	1.00	27.00	9.00
NI	25.00	29.00	11.00	3.00	29.00	10.00
GE	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
SE	< 9.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
MO	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	6.00
CU	3.50	1.50	91.00	3.50	12.00	370.00
PB	< 2.00	< 2.00	< 2.00	< 2.00	6.00	22.00
ZN	84.00	140.00	88.00	16.00	100.00	120.00
CD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 2.00
AS	2.00	66.00	13.00	< 2.00	2.00	4.00
AG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
AU	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	10.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - ANALYSES FOR THOSE SAMPLE WITH MAJOR OXIDE, TRACE AND REE DATA

SAMP NO.->	AB15699	AB15926	AB15928	AB15929	AB15930	AB15934
SI02	48.20	73.40	79.70	72.10	75.70	64.00
AL203	15.60	12.90	11.30	12.60	12.00	16.60
FE203	13.00	1.56	1.20	2.66	2.83	4.71
MNO	0.20	0.06	0.00	0.00	0.00	0.00
MGO	4.94	0.92	0.68	4.59	1.15	1.28
CAO	9.59	1.28	0.02	0.03	0.30	0.48
NA2O	1.74	1.49	0.15	0.19	3.69	0.18
K2O	0.06	5.36	3.47	3.01	1.48	4.94
TIO2	2.16	0.20	0.15	0.21	0.21	0.80
P2O5	0.21	0.05	0.02	0.05	0.05	0.20
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	3.70	1.70	2.39	3.62	2.00	5.54
TOTAL	99.40	98.92	99.08	99.06	99.41	98.73
RB	10.00	60.00	90.00	70.00	30.00	90.00
SR	440.00	100.00	40.00	< 10.00	40.00	10.00
Y	30.00	< 10.00	10.00	20.00	10.00	20.00
ZR	120.00	100.00	90.00	100.00	90.00	30.00
NB	20.00	20.00	10.00	10.00	20.00	10.00
BA	120.00	1140.00	2950.00	2360.00	1010.00	4290.00
CS	1.90	0.90	0.90	0.90	2.20	2.60
LA	13.10	13.00	18.90	20.70	11.40	15.60
CE	28.00	35.00	33.00	33.00	19.00	28.00
ND	16.00	< 5.00	10.00	13.00	5.00	17.00
SM	4.80	1.60	2.30	2.70	1.40	3.60
EU	2.30	< 0.20	0.30	0.40	0.20	1.60
YB	2.40	1.60	2.30	2.30	1.50	1.10
LU	0.40	0.32	0.40	0.41	0.27	0.18
HF	4.00	2.00	4.00	4.00	3.00	1.00
V	400.00	20.00	< 10.00	20.00	20.00	430.00
CR	62.00	10.00	2.00	< 2.00	< 2.00	1200.00
MN	0.00	440.00	48.00	250.00	360.00	290.00
CO	36.00	3.00	< 1.00	1.00	3.00	16.00
NI	59.00	4.00	2.00	4.00	3.00	31.00
GE	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	10.00
SE	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
MO	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
CU	200.00	< 0.50	32.00	20.00	1300.00	62.00
PB	6.00	4.00	2.00	4.00	< 2.00	12.00
ZN	150.00	35.00	39.00	140.00	48.00	46.00
CD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
AS	5.00	< 2.00	3.00	4.00	2.00	88.00
AG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
AU	< 10.00	< 10.00	20.00	10.00	10.00	40.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - ANALYSES FOR THOSE SAMPLE WITH MAJOR OXIDE, TRACE AND REE DATA

