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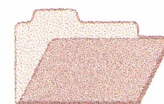
Cooperative Research Centre for  
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**CSIRO**  
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Australian Mineral Industries Research Association Limited ACN 004 448 266



**OPEN FILE  
REPORT  
SERIES**

# **THE MINERALOGY AND GEOCHEMISTRY OF SOILS OVERLYING THE BEASLEY CREEK GOLD MINE - LAVERTON, WESTERN AUSTRALIA**

## **Volume 2 - Appendices**

*I.D.M. Robertson*

**CRC LEME OPEN FILE REPORT 19**

December 1998

(CSIRO Division of Exploration Geoscience Report I05R, 1990.  
Second impression 1998)

CRC LEME is an unincorporated joint venture between The Australian National University, University of Canberra, Australian Geological Survey Organisation and CSIRO Exploration and Mining, established and supported under the Australian Government's Cooperative Research Centres Program.





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## RESEARCH ARISING FROM CSIRO/AMIRA REGOLITH GEOCHEMISTRY PROJECTS 1987-1993

In 1987, CSIRO commenced a series of multi-client research projects in regolith geology and geochemistry which were sponsored by companies in the Australian mining industry, through the Australian Mineral Industries Research Association Limited (AMIRA). The initial research program, "Exploration for concealed gold deposits, Yilgarn Block, Western Australia" (1987-1993) had the aim of developing improved geological, geochemical and geophysical methods for mineral exploration that would facilitate the location of blind, buried or deeply weathered gold deposits. The program included the following projects:

**P240: Laterite geochemistry for detecting concealed mineral deposits (1987-1991).** Leader: Dr R.E. Smith.

Its scope was development of methods for sampling and interpretation of multi-element laterite geochemistry data and application of multi-element techniques to gold and polymetallic mineral exploration in weathered terrain. The project emphasised viewing laterite geochemical dispersion patterns in their regolith-landform context at local and district scales. It was supported by 30 companies.

**P241: Gold and associated elements in the regolith - dispersion processes and implications for exploration (1987-1991).** Leader: Dr C.R.M. Butt.

The project investigated the distribution of ore and indicator elements in the regolith. It included studies of the mineralogical and geochemical characteristics of weathered ore deposits and wall rocks, and the chemical controls on element dispersion and concentration during regolith evolution. This was to increase the effectiveness of geochemical exploration in weathered terrain through improved understanding of weathering processes. It was supported by 26 companies.

These projects represented "an opportunity for the mineral industry to participate in a multi-disciplinary program of geoscience research aimed at developing new geological, geochemical and geophysical methods for exploration in deeply weathered Archaean terrains". This initiative recognised the unique opportunities, created by exploration and open-cut mining, to conduct detailed studies of the weathered zone, with particular emphasis on the near-surface expression of gold mineralisation. The skills of existing and specially recruited research staff from the Floreat Park and North Ryde laboratories (of the then Divisions of Minerals and Geochemistry, and Mineral Physics and Mineralogy, subsequently Exploration Geoscience and later Exploration and Mining) were integrated to form a task force with expertise in geology, mineralogy, geochemistry and geophysics. Several staff participated in more than one project. Following completion of the original projects, two continuation projects were developed.

**P240A: Geochemical exploration in complex lateritic environments of the Yilgarn Craton, Western Australia (1991-1993).** Leaders: Drs R.E. Smith and R.R. Anand.

The approach of viewing geochemical dispersion within a well-controlled and well-understood regolith-landform and bedrock framework at detailed and district scales continued. In this extension, focus was particularly on areas of transported cover and on more complex lateritic environments typified by the Kalgoorlie regional study. This was supported by 17 companies.

**P241A: Gold and associated elements in the regolith - dispersion processes and implications for exploration.** Leader: Dr. C.R.M. Butt.

The significance of gold mobilisation under present-day conditions, particularly the important relationship with pedogenic carbonate, was investigated further. In addition, attention was focussed on the recognition of primary lithologies from their weathered equivalents. This project was supported by 14 companies.

Although the confidentiality periods of the research reports have expired, the last in December 1994, they have not been made public until now. Publishing the reports through the CRC LEME Report Series is seen as an appropriate means of doing this. By making available the results of the research and the authors' interpretations, it is hoped that the reports will provide source data for future research and be useful for teaching. CRC LEME acknowledges the Australian Mineral Industries Research Association and CSIRO Division of Exploration and Mining for authorisation to publish these reports. It is intended that publication of the reports will be a substantial additional factor in transferring technology to aid the Australian Mineral Industry.

This report (CRC LEME Open File Report 19) is a Second impression (second printing) of CSIRO, Division of Exploration Geoscience Restricted Report 105R, first issued in 1990, which formed part of the CSIRO/AMIRA Projects P240 and P241.

**Copies of this publication can be obtained from:**

The Publication Officer, c/- CRC LEME, CSIRO Exploration and Mining, PMB, Wembley, WA 6014, Australia. Information on other publications in this series may be obtained from the above or from <http://leme.anu.edu.au/>

**Cataloguing-in-Publication:**

Robertson, I.D.M.

The mineralogy and geochemistry of soils overlying the Beasley Creek Gold Mine - Laverton, WA

ISBN v1: 0 642 28290 0 v2: 0 642 28291 9. set: 0 642 28292 7

1. Geochemistry 2. Mineralogy 3. Gold - Western Australia.

I. Title

CRC LEME Open File Report 19.

ISSN 1329-4768

## **APPENDIX 1**

### **Soils**

#### **Tabulated Geochemistry**

Oxides and S in weight %  
Trace Elements in ppm  
Mine co-ordinates in metres



## COMPLETE SOIL (&lt;4000 µm)

Line 38820

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	CaO	Na <sub>2</sub> O	Na <sub>2</sub> O	TiO <sub>2</sub>	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	S
BC 401	L08-0793	08-0762	33600	38820	58.38	10.92	21.59	22.25	0.11	0.07	0.08	0.47	0.75	0.63	0.00	0.008
BC 402	L08-0783	08-0763	33650	38820	62.20	11.42	21.02	24.42	0.13	0.07	0.11	0.47	0.77	0.69	0.00	0.012
BC 403	L08-0784	08-0764	33700	38820	61.71	12.56	21.02	24.65	0.15	0.10	0.11	0.46	0.81	0.74	0.00	0.007
BC 404	L08-0790	08-0765	33750	38820	54.92	10.97	24.16	26.73	0.15	0.12	0.10	0.47	0.77	0.66	0.00	0.006
BC 405	L08-0798	08-0766	33800	38820	58.27	10.28	28.59	33.43	0.22	0.21	0.26	0.47	0.80	0.75	0.00	0.007
BC 406	L08-0780	08-0767	33850	38820	60.15	11.70	21.02	23.63	0.58	0.47	0.30	0.71	0.79	0.71	0.00	0.012
BC 407	L08-0764	08-0768	33900	38820	53.65	10.76	26.16	29.52	0.41	0.30	0.22	0.20	0.94	0.85	0.00	0.025
BC 408	L08-0779	08-0769	33925	38820	50.20	9.08	30.45	32.75	0.16	0.14	0.17	0.32	0.97	0.79	0.00	0.022
BC 409	L08-0796	08-0770	33950	38820	58.38	11.71	28.31	33.49	0.21	0.18	0.21	0.46	0.97	0.93	0.00	0.028
BC 410	L08-0789	08-0771	33975	38820	48.62	10.74	30.74	34.83	0.15	0.14	0.12	0.47	0.87	0.75	0.00	0.021
BC 411	L08-0794	08-0772	34000	38820	56.82	10.39	26.45	29.08	0.20	0.20	0.26	0.59	0.83	0.73	0.00	0.019
BC 412	L08-0787	08-0773	34025	38820	59.87	12.86	20.30	22.35	0.21	0.19	0.14	0.58	0.93	0.82	0.00	0.016
BC 413	L08-0768	08-0774	34050	38820	59.95	12.50	24.88	28.87	0.11	0.08	0.10	0.09	0.96	0.89	0.00	0.023
BC 414	L08-0774	08-0775	34075	38820	58.04	10.72	26.16	29.05	0.08	0.04	0.08	0.20	0.98	0.87	0.00	0.025
BC 415	L08-0788	08-0776	34100	38820	49.75	13.08	27.74	30.96	0.11	0.07	0.07	0.46	1.10	0.95	0.00	0.030
BC 416	L08-0776	08-0777	34150	38820	52.30	12.62	28.45	32.25	0.11	0.07	0.07	0.20	1.06	0.93	0.00	0.024
BC 417	L08-0771	08-0778	34200	38820	59.31	12.90	18.59	19.78	0.14	0.07	0.11	0.20	0.93	0.79	0.00	0.008
BC 418	L08-0795	08-0779	34250	38820	61.41	13.66	23.02	26.76	0.16	0.10	0.12	0.34	0.91	0.86	0.00	0.014
BC 606	L08-0814	08-0810	34350	38820	57.49	15.16	18.01	18.60	0.19	0.06	0.08	0.00	0.89	0.77	0.00	0.013
BC 607	L08-0808	08-0811	34450	38820	60.77	9.88	22.59	23.87	0.11	0.07	0.12	0.00	0.70	0.63	0.00	0.009
BC 608	L08-0809	08-0812	34550	38820	62.11	11.63	20.59	21.70	0.13	0.07	0.14	0.00	0.77	0.69	0.00	0.018
BC 609	L08-0807	08-0813	34650	38820	64.72	11.35	16.73	17.26	0.15	0.10	0.16	0.11	0.76	0.66	0.00	0.009
BC 610	L08-0812	08-0814	34750	38820	60.57	10.43	19.02	19.12	0.12	0.06	0.11	0.11	0.71	0.59	0.00	0.012
Min	-	-	-	-	48.62	9.08	16.73	17.26	0.08	0.04	0.07	0.00	0.70	0.59	0.00	0.006
Max	-	-	-	-	64.72	15.16	30.74	34.83	0.58	0.47	0.30	0.71	1.10	0.95	0.00	0.030

## COMPLETE SOIL (&lt;4000 µm)

Line 38820

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0762	0.58	24	0.011	227	220	3	0.68	0.40	53.2	62	21.6	627	685	56	62	20	5	0.17
08-0763	0.78	23	0.008	300	316	5	0.64	0.20	65.8	76	26.9	655	667	58	55	20	1	0.19
08-0764	0.86	22	0.018	242	233	4	0.58	0.17	42.1	49	25.5	642	647	63	65	22	0	0.09
08-0765	0.67	27	0.025	179	185	3	0.67	0.27	31.5	36	20.3	658	731	62	67	19	1	0.20
08-0766	0.59	34	0.017	238	216	2	0.67	0.17	21.0	29	18.3	773	712	65	70	22	1	0.26
08-0767	0.84	23	0.024	388	347	1	0.60	0.34	27.1	30	21.6	484	496	85	82	20	2	0.18
08-0768	0.58	27	0.018	771	707	0	0.61	0.46	23.8	27	15.0	601	563	77	79	21	0	0.14
08-0769	0.66	32	0.013	674	687	2	0.75	0.48	24.2	31	15.7	657	702	68	81	19	0	0.22
08-0770	0.60	34	0.034	791	719	0	0.74	0.34	29.5	32	18.6	580	564	90	91	20	1	0.21
08-0771	0.72	68	0.098	562	562	4	0.67	0.24	23.1	31	18.4	582	602	97	102	21	0	0.24
08-0772	0.66	48	0.015	459	457	3	0.61	0.27	24.0	26	14.3	460	474	98	97	17	2	0.09
08-0773	0.75	34	0.059	430	408	4	0.51	0.48	30.4	31	14.7	343	336	70	70	21	1	0.20
08-0774	0.57	33	0.064	238	224	0	0.55	0.37	28.8	39	20.5	427	390	75	69	21	2	0.20
08-0775	0.75	27	0.028	222	217	0	0.68	0.35	22.6	30	13.5	459	437	57	64	19	3	0.19
08-0776	0.78	31	0.034	359	372	4	0.66	0.46	41.3	55	21.6	438	459	67	69	28	0	0.21
08-0777	0.55	33	0.103	264	265	0	0.66	<0.1	38.4	47	15.7	535	525	97	71	27	1	0.12
08-0778	0.37	23	0.021	191	191	0	0.52	0.18	33.4	39	12.2	393	405	55	62	21	1	0.17
08-0779	0.50	32	0.014	260	235	1	0.65	0.24	41.4	47	20.5	508	488	65	65	24	3	0.22
08-0810	0.90	24	0.016	197	197	0	0.63	0.23	34.6	38	9.9	411	398	49	60	22	1	0.21
08-0811	0.65	33	0.010	154	144	0	0.74	0.13	20.4	23	10.8	644	634	50	55	19	1	0.17
08-0812	0.50	29	0.019	165	170	0	0.71	0.13	27.5	29	13.1	584	566	46	57	19	0	0.23
08-0813	0.54	16	0.004	211	210	1	0.60	0.24	27.4	29	10.8	396	392	49	52	17	1	0.20
08-0814	0.73	18	0.010	174	183	2	0.76	0.41	28.1	33	10.2	436	442	45	58	19	2	0.18
Min	0.37	16	0.004	154	144	0	0.51	<0.1	20.4	23	9.9	343	336	45	52	17	0	0.09
Max	0.90	68	0.103	791	719	5	0.76	0.48	65.8	76	26.9	773	731	98	102	28	5	0.26

## COMPLETE SOIL (&lt;4000 µm)

Line 38820

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0762	24.6	1210	1174	3.8	8	50	32	15	38	1.69	2	1.81	25	410	447	2.4	19	38	222	215
08-0763	21.8	1521	1444	3.6	7	48	47	13	39	1.66	1	1.81	28	443	440	1.7	12	38	278	223
08-0764	19.4	1053	982	3.6	6	55	47	16	41	1.88	3	1.71	28	449	448	1.8	14	45	269	232
08-0765	19.1	648	616	3.9	4	47	49	17	36	2.11	3	1.73	26	483	517	2.1	14	46	230	208
08-0766	12.7	465	358	4.5	6	52	48	18	32	2.31	3	1.54	32	605	600	1.7	11	43	240	199
08-0767	17.3	583	492	3.6	7	56	47	15	43	1.49	1	1.75	47	413	421	1.9	16	61	205	178
08-0768	14.5	592	502	3.5	7	51	47	15	37	1.82	4	1.45	47	543	569	2.0	13	58	222	194
08-0769	15.2	601	556	4.0	6	52	49	16	31	2.32	2	1.77	38	584	656	2.5	12	52	253	211
08-0770	17.1	1098	897	4.2	4	48	37	14	33	1.60	3	1.49	41	585	579	2.4	13	61	272	219
08-0771	13.9	1923	1745	4.1	4	51	42	19	33	2.21	5	1.57	30	562	601	2.7	12	58	243	206
08-0772	15.1	2079	1832	3.9	3	41	41	16	36	1.75	4	1.51	40	458	487	2.2	13	59	256	216
08-0773	19.5	1402	1287	3.5	9	43	46	13	42	1.06	2	2.02	36	391	407	2.2	17	51	271	251
08-0774	19.9	1329	1088	3.6	9	38	34	14	40	1.10	1	1.75	26	514	518	2.1	16	40	296	242
08-0775	15.5	627	523	3.4	5	34	32	16	34	1.25	2	1.82	20	525	558	2.0	13	36	262	224
08-0776	20.2	1284	1194	3.9	7	47	39	12	36	1.39	4	2.37	25	570	617	2.1	15	41	257	230
08-0777	20.1	1186	1015	3.8	4	45	38	19	36	1.22	2	1.63	24	603	624	3.7	16	45	264	230
08-0778	19.9	577	516	3.5	10	39	38	14	49	1.13	3	1.95	30	358	407	2.0	15	50	250	244
08-0779	19.8	1283	1091	3.8	8	46	43	18	43	1.19	3	1.98	32	496	483	2.1	16	47	263	227
08-0810	22.8	318	286	3.8	8	51	46	15	54	1.14	3	2.26	35	329	356	1.4	14	53	212	248
08-0811	13.5	336	293	2.4	7	39	42	13	33	1.34	4	1.98	24	448	467	1.7	10	43	196	193
08-0812	16.5	412	368	2.8	5	37	43	15	40	1.39	3	1.98	29	409	431	1.7	12	49	219	210
08-0813	18.9	337	320	3.0	5	44	38	10	46	0.93	2	1.87	37	301	322	3.1	13	48	227	249
08-0814	17.7	282	271	3.6	6	36	36	13	42	0.97	3	1.76	30	354	393	2.9	13	43	193	211
Min	12.7	282	271	2.4	3	34	32	10	31	0.93	1	1.45	20	301	322	1.4	10	36	193	178
Max	24.6	2079	1832	4.5	10	56	49	19	54	2.32	5	2.37	47	605	656	3.7	19	61	296	251