SAMP NO.->	AB15935	AB15936	AB15955	AB15962	AB15963	AB15965
SI02	74.30	59.80	74.20	71.20	67.10	80.30
AL2O3	14.30	18.90	13.20	11.60	15.70	10.40
FE2O3	0.52	4.84	2.33	1.49	4.35	1.89
MNO	0.00	0.00	0.05	0.00	0.15	0.00
MGO	1.30	1.30	1.15	0.40	2.50	1.33
CAO	2.19	0.98	0.24	5.08	3.47	0.12
NA2O	1.73	0.19	3.27	0.96	2.21	3.20
K2O	3.36	5.64	2.25	3.14	1.42	1.14
TIO2	0.20	1.28	0.23	0.16	0.57	0.15
P2O5	0.04	0.19	0.05	0.05	0.11	0.04
CR2O3	0.00	0.00	0.00	0.01	0.01	0.02
LOI	1.77	5.16	2.31	4.31	2.46	1.70
TOTAL	99.71	98.28	99.28	98.40	100.05	100.29
RB	60.00	130.00	60.00	90.00	50.00	50.00
SR	170.00	< 10.00	120.00	80.00	460.00	100.00
Y	20.00	20.00	20.00	20.00	50.00	< 10.00
ZR	90.00	20.00	110.00	70.00	150.00	70.00
NB	10.00	10.00	< 10.00	30.00	20.00	20.00
BA	1170.00	4920.00	1000.00	1340.00	1500.00	560.00
CS	0.80	3.00	0.80	1.90	1.20	1.20
LA	12.30	3.60	10.50	15.80	28.50	12.10
CE	17.00	11.00	28.00	35.00	56.00	29.00
ND	< 5.00	7.00	5.00	< 5.00	21.00	5.00
SM	1.20	2.50	1.20	1.50	6.20	1.30
EU	0.40	0.90	< 0.20	0.50	1.60	0.60
YB	1.70	2.50	1.30	1.70	4.60	1.30
LU	0.36	0.39	0.23	0.38	0.84	0.30
HF	3.00	2.00	2.00	2.00	4.00	2.00
V	20.00	470.00	30.00	20.00	20.00	10.00
CR	10.00	9.00	10.00	140.00	110.00	160.00
MN	120.00	200.00	380.00	320.00	0.00	160.00
CO	1.00	14.00	3.00	4.00	3.00	4.00
NI	3.00	11.00	3.00	6.00	5.00	3.00
GE	10.00	10.00	< 10.00	10.00	10.00	10.00
SE	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
MO	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
CU	5.00	38.00	3.50	3.00	5.00	10.00
PB	2.00	12.00	4.00	2.00	6.00	2.00
ZN	18.00	74.00	48.00	15.00	110.00	40.00
CD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
AS	2.00	51.00	< 2.00	< 2.00	< 2.00	< 2.00
AG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
AU	< 10.00	40.00	< 10.00	< 10.00	< 10.00	< 10.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - ANALYSES FOR THOSE SAMPLE WITH MAJOR OXIDE, TRACE AND REE DATA

SAMP NO.->	AB15966	AB17533	AB17534	AB17535	AB17536	AB17801
SI02	74.00	56.70	58.50	92.70	87.90	98.30
AL2O3	13.50	17.70	17.80	0.20	0.83	0.13
FE2O3	1.55	9.23	8.34	4.91	7.31	1.02
MNO	0.00	0.00	0.00	0.00	0.93	0.00
MGO	0.39	4.35	2.51	0.13	0.31	0.06
CAO	0.48	1.99	2.48	0.07	0.07	0.04
NA2O	3.16	3.02	4.39	0.03	0.03	0.03
K2O	5.07	1.02	1.24	< 0.01	0.04	< 0.01
TIO2	0.18	0.83	0.88	0.02	0.09	0.02
P2O5	0.05	0.10	0.11	0.05	0.05	0.03
CR2O3	0.01	0.00	0.00	0.00	0.00	0.00
LOI	1.24	5.00	3.77	1.39	2.16	0.62
TOTAL	99.63	99.94	100.02	99.50	99.72	100.25
RB	80.00	40.00	40.00	10.00	< 10.00	20.00
SR	140.00	330.00	340.00	< 10.00	< 10.00	< 10.00
Y	10.00	< 10.00	10.00	< 10.00	< 10.00	< 10.00
ZR	80.00	40.00	50.00	< 10.00	< 10.00	< 10.00
NB	20.00	20.00	20.00	10.00	20.00	10.00
BA	1510.00	340.00	570.00	120.00	120.00	290.00
CS	1.10	1.00	1.40	< 0.50	< 0.50	< 0.50
LA	12.70	7.00	6.50	1.50	2.80	< 0.50
CE	34.00	12.00	14.00	< 3.00	5.00	< 3.00
ND	< 5.00	9.00	9.00	< 5.00	< 5.00	< 5.00
SM	1.10	2.10	2.30	0.20	0.60	< 0.10
EU	< 0.30	0.50	0.70	0.00	0.00	< 0.20
YB	1.40	1.40	1.70	0.30	0.40	< 0.20
LU	0.30	0.21	0.29	< 0.05	0.07	< 0.05
HF	3.00	1.00	2.00	< 1.00	< 1.00	< 1.00
V	10.00	250.00	270.00	40.00	80.00	12.00
CR	140.00	100.00	100.00	240.00	220.00	270.00
MN	160.00	660.00	770.00	200.00	0.00	34.00
CO	4.00	20.00	20.00	2.00	11.00	< 1.00
NI	3.00	14.00	17.00	6.00	21.00	3.00
GE	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
SE	< 3.00	< 3.00	< 3.00	3.00	< 3.00	< 3.00
MO	< 5.00	< 5.00	< 5.00	11.00	39.00	< 5.00
CU	1.50	73.00	72.00	16.00	28.00	11.00
PB	< 2.00	4.00	6.00	6.00	4.00	4.00
ZN	13.00	130.00	120.00	4.00	28.00	5.50
CD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
AS	< 2.00	< 2.00	< 2.00	< 2.00	6.00	< 2.00
AG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
AU	< 10.00	< 10.00	< 10.00	50.00	80.00	50.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - ANALYSES FOR THOSE SAMPLE WITH MAJOR OXIDE, TRACE AND REE DATA

SAMP NO.->	AB17802	AB17821	AB17822	AB17823	AB17824	AB17825
SI02	89.50	82.70	75.50	70.50	73.60	72.90
AL203	4.10	10.00	12.60	14.70	14.90	13.80
FE203	2.03	0.85	2.39	3.24	2.01	2.63
MNO	0.00	0.00	0.00	0.00	0.00	0.00
MGO	0.92	0.64	2.09	1.52	0.51	1.41
CAO	0.18	< 0.01	0.42	2.68	0.74	0.67
NA2O	0.51	0.16	2.52	2.51	2.85	2.96
K2O	0.69	3.12	2.39	2.28	3.26	2.45
TIO2	0.17	0.19	0.23	0.33	0.26	0.24
P2O5	0.03	0.03	0.06	0.07	0.07	0.06
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	1.24	1.85	2.08	2.23	1.85	2.00
TOTAL	99.36	99.54	100.28	100.06	100.05	99.12
RB	30.00	60.00	40.00	40.00	70.00	40.00
SR	< 10.00	< 10.00	110.00	260.00	110.00	170.00
Y	< 10.00	< 10.00	10.00	20.00	10.00	10.00
ZR	10.00	70.00	90.00	140.00	100.00	100.00
NB	10.00	20.00	20.00	10.00	10.00	10.00
BA	1400.00	3230.00	890.00	1000.00	1270.00	930.00
CS	0.70	< 0.50	0.60	1.00	1.20	1.10
LA	8.90	1.90	12.00	16.80	18.90	12.20
CE	16.00	3.00	22.00	32.00	26.00	22.00
ND	10.00	< 5.00	8.00	12.00	9.00	8.00
SM	2.10	0.20	1.60	2.90	2.10	1.60
EU	0.50	< 0.20	0.50	0.70	0.50	0.50
YB	1.10	0.70	1.50	2.70	2.10	1.70
LU	0.17	0.15	0.26	0.45	0.31	0.32
HF	1.00	2.00	3.00	4.00	3.00	3.00
V	50.00	30.00	20.00	40.00	30.00	30.00
CR	220.00	160.00	92.00	71.00	110.00	120.00
MN	350.00	98.00	460.00	830.00	210.00	480.00
CO	4.00	< 1.00	3.00	3.00	2.00	4.00
NI	21.00	5.00	9.00	6.00	5.00	6.00
GE	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
SE	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
MO	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
CU	32.00	7.00	16.00	6.50	5.50	96.00
PB	6.00	16.00	10.00	8.00	12.00	10.00
ZN	41.00	21.00	66.00	65.00	40.00	51.00
CD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
AS	7.00	36.00	< 2.00	< 2.00	< 2.00	< 2.00
AG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
AU	10.00	20.00	< 10.00	< 10.00	< 10.00	< 10.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - ANALYSES FOR THOSE SAMPLE WITH MAJOR OXIDE, TRACE AND REE DATA