## COMPLETE SOIL (&lt;4000 µm)

Line 38940

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO2	Al2O3	Fe2O3	Fe2O3	MgO	CaO	Na2O	Na2O	TiO2	TiO2	P2O5	S
BC 421	L08-0800	08-0780	33650	38940	64.75	12.05	17.16	19.24	0.77	0.50	0.62	0.83	0.74	0.72	0.00	0.018
BC 422	L08-0777	08-0781	33700	38940	59.24	12.54	24.02	27.43	0.19	0.12	0.13	0.20	0.80	0.73	0.00	0.009
BC 423	L08-0762	08-0782	33750	38940	56.44	11.74	23.30	25.82	0.19	0.13	0.12	0.09	0.82	0.71	0.00	0.008
BC 424	L08-0785	08-0783	33800	38940	60.79	9.11	24.88	28.48	0.18	0.17	0.21	0.59	0.86	0.77	0.00	0.013
BC 425	L08-0763	08-0784	33850	38940	60.35	9.35	23.45	25.34	0.23	0.21	0.26	0.21	0.81	0.71	0.00	0.011
BC 426	L08-0772	08-0785	33900	38940	61.00	8.88	23.59	26.12	0.17	0.15	0.22	0.21	0.82	0.72	0.00	0.014
BC 427	L08-0766	08-0786	33925	38940	57.85	9.04	27.31	30.39	0.18	0.16	0.18	0.10	0.82	0.71	0.00	0.020
BC 428	L08-0782	08-0787	33950	38940	49.90	11.28	27.02	32.71	1.22	1.28	0.49	0.83	0.77	0.71	0.10	0.057
BC 429	L08-0799	08-0788	33975	38940	60.37	12.11	17.73	20.58	1.47	3.47	0.15	0.22	0.77	0.75	0.00	0.033
BC 430	L08-0792	08-0789	34000	38940	53.67	11.53	20.44	21.11	1.27	1.95	0.25	0.47	0.87	0.74	0.00	0.057
BC 431	L08-0802	08-0790	34025	38940	59.20	11.89	22.73	25.02	0.33	0.24	0.18	0.46	0.88	0.79	0.00	0.030
BC 432	L08-0770	08-0791	34050	38940	58.70	13.16	23.45	27.75	0.17	0.18	0.12	0.00	0.95	0.88	0.00	0.074
BC 433	L08-0773	08-0792	34100	38940	54.91	11.34	26.74	29.90	0.10	0.07	0.10	0.20	0.97	0.85	0.00	0.024
BC 434	L08-0781	08-0793	34150	38940	63.60	10.99	21.30	23.77	0.09	0.06	0.07	0.47	0.84	0.74	0.00	0.015
BC 435	L08-0803	08-0794	34200	38940	58.19	14.42	19.87	21.37	0.17	0.08	0.08	0.34	0.93	0.81	0.00	0.010
BC 436	L08-0797	08-0795	34250	38940	60.89	13.59	22.45	25.50	0.15	0.08	0.10	0.34	0.89	0.83	0.00	0.015
BC 437	L08-0775	08-0796	34300	38940	60.48	12.22	24.30	27.69	0.10	0.05	0.08	0.09	0.84	0.76	0.00	0.018
BC 601	L08-0815	08-0805	34400	38940	65.20	9.34	18.44	18.91	0.17	0.07	0.37	0.24	0.77	0.67	0.00	0.014
BC 602	L08-0810	08-0806	34500	38940	68.74	9.17	16.30	17.04	0.15	0.11	0.26	0.11	0.75	0.68	0.00	0.008
BC 603	L08-0805	08-0807	34600	38940	63.67	9.28	20.59	21.82	0.16	0.13	0.23	0.24	0.77	0.67	0.00	0.006
BC 604	L08-0811	08-0808	34700	38940	67.12	9.01	13.73	13.43	0.17	0.13	0.32	0.24	0.74	0.63	0.00	0.013
BC 605	L08-0813	08-0809	34800	38940	64.52	13.01	14.30	14.33	0.20	0.12	0.19	0.11	0.78	0.68	0.00	0.008
Min	-	-	-	-	49.90	8.88	13.73	13.43	0.09	0.05	0.07	0.00	0.74	0.63	0.00	0.006
Max	-	-	-	-	68.74	14.42	27.31	32.71	1.47	3.47	0.62	0.83	0.97	0.88	0.10	0.074

## Background Data Set

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO2	Al2O3	Fe2O3	Fe2O3	MgO	CaO	Na2O	Na2O	TiO2	TiO2	P2O5	S
BC 441	L08-0801	08-0797	33747	39311	65.23	11.43	19.59	21.54	0.09	0.05	0.07	0.22	0.72	0.65	0.00	0.009
BC 442	L08-0769	08-0798	34172	39314	62.93	13.02	22.88	27.24	0.11	0.07	0.10	0.00	0.85	0.78	0.00	0.015
BC 443	L08-0767	08-0799	33545	38146	70.01	12.96	14.30	15.60	0.20	0.10	0.14	0.09	0.79	0.69	0.00	0.005
BC 444	L08-0786	08-0800	34290	38110	55.26	11.04	26.88	31.15	0.12	0.08	0.11	0.59	0.89	0.78	0.00	0.011
G.Mean	-	-	-	-	63.13	12.08	20.37	23.11	0.12	0.07	0.10	0.10	0.81	0.72	0.00	0.009
Min	-	-	-	-	55.26	11.04	14.30	15.60	0.09	0.05	0.07	0.00	0.72	0.65	0.00	0.005
Max	-	-	-	-	70.01	13.02	26.88	31.15	0.20	0.10	0.14	0.59	0.89	0.78	0.00	0.015

## COMPLETE SOIL (&lt;4000 µm)

Line 38940

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0780	0.58	15	0.015	294	266	1	0.54	0.11	23.8	28	19.7	464	431	76	76	17	0	0.18
08-0781	0.80	25	0.016	198	190	0	0.69	0.40	24.9	28	18.0	748	732	95	67	22	7	0.19
08-0782	0.78	24	0.017	244	240	0	0.72	0.35	31.8	37	17.0	712	719	58	75	26	2	0.19
08-0783	0.59	25	0.037	341	313	3	0.75	0.29	23.2	28	13.6	724	749	68	72	18	2	0.20
08-0784	0.62	26	0.010	295	278	0	0.66	0.39	25.7	34	16.9	622	604	78	83	18	2	0.21
08-0785	0.52	29	0.013	521	471	0	0.69	0.36	25.8	29	17.4	526	528	90	97	18	2	0.12
08-0786	0.62	41	0.017	633	594	0	0.68	0.43	27.8	34	19.2	597	595	96	103	16	0	0.15
08-0787	0.63	72	0.079	909	827	3	0.64	0.30	43.9	43	17.6	564	574	97	100	20	1	0.18
08-0788	0.53	65	0.052	584	524	2	0.57	0.31	19.1	20	9.5	414	376	74	79	20	1	0.20
08-0789	0.78	59	0.033	389	383	2	0.61	0.39	23.4	28	11.8	375	418	70	77	21	0	0.24
08-0790	0.63	49	0.034	442	420	0	0.62	0.51	34.6	39	13.1	441	428	76	81	19	0	0.18
08-0791	0.67	53	0.074	1207	1073	0	0.63	0.22	30.4	35	18.0	515	476	82	76	20	1	0.20
08-0792	0.82	51	0.034	230	216	0	0.69	0.29	26.9	33	15.9	509	488	68	75	23	0	0.22
08-0793	0.54	38	0.021	177	176	2	0.65	0.26	22.7	28	9.5	467	480	62	61	22	2	0.19
08-0794	0.64	27	0.403	215	211	1	0.58	0.23	34.7	42	11.2	439	424	59	64	24	1	0.21
08-0795	0.69	31	0.022	194	189	2	0.69	0.32	36.9	39	14.8	554	556	58	63	23	0	0.21
08-0796	0.88	32	0.133	150	125	0	0.73	0.30	28.0	36	13.6	715	701	65	69	22	2	0.22
08-0805	0.60	18	0.003	228	234	1	0.73	0.19	27.5	29	13.2	526	536	41	49	15	1	0.17
08-0806	0.62	15	0.004	256	256	0	0.66	0.37	29.1	31	11.9	412	406	35	44	17	0	0.14
08-0807	0.46	16	0.004	263	268	4	0.71	0.36	27.8	29	12.1	472	464	39	50	16	0	0.17
08-0808	0.59	14	0.008	354	354	2	0.49	0.38	30.8	30	12.8	295	311	34	45	13	1	0.14
08-0809	0.66	14	0.004	234	236	2	0.48	0.13	35.3	36	12.1	298	281	48	55	18	2	0.06
Min	0.46	14	0.003	150	125	0	0.48	0.11	19.1	20	9.5	295	281	34	44	13	0	0.06
Max	0.88	72	0.403	1207	1073	4	0.75	0.51	43.9	43	19.7	748	749	97	103	26	7	0.24

## Background Data Set

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0797	0.67	19	0.004	175	177	0	0.67	0.27	31.1	32	12.0	588	577	54	55	19	2	0.17
08-0798	0.93	24	0.004	177	169	0	0.77	0.14	31.2	40	13.0	791	730	61	63	23	1	0.19
08-0799	1.17	14	0.004	186	172	0	0.41	0.10	30.1	40	15.1	467	446	55	57	19	0	0.05
08-0800	0.45	26	0.009	178	169	2	0.67	0.39	23.4	29	12.2	583	603	59	61	25	1	0.19
G.Mean	0.76	20	0.005	179	172	1	0.61	0.20	28.8	35	13.0	597	580	57	59	21	1	0.13
Min	0.45	14	0.004	175	169	0	0.41	0.10	23.4	29	12.0	467	446	54	55	19	0	0.05
Max	1.17	26	0.009	186	177	2	0.77	0.39	31.2	40	15.1	791	730	61	63	25	2	0.19

## COMPLETE SOIL (&lt;4000 µm)

Line 38940

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0780	16.2	732	652	3.2	4	49	51	11	42	1.28	4	1.90	62	386	379	1.6	12	57	177	171
08-0781	16.9	498	427	3.7	5	60	52	13	38	1.82	3	1.71	26	517	519	1.8	11	54	218	185
08-0782	19.9	508	450	3.6	7	47	52	14	41	1.86	2	1.96	31	478	499	1.6	12	53	226	204
08-0783	14.7	421	345	3.7	5	48	39	16	29	2.04	4	1.63	41	537	540	2.3	13	41	281	229
08-0784	15.9	486	403	3.3	6	48	45	14	32	1.71	3	1.58	39	475	504	1.5	14	50	215	197
08-0785	15.4	671	571	3.5	6	43	42	16	33	1.42	2	1.21	43	486	520	1.7	13	55	223	189
08-0786	16.4	853	725	3.7	7	47	45	17	32	1.89	2	1.58	39	549	575	1.7	14	56	241	219
08-0787	32.9	781	647	4.4	6	53	44	18	38	1.81	3	1.75	71	549	535	2.2	12	75	222	170
08-0788	11.5	485	413	3.0	7	41	38	11	35	1.08	3	1.51	101	410	402	1.2	8	50	193	176
08-0789	15.2	576	539	3.6	6	44	40	15	41	1.33	3	1.90	74	390	437	2.0	9	56	205	200
08-0790	22.4	717	620	3.4	9	48	43	13	42	1.36	3	1.78	40	434	453	1.4	14	56	263	233
08-0791	18.4	948	773	3.7	7	49	43	16	36	1.58	3	1.68	38	510	514	4.0	17	47	274	236
08-0792	17.9	691	578	3.5	6	44	42	13	36	1.30	5	1.90	24	567	600	5.0	15	43	238	213
08-0793	16.2	332	277	3.4	7	38	36	11	41	1.22	4	1.82	26	450	468	2.1	12	36	231	216
08-0794	23.2	369	323	3.2	8	44	43	11	51	1.10	3	2.42	31	396	421	1.6	16	53	231	215
08-0795	20.5	600	506	3.9	9	47	46	20	45	1.25	2	2.13	31	491	492	2.6	15	49	253	223
08-0796	18.6	379	309	3.7	7	46	46	12	37	1.37	4	1.52	23	528	542	1.8	13	46	236	216
08-0805	18.7	529	477	3.1	7	36	35	15	42	1.27	0	1.72	37	345	362	1.7	13	47	245	265
08-0806	16.8	596	540	3.0	6	30	34	15	43	1.18	2	1.68	42	311	327	1.3	13	49	259	282
08-0807	17.3	565	517	3.1	9	37	35	12	44	1.10	1	1.79	41	396	413	1.6	15	47	257	255
08-0808	17.7	377	357	2.9	10	33	32	13	49	0.85	2	1.51	45	218	243	1.5	13	45	249	283
08-0809	21.4	310	293	3.5	10	39	44	15	55	0.80	0	1.95	46	214	248	1.5	16	60	231	261
Min	11.5	310	277	2.9	4	30	32	11	29	0.80	0	1.21	23	214	243	1.2	8	36	177	170
Max	32.9	948	773	4.4	10	60	52	20	55	2.04	5	2.42	101	567	600	5.0	17	75	281	283

## Background Data Set

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0797	19.5	304	258	3.2	6	43	41	15	38	1.40	3	1.85	27	400	406	1.6	13	35	232	212
08-0798	20.5	344	282	3.7	9	49	46	18	38	1.98	1	1.64	27	513	505	2.1	14	44	239	202
08-0799	21.0	517	474	3.1	10	42	40	12	48	1.03	1	1.75	35	266	284	1.4	15	49	211	207
08-0800	15.0	343	282	3.8	8	46	42	18	40	2.08	3	1.83	28	549	563	2.0	11	46	223	192
G.Mean	18.9	369	314	3.4	8	45	42	16	41	1.56	2	1.77	29	416	426	1.8	13	43	226	203
Min	15.0	304	258	3.1	6	42	40	12	38	1.03	1	1.64	27	266	284	1.4	11	35	211	192
Max	21.0	517	474	3.8	10	49	46	18	48	2.08	3	1.85	35	549	563	2.1	15	49	239	212



## Soil Pisoliths (710-4000 µm)

Line 38820

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO2	Al2O3	Fe2O3	Fe2O3	MgO	CaO	Na2O	Na2O	TiO2	TiO2	P2O5	XRF S
BC 451	L08-00851	08-0817	33600	38820	31.63	10.40	48.18	51.77	0.04	0.05	0.01	0.09	0.99	0.79	0.00	0.020
BC 452	L08-0856	08-0818	33650	38820	27.77	9.81	52.18	55.24	0.04	0.05	0.01	0.29	1.05	0.81	0.00	0.022
BC 453	L08-0845	08-0819	33700	38820	28.22	9.15	50.47	50.81	0.03	0.05	0.00	0.08	1.00	0.76	0.00	0.019
BC 454	L08-0843	08-0820	33750	38820	27.30	8.94	51.76	52.01	0.04	0.06	0.01	0.08	0.99	0.74	0.00	0.013
BC 455	L08-0839	08-0821	33800	38820	22.24	9.99	56.33	52.01	0.08	0.10	0.02	0.11	1.08	0.89	0.00	0.015
BC 456	L08-0826	08-0822	33850	38820	34.84	8.90	46.75	51.30	0.19	0.25	0.13	0.00	0.85	0.73	0.00	0.029
BC 457	L08-0822	08-0823	33900	38820	21.40	9.25	58.76	64.72	0.16	0.19	0.05	0.00	1.11	0.94	0.00	0.059
BC 458	L08-0819	08-0824	33925	38820	14.99	9.03	64.48	70.37	0.06	0.11	0.00	0.24	1.15	0.93	0.00	0.050
BC 459	L08-0830	08-0825	33950	38820	17.94	9.38	58.76	59.45	0.10	0.11	0.03	0.28	1.13	0.86	0.00	0.057
BC 460	L08-0835	08-0826	33975	38820	17.83	8.57	61.33	62.12	0.07	0.09	0.01	0.18	1.03	0.79	0.00	0.043
BC 461	L08-0820	08-0827	34000	38820	15.35	9.65	62.91	69.02	0.11	0.18	0.06	0.11	1.08	0.91	0.00	0.045
BC 462	L08-0854	08-0828	34025	38820	21.48	11.31	54.47	57.06	0.09	0.11	0.01	0.39	1.34	1.04	0.00	0.030
BC 463	L08-0849	08-0829	34050	38820	14.95	9.93	62.76	66.06	0.06	0.06	0.00	0.19	1.46	1.11	0.00	0.037
BC 464	L08-0831	08-0830	34075	38820	11.26	8.95	66.20	67.69	0.03	0.04	0.00	0.38	1.55	1.17	0.00	0.051
BC 465	L08-0852	08-0831	34100	38820	15.83	10.48	61.05	64.66	0.05	0.05	0.00	0.29	1.50	1.16	0.00	0.047
BC 466	L08-0824	08-0832	34150	38820	15.85	11.44	61.33	66.78	0.05	0.05	0.00	0.00	1.50	1.25	0.00	0.038
BC 467	L08-0847	08-0833	34200	38820	20.44	10.17	56.33	56.92	0.05	0.05	0.01	0.18	1.34	1.04	0.00	0.026
BC 468	L08-0855	08-0834	34250	38820	20.30	10.28	56.90	61.29	0.05	0.06	0.00	0.29	1.32	1.04	0.00	0.032
BC 606	L08-1042	08-1035	34350	38820	30.30	10.49	47.89	49.92	0.08	0.05	0.03	0.20	1.07	0.85	0.00	0.027
BC 607	L08-1057	08-1036	34450	38820	38.25	8.61	44.18	46.52	0.04	0.05	0.01	0.21	0.89	0.74	0.00	0.018
BC 608	L08-1054	08-1037	34550	38820	34.08	8.76	45.75	47.72	0.04	0.04	0.02	0.20	0.87	0.71	0.00	0.025
BC 609	L08-1039	08-1038	34650	38820	38.84	7.23	44.32	46.12	0.05	0.05	0.02	0.10	0.77	0.63	0.00	0.017
BC 610	L08-1046	08-1039	34750	38820	32.87	7.52	48.90	50.86	0.03	0.04	0.00	0.21	0.82	0.66	0.00	0.019
Min	-	-	-	-	11.26	7.23	44.18	46.12	0.03	0.04	0.00	0.00	0.77	0.63	0.00	0.013
Max	-	-	-	-	38.84	11.44	66.20	70.37	0.19	0.25	0.13	0.39	1.55	1.25	0.00	0.059