SAMP NO.->	AB17826	AB17827	AB17828	AB17829	AB17830	AB17831
SI02	76.10	56.30	75.40	72.90	74.00	52.60
AL2O3	13.00	16.40	13.90	15.80	14.20	16.80
FE2O3	1.50	11.50	2.04	1.40	2.60	9.25
MNO	0.00	0.18	0.00	0.00	0.00	0.17
MGO	0.94	4.53	1.58	0.67	1.50	7.34
CAO	0.13	0.38	0.06	0.28	0.07	4.34
NA2O	1.62	1.43	1.80	5.67	1.11	5.28
K2O	3.70	3.79	2.86	1.57	2.90	0.60
TIO2	0.16	1.16	0.19	0.19	0.26	0.76
P2O5	0.05	0.30	0.02	0.06	0.06	0.21
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	1.85	4.24	2.23	1.47	2.85	3.00
TOTAL	99.05	100.21	100.09	100.01	99.55	100.35
RB	60.00	100.00	40.00	40.00	70.00	20.00
SR	80.00	20.00	140.00	120.00	70.00	250.00
Y	10.00	20.00	10.00	30.00	10.00	10.00
ZR	60.00	20.00	80.00	140.00	100.00	40.00
NB	10.00	20.00	10.00	10.00	10.00	30.00
BA	1020.00	490.00	1060.00	1040.00	1300.00	310.00
CS	1.80	2.40	1.80	0.90	1.00	< 0.70
LA	13.00	5.70	14.50	15.40	13.50	9.40
CE	24.00	21.00	26.00	29.00	24.00	22.00
ND	8.00	9.00	8.00	11.00	9.00	13.00
SM	1.50	2.60	1.60	2.30	1.80	3.00
EU	0.40	0.60	0.40	0.60	0.50	1.00
YB	1.30	2.00	1.60	2.40	1.50	2.10
LU	0.25	0.30	0.31	0.40	0.26	0.31
HF	2.00	1.00	3.00	4.00	3.00	1.00
V	20.00	430.00	20.00	70.00	20.00	260.00
CR	87.00	67.00	100.00	120.00	100.00	140.00
MN	170.00	0.00	250.00	92.00	540.00	0.00
CO	2.00	47.00	3.00	2.00	5.00	33.00
NI	5.00	41.00	4.00	9.00	6.00	63.00
GE	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
SE	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
MO	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
CU	7.00	71.00	8.00	15.00	35.00	98.00
PB	14.00	12.00	8.00	12.00	16.00	12.00
ZN	36.00	130.00	56.00	42.00	50.00	150.00
CD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
AS	< 2.00	< 6.00	2.00	< 2.00	< 2.00	< 2.00
AG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
AU	< 10.00	10.00	< 10.00	< 10.00	< 10.00	10.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - ANALYSES FOR THOSE SAMPLE WITH MAJOR OXIDE, TRACE AND REE DATA

SAMP NO.->	AB17844	AB17847	AB17848	AB17849	AB17850	AB17852
SI02	48.70	73.30	68.00	71.80	73.20	78.70
AL2O3	13.40	13.70	12.40	12.40	14.50	11.70
FE2O3	9.57	3.83	2.72	1.60	2.33	1.21
MNO	0.24	0.00	0.00	0.00	0.00	0.00
MGO	4.53	0.73	2.42	1.38	1.31	0.95
CAO	8.05	0.26	4.39	2.87	2.32	0.01
NA2O	0.93	1.72	2.11	3.06	2.06	0.25
K2O	1.35	3.01	2.19	2.06	1.66	3.45
TIO2	0.49	0.24	0.21	0.17	0.26	0.15
P2O5	0.10	0.15	0.06	0.05	0.05	0.03
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	11.47	2.31	4.85	4.00	2.08	2.16
TOTAL	98.83	99.25	99.35	99.39	99.77	98.61
RB	30.00	50.00	50.00	40.00	50.00	70.00
SR	90.00	90.00	300.00	200.00	390.00	40.00
Y	40.00	30.00	< 10.00	10.00	< 10.00	10.00
ZR	110.00	110.00	90.00	100.00	110.00	80.00
NB	40.00	30.00	20.00	10.00	< 10.00	< 10.00
BA	730.00	1230.00	870.00	690.00	1350.00	3390.00
CS	1.70	1.50	0.90	2.00	0.80	0.50
LA	15.90	25.70	12.10	14.10	15.70	19.20
CE	32.00	43.00	23.00	29.00	27.00	40.00
ND	14.00	14.00	6.00	10.00	7.00	12.00
SM	3.90	3.20	1.70	2.30	1.90	3.00
EU	0.80	0.80	0.60	0.80	0.30	0.50
YB	4.60	2.00	1.60	1.90	1.70	2.50
LU	0.70	0.37	0.31	0.36	0.29	0.41
HF	3.00	3.00	2.00	3.00	3.00	3.00
V	190.00	40.00	30.00	10.00	30.00	< 10.00
CR	46.00	120.00	67.00	130.00	85.00	96.00
MN	0.00	960.00	470.00	690.00	400.00	58.00
CO	36.00	8.00	5.00	2.00	2.00	1.00
NI	28.00	6.00	6.00	6.00	6.00	4.00
GE	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
SE	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
MO	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
CU	52.00	11.00	2.00	2.00	11.00	12.00
PB	28.00	78.00	4.00	8.00	4.00	6.00
ZN	150.00	92.00	45.00	35.00	40.00	25.00
CD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
AS	22.00	2.00	< 2.00	< 2.00	< 2.00	2.00
AG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
AU	10.00	< 10.00	< 10.00	< 10.00	< 10.00	10.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

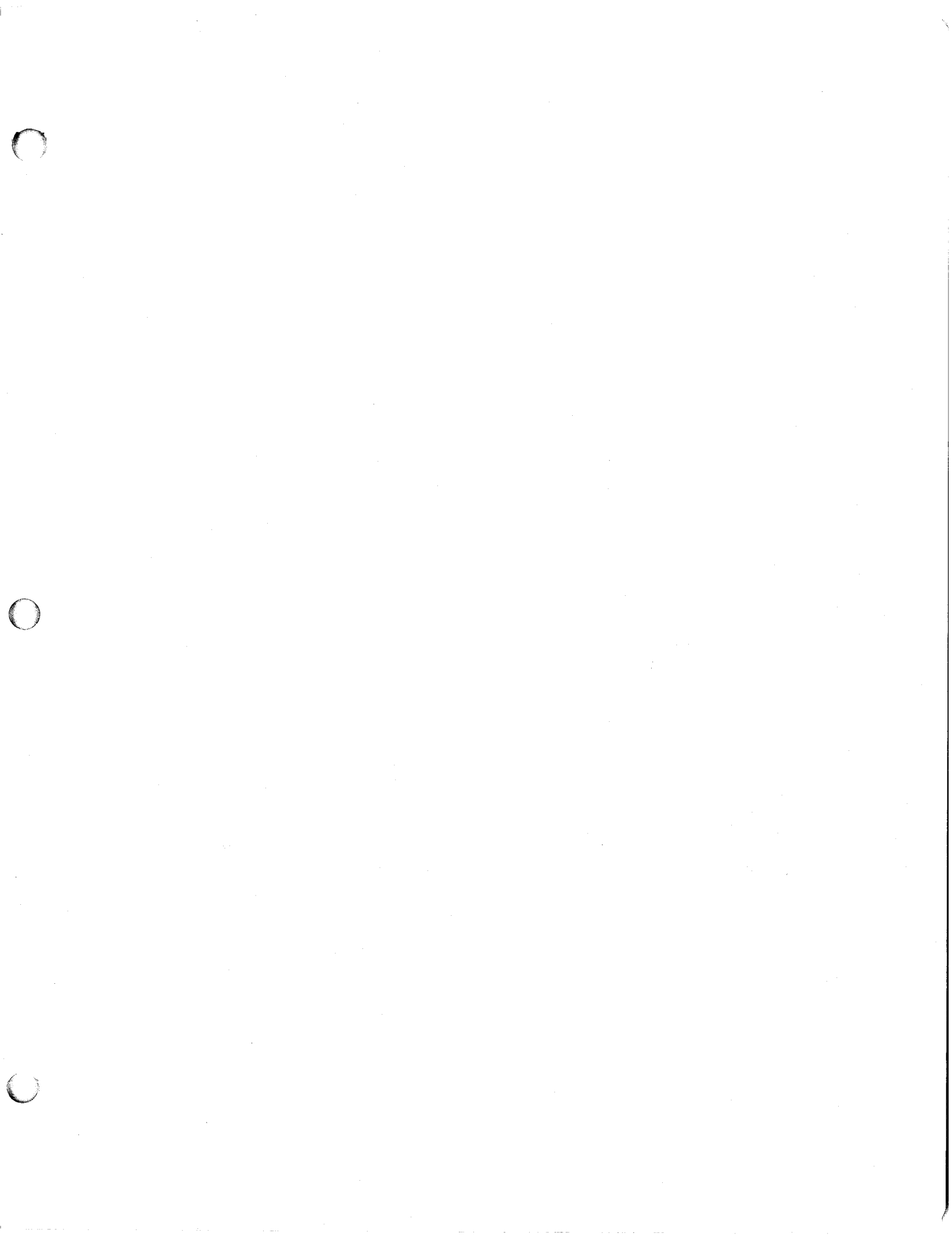
CHIP CLAIMS - ANALYSES FOR THOSE SAMPLE WITH MAJOR OXIDE, TRACE AND REE DATA

SAMP NO.->	AB17927	AB17928	AB17929	AB18601	AB18606	AB18609
SI02	72.50	73.00	73.30	66.90	49.10	67.70
AL2O3	13.70	14.60	15.30	14.80	15.20	15.50
FE2O3	1.76	1.52	1.22	4.58	13.00	3.74
MNO	0.00	0.00	0.00	0.17	0.18	0.00
MGO	1.85	0.67	0.46	1.26	4.79	1.76
CAO	0.41	0.43	0.30	1.28	9.87	4.66
NA2O	3.84	2.79	2.85	4.98	2.68	2.58
K2O	2.30	3.12	3.30	3.76	0.56	1.30
TIO2	0.25	0.24	0.26	0.73	2.55	0.42
P2O5	0.06	0.11	0.12	0.18	0.23	0.12
CR2O3	0.00	0.00	0.00	0.00	0.00	0.00
LOI	2.00	2.16	2.16	1.31	2.08	2.16
TOTAL	98.67	98.64	99.27	99.95	100.24	99.94
RB	40.00	80.00	80.00	100.00	30.00	20.00
SR	150.00	40.00	30.00	310.00	270.00	490.00
Y	40.00	10.00	< 10.00	40.00	20.00	10.00
ZR	110.00	100.00	110.00	240.00	150.00	90.00
NB	10.00	30.00	20.00	20.00	20.00	20.00
BA	1040.00	1040.00	1170.00	1300.00	340.00	1370.00
CS	< 1.50	2.50	2.90	1.30	1.30	< 0.60
LA	14.20	15.70	15.20	23.20	15.60	11.60