## Soil Pisoliths (710-4000 µm)

Line 38820

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0817	0.83	53	0.007	129	147	1	1.17	0.15	49.5	63	20.9	1394	1486	81	104	33	1	0.23
08-0818	0.77	56	0.006	186	210	1	1.12	<0.1	72.1	101	22.6	1306	1408	77	105	34	0	0.25
08-0819	0.58	53	0.005	121	120	0	1.05	0.15	35.4	53	19.7	1336	1437	81	108	32	1	0.25
08-0820	0.94	53	0.006	75	80	0	0.99	<0.1	21.9	33	18.3	1265	1345	73	101	33	0	0.23
08-0821	0.83	62	0.011	171	211	0	1.43	0.37	22.2	33	20.6	1307	1380	77	104	32	2	0.33
08-0822	0.50	53	0.006	730	772	0	0.98	0.37	25.7	38	26.2	1052	1022	133	139	24	0	0.30
08-0823	0.73	63	0.006	1621	1772	1	1.05	0.20	24.4	28	19.3	1168	1122	120	135	28	0	0.34
08-0824	0.66	72	0.006	1240	1388	0	1.19	0.45	20.9	29	15.9	1255	1243	100	119	31	0	0.30
08-0825	0.78	69	0.007	1300	1478	0	1.04	0.60	25.1	38	20.1	983	1069	126	155	31	0	0.33
08-0826	0.66	111	0.244	829	985	0	0.98	0.46	22.0	31	21.7	1019	1044	131	162	26	1	0.33
08-0827	0.75	109	0.118	833	902	1	1.11	0.68	24.6	38	21.8	981	950	162	174	25	0	0.32
08-0828	1.01	76	0.183	542	610	1	0.91	0.12	22.0	30	18.2	689	724	103	132	34	2	0.23
08-0829	0.92	75	0.139	145	143	0	0.87	0.26	13.6	35	16.8	748	782	91	116	40	0	0.21
08-0830	0.75	64	0.106	181	207	0	1.04	0.21	16.2	36	13.0	803	866	81	105	41	0	0.36
08-0831	0.77	67	0.047	189	204	2	0.96	<0.1	25.3	40	16.4	854	902	94	119	40	0	0.27
08-0832	0.68	67	0.055	180	204	0	1.07	0.27	28.3	46	15.4	1047	984	105	118	39	2	0.41
08-0833	0.65	65	0.022	96	102	0	1.03	<0.1	18.4	27	14.0	913	959	84	114	34	0	0.22
08-0834	0.97	76	0.052	99	91	1	0.94	0.18	24.8	42	16.2	1065	1103	92	116	32	1	0.24
08-1035	0.95	70	0.101	141	162	0	1.10	<0.1	12.7	18	14.3	974	1035	90	105	28	0	0.32
08-1036	0.49	68	0.050	58	70	0	1.04	<0.1	4.0	11	14.4	1153	1215	69	87	24	2	0.21
08-1037	0.99	54	0.022	51	59	0	1.31	<0.1	4.5	16	15.5	1141	1258	80	103	27	3	0.28
08-1038	0.96	34	0.005	206	234	0	1.39	<0.1	3.8	13	13.3	800	879	78	99	22	0	0.23
08-1039	0.40	43	0.006	92	116	0	1.65	<0.1	7.1	19	12.9	890	994	77	102	26	0	0.25
Min	0.40	34	0.005	51	59	0	0.87	<0.1	3.8	11	12.9	689	724	69	87	22	0	0.21
Max	1.01	111	0.244	1621	1772	2	1.65	0.68	72.1	101	26.2	1394	1486	162	174	41	3	0.41

## Soil Pisoliths (710-4000 µm)

Line 38820

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0817	21.3	965	853	5.1	2	68	64	26	9	4.13	6	1.77	7	1014	1206	2.3	12	41	186	146
08-0818	23.3	1400	1267	5.3	0	71	57	22	11	4.80	6	2.05	6	1063	1306	2.5	15	48	200	150
08-0819	16.1	866	784	4.9	6	63	57	21	6	4.36	5	1.91	9	1012	1254	2.2	11	45	173	138
08-0820	12.4	474	417	4.8	4	57	55	20	9	4.52	5	1.44	8	992	1249	2.6	9	49	175	135
08-0821	14.0	497	363	5.1	5	73	65	26	6	4.68	7	1.79	14	1208	1362	2.2	13	54	217	140
08-0822	16.7	785	617	4.7	2	68	59	23	7	3.56	4	1.14	27	978	1058	6.4	16	72	146	115
08-0823	12.9	678	513	6.0	6	69	50	23	7	4.16	7	1.60	37	1283	1437	2.7	12	71	208	126
08-0824	12.3	550	410	5.4	4	64	44	31	7	5.65	9	1.67	22	1366	1586	2.7	11	64	217	135
08-0825	14.2	816	704	5.4	0	59	57	26	8	3.91	8	1.68	30	1077	1374	2.9	12	85	181	125
08-0826	10.8	2127	1876	3.8	6	62	50	19	6	4.56	7	1.04	19	1066	1348	2.2	10	74	190	125
08-0827	14.9	2850	2233	5.3	3	69	50	26	6	4.02	6	1.70	23	1184	1339	5.7	15	95	191	109
08-0828	13.3	1985	1753	5.0	1	48	44	26	9	2.72	6	1.61	13	1043	1316	8.3	12	71	181	131
08-0829	11.3	1209	1008	5.2	4	41	34	26	10	2.54	5	1.85	4	1229	1551	6.8	8	56	194	126
08-0830	10.3	929	745	10.4	6	42	28	25	5	2.53	9	1.97	3	1343	1749	8.0	11	49	204	127
08-0831	11.7	1279	1034	5.0	3	50	30	23	9	2.58	6	1.98	1	1230	1546	6.5	9	59	191	126
08-0832	11.3	1684	1274	5.0	5	49	40	24	6	2.62	8	1.56	5	1406	1583	7.2	9	59	202	127
08-0833	10.2	963	797	4.7	3	39	36	24	11	2.47	7	2.30	5	1130	1431	5.5	10	62	183	142
08-0834	11.2	1189	977	5.2	3	50	38	13	8	2.40	6	1.69	5	1223	1498	5.2	10	61	190	131
08-1035	15.2	587	495	5.1	8	54	44	23	18	2.55	5	2.20	13	1006	1200	3.0	8	57	175	128
08-1036	10.8	468	383	4.9	4	60	48	23	8	2.14	4	1.54	6	951	1089	5.5	6	44	165	113
08-1037	10.9	468	388	5.2	5	67	45	23	6	2.84	4	1.66	8	977	1152	2.7	11	52	154	109
08-1038	9.8	507	442	4.8	3	48	42	24	10	2.41	4	1.03	9	884	1043	2.4	6	59	155	115
08-1039	10.7	378	305	5.4	2	47	40	26	6	2.30	5	1.44	5	998	1187	3.4	7	54	154	105
Min	9.8	378	305	3.8	0	39	28	13	5	2.14	4	1.03	1	884	1043	2.2	6	41	146	105
Max	23.3	2850	2233	10.4	8	73	65	31	18	5.65	9	2.30	37	1406	1749	8.3	16	95	217	150



# Soil Pisoliths (710-4000 µm)

Line 38940

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO2	Al2O3	Fe2O3	Fe2O3	MgO	CaO	Na2O	Na2O	TiO2	TiO2	P2O5	S
BC 471	L08-0844	08-0835	33650	38940	43.91	10.19	32.45	33.03	0.61	0.39	0.34	0.38	0.82	0.68	0.00	0.017
BC 472	L08-0827	08-0836	33700	38940	35.68	10.01	45.46	48.90	0.05	0.05	0.01	0.00	0.90	0.76	0.00	0.015
BC 473	L08-0836	08-0837	33750	38940	34.91	9.18	46.32	48.19	0.06	0.07	0.02	0.18	0.92	0.73	0.00	0.017
BC 474	L08-0857	08-0838	33800	38940	22.56	9.05	56.33	58.39	0.07	0.10	0.03	0.19	1.10	0.83	0.00	0.027
BC 475	L08-0841	08-0839	33850	38940	36.83	8.13	44.46	46.29	0.09	0.10	0.04	0.08	0.83	0.66	0.00	0.019
BC 476	L08-0848	08-0840	33900	38940	25.21	7.95	54.61	55.37	0.09	0.10	0.02	0.18	0.93	0.71	0.00	0.041
BC 477	L08-0837	08-0841	33925	38940	22.84	8.47	56.47	59.01	0.11	0.13	0.02	0.18	0.98	0.77	0.00	0.041
BC 478	L08-0821	08-0842	33950	38940	16.46	8.54	61.05	65.53	0.44	1.74	0.14	0.11	1.02	0.85	0.00	0.080
BC 479	L08-0817	08-0843	33975	38940	28.66	12.52	37.17	40.01	1.58	4.96	0.07	0.24	0.98	0.84	0.00	0.057
BC 480	L08-0853	08-0844	34000	38940	20.07	9.74	51.90	56.26	0.80	2.86	0.07	0.40	1.08	0.90	0.00	0.068
BC 481	L08-0840	08-0845	34025	38940	21.31	10.05	55.47	56.48	0.17	0.17	0.03	0.18	1.13	0.87	0.00	0.047
BC 482	L08-0846	08-0846	34050	38940	22.17	9.73	54.04	54.32	0.07	0.09	0.02	0.18	1.31	0.97	0.00	0.091
BC 483	L08-0833	08-0847	34100	38940	17.07	8.95	61.19	63.92	0.04	0.06	0.00	0.28	1.44	1.10	0.00	0.042
BC 484	L08-0829	08-0848	34150	38940	17.86	9.88	59.62	60.91	0.04	0.05	0.01	0.18	1.41	1.09	0.00	0.035
BC 485	L08-0825	08-0849	34200	38940	32.32	11.49	45.46	49.77	0.09	0.07	0.02	0.00	1.12	0.95	0.00	0.022
BC 486	L08-0828	08-0850	34250	38940	25.49	9.43	54.19	55.35	0.04	0.05	0.02	0.18	1.21	0.94	0.00	0.025
BC 487	L08-0823	08-0851	34300	38940	33.71	9.59	48.75	52.74	0.04	0.04	0.00	0.00	1.00	0.84	0.00	0.028
BC 601	L08-1031	08-1030	34400	38940	25.59	9.48	53.61	56.08	0.04	0.05	0.07	0.09	0.97	0.77	0.00	0.027
BC 602	L08-1053	08-1031	34500	38940	28.34	8.58	52.33	54.43	0.04	0.06	0.01	0.20	0.89	0.71	0.00	0.018
BC 603	L08-1059	08-1032	34600	38940	25.37	8.39	55.76	57.53	0.05	0.08	0.03	0.21	0.91	0.73	0.00	0.019
BC 604	L08-1044	08-1033	34700	38940	31.86	6.36	51.61	53.37	0.05	0.06	0.04	0.21	0.78	0.62	0.00	0.041
BC 605	L08-1060	08-1034	34800	38940	41.71	5.92	43.32	45.97	0.05	0.06	0.03	0.10	0.61	0.52	0.00	0.015
Min	-	-	-	-	16.46	5.92	32.45	33.03	0.04	0.04	0.00	0.00	0.61	0.52	0.00	0.015
Max	-	-	-	-	43.91	12.52	61.19	65.53	1.58	4.96	0.34	0.40	1.44	1.10	0.00	0.091

## Background Data Set

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO2	Al2O3	Fe2O3	Fe2O3	MgO	CaO	Na2O	Na2O	TiO2	TiO2	P2O5	S
BC 491	L08-0834	08-0852	33747	39311	27.74	10.21	50.90	52.69	0.03	0.03	0.00	0.08	1.06	0.82	0.00	0.025
BC 492	L08-0850	08-0853	34172	39314	29.64	10.19	49.61	53.33	0.03	0.05	0.00	0.09	1.02	0.80	0.00	0.021
BC 493	L08-0832	08-0854	33545	38146	52.17	7.22	32.60	34.71	0.06	0.06	0.07	0.19	0.69	0.57	0.00	0.008
BC 494	L08-0842	08-0855	34290	38110	24.05	8.13	55.76	57.04	0.04	0.05	0.03	0.18	1.21	0.93	0.00	0.023
G.Mean	-	-	-	-	31.87	8.84	46.28	48.57	0.04	0.05	0.02	0.13	0.97	0.77	0.00	0.018
Min	-	-	-	-	24.05	7.22	32.60	34.71	0.03	0.03	0.00	0.08	0.69	0.57	0.00	0.008
Max	-	-	-	-	52.17	10.21	55.76	57.04	0.06	0.06	0.07	0.19	1.21	0.93	0.00	0.025

Soil Pisoliths (710-4000 µm)

Line 38940

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0835	0.39	30	0.019	404	417	0	0.65	<0.1	23.7	32	20.2	751	777	74	104	25	0	0.14
08-0836	0.85	47	0.005	147	165	0	1.19	0.31	20.3	21	18.0	1376	1352	89	103	28	1	0.28
08-0837	0.87	47	0.010	280	298	0	1.27	0.31	19.7	30	17.0	1261	1283	91	115	28	1	0.30
08-0838	0.80	58	0.006	455	523	1	1.20	0.16	26.9	33	19.6	1306	1420	82	112	34	0	0.23
08-0839	0.72	46	0.010	384	397	0	1.14	0.35	28.5	33	21.0	1012	1077	111	136	24	1	0.34
08-0840	0.40	64	0.007	989	1095	0	1.10	0.21	24.3	34	21.9	924	973	148	179	25	0	0.18
08-0841	0.76	73	0.010	1036	1116	0	1.19	0.46	25.3	32	23.7	987	998	163	178	26	0	0.32
08-0842	0.81	122	0.121	1960	2143	1	1.14	0.60	22.7	33	23.2	1066	1040	149	157	33	2	0.29
08-0843	0.66	140	0.084	923	906	1	0.86	0.32	21.2	28	21.1	680	666	131	148	27	1	0.25
08-0844	0.70	166	0.102	670	699	1	0.95	0.36	20.7	33	18.0	799	815	135	156	31	1	0.29
08-0845	0.80	130	0.150	745	812	0	1.07	0.63	23.7	37	19.9	828	876	132	157	35	0	0.38
08-0846	0.61	116	0.174	1641	1911	0	1.02	0.14	20.0	35	19.6	878	933	120	152	36	0	0.21
08-0847	0.89	105	0.149	212	238	0	1.01	<0.1	16.4	25	13.8	928	933	90	116	35	0	0.28
08-0848	0.74	136	0.076	63	58	0	1.70	0.14	16.3	31	14.2	1017	1092	103	130	35	2	0.35
08-0849	1.00	88	0.054	219	234	0	1.01	0.26	23.0	34	13.1	958	927	90	109	32	2	0.33
08-0850	0.79	88	0.031	72	76	0	1.27	0.24	22.6	30	17.2	1156	1240	90	115	36	0	0.32
08-0851	1.00	66	0.005	48	39	0	1.23	0.36	18.9	24	15.6	1335	1295	90	107	29	1	0.35
08-1030	0.75	56	0.007	152	193	0	1.24	<0.1	8.2	23	19.2	1292	1380	68	102	31	0	0.31
08-1031	0.42	46	0.006	137	154	0	1.69	0.18	5.7	20	15.5	1063	1160	61	86	31	3	0.28
08-1032	0.43	43	0.006	224	278	0	1.64	0.18	10.7	22	15.2	1010	1091	70	105	34	1	0.23
08-1033	0.25	38	0.006	902	1071	0	1.43	0.10	5.5	26	11.9	808	871	74	101	27	3	0.27
08-1034	0.25	33	0.005	236	249	0	1.18	<0.1	4.0	33	15.7	745	803	95	110	23	0	0.19
Min	0.25	30	0.005	48	39	0	0.65	<0.1	4.0	20	11.9	680	666	61	86	23	0	0.14
Max	1.00	166	0.174	1960	2143	1	1.70	0.63	28.5	37	23.7	1376	1420	163	179	36	3	0.38

Background Data Set

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0852	0.83	51	0.005	56	52	0	1.26	0.12	27.0	37	19.4	1388	1402	90	102	30	0	0.35
08-0853	0.73	51	0.005	61	52	0	1.15	0.10	23.3	34	21.1	1394	1478	85	108	30	2	0.21
08-0854	0.70	31	0.004	79	86	0	0.98	0.12	17.8	19	14.1	962	1006	61	76	21	0	0.26
08-0855	0.96	51	0.005	99	101	0	0.90	0.16	15.8	29	14.5	1049	1141	59	87	35	4	0.27
G.Mean	0.80	45	0.005	72	70	0	1.06	0.12	20.5	29	17.0	1182	1242	73	92	29	1	0.27
Min	0.70	31	0.004	56	52	0	0.90	0.10	15.8	19	14.1	962	1006	59	76	21	0	0.21
Max	0.96	51	0.005	99	101	0	1.26	0.16	27.0	37	21.1	1394	1478	90	108	35	4	0.35

**Soil Pisoliths (710-4000 µm)**

**Line 38940**

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0835	15.7	533	486	3.9	3	56	53	12	26	2.23	4	1.50	56	658	781	1.7	14	59	140	135
08-0836	13.0	333	260	4.7	4	74	60	21	8	3.34	6	1.34	8	1040	1126	2.4	9	49	172	138
08-0837	13.2	377	321	4.5	5	65	62	19	10	3.62	5	1.52	12	948	1125	1.9	9	50	169	133
08-0838	16.0	387	333	9.1	4	63	63	29	4	4.79	7	1.98	21	1139	1435	3.1	13	51	203	151
08-0839	16.7	477	410	4.5	4	67	49	22	6	3.37	6	1.52	19	892	1056	2.0	12	67	152	123
08-0840	15.2	757	647	5.0	3	62	51	24	7	3.85	6	1.41	30	1055	1313	2.9	11	79	164	110
08-0841	16.0	939	791	5.0	0	73	60	27	8	3.30	4	1.16	22	1101	1325	2.7	19	89	178	118
08-0842	13.6	1191	954	5.4	4	64	59	33	10	4.46	5	1.61	72	1260	1418	2.7	14	90	191	121
08-0843	11.5	1258	1125	5.7	0	52	58	24	16	2.75	4	1.55	135	836	899	2.1	10	65	148	120
08-0844	10.9	847	701	4.6	1	57	50	26	10	3.07	6	1.32	68	1102	1296	5.4	10	74	167	116
08-0845	15.1	930	803	2.8	5	61	50	27	11	3.46	7	1.37	23	1030	1291	5.7	16	81	177	132
08-0846	11.3	862	775	4.9	8	58	53	19	9	3.30	7	1.67	23	1024	1303	6.1	12	73	173	129
08-0847	10.3	703	544	4.6	6	50	36	23	7	2.65	7	1.86	6	1303	1599	5.4	12	55	199	131
08-0848	10.1	640	508	7.1	3	50	43	22	10	2.91	10	1.63	4	1251	1545	6.6	8	57	188	132
08-0849	17.3	719	571	5.3	8	48	44	20	19	2.37	7	1.66	12	1049	1126	4.0	12	55	170	135
08-0850	11.6	694	574	9.3	2	54	54	28	8	2.96	8	1.58	5	1174	1436	6.2	9	60	181	132
08-0851	12.1	529	396	5.9	2	60	58	21	6	3.05	6	1.41	6	1142	1251	4.6	8	49	163	122
08-1030	16.1	438	356	5.6	4	64	54	34	4	4.06	4	1.29	11	1119	1345	3.2	11	59	188	125
08-1031	12.3	407	332	5.6	0	62	50	30	6	3.72	7	1.47	12	1091	1302	3.0	9	52	176	119
08-1032	15.0	451	362	5.8	6	60	41	32	6	3.27	6	1.53	13	1161	1392	3.2	10	56	180	120
08-1033	9.9	365	296	5.3	4	51	36	28	6	2.45	2	1.28	24	994	1187	3.3	8	62	153	105
08-1034	9.2	313	252	4.9	2	49	36	24	10	1.96	2	1.14	6	756	841	5.3	9	71	136	88
Min	9.2	313	252	2.8	0	48	36	12	4	1.96	2	1.14	4	658	781	1.7	8	49	136	88
Max	17.3	1258	1125	9.3	8	74	63	34	26	4.79	10	1.98	135	1303	1599	6.6	19	90	203	151

**Background Data Set**

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0852	13.8	387	327	6.2	4	67	57	26	6	4.31	7	1.45	8	1071	1316	2.4	8	42	186	141
08-0853	12.7	356	297	9.1	4	72	56	20	6	4.35	6	1.51	6	1040	1254	2.4	9	48	194	151
08-0854	11.2	410	380	3.6	1	49	45	18	11	2.43	4	1.34	11	678	764	1.8	7	36	147	126
08-0855	8.8	455	384	2.2	3	50	53	25	8	4.39	7	1.62	6	1074	1352	4.8	9	46	172	118
G.Mean	11.5	400	345	4.6	3	59	53	22	8	3.76	6	1.48	8	949	1143	2.7	8	43	174	133
Min	8.8	356	297	2.2	1	49	45	18	6	2.43	4	1.34	6	678	764	1.8	7	36	147	118
Max	13.8	455	384	9.1	4	72	57	26	11	4.39	7	1.62	11	1074	1352	4.8	9	48	194	151



## Soil &lt;75 µm Fraction

Line 38820

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	CaO	Na <sub>2</sub> O	Na <sub>2</sub> O	TiO <sub>2</sub>	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	S
BC 201	L08-0884	08-0859	33600	38820	62.15	17.58	9.15	8.28	0.27	0.12	0.16	0.39	1.14	1.06	0.00	0.005
BC 202	L08-0869	08-0860	33650	38820	62.08	15.23	8.58	7.72	0.24	0.09	0.16	0.29	1.11	0.96	0.00	0.008
BC 203	L08-0877	08-0861	33700	38820	62.30	20.13	9.72	9.21	0.33	0.14	0.10	0.38	1.11	1.06	0.00	0.004
BC 204	L08-0878	08-0862	33750	38820	62.41	18.76	9.72	8.99	0.39	0.22	0.19	0.49	1.10	1.00	0.00	0.006
BC 205	L08-0875	08-0863	33800	38820	66.42	15.41	9.15	8.67	0.62	0.60	0.58	1.10	1.19	1.14	0.00	0.006
BC 206	L08-0887	08-0864	33850	38820	56.07	17.57	10.01	9.29	1.13	0.81	0.03	0.69	0.90	0.90	0.00	0.007
BC 207	L08-0895	08-0865	33900	38820	57.51	18.19	10.15	9.61	1.02	0.53	0.02	0.59	0.91	0.91	0.00	0.005
BC 208	L08-0868	08-0866	33925	38820	62.47	13.70	9.58	9.14	0.39	0.27	0.22	0.50	1.47	1.29	0.00	0.000
BC 209	L08-0876	08-0867	33950	38820	66.69	14.81	10.72	10.15	0.35	0.27	0.27	0.59	1.53	1.43	0.00	0.013
BC 210	L08-0863	08-0868	33975	38820	60.57	16.65	10.44	9.78	0.33	0.22	0.13	0.39	1.21	1.05	0.00	0.008
BC 211	L08-0891	08-0869	34000	38820	63.41	15.60	9.15	8.34	0.41	0.33	0.28	0.49	1.34	1.18	0.00	0.021
BC 212	L08-0879	08-0870	34025	38820	62.06	19.41	9.44	9.13	0.39	0.28	0.14	0.49	1.21	1.12	0.00	0.018
BC 213	L08-0897	08-0871	34050	38820	63.77	17.62	8.86	8.25	0.21	0.11	0.13	0.39	1.24	1.14	0.00	0.015
BC 214	L08-0872	08-0872	34075	38820	64.23	15.58	8.44	7.92	0.16	0.05	0.14	0.19	1.36	1.21	0.00	0.013
BC 215	L08-0888	08-0873	34100	38820	58.64	19.02	9.29	8.11	0.21	0.08	0.11	0.28	1.43	1.25	0.00	0.006
BC 216	L08-0890	08-0874	34150	38820	61.71	17.99	9.01	8.07	0.21	0.08	0.12	0.28	1.32	1.17	0.00	0.006
BC 217	L08-0859	08-0875	34200	38820	58.63	19.11	9.44	8.65	0.24	0.10	0.10	0.39	1.24	1.06	0.00	0.003
BC 218	L08-0894	08-0876	34250	38820	59.82	19.50	9.58	8.62	0.29	0.14	0.16	0.38	1.18	1.06	0.00	0.010
BC 616	L08-1049	08-1045	34350	38820	56.64	21.58	10.01	9.39	0.30	0.08	0.08	0.30	1.10	1.01	0.01	0.006
BC 617	L08-1050	08-1046	34450	38820	63.56	16.96	8.44	7.99	0.31	0.18	0.13	0.42	1.10	1.00	0.00	0.008
BC 618	L08-1061	08-1047	34550	38820	59.84	19.49	9.58	8.86	0.31	0.15	0.13	0.31	1.16	1.07	0.00	0.010
BC 619	L08-1030	08-1048	34650	38820	57.22	18.25	9.44	8.57	0.30	0.17	0.13	0.31	1.20	1.05	0.03	0.012
BC 620	L08-1056	08-1049	34750	38820	58.92	19.68	9.58	8.79	0.28	0.11	0.10	0.31	1.14	1.03	0.00	0.007
Min	-	-	-	-	56.07	13.70	8.44	7.72	0.16	0.05	0.02	0.19	0.90	0.90	0.00	0.000
Max	-	-	-	-	66.69	21.58	10.72	10.15	1.13	0.81	0.58	1.10	1.53	1.43	0.03	0.021

## Soil &lt;75 µm Fraction

Line 38820

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0859	0.83	8	0.045	327	309	4	0.28	0.21	97.4	91	35.6	166	169	111	51	23	1	0.07
08-0860	0.58	9	0.032	381	369	4	0.28	<0.1	100.2	95	50.0	171	186	43	42	22	2	0.06
08-0861	0.88	9	0.047	274	243	4	0.26	0.11	64.3	63	40.1	171	162	52	56	23	2	0.06
08-0862	0.24	9	0.050	295	267	5	0.30	0.14	60.0	56	36.1	165	166	54	58	24	1	0.08
08-0863	0.58	8	0.029	283	252	3	0.25	0.11	38.2	32	36.0	178	187	63	65	19	0	0.06
08-0864	0.55	8	0.041	223	196	2	0.20	0.11	37.6	33	25.9	148	152	76	76	22	1	<0.05
08-0865	0.76	10	0.021	225	199	4	0.33	<0.1	38.8	30	18.7	160	162	77	75	23	1	0.12
08-0866	0.29	12	0.013	330	321	2	0.30	0.10	44.6	37	19.5	173	183	65	63	19	0	0.06
08-0867	0.40	15	0.015	384	347	2	0.24	0.17	49.5	42	24.3	173	177	68	73	18	1	<0.05
08-0868	0.13	32	0.058	417	412	3	0.32	0.18	46.9	46	23.1	169	175	52	58	20	2	0.07
08-0869	1.21	21	0.016	353	336	2	0.52	<0.1	42.7	38	17.2	189	198	55	57	20	1	0.16
08-0870	<0.1	14	0.063	444	416	4	0.32	<0.1	53.8	51	20.0	184	196	59	58	23	2	0.05
08-0871	0.36	10	0.041	320	287	4	0.41	<0.1	59.5	55	36.7	164	170	112	45	22	2	0.12
08-0872	0.21	9	0.044	316	291	3	0.26	<0.1	50.8	45	24.3	172	188	41	39	18	2	<0.05
08-0873	0.26	9	0.037	416	418	1	0.29	<0.1	84.3	87	41.4	153	155	43	49	24	1	0.05
08-0874	1.23	9	0.050	352	346	3	0.43	<0.1	75.8	67	24.1	161	167	43	45	24	1	0.16
08-0875	0.99	11	0.015	241	212	4	0.33	<0.1	62.4	61	17.6	174	169	55	55	26	2	0.10
08-0876	1.09	9	0.014	389	373	3	0.46	<0.1	90.8	96	35.5	156	157	52	52	27	2	0.14
08-1045	0.61	13	0.017	227	199	0	0.41	<0.1	56.5	50	12.4	177	177	54	58	29	1	0.12
08-1046	0.34	18	0.027	257	231	0	0.37	<0.1	50.0	38	13.2	187	195	42	45	22	2	0.09
08-1047	0.82	25	0.033	241	229	0	0.35	<0.1	62.7	62	17.6	186	181	48	51	25	2	<0.05
08-1048	1.00	15	0.012	231	229	2	0.44	0.23	55.2	45	13.9	166	178	43	51	24	2	0.19
08-1049	0.63	13	0.008	234	219	1	0.46	<0.1	63.5	52	13.8	174	171	50	52	27	0	0.11
Min	<0.1	8	0.008	223	196	0	0.20	<0.1	37.6	30	12.4	148	152	41	39	18	0	<0.05
Max	1.23	32	0.063	444	418	5	0.52	0.23	100.2	96	50.0	189	198	112	76	29	2	0.19

## Soil &lt;75 µm Fraction

Line 38820

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0859	46.8	1899	2072	3.6	17	52	53	17	79	0.64	1	3.01	53	114	159	1.3	40	58	487	545
08-0860	35.9	1979	2207	3.5	15	46	47	18	79	0.62	1	2.09	50	103	149	1.5	26	49	540	598
08-0861	33.9	1239	1208	3.8	15	57	56	15	81	0.69	2	2.60	51	124	173	2.1	26	61	474	475
08-0862	34.9	1192	1232	3.8	16	57	61	18	79	0.48	2	2.11	56	123	164	2.1	28	62	444	439
08-0863	22.1	756	691	3.5	13	54	51	14	72	0.32	3	1.68	72	133	169	2.2	23	60	542	547
08-0864	24.4	555	509	3.4	12	57	57	11	74	0.45	2	2.41	77	136	178	1.4	21	84	315	353
08-0865	23.9	639	585	3.3	11	57	56	11	67	0.45	0	2.24	65	170	200	1.5	18	81	313	313
08-0866	26.3	1067	1050	3.3	16	42	40	16	66	0.56	1	1.23	56	154	199	1.6	23	69	513	542
08-0867	26.9	1583	1602	3.7	15	40	40	14	61	0.50	2	1.66	57	163	204	2.0	23	60	610	565
08-0868	27.4	1950	2088	4.2	14	41	43	17	73	0.44	2	1.82	53	126	180	1.9	24	62	462	502
08-0869	25.3	1343	1432	3.2	17	44	44	16	72	0.66	1	2.61	65	121	171	1.3	21	56	557	629
08-0870	37.7	1372	1413	3.9	16	57	49	17	71	0.74	1	1.48	51	123	168	2.1	30	65	519	544
08-0871	38.1	1765	1881	3.5	14	44	43	18	67	0.53	1	1.75	40	118	164	1.8	31	46	620	641
08-0872	32.5	777	798	3.4	18	40	38	16	61	0.55	2	1.89	39	108	158	1.9	28	39	738	753
08-0873	37.6	1840	2075	3.4	17	45	49	20	66	0.61	1	1.61	42	112	172	1.3	30	45	530	599
08-0874	39.0	1149	1255	3.3	19	45	47	18	70	0.40	2	2.52	46	110	156	3.4	32	48	593	639
08-0875	36.8	652	688	3.4	14	50	52	19	77	0.66	1	2.41	49	112	163	1.4	30	71	461	514
08-0876	40.2	1922	2072	3.5	14	52	53	22	81	0.50	0	3.37	55	113	167	1.8	33	65	427	496
08-1045	37.1	271	263	3.6	18	55	56	20	84	0.59	0	2.43	48	116	169	2.2	22	69	377	416
08-1046	31.7	348	328	3.4	17	50	46	17	76	0.73	2	2.45	51	102	149	1.6	26	65	511	571
08-1047	37.0	580	580	6.4	17	56	59	21	81	0.76	0	3.20	53	114	165	1.8	30	73	524	520
08-1048	36.7	397	404	3.6	18	50	52	20	78	0.70	1	3.59	57	106	164	1.6	27	75	481	554
08-1049	39.4	365	358	6.9	17	56	54	19	82	0.59	1	4.93	51	113	163	1.7	32	67	435	501
Min	22.1	271	263	3.2	11	40	38	11	61	0.32	0	1.23	39	102	149	1.3	18	39	313	313
Max	46.8	1979	2207	6.9	19	57	61	22	84	0.76	3	4.93	77	170	204	3.4	40	84	738	753

## Soil &lt;75 µm Fraction

Line 38940

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	CaO	Na <sub>2</sub> O	Na <sub>2</sub> O	TiO <sub>2</sub>	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	S
BC 221	L08-0900	08-0877	33650	38940	58.69	17.67	10.58	10.38	1.18	0.67	0.01	0.83	0.93	0.97	0.00	0.007
BC 222	L08-0883	08-0878	33700	38940	58.44	20.12	10.15	9.14	0.46	0.24	0.16	0.59	1.01	0.96	0.00	0.004
BC 223	L08-0882	08-0879	33750	38940	58.11	19.65	9.86	8.98	0.46	0.25	0.16	0.49	1.09	0.98	0.00	0.009
BC 224	L08-0898	08-0880	33800	38940	68.50	13.49	9.29	9.20	0.45	0.35	0.35	0.62	1.47	1.43	0.00	0.009
BC 225	L08-0867	08-0881	33850	38940	60.88	14.58	9.86	9.32	0.57	0.48	0.45	0.70	1.31	1.12	0.00	0.000
BC 226	L08-0864	08-0882	33900	38940	64.61	14.08	10.15	9.76	0.42	0.28	0.23	0.50	1.50	1.32	0.00	0.009
BC 227	L08-0860	08-0883	33925	38940	65.94	12.25	9.15	8.35	0.38	0.27	0.29	0.50	1.48	1.22	0.00	0.014
BC 228	L08-0866	08-0884	33950	38940	53.51	19.12	9.01	8.97	2.79	1.20	0.01	0.29	0.89	0.88	0.26	0.000
BC 229	L08-0885	08-0885	33975	38940	56.33	14.40	7.43	6.67	1.95	4.22	0.16	0.39	1.02	0.93	0.05	0.043
BC 230	L08-0893	08-0886	34000	38940	56.14	17.35	9.15	8.35	2.30	2.61	0.23	0.49	1.14	1.08	0.04	0.079
BC 231	L08-0896	08-0887	34025	38940	62.49	16.86	9.72	9.12	0.59	0.38	0.20	0.49	1.32	1.22	0.00	0.040
BC 232	L08-0862	08-0888	34050	38940	58.83	18.58	9.15	8.42	0.32	0.24	0.13	0.39	1.22	1.05	0.00	0.086
BC 233	L08-0886	08-0889	34100	38940	61.98	17.59	8.86	7.88	0.23	0.12	0.14	0.39	1.28	1.15	0.00	0.019
BC 234	L08-0870	08-0890	34150	38940	63.50	15.68	8.44	7.65	0.18	0.06	0.13	0.29	1.17	1.00	0.00	0.014
BC 235	L08-0871	08-0891	34200	38940	56.14	20.14	9.72	8.96	0.27	0.09	0.09	0.28	1.14	1.00	0.06	0.010
BC 236	L08-0892	08-0892	34250	38940	57.81	20.48	10.15	9.04	0.29	0.11	0.13	0.38	1.19	1.06	0.00	0.008
BC 237	L08-0873	08-0893	34300	38940	60.81	18.31	9.44	8.72	0.23	0.06	0.11	0.18	1.13	1.03	0.00	0.008
BC 611	L08-1045	08-1040	34400	38940	66.73	13.64	8.44	7.77	0.38	0.14	0.47	0.53	1.29	1.12	0.00	0.011
BC 612	L08-1041	08-1041	34500	38940	68.08	12.85	8.01	7.48	0.30	0.19	0.27	0.42	1.27	1.11	0.00	0.012
BC 613	L08-1034	08-1042	34600	38940	68.97	13.81	8.44	7.95	0.34	0.24	0.23	0.53	1.28	1.16	0.00	0.013
BC 614	L08-1048	08-1043	34700	38940	66.98	13.88	8.44	7.88	0.35	0.22	0.28	0.53	1.30	1.16	0.00	0.017
BC 615	L08-1037	08-1044	34800	38940	59.98	19.20	9.58	8.88	0.34	0.19	0.13	0.42	1.13	1.03	0.00	0.009
Min	-	-	-	-	53.51	12.25	7.43	6.67	0.18	0.06	0.01	0.18	0.89	0.88	0.00	0.000
Max	-	-	-	-	68.97	20.48	10.58	10.38	2.79	4.22	0.47	0.83	1.50	1.43	0.26	0.086