CE	25.00	23.00	22.00	57.00	34.00	22.00
ND	8.00	9.00	10.00	20.00	21.00	8.00
SM	1.70	1.60	1.60	6.90	5.90	2.10
EU	0.70	< 0.30	0.50	1.50	1.60	0.40
YB	1.50	1.60	1.70	5.00	3.00	1.90
LU	0.36	0.38	0.41	0.86	0.43	0.35
HF	4.00	3.00	3.00	10.00	4.00	3.00
V	20.00	30.00	30.00	0.00	360.00	140.00
CR	3.00	2.00	< 2.00	160.00	110.00	160.00
MN	340.00	760.00	980.00	0.00	0.00	770.00
CO	2.00	4.00	5.00	6.00	39.00	11.00
NI	2.00	3.00	2.00	10.00	79.00	20.00
GE	< 10.00	< 10.00	< 10.00	0.00	< 10.00	< 10.00
SE	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
MO	< 5.00	< 5.00	< 5.00	6.00	8.00	< 5.00
CU	10.00	120.00	120.00	4.00	210.00	39.00
PB	4.00	110.00	72.00	32.00	10.00	10.00
ZN	37.00	5300.00	4500.00	380.00	140.00	45.00
CD	< 0.20	7.20	8.80	< 0.20	< 0.20	< 0.20
AS	< 2.00	57.00	76.00	3.00	< 5.00	6.00
AG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
AU	< 10.00	< 10.00	< 10.00	< 20.00	< 10.00	10.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - ANALYSES FOR THOSE SAMPLE WITH MAJOR OXIDE, TRACE AND REE DATA