## Background Data Set

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	CaO	Na <sub>2</sub> O	Na <sub>2</sub> O	TiO <sub>2</sub>	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	S
BC 241	L08-0881	08-0894	33747	39311	63.86	17.70	9.01	8.16	0.20	0.05	0.11	0.39	1.15	1.04	0.00	0.010
BC 242	L08-0889	08-0895	34172	39314	58.22	18.72	9.72	8.48	0.25	0.11	0.11	0.38	1.18	1.05	0.00	0.011
BC 243	L08-0874	08-0896	33545	38146	59.94	21.54	10.58	10.04	0.40	0.16	0.14	0.38	1.15	1.13	0.00	0.010
BC 244	L08-0865	08-0897	34290	38110	60.91	18.83	10.01	9.39	0.29	0.10	0.10	0.18	1.17	1.07	0.00	0.007
G.Mean	-	-	-	-	60.70	19.15	9.81	8.99	0.28	0.10	0.11	0.32	1.16	1.07	0.00	0.009
Min	-	-	-	-	58.22	17.70	9.01	8.16	0.20	0.05	0.10	0.18	1.15	1.04	0.00	0.007
Max	-	-	-	-	63.86	21.54	10.58	10.04	0.40	0.16	0.14	0.39	1.18	1.13	0.00	0.011

## Soil &lt;75 µm Fraction

Line 38940

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0877	0.83	8	0.033	201	172	3	0.31	<0.1	44.7	35	34.8	147	145	85	86	21	1	0.13
08-0878	0.69	9	0.031	229	193	4	0.24	<0.1	50.1	46	25.5	158	152	63	68	27	0	0.07
08-0879	0.73	9	0.031	238	220	3	0.27	0.19	53.8	46	22.3	160	163	60	61	26	2	0.10
08-0880	0.56	10	0.010	311	273	2	0.35	<0.1	43.7	33	14.0	248	242	53	53	16	0	0.11
08-0881	0.47	11	0.022	258	231	1	0.28	<0.1	48.1	41	23.2	173	184	70	74	20	1	0.08
08-0882	0.58	15	0.025	321	290	3	0.33	0.11	50.8	46	24.4	185	197	69	67	18	0	0.07
08-0883	0.58	25	0.036	359	361	3	0.33	<0.1	53.9	46	23.4	196	206	52	58	16	2	<0.05
08-0884	0.65	57	0.178	247	198	2	0.24	<0.1	45.9	38	15.9	181	177	75	79	24	2	0.06
08-0885	0.53	34	0.087	290	268	3	0.19	0.11	31.1	23	9.1	186	183	48	49	18	1	<0.05
08-0886	0.49	23	0.061	252	216	2	0.38	<0.1	36.4	31	10.2	198	192	51	55	22	1	0.15
08-0887	0.40	17	0.041	313	272	4	0.40	<0.1	46.9	38	15.7	203	207	50	52	20	1	0.14
08-0888	0.90	15	0.066	966	734	2	0.33	0.17	57.8	59	25.5	174	170	45	51	24	1	0.10
08-0889	<0.1	11	0.045	292	266	2	0.27	<0.1	61.8	56	25.6	163	168	48	51	23	3	<0.05
08-0890	0.39	8	0.023	257	224	4	0.27	<0.1	47.4	45	9.3	171	184	41	44	21	0	0.05
08-0891	1.01	11	0.019	249	207	3	0.37	<0.1	60.7	59	13.3	163	167	56	61	26	2	0.06
08-0892	1.51	9	0.006	249	224	2	0.48	<0.1	67.8	69	18.3	156	157	53	55	27	2	0.19
08-0893	0.43	8	0.010	243	205	2	0.29	<0.1	54.9	50	11.2	170	175	45	49	23	1	0.07
08-1040	0.89	7	0.004	299	281	0	0.41	0.10	58.2	46	18.0	201	226	39	43	17	2	0.11
08-1041	0.28	11	0.007	327	319	0	0.50	<0.1	59.7	48	17.0	195	204	40	36	16	1	0.12
08-1042	0.81	10	0.004	336	309	0	0.44	0.22	62.8	55	18.4	192	195	40	40	18	1	0.12
08-1043	0.79	14	0.009	319	279	0	0.39	<0.1	66.3	54	19.6	200	207	41	42	20	0	0.12
08-1044	0.68	13	0.005	244	226	1	0.41	<0.1	64.3	58	15.8	172	170	50	54	25	2	0.11
Min	<0.1	7	0.004	201	172	0	0.19	<0.1	31.1	23	9.1	147	145	39	36	16	0	<0.05
Max	1.51	57	0.178	966	734	4	0.50	0.22	67.8	69	34.8	248	242	85	86	27	3	0.19

## Background Data Set

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0894	0.12	9	0.005	256	226	2	0.31	0.10	64.2	66	13.4	170	185	44	47	22	2	0.05
08-0895	1.34	9	0.004	238	224	4	0.46	0.15	63.8	62	13.5	161	169	51	54	25	2	0.19
08-0896	0.53	9	0.013	242	200	4	0.34	0.10	58.6	59	23.2	181	175	62	67	27	1	0.06
08-0897	1.09	11	0.010	239	209	3	0.33	0.15	54.6	53	13.6	184	185	55	54	26	2	0.05
G.Mean	0.55	9	0.007	244	214	3	0.36	0.12	60.2	60	15.5	174	178	53	55	25	2	0.07
Min	0.12	9	0.004	238	200	2	0.31	0.10	54.6	53	13.4	161	169	44	47	22	1	0.05
Max	1.34	11	0.013	256	226	4	0.46	0.15	64.2	66	23.2	184	185	62	67	27	2	0.19

## Soil &lt;75 µm Fraction

Line 38940

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0877	25.8	1224	1044	3.7	10	63	56	12	71	0.39	1	2.56	86	209	227	1.8	19	81	306	301
08-0878	30.4	847	873	3.2	14	60	58	17	84	0.65	0	2.45	53	129	182	1.3	23	78	343	334
08-0879	33.4	808	827	3.3	16	57	55	17	81	0.50	1	2.39	55	127	175	1.3	24	78	357	397
08-0880	25.3	726	650	3.4	15	47	39	13	65	0.56	0	1.78	68	155	186	1.4	25	60	769	723
08-0881	28.3	630	606	3.5	16	39	43	15	69	0.45	1	1.87	76	154	209	2.0	25	65	436	510
08-0882	27.6	947	923	3.4	16	41	43	17	70	0.47	0	1.84	70	168	226	1.9	24	72	570	569
08-0883	28.3	1031	1099	6.6	15	42	42	16	71	0.69	0	1.72	64	135	185	3.0	24	56	631	695
08-0884	28.0	736	707	3.4	12	50	51	10	77	0.60	1	2.30	80	134	173	1.6	19	105	297	311
08-0885	18.6	408	417	3.8	11	41	40	10	59	0.62	1	1.68	116	122	176	1.1	16	63	430	480
08-0886	22.4	531	532	3.1	12	47	49	14	68	0.60	1	2.20	100	131	180	1.6	20	78	414	450
08-0887	28.4	868	881	3.3	16	49	49	15	72	0.57	1	1.72	64	125	166	1.4	25	62	568	575
08-0888	33.9	1157	1230	3.4	14	45	49	16	65	0.45	2	2.44	66	109	160	1.5	29	55	453	529
08-0889	38.3	911	994	3.3	16	45	48	16	68	0.64	1	1.17	48	111	166	1.3	31	49	557	608
08-0890	32.9	250	230	3.2	15	43	43	15	69	0.48	0	1.70	49	100	145	1.8	27	50	599	661
08-0891	39.4	280	272	3.4	15	50	52	21	81	0.59	1	2.82	50	113	164	1.6	27	72	371	418
08-0892	37.7	625	655	3.5	17	55	54	21	81	0.62	1	4.03	52	118	170	1.4	28	68	427	433
08-0893	35.9	287	277	4.7	17	45	42	16	75	0.48	2	2.32	47	110	161	1.6	27	59	476	525
08-1040	34.1	895	952	3.6	17	39	37	17	77	0.64	2	2.96	64	104	144	1.6	27	63	677	718
08-1041	33.5	978	1067	3.4	19	42	38	18	71	0.72	0	2.01	64	100	137	1.4	28	66	645	704
08-1042	35.3	1039	1120	3.4	21	44	46	20	74	0.70	0	2.33	64	108	149	1.4	32	69	629	640
08-1043	36.3	645	666	3.7	19	47	41	18	75	0.71	1	2.69	67	106	150	2.0	30	65	632	654
08-1044	37.0	380	376	4.4	17	64	57	14	81	0.73	0	2.38	57	111	165	1.5	27	80	437	473
Min	18.6	250	230	3.1	10	39	37	10	59	0.39	0	1.17	47	100	137	1.1	16	49	297	301
Max	39.4	1224	1230	6.6	21	64	58	21	84	0.73	2	4.03	116	209	227	3.0	32	105	769	723

## Background Data Set

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0894	38.3	392	387	3.9	16	50	47	18	74	0.86	1	2.08	47	111	156	2.1	28	49	551	590
08-0895	39.6	387	404	3.4	15	47	50	17	81	0.46	2	3.08	52	113	168	1.7	31	65	475	519
08-0896	39.0	730	716	3.7	16	64	58	15	85	0.46	1	2.30	53	141	186	1.8	29	77	378	400
08-0897	34.8	330	324	3.5	18	49	57	19	82	0.64	1	2.78	51	119	170	3.0	25	69	455	514
G.Mean	37.9	437	436	3.6	16	52	53	17	80	0.58	1	2.53	51	120	170	2.1	28	64	461	501
Min	34.8	330	324	3.4	15	47	47	15	74	0.46	1	2.08	47	111	156	1.7	25	49	378	400
Max	39.6	730	716	3.9	18	64	58	19	85	0.86	2	3.08	53	141	186	3.0	31	77	551	590



Soil <4 $\mu$  Fraction

Line 38820

Sample Numbers				Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	XRF	
Field No	Lab Seq	Lib No		Eastng	Northng	SiO2	Al2O3	Fe2O3	Fe2O3	MgO	CaO	Na2O	Na2O	TiO2	TiO2	P2O5	XRF S
BC 251	L08-0921	08-0901		33600	38820	43.75	29.11	12.87	11.87	0.44	0.11	0.05	0.39	1.14	1.03	0.03	0.012
BC 252	L08-0931	08-0902		33650	38820	41.21	27.51	12.15	11.21	0.41	0.03	0.05	0.19	0.98	0.90	0.01	0.028
BC 253	L08-0932	08-0903		33700	38820	47.18	27.27	12.15	11.56	0.44	0.07	0.08	0.19	1.10	1.02	0.00	0.021
BC 254	L08-0941	08-0904		33750	38820	42.24	27.31	13.15	11.90	0.56	0.15	0.04	0.19	0.99	0.86	0.01	0.009
BC 255	L08-0917	08-0905		33800	38820	45.28	25.88	15.01	14.16	1.20	0.35	0.10	0.39	1.03	0.95	0.04	0.009
BC 256	L08-0920	08-0906		33850	38820	47.03	23.69	13.01	12.21	1.62	0.55	0.10	0.39	0.88	0.80	0.02	0.009
BC 257	L08-0937	08-0907		33900	38820	48.21	24.25	12.44	12.10	1.41	0.44	0.10	0.19	0.81	0.75	0.01	0.010
BC 258	L08-0938	08-0908		33925	38820	44.80	25.92	14.73	14.23	0.74	0.16	0.07	0.19	1.09	1.00	0.06	0.015
BC 259	L08-0934	08-0909		33950	38820	45.17	24.87	15.15	14.72	0.65	0.21	0.14	0.30	1.26	1.13	0.01	0.020
BC 260	L08-0935	08-0910		33975	38820	44.95	29.79	13.01	12.85	0.58	0.18	0.06	0.07	1.03	0.98	0.03	0.014
BC 261	L08-0902	08-0911		34000	38820	44.03	28.91	12.87	12.11	0.74	0.21	0.16	0.39	1.18	1.10	0.03	0.029
BC 262	L08-0915	08-0912		34025	38820	44.68	29.27	11.87	10.90	0.60	0.25	0.06	0.39	1.04	0.96	0.03	0.024
BC 263	L08-0916	08-0913		34050	38820	42.86	29.93	12.44	11.34	0.36	0.10	0.04	0.39	1.07	0.96	0.02	0.045
BC 264	L08-0927	08-0914		34075	38820	41.07	29.83	12.72	11.81	0.29	0.03	0.03	0.07	1.18	1.06	0.01	0.045
BC 265	L08-0907	08-0915		34100	38820	45.47	31.34	11.29	10.62	0.33	0.07	0.05	0.39	1.32	1.25	0.00	0.038
BC 266	L08-0929	08-0916		34150	38820	43.06	29.11	12.30	11.23	0.33	0.06	0.03	0.19	1.24	1.10	0.00	0.037
BC 267	L08-0901	08-0917		34200	38820	45.98	29.10	11.58	10.83	0.37	0.08	0.05	0.39	1.21	1.13	0.06	0.020
BC 268	L08-0908	08-0918		34250	38820	47.59	30.01	12.01	11.63	0.44	0.13	0.05	0.39	1.14	1.10	0.02	0.024
BC 626	L08-1052	08-1055		34350	38820	44.10	27.09	12.01	10.92	0.38	0.06	0.05	0.30	1.09	0.96	0.05	0.019
BC 627	L08-1051	08-1056		34450	38820	42.94	26.72	12.01	10.81	0.43	0.08	0.05	0.30	1.05	0.91	0.03	0.018
BC 628	L08-1043	08-1057		34550	38820	43.66	27.56	12.58	11.49	0.44	0.08	0.07	0.19	1.16	1.03	0.02	0.038
BC 629	L08-1058	08-1058		34650	38820	43.98	27.48	12.44	11.29	0.46	0.13	0.06	0.30	1.16	1.04	0.06	0.017
BC 630	L08-1040	08-1059		34750	38820	42.88	27.26	12.58	11.23	0.40	0.06	0.05	0.19	1.14	0.99	0.05	0.018
Min	-	-		-	-	41.07	23.69	11.29	10.62	0.29	0.03	0.03	0.07	0.81	0.75	0.00	0.009
Max	-	-		-	-	48.21	31.34	15.15	14.72	1.62	0.55	0.16	0.39	1.32	1.25	0.06	0.045

Soil <4 $\mu$  Fraction

Line 38820

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0901	1.16	13	0.052	271	283	4	0.55	0.34	144.0	134	65.4	173	184	83	98	38	1	0.18
08-0902	0.97	13	0.058	357	376	1	0.48	<0.1	178.7	145	86.3	160	175	54	69	36	1	0.18
08-0903	1.20	11	0.086	187	195	2	0.48	0.16	88.7	77	50.6	159	158	62	77	34	0	0.18
08-0904	0.92	12	0.091	197	232	0	0.51	0.31	82.7	74	61.0	159	174	67	85	36	1	0.17
08-0905	0.35	16	0.055	189	196	4	0.27	<0.1	54.6	52	69.1	190	194	101	122	34	1	0.09
08-0906	0.85	11	0.056	183	194	4	0.36	<0.1	41.4	38	37.7	167	172	92	108	31	3	0.19
08-0907	1.09	11	0.036	166	181	3	0.37	<0.1	47.4	38	26.9	166	175	90	111	30	2	0.18
08-0908	1.08	18	0.034	310	342	2	0.47	0.37	69.0	62	35.6	181	196	115	99	33	3	0.18
08-0909	1.14	23	0.042	335	379	3	0.46	0.10	81.5	65	44.7	157	168	83	100	31	0	0.20
08-0910	0.88	36	0.104	386	397	2	0.47	0.11	62.2	56	35.0	165	168	65	82	35	1	0.20
08-0911	1.19	32	0.032	345	365	5	0.60	0.36	64.6	60	36.6	205	212	74	84	38	2	0.21
08-0912	0.97	18	0.143	416	445	3	0.46	0.19	68.9	64	32.4	175	177	77	83	34	2	0.17
08-0913	0.98	14	0.091	237	254	2	0.46	0.31	87.5	85	76.9	158	165	67	78	36	1	0.19
08-0914	1.15	14	0.144	210	232	0	0.47	<0.1	76.0	66	61.3	156	166	60	75	39	1	0.22
08-0915	1.06	12	0.099	355	365	5	0.46	<0.1	109.7	110	79.3	151	144	97	65	38	3	0.17
08-0916	1.18	13	0.130	278	321	1	0.48	0.22	103.0	96	43.1	152	163	55	69	37	3	0.18
08-0917	1.42	14	0.056	171	191	5	0.49	<0.1	74.5	68	28.3	160	162	70	80	38	2	0.20
08-0918	0.60	12	0.030	291	310	5	0.41	<0.1	100.5	100	45.6	163	164	63	70	41	3	0.12
08-1055	0.90	16	0.032	133	141	0	0.40	<0.1	68.4	60	14.4	173	183	64	76	38	2	0.07
08-1056	0.69	25	0.041	136	148	0	0.45	0.22	67.4	56	19.6	176	193	61	71	38	3	0.13
08-1057	0.24	36	0.041	154	173	0	0.57	0.14	80.9	64	26.4	171	185	67	74	36	3	0.18
08-1058	0.44	22	0.014	155	169	2	0.54	0.10	71.4	60	22.3	169	175	62	72	39	2	0.11
08-1059	1.38	17	0.022	146	158	0	0.58	<0.1	89.9	69	20.7	162	178	63	73	37	2	0.22
Min	0.24	11	0.014	133	141	0	0.27	<0.1	41.4	38	14.4	151	144	54	65	30	0	0.07
Max	1.42	36	0.144	416	445	5	0.60	0.37	178.7	145	86.3	205	212	115	122	41	3	0.22

## Soil &lt;4µ Fraction

Line 38820

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0901	62.5	3304	3407	4.5	18	84	87	28	91	0.40	2	5.52	56	163	229	1.5	41	98	165	190
08-0902	36.7	3760	4830	4.9	14	79	83	28	89	0.70	2	4.86	44	144	204	1.2	18	81	156	182
08-0903	38.9	1605	1567	3.7	16	73	80	20	88	0.49	1	3.88	47	147	211	1.2	27	85	189	222
08-0904	41.0	1896	2026	4.1	13	79	91	25	93	0.58	0	4.40	49	148	221	1.5	29	101	134	169
08-0905	32.3	1257	1258	4.1	14	93	95	23	98	0.53	2	3.19	59	216	264	1.4	23	114	153	174
08-0906	29.2	647	685	3.8	13	78	79	17	91	0.46	0	3.30	65	183	232	1.3	22	121	143	160
08-0907	25.8	850	879	3.7	9	78	78	16	79	0.52	0	2.88	60	201	255	1.4	19	104	133	152
08-0908	33.9	2167	2133	5.3	13	71	72	24	78	0.62	1	4.48	48	253	319	2.3	23	108	172	194
08-0909	38.0	2844	2959	3.9	14	65	64	28	76	0.52	2	3.48	57	228	298	3.5	23	98	196	213
08-0910	33.6	3018	3016	5.5	14	67	68	27	83	0.70	0	4.01	51	164	223	1.3	22	91	151	169
08-0911	37.0	3127	3275	3.8	15	79	74	25	94	0.91	3	4.38	61	189	250	3.0	21	96	170	191
08-0912	49.8	2146	2273	3.9	14	82	80	23	81	0.60	0	3.73	50	147	205	1.5	33	104	145	166
08-0913	57.3	3696	3944	4.4	13	74	74	31	75	0.60	1	3.93	43	158	221	1.4	40	82	158	178
08-0914	47.4	1657	1708	4.8	13	68	69	30	68	0.66	0	4.54	37	154	227	4.7	33	65	151	191
08-0915	51.3	2902	3038	3.9	16	74	73	26	70	0.58	1	3.82	41	142	207	2.4	30	66	175	198
08-0916	53.7	2104	2227	4.2	17	71	77	31	78	0.83	2	4.11	43	141	218	1.4	35	75	158	195
08-0917	44.2	1065	1099	3.9	19	74	74	31	90	0.73	0	4.22	49	146	201	1.3	30	96	170	199
08-0918	46.4	2221	2259	4.1	18	81	75	25	95	0.75	1	4.09	55	148	199	1.2	32	95	172	190
08-1055	40.9	286	297	4.1	17	69	72	25	94	0.48	1	4.58	49	134	203	1.3	24	94	147	189
08-1056	40.9	472	506	7.0	17	75	73	24	89	0.87	1	3.96	48	132	204	1.2	26	112	140	179
08-1057	44.0	845	884	4.2	17	80	79	29	94	0.97	1	4.88	55	144	214	1.6	28	112	155	195
08-1058	45.2	540	568	4.1	18	80	79	24	100	0.78	0	3.03	54	146	212	1.4	31	116	160	199
08-1059	51.7	498	525	4.7	17	74	75	24	93	0.75	1	4.49	52	138	214	1.6	34	101	151	193
Min	25.8	286	297	3.7	9	65	64	16	68	0.40	0	2.88	37	132	199	1.2	18	65	133	152
Max	62.5	3760	4830	7.0	19	93	95	31	100	0.97	3	5.52	65	253	319	4.7	41	121	196	222

## Soil &lt;4µ Fraction

Line 38940

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO2	Al2O3	Fe2O3	Fe2O3	MgO	CaO	Na2O	Na2O	TiO2	TiO2	P2O5	S
BC 271	L08-0914	08-0919	33650	38940	50.10	20.28	12.87	11.77	1.41	0.56	0.56	0.72	0.90	0.82	0.00	0.019
BC 272	L08-0919	08-0920	33700	38940	46.55	28.10	12.30	11.68	0.63	0.16	0.08	0.39	0.97	0.91	0.04	0.010
BC 273	L08-0912	08-0921	33750	38940	46.07	27.78	12.44	11.35	0.65	0.20	0.05	0.28	0.99	0.91	0.02	0.010
BC 274	L08-0926	08-0922	33800	38940	44.71	23.55	16.01	15.10	0.93	0.24	0.17	0.19	1.44	1.28	0.05	0.018
BC 275	L08-0933	08-0923	33850	38940	44.74	23.00	14.87	13.90	0.99	0.30	0.18	0.41	1.34	1.17	0.06	0.020
BC 276	L08-0905	08-0924	33900	38940	46.47	24.93	15.30	14.36	0.79	0.23	0.13	0.50	1.47	1.36	0.05	0.021
BC 277	L08-0930	08-0925	33925	38940	46.15	24.34	14.30	13.52	0.84	0.24	0.15	0.30	1.59	1.43	0.07	0.023
BC 278	L08-0903	08-0926	33950	38940	46.81	24.46	10.01	9.27	3.63	0.70	0.32	0.50	0.85	0.79	0.13	0.023
BC 279	L08-0922	08-0927	33975	38940	44.60	23.35	7.72	6.97	3.70	1.58	0.09	0.08	0.78	0.70	0.09	0.040
BC 280	L08-0924	08-0928	34000	38940	44.12	25.07	10.15	9.38	3.59	1.12	0.20	0.08	0.85	0.79	0.06	0.076
BC 281	L08-0925	08-0929	34025	38940	44.80	26.14	12.72	11.90	0.93	0.29	0.12	0.08	1.18	1.07	0.04	0.064
BC 282	L08-0918	08-0930	34050	38940	45.60	29.49	11.44	10.68	0.50	0.22	0.08	0.28	1.08	0.98	0.05	0.114
BC 283	L08-0911	08-0931	34100	38940	44.61	30.44	11.87	11.03	0.41	0.12	0.04	0.28	1.13	1.05	0.02	0.039
BC 284	L08-0913	08-0932	34150	38940	44.06	29.34	12.30	11.44	0.34	0.05	0.04	0.28	1.12	1.04	0.03	0.030
BC 285	L08-0936	08-0933	34200	38940	45.47	29.92	11.72	11.51	0.39	0.07	0.03	0.29	1.15	1.08	0.14	0.014
BC 286	L08-0906	08-0934	34250	38940	46.96	29.35	12.30	11.79	0.42	0.10	0.04	0.39	1.17	1.11	0.05	0.023
BC 287	L08-0940	08-0935	34300	38940	43.83	29.11	12.30	11.61	0.37	0.06	0.02	0.19	1.12	1.04	0.07	0.019
BC 621	L08-1038	08-1050	34400	38940	47.53	22.89	14.01	12.88	0.74	0.07	0.33	0.52	1.75	1.53	0.03	0.032
BC 622	L08-1033	08-1051	34500	38940	46.41	23.47	14.15	12.83	0.62	0.13	0.11	0.41	1.61	1.41	0.07	0.025
BC 623	L08-1055	08-1052	34600	38940	45.54	24.47	13.73	12.33	0.63	0.18	0.12	0.31	1.51	1.33	0.08	0.022
BC 624	L08-1035	08-1053	34700	38940	47.11	24.54	13.30	12.53	0.66	0.13	0.16	0.41	1.52	1.38	0.09	0.029
BC 625	L08-1036	08-1054	34800	38940	45.44	27.68	12.44	11.54	0.49	0.15	0.08	0.30	1.15	1.04	0.04	0.017
Min	-	-	-	-	43.83	20.28	7.72	6.97	0.34	0.05	0.02	0.08	0.78	0.70	0.00	0.010
Max	-	-	-	-	50.10	30.44	16.01	15.10	3.70	1.58	0.56	0.72	1.75	1.53	0.14	0.114

## Background Data Set

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO2	Al2O3	Fe2O3	Fe2O3	MgO	CaO	Na2O	Na2O	TiO2	TiO2	P2O5	S
BC 291	L08-0928	08-0936	33747	39311	42.02	29.62	12.87	11.84	0.32	0.03	0.04	0.07	1.11	0.99	0.04	0.026
BC 292	L08-0910	08-0937	34172	39314	46.25	30.61	12.58	12.10	0.42	0.10	0.03	0.28	1.14	1.10	0.04	0.023
BC 293	L08-0909	08-0938	33545	38146	46.27	29.23	13.01	12.55	0.51	0.11	0.05	0.28	1.14	1.10	0.07	0.015
BC 294	L08-0939	08-0939	34290	38110	43.52	28.53	13.15	12.34	0.41	0.07	0.06	0.19	1.15	1.04	0.05	0.013
G.Mean	-	-	-	-	44.48	29.49	12.90	12.20	0.41	0.07	0.04	0.18	1.13	1.06	0.05	0.018
Min	-	-	-	-	42.02	28.53	12.58	11.84	0.32	0.03	0.03	0.07	1.11	0.99	0.04	0.013
Max	-	-	-	-	46.27	30.61	13.15	12.55	0.51	0.11	0.06	0.28	1.15	1.10	0.07	0.026

## Soil &lt;4µ Fraction

Line 38940

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0919	0.78	10	0.050	158	172	3	0.32	<0.1	51.9	45	44.7	139	140	103	124	29	3	0.14
08-0920	0.92	12	0.076	173	177	5	0.47	<0.1	58.7	51	38.5	165	165	79	93	35	2	0.20
08-0921	0.96	12	0.065	170	173	2	0.48	<0.1	60.5	49	28.8	169	182	75	87	35	3	0.18
08-0922	0.29	19	0.033	219	248	0	0.44	<0.1	76.5	72	32.0	229	259	92	110	34	3	0.12
08-0923	1.41	16	0.048	194	224	2	0.50	0.13	81.4	70	38.6	169	180	104	127	31	2	0.18
08-0924	1.52	30	0.043	281	315	2	0.54	0.13	87.4	86	50.4	191	206	100	116	34	2	0.19
08-0925	1.41	47	0.061	350	399	0	0.55	0.29	94.9	95	50.5	191	205	81	102	31	2	0.18
08-0926	0.94	54	0.255	185	210	4	0.40	<0.1	50.8	45	22.0	177	181	81	95	30	2	0.19
08-0927	0.49	27	0.167	173	201	0	0.31	0.36	44.6	31	13.6	186	215	52	64	28	3	0.13
08-0928	0.83	22	0.084	157	181	0	0.33	0.30	46.2	40	15.7	194	203	58	72	30	2	0.16
08-0929	0.68	24	0.069	230	267	0	0.43	0.35	60.8	54	27.0	194	217	60	69	32	0	0.16
08-0930	1.11	19	0.123	439	463	4	0.48	0.20	80.1	77	37.3	172	169	61	70	35	2	0.20
08-0931	1.03	15	0.093	204	207	2	0.45	<0.1	80.0	82	47.1	158	159	66	78	38	2	0.18
08-0932	1.02	14	0.090	134	131	3	0.45	0.10	70.2	63	15.9	174	177	68	72	38	1	0.19
08-0933	1.26	13	0.041	148	157	2	0.49	<0.1	78.1	71	15.7	167	169	68	81	38	2	0.13
08-0934	1.04	12	0.010	180	181	4	0.48	<0.1	82.8	84	27.1	174	168	64	71	38	3	0.20
08-0935	1.33	10	0.020	132	150	0	0.57	<0.1	77.5	69	14.9	173	182	60	73	37	1	0.24
08-1050	1.54	13	0.009	221	237	0	0.62	0.11	112.8	100	36.3	206	234	63	77	31	0	0.20
08-1051	0.75	21	0.013	293	331	0	0.62	0.43	130.8	111	42.9	193	216	62	75	34	1	0.22
08-1052	1.14	17	0.015	269	307	0	0.65	0.41	119.1	100	41.3	185	197	64	72	35	2	0.14
08-1053	0.87	22	0.016	224	242	1	0.65	0.15	115.0	99	40.1	184	194	64	74	35	1	0.23
08-1054	1.09	18	0.016	162	186	2	0.55	<0.1	90.2	76	26.7	167	177	64	73	37	2	0.19
Min	0.29	10	0.009	132	131	0	0.31	<0.1	44.6	31	13.6	139	140	52	64	28	0	0.12
Max	1.54	54	0.255	439	463	5	0.65	0.43	130.8	111	50.5	229	259	104	127	38	3	0.24

## Background Data Set

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0936	1.38	11	0.005	129	146	1	0.57	0.45	95.2	89	24.7	174	193	63	75	39	2	0.20
08-0937	0.98	12	0.004	157	161	3	0.52	0.10	78.2	70	20.0	180	179	70	79	38	4	0.17
08-0938	1.12	12	0.013	165	166	4	0.45	0.10	69.0	65	34.1	188	192	78	84	38	2	0.22
08-0939	1.13	13	0.015	139	154	1	0.52	0.10	73.2	65	19.3	188	196	67	80	38	1	0.19
G.Mean	1.14	12	0.008	147	157	2	0.51	0.15	78.3	72	23.9	182	190	69	79	38	2	0.19
Min	0.98	11	0.004	129	146	1	0.45	0.10	69.0	65	19.3	174	179	63	75	38	1	0.17
Max	1.38	13	0.015	165	166	4	0.57	0.45	95.2	89	34.1	188	196	78	84	39	4	0.22

Soil <4 $\mu$  Fraction

Line 38940

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0919	29.6	1398	1457	4.1	11	73	78	13	82	0.40	1	2.88	82	244	293	1.3	22	100	160	186
08-0920	38.1	1230	1282	4.1	13	76	76	24	96	0.61	1	4.26	51	164	222	1.3	26	107	147	168
08-0921	39.6	1006	1035	3.9	13	76	76	20	92	0.79	1	3.72	53	163	218	1.5	25	105	146	173
08-0922	41.0	1452	1500	4.4	20	73	76	27	86	0.91	2	2.82	72	269	346	1.9	27	110	226	258
08-0923	38.3	966	1042	4.0	19	68	72	22	91	0.72	2	3.72	76	248	314	1.4	27	104	209	243
08-0924	43.0	1826	1882	4.3	22	79	79	31	92	0.65	0	4.17	73	292	345	2.2	28	98	232	256
08-0925	44.9	2518	2575	4.2	22	71	80	33	95	0.67	1	4.07	68	241	315	1.8	27	95	231	258
08-0926	31.4	1056	1111	4.3	11	70	67	18	90	0.49	1	3.49	66	151	195	1.4	21	135	126	147
08-0927	26.4	670	710	4.9	10	58	60	11	67	0.64	0	2.90	60	151	207	1.7	17	98	102	140
08-0928	27.1	829	845	4.2	10	67	68	14	78	0.56	0	3.20	68	141	194	1.6	18	106	110	143
08-0929	40.0	1421	1483	4.2	14	70	71	23	88	0.68	0	3.36	68	149	216	1.4	23	92	162	196
08-0930	46.7	1728	1814	4.5	14	77	72	23	70	0.68	0	3.82	67	144	202	1.8	39	77	147	172
08-0931	54.6	1659	1721	4.0	13	82	81	27	74	0.49	2	3.62	49	151	209	1.5	38	82	158	183
08-0932	49.8	321	322	4.0	17	76	72	23	79	0.75	1	3.86	45	154	215	1.5	33	80	161	191
08-0933	45.5	342	333	3.8	16	68	74	25	88	0.53	1	4.06	52	141	205	1.3	29	93	162	192
08-0934	46.0	858	862	4.3	16	76	68	31	98	0.70	1	4.24	54	156	205	1.3	35	99	178	200
08-0935	45.0	355	358	6.7	17	65	65	24	89	0.54	1	4.28	48	138	219	1.4	30	88	160	197
08-1050	57.3	2197	2312	4.5	24	78	71	39	99	0.88	1	3.75	77	186	253	2.7	33	117	251	293
08-1051	58.5	2822	3030	4.4	21	87	80	38	98	1.08	1	4.11	71	175	244	3.0	39	145	232	271
08-1052	56.8	2417	2576	4.3	19	79	77	38	101	0.96	1	5.24	67	173	247	1.7	37	135	210	250
08-1053	53.5	1393	1429	4.7	21	73	75	37	98	0.91	0	4.18	66	173	241	1.6	35	123	215	252
08-1054	47.1	580	601	7.7	18	85	87	26	95	0.64	1	4.56	60	141	204	1.4	32	119	157	196
Min	26.4	321	322	3.8	10	58	60	11	67	0.40	0	2.82	45	138	194	1.3	17	77	102	140
Max	58.5	2822	3030	7.7	24	87	87	39	101	1.08	2	5.24	82	292	346	3.0	39	145	251	293

## Background Data Set

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0936	54.9	621	636	4.4	14	73	79	27	86	0.64	1	4.39	49	146	221	1.8	31	83	151	192
08-0937	50.4	572	566	4.1	17	73	72	24	95	0.66	0	3.95	50	160	217	1.5	33	98	170	195
08-0938	46.5	995	996	4.1	17	81	78	24	99	0.65	1	3.51	54	180	232	1.6	32	112	174	194
08-0939	42.0	420	428	6.4	16	78	78	22	92	0.69	1	4.21	52	154	228	1.4	27	99	159	192
G.Mean	48.2	621	626	4.7	16	76	77	24	93	0.66	1	4.00	51	160	224	1.6	31	97	163	193
Min	42.0	420	428	4.1	14	73	72	22	86	0.64	0	3.51	49	146	217	1.4	27	83	151	192
Max	54.9	995	996	6.4	17	81	79	27	99	0.69	1	4.39	54	180	232	1.8	33	112	174	195



## STANDARDS

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO2	Al2O3	Fe2O3	Fe2O3	MgO	CaO	Na2O	Na2O	TiO2	TiO2	P2O5	S
STD 8	L08-0765	08-0801	-	-	46.46	21.73	17.01	18.08	1.10	0.29	2.92	1.64	0.51	0.47	0.04	0.144
STD 8	L08-0778	08-0802	-	-	46.17	21.67	17.01	18.09	1.08	0.29	2.63	1.75	0.50	0.47	0.06	0.149
STD 8	L08-0791	08-0803	-	-	43.57	20.79	16.87	17.55	1.03	0.28	2.68	1.91	0.50	0.45	0.08	0.135
STD 8	L08-0804	08-0804	-	-	45.70	21.56	17.01	18.00	1.07	0.28	2.91	1.88	0.52	0.47	0.08	0.144
STD 8	L08-0806	08-0815	-	-	42.51	20.36	17.01	16.92	1.01	0.27	3.74	1.76	0.52	0.44	0.01	0.147
STD 8	L08-0816	08-0816	-	-	45.04	21.41	17.16	17.87	1.07	0.27	3.67	1.88	0.51	0.46	0.05	0.136
STD 8	L08-0861	08-0898	-	-	43.98	20.30	17.30	17.50	1.01	0.27	1.72	1.73	0.51	0.44	0.03	0.149
STD 8	L08-0880	08-0899	-	-	45.72	21.77	17.01	18.08	1.09	0.29	2.54	1.82	0.51	0.48	0.07	0.146
STD 8	L08-0899	08-0900	-	-	45.62	22.27	17.30	17.95	1.10	0.28	2.12	1.88	0.51	0.49	0.10	0.158
STD 8	L08-0942	08-0942	-	-	43.15	21.42	17.44	17.85	1.05	0.28	1.79	1.74	0.52	0.46	0.08	0.166
STD 8	L08-0923	08-0941	-	-	43.87	21.99	17.16	18.12	1.07	0.28	1.97	1.62	0.52	0.48	0.07	0.151
STD 8	L08-1047	08-1061	-	-	43.77	20.74	17.01	17.66	1.05	0.27	2.58	1.85	0.51	0.45	0.05	0.144
STD 8	L08-0904	08-0940	-	-	45.49	22.14	17.30	18.23	1.10	0.29	2.72	1.78	0.51	0.48	0.08	0.146
STD 8	L08-1047	08-1061	-	-	43.77	20.74	17.01	17.66	1.05	0.27	2.58	1.85	0.51	0.45	0.05	0.144
STD 8	L08-1062	08-1062	-	-	45.04	21.52	17.01	17.91	1.07	0.28	2.27	1.77	0.51	0.46	0.08	0.151
Mean	-	-	-	-	44.66	21.36	17.11	17.83	1.06	0.28	2.59	1.79	0.51	0.46	0.06	0.147
Sd.Dev	-	-	-	-	1.21	0.63	0.16	0.33	0.03	0.01	0.59	0.09	0.01	0.02	0.02	0.008
Pre. Val	-	-	-	-	44.57	21.49	17.52	17.52	0.94	0.20	1.77	1.77	0.48	0.48	0.15	0.290

Sample Numbers			Co-ordinates		ICP	ICP	XRF	ICP	ICP	ICP	XRF	ICP	XRF	ICP	ICP	XRF
Field No	Lab Seq	Lib No	Easting	Northing	SiO2	Al2O3	Fe2O3	Fe2O3	MgO	CaO	Na2O	Na2O	TiO2	TiO2	P2O5	S
STD 9	L08-0818	08-0856	-	-	13.93	7.68	64.19	69.16	0.13	0.14	0.02	0.24	0.68	0.54	0.00	0.041
STD 9	L08-0838	08-0857	-	-	13.60	7.14	64.77	66.85	0.12	0.13	0.00	0.19	0.69	0.51	0.00	0.039
STD 9	L08-0858	08-0858	-	-	13.34	7.03	65.05	66.23	0.11	0.13	0.02	0.30	0.68	0.48	0.00	0.041
STD 9	L08-1032	08-1060	-	-	13.57	7.38	66.20	68.91	0.13	0.13	0.01	0.21	0.69	0.52	0.00	0.042
Mean	-	-	-	-	13.61	7.31	65.05	67.79	0.12	0.13	0.01	0.24	0.69	0.51	0.00	0.041
Sd.Dev	-	-	-	-	0.24	0.29	0.84	1.47	0.01	0.00	0.01	0.05	0.01	0.03	0.00	0.001
Pre. Val	-	-	-	-	13.19	7.69	69.80	69.80	0.23	0.04	0.04	0.04	0.54	0.54	0.21	0.040

## STANDARDS

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0801	1.03	1095	5.365	3342	3285	0	49.50	0.43	115.1	98	177.5	154	131	218	242	31	2	0.48
08-0802	1.19	1119	5.460	3320	3383	2	45.80	0.21	116.2	96	179.9	153	137	212	216	28	1	0.52
08-0803	0.82	1112	5.562	3135	3276	3	46.80	0.28	115.1	89	182.9	147	134	200	210	30	3	0.54
08-0804	0.94	1061	5.370	3300	3326	4	45.90	0.20	116.2	96	171.6	152	128	202	218	31	3	0.44
08-0815	0.84	1057	5.135	3102	3309	3	47.80	0.54	117.5	91	174.4	143	133	202	217	30	0	0.51
08-0816	0.93	1090	5.434	3276	3305	2	45.60	0.40	116.1	96	179.7	151	126	207	213	31	2	0.51
08-0898	0.89	1101	5.543	3195	3324	2	49.10	0.13	118.5	97	182.0	141	135	190	237	29	2	0.45
08-0899	0.81	1120	5.453	3345	3290	4	43.90	0.13	121.7	98	178.9	147	136	204	212	29	1	0.39
08-0900	0.90	1066	5.321	3260	3276	2	45.50	<0.1	118.0	100	176.3	151	133	204	205	30	2	0.39
08-0942	0.94	1158	5.679	3083	3398	0	50.50	0.11	130.7	108	168.5	144	148	195	215	29	0	0.54
08-0941	0.95	1223	5.285	3147	3341	1	45.80	0.20	116.6	107	177.8	143	146	201	222	29	2	0.54
08-1061	0.69	1139	5.786	3180	3359	0	49.50	0.17	132.3	111	168.0	143	144	228	212	31	4	0.52
08-0940	0.91	1194	5.122	3244	3420	4	50.80	0.22	113.5	108	170.6	150	142	195	223	31	2	0.51
08-1061	0.69	1139	5.786	3180	3359	0	49.50	0.17	132.3	111	168.0	143	144	228	212	31	4	0.52
08-1062	0.46	1168	5.737	3183	3356	1	44.80	0.10	133.0	108	168.7	151	145	199	204	30	2	0.46
Mean	0.87	1123	5.469	3219	3334	2	47.39	0.21	120.9	101	175.0	148	137	206	217	30	2	0.49
Sd.Dev	0.17	48	0.214	86	45	1	2.25	0.15	7.3	7	5.3	4	7	11	11	1	1	0.05
Pre. Val	0.93	1108	5.499	3400	3400	0	47.20	0.52	116.0	116	172.0	138	138	208	208	30	2	0.26

Sample Lib No	IMS Ag	INAA As	INAA Au	ICP Ba	XRF Ba	ICP Be	IMS Bi	IMS Cd	INAA Ce	XRF Ce	INAA Co	ICP Cr	INAA Cr	ICP Cu	XRF Cu	XRF Ga	XRF Ge	IMS In
08-0856	0.85	446	0.077	320	329	1	1.21	0.67	21.0	37	19.3	471	480	128	147	26	2	0.29
08-0857	0.76	432	0.072	310	325	0	1.22	0.74	18.6	37	19.0	450	457	115	144	23	1	0.29
08-0858	0.74	444	0.082	294	339	1	1.11	0.48	19.5	35	19.1	438	473	114	146	23	4	0.17
08-1060	1.01	475	0.072	299	361	0	1.07	0.35	3.2	23	19.8	457	534	119	145	20	1	0.17
Mean	0.84	449	0.076	306	339	0	1.15	0.56	15.6	33	19.3	454	486	119	146	23	2	0.23
Sd.Dev	0.12	18	0.005	12	16	1	0.07	0.18	8.3	7	0.4	14	33	6	1	2	1	0.07
Pre. Val	1.09	437	0.088	270	270		1.33	0.74	18.0	18	18.0	469	469	141	141	25	1	0.25

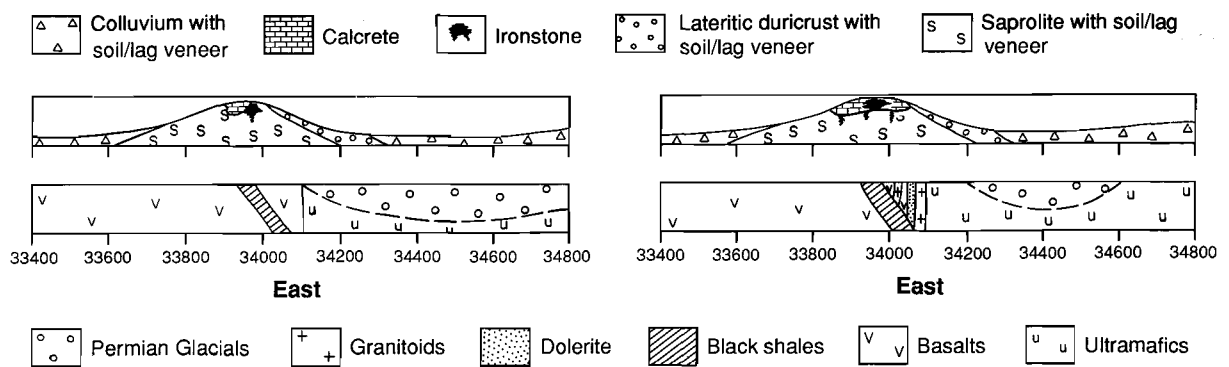
## STANDARDS

Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0801	49.0	384	322	5.8	8	113	90	12	128	7.92	0	2.18	102	46	108	32.5	15	95	149	153
08-0802	49.0	378	327	5.9	8	109	93	15	126	8.53	1	2.10	98	53	106	33.5	14	94	173	160
08-0803	49.2	363	319	5.8	4	105	97	11	130	8.42	1	2.11	101	59	106	33.4	16	95	174	151
08-0804	47.1	378	325	5.5	5	107	101	10	133	7.37	0	1.57	99	54	105	31.1	15	97	157	160
08-0815	47.6	355	322	5.4	6	108	94	12	126	7.32	1	2.24	101	48	100	31.3	15	94	139	170
08-0816	48.1	374	323	5.5	4	111	98	16	129	7.21	0	2.19	98	49	101	32.2	16	98	145	165
08-0898	48.7	354	322	5.7	3	102	92	11	128	8.18	0	1.88	105	50	108	31.9	15	100	150	160
08-0899	49.6	366	331	6.2	8	113	98	14	131	7.56	1	1.74	100	56	103	37.7	14	96	163	159
08-0900	47.6	370	322	5.9	5	109	97	14	124	7.24	0	2.14	102	57	103	30.3	17	95	152	166
08-0942	45.1	372	333	5.8	7	104	95	14	131	7.40	1	2.18	105	46	103	36.1	16	93	161	164
08-0941	47.8	370	338	6.2	9	107	102	16	131	8.07	0	1.96	103	48	102	33.7	16	99	167	152
08-1061	44.7	361	328	6.0	7	112	97	13	131	7.17	0	2.26	102	50	107	36.1	16	97	149	155
08-0940	48.3	368	332	6.3	5	111	99	14	133	7.95	1	2.33	105	59	110	37.7	16	96	167	153
08-1061	44.7	361	328	6.0	7	112	97	13	131	7.17	0	2.26	102	50	107	36.1	16	97	149	155
08-1062	43.9	366	325	6.1	5	110	94	12	131	7.41	0	1.81	102	51	104	32.4	17	94	160	155
Mean	47.4	368	326	5.9	6	109	96	13	130	7.66	0	2.06	102	52	105	33.7	16	96	157	159
Sd.Dev	1.9	9	5	0.3	2	3	3	2	3	0.47	1	0.22	2	4	3	2.4	1	2	10	6
Pre. Val	46.0	339	339	<5	6	94	94	14	129	8.10	<5	1.79	102	117	117	32.6	16	97	158	158

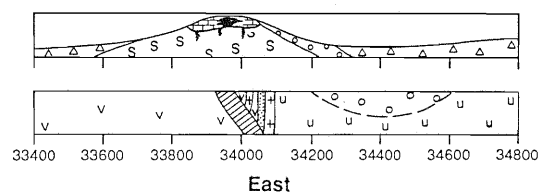
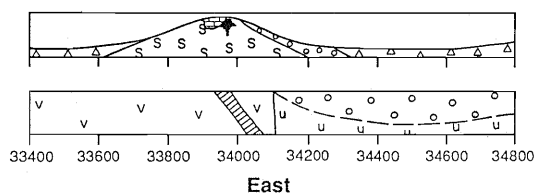
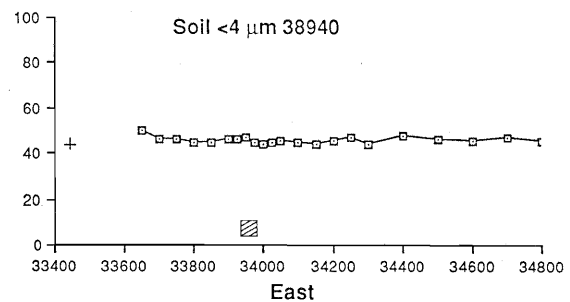
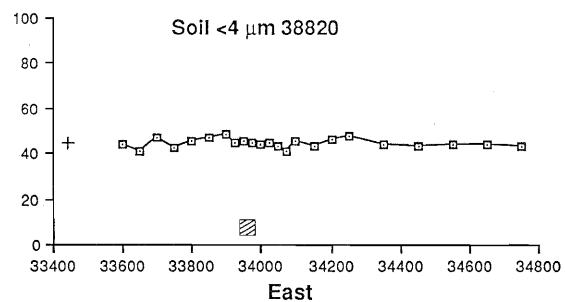
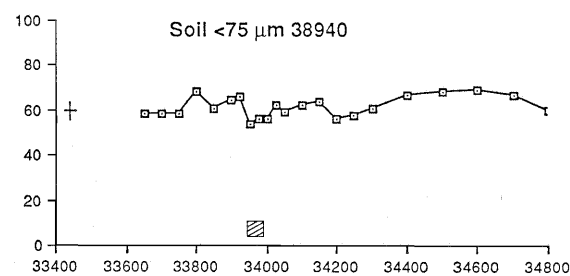
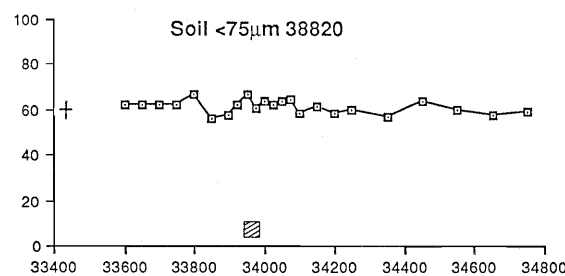
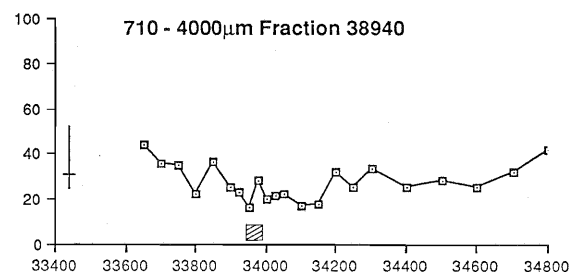
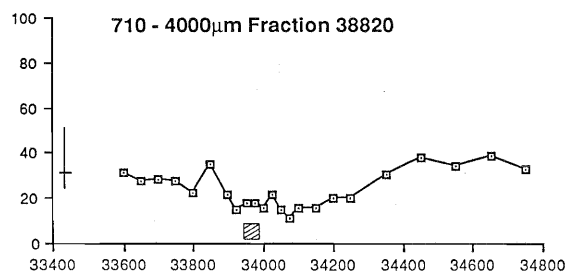
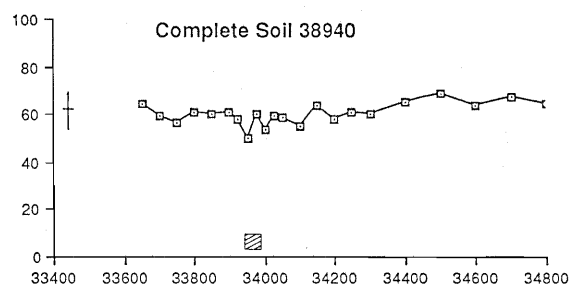
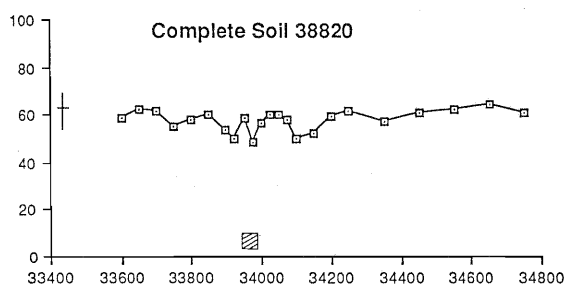
Sample Lib No	INAA La	ICP Mn	XRF Mn	INAA Mo	XRF Nb	ICP Ni	XRF Ni	XRF Pb	XRF Rb	INAA Sb	XRF Se	IMS Sn	XRF Sr	ICP V	XRF V	INAA W	XRF Y	XRF Zn	ICP Zr	XRF Zr
08-0856	11.7	1828	1558	5.0	2	51	40	39	5	0.60	4	0.98	13	753	888	6.0	12	299	163	86
08-0857	11.4	1710	1528	5.0	9	48	31	36	5	0.42	4	0.74	13	700	874	10.9	13	296	153	83
08-0858	12.0	1672	1521	5.0	2	47	35	40	5	0.63	5	0.75	9	673	887	9.8	15	299	148	96
08-1060	11.7	1837	1526	5.5	4	53	37	41	4	0.47	4	1.04	11	718	881	12.7	12	305	163	88
Mean	11.7	1762	1533	5.1	4	50	36	39	5	0.53	4	0.88	12	711	883	9.9	13	300	157	88
Sd.Dev	0.2	83	17	0.3	3	3	4	2	1	0.10	1	0.16	2	34	6	2.8	1	4	8	6
Pre. Val	12.0	1557	1557	5.2	2	28	28	57	5	0.60	5	1.62	12	948	948	7.9	13	297	89	89