SAMP NO.->	AB18610	AB18611	AB18612	AB18642	AB18643
SI02	77.10	56.60	79.60	78.40	70.60
AL203	11.30	15.60	10.30	12.40	16.60
FE203	1.14	7.09	1.35	1.48	3.52
MNO	0.00	0.16	0.00	0.00	0.13
MGO	0.45	2.92	0.42	0.32	0.64
CAO	1.52	5.12	2.04	0.18	0.33
NA2O	5.46	4.16	1.47	0.34	1.58
K2O	0.91	1.74	2.31	2.85	2.13
TIO2	0.16	0.38	0.15	0.21	0.47
P2O5	0.05	0.23	0.04	0.07	0.15
CR2O3	0.00	0.00	0.00	0.00	0.00
LOI	2.16	6.24	2.54	2.62	3.39
TOTAL	100.25	100.24	100.22	98.87	99.54
RB	30.00	40.00	50.00	60.00	30.00
SR	210.00	420.00	90.00	80.00	120.00
Y	10.00	< 10.00	20.00	10.00	30.00
ZR	90.00	130.00	60.00	110.00	130.00
NB	10.00	20.00	10.00	10.00	< 10.00
BA	670.00	850.00	1040.00	1890.00	1210.00
CS	< 0.50	1.30	1.00	0.70	2.00
LA	14.00	37.60	13.70	12.50	15.90
CE	24.00	62.00	22.00	18.00	32.00
ND	8.00	23.00	7.00	5.00	16.00
SM	1.40	4.30	1.60	1.40	3.00
EU	0.40	0.90	0.50	0.30	0.60
YB	1.30	1.80	1.50	1.60	3.00
LU	0.22	0.35	0.25	0.31	0.45
HF	2.00	3.00	2.00	2.00	3.00
V	10.00	110.00	10.00	20.00	50.00
CR	150.00	57.00	150.00	2.00	4.00
MN	470.00	0.00	430.00	36.00	0.00
CO	2.00	21.00	1.00	2.00	6.00
NI	6.00	18.00	5.00	3.00	5.00
GE	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
SE	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
MO	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
CU	6.00	44.00	5.50	9.00	4.00
PB	10.00	12.00	6.00	16.00	14.00
ZN	9.00	94.00	21.00	55.00	59.00
CD	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
AS	< 2.00	< 2.00	< 2.00	21.00	< 2.00
AG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
AU	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00



APPENDIX D

ROCK SAMPLE - BASE AND PRECIOUS METAL ANALYTICAL DATA - CHIP CLAIMS

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - BASE AND PRECIOUS METAL ANALYSES

SAMP NO.->	AB15588	AB15592	AB15594	AB15598	AB15600	AB15601
CU	523.00	25.00	350.00	29.00	72.00	49.00
PB	20.00	12.00	6.00	11.00	5.00	8.00
ZN	29.00	56.00	70.00	86.00	65.00	105.00
BA	0.00	0.00	0.00	0.00	0.00	319.00
AG	2.10	0.10	0.20	0.10	0.40	0.10
AU	15.00	1.00	1.00	1.00	1.00	1.00
AS	0.00	0.00	0.00	0.00	2.00	0.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - BASE AND PRECIOUS METAL ANALYSES

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SAMP NO.->	AB15635	AB15636	AB15646	AB15652	AB15653	AB15657
CU	5.00	17.00	90.00	971.00	89.00	58.00
PB	5.00	16.00	46.00	2.00	13.00	35.00
ZN	20.00	20.00	411.00	67.00	16.00	226.00
BA	342.00	227.00	0.00	276.00	441.00	0.00
AG	0.10	0.40	0.50	0.80	0.10	0.50
AU	1.00	20.00	1.00	10.00	1.00	14.00
AS	4.00	29.00	0.00	3.00	10.00	0.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - BASE AND PRECIOUS METAL ANALYSES

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SAMP NO.->	AB15681	AB15901	AB15906	AB15907	AB15908	AB15913
CU	5.00	16.00	92.00	44.00	54.00	5.00
PB	15.00	12.00	26.00	131.00	28.00	2.00
ZN	97.00	9.00	78.00	226.00	294.00	6.00
BA	0.00	18.00	1052.00	911.00	817.00	36.00
AG	0.20	0.10	0.20	0.90	0.20	0.10
AU	1.00	2.00	5.00	30.00	4.00	1.00
AS	0.00	7.00	7.00	19.00	22.00	2.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - BASE AND PRECIOUS METAL ANALYSES