## APPENDIX 2

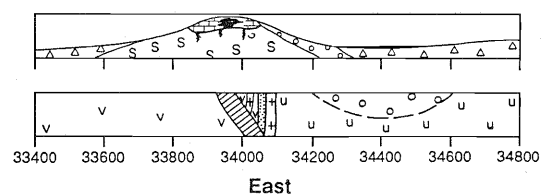
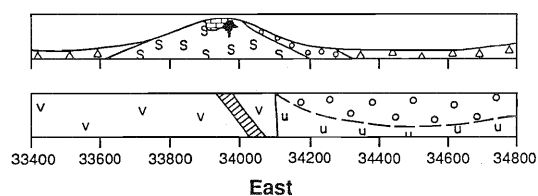
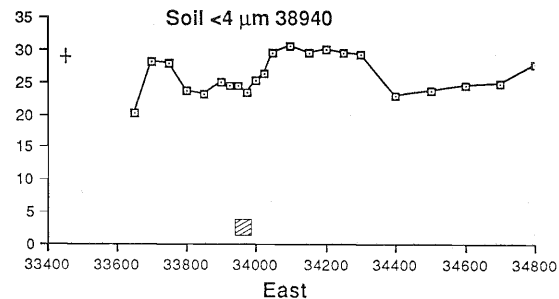
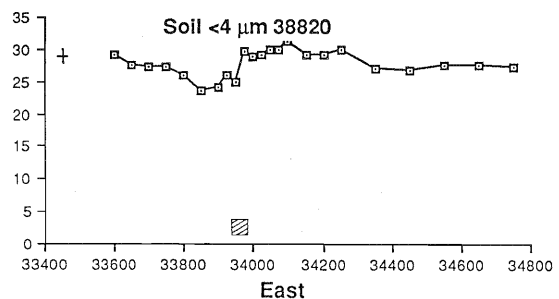
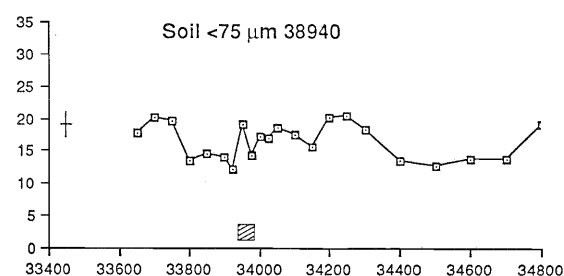
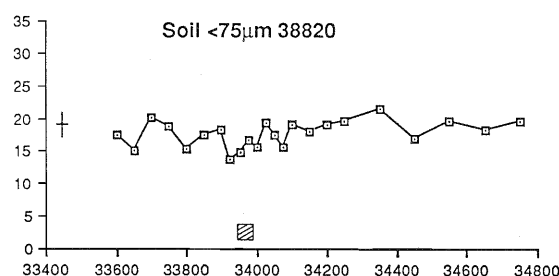
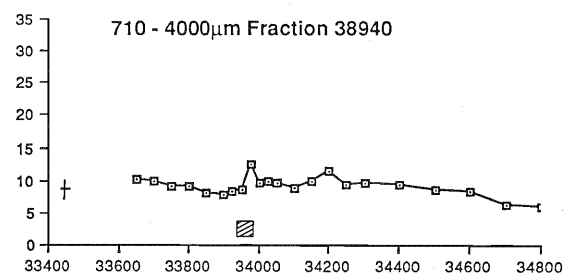
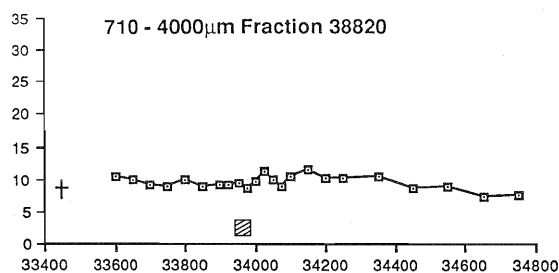
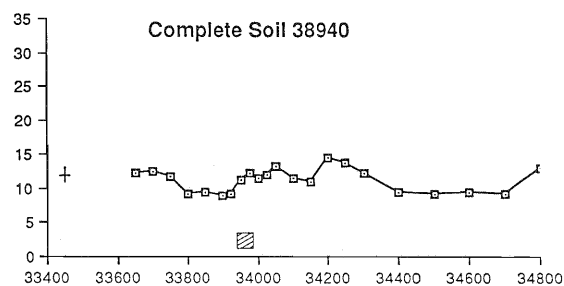
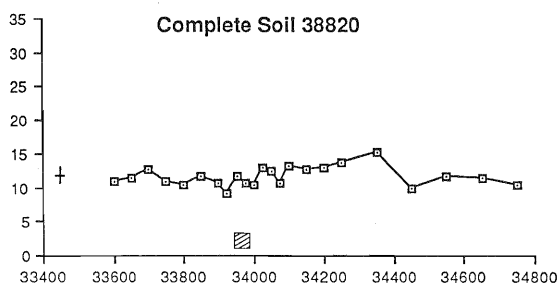
### Graphed Geochemistry



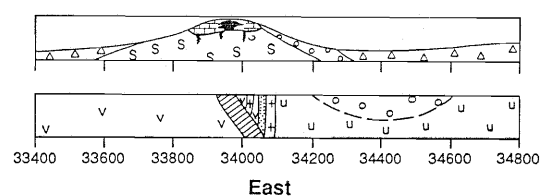
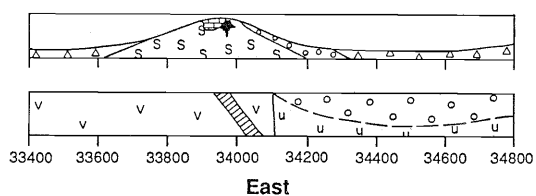
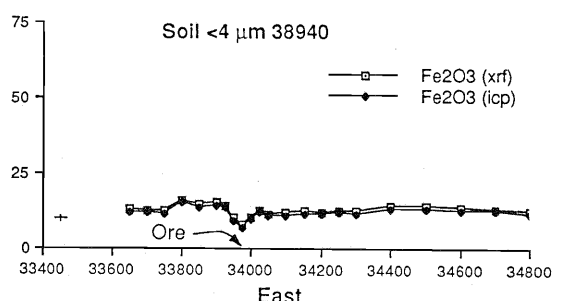
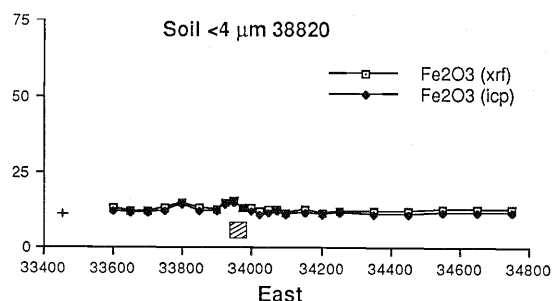
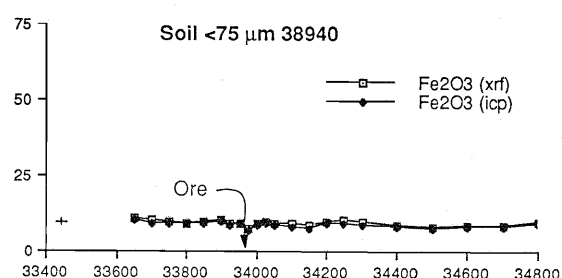
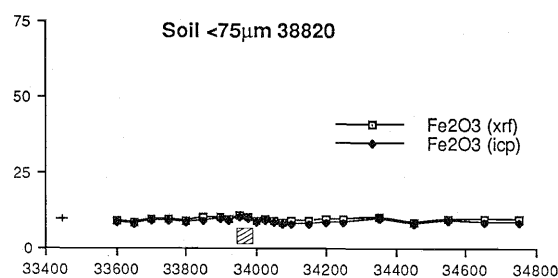
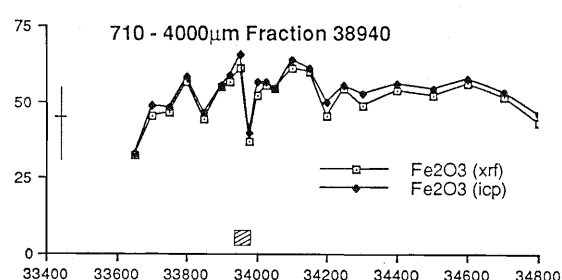
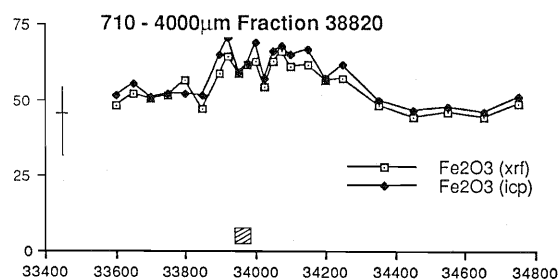
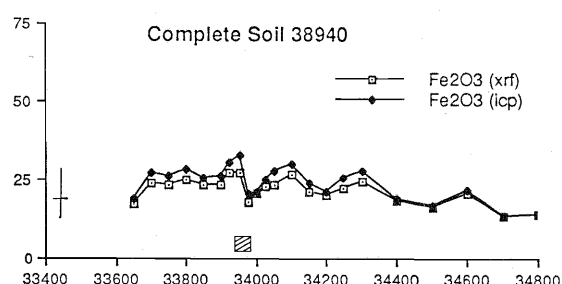
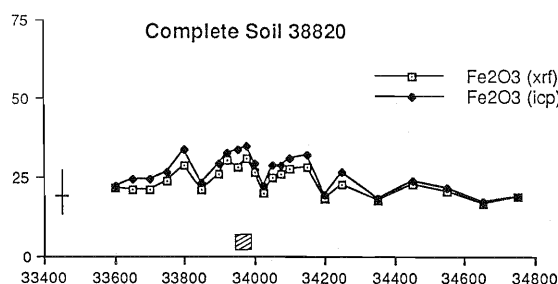
# SiO<sub>2</sub> (%)



## Al<sub>2</sub>O<sub>3</sub> (%)

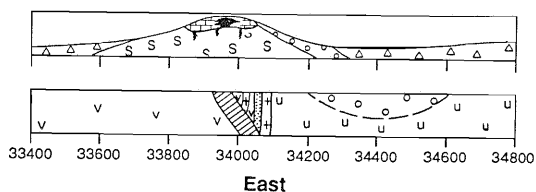
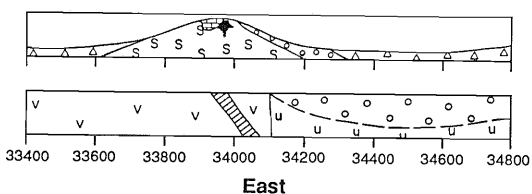
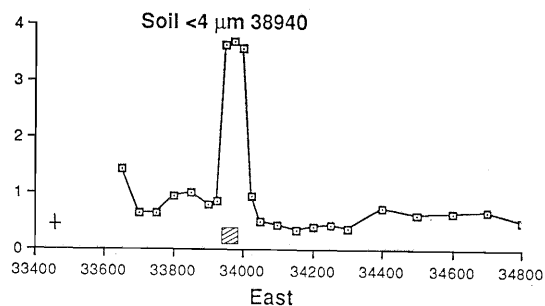
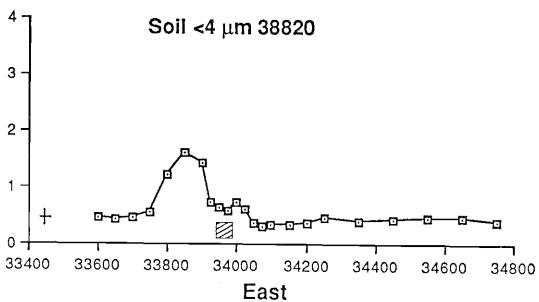
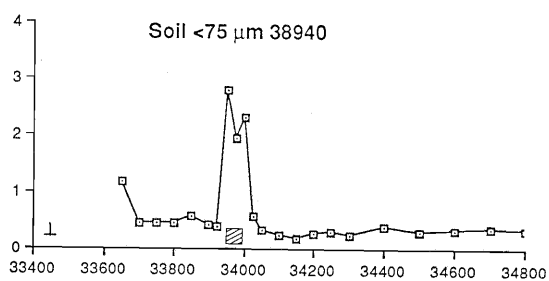
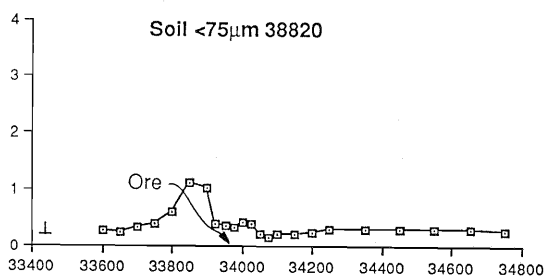
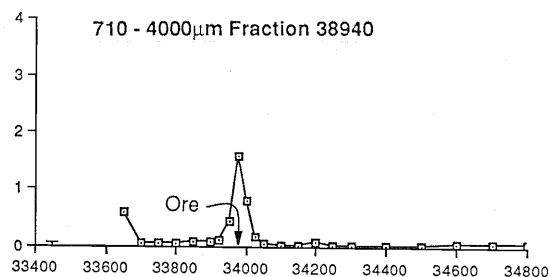
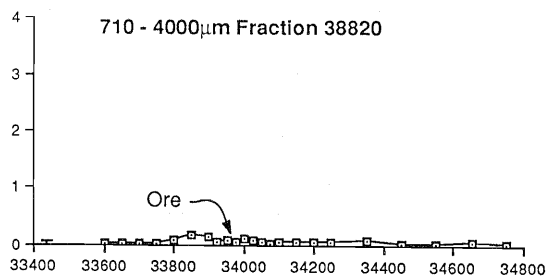
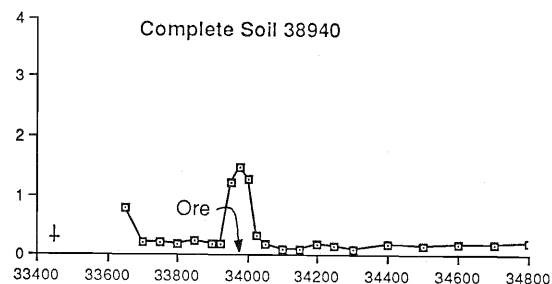
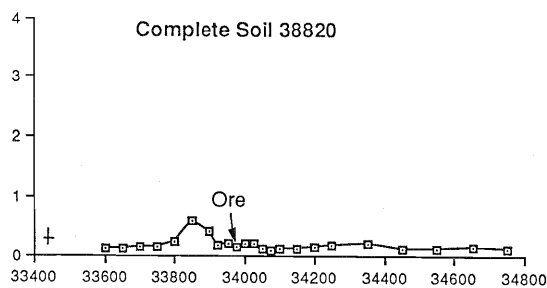


# $\text{Fe}_2\text{O}_3$ (%)

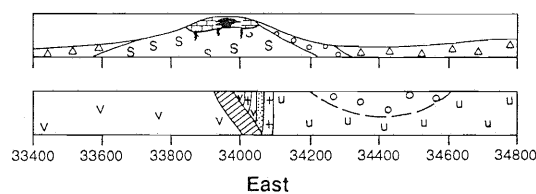
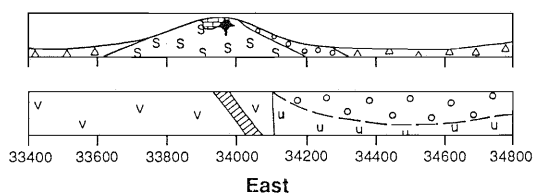
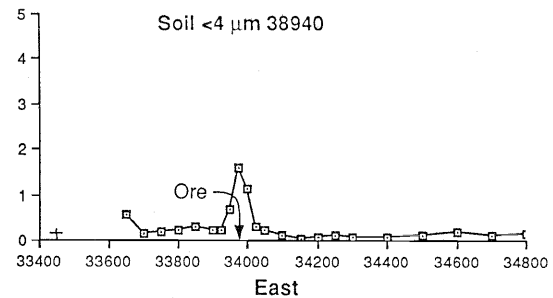
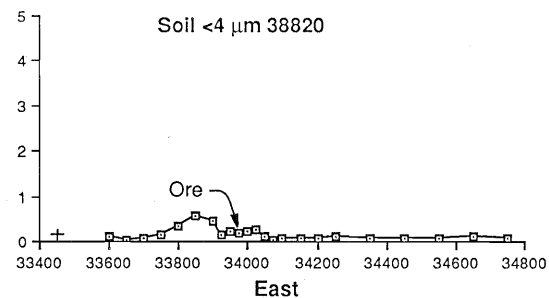
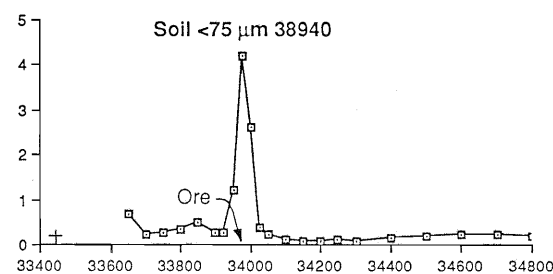
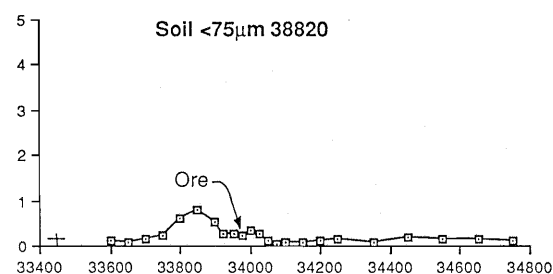