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SAMP NO.->	AB15915	AB15925	AB15927	AB15931	AB15932	AB15933
CU	0.00	52.00	82.00	399.00	6527.00	59120.00
PB	0.00	8.00	31.00	13.00	131.00	44.00
ZN	0.00	40.00	241.00	55.00	475.00	1827.00
BA	0.00	117.00	0.00	0.00	0.00	0.00
AG	0.00	0.10	0.70	0.70	3.40	26.30
AU	0.00	1.00	24.00	7.00	22.00	720.00
AS	0.00	5.00	0.00	0.00	0.00	0.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - BASE AND PRECIOUS METAL ANALYSES

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SAMP NO.->	AB17807	AB17808	AB17836	AB17837	AB17838	AB17839
CU	30.00	35.00	162.00	27.00	43.00	82.00
PB	10.00	1.00	2.00	1.00	1.00	22.00
ZN	105.00	95.00	46.00	7.00	48.00	1080.00
BA	7500.00	600.00	220.00	2300.00	8300.00	1000.00
AG	0.20	0.10	0.40	0.20	0.40	4.60
AU	0.00	0.00	0.00	0.00	0.00	0.00
AS	9.00	1.00	2.00	2.00	4.00	16.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - BASE AND PRECIOUS METAL ANALYSES

SAMP NO.->	AB17859	AB17860	AB17861	AB17862	AB17901	AB18602
CU	47.00	77.00	35.00	26.00	16.00	21.00
PB	5.00	4.00	4.00	1.00	19.00	17.00
ZN	89.00	225.00	118.00	99.00	82.00	77.00
BA	2900.00	2200.00	3000.00	550.00	0.00	1900.00
AG	0.40	1.00	0.30	0.40	0.30	0.30
AU	0.00	0.00	0.00	0.00	1.00	0.00
AS	3.00	3.00	7.00	9.00	0.00	0.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - BASE AND PRECIOUS METAL ANALYSES

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SAMP NO.->	AB18603	AB18604	AB18605	AB18607	AB18608	AB18613
CU	6400.00	1430.00	328.00	135.00	52.00	10.00
PB	4700.00	1330.00	94.00	14.00	4.00	1.00
ZN	10000.00	5650.00	4300.00	3500.00	55.00	13.00
BA	10000.00	9000.00	400.00	600.00	1660.00	500.00
AG	17.00	8.50	1.20	0.10	0.10	0.10
AU	0.00	0.00	0.00	0.00	0.00	0.00
AS	0.00	0.00	0.00	4.00	7.00	3.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - BASE AND PRECIOUS METAL ANALYSES

SAMP NO.->	AB18623	AB18624	AB18625	AB18626	AB18627	AB18628
CU	41.00	30.00	28.00	36.00	22.00	69.00
PB	9.00	11.00	8.00	8.00	5.00	12.00
ZN	25.00	21.00	59.00	105.00	92.00	980.00
BA	1180.00	780.00	2300.00	4000.00	2200.00	3500.00
AG	0.10	0.30	0.20	0.30	0.20	0.70
AU	0.00	0.00	0.00	0.00	0.00	0.00
AS	1.00	1.00	3.00	2.00	7.00	59.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - BASE AND PRECIOUS METAL ANALYSES

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SAMP NO.->	AB18629	AB18630	AB18631	AB18632	AB18633	AB18634
CU	70.00	52.00	23.00	21.00	14.00	25.00
PB	8.00	12.00	18.00	23.00	30.00	9.00
ZN	128.00	103.00	68.00	93.00	41.00	45.00
BA	2800.00	1200.00	5000.00	3900.00	1100.00	3700.00
AG	0.60	0.20	0.50	0.30	1.90	1.90
AU	0.00	0.00	0.00	0.00	0.00	0.00
AS	23.00	25.00	10.00	14.00	10.00	61.00

KIDD CREEK MINES-WHOLE ROCK DATABASE

CHIP CLAIMS - BASE AND PRECIOUS METAL ANALYSES

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SAMP NO. ->	AB18635	AB18636
CU	21.00	51.00
PB	5.00	15.00
ZN	23.00	168.00
BA	6700.00	4100.00
AG	0.10	0.60
AU	0.00	0.00
AS	6.00	53.00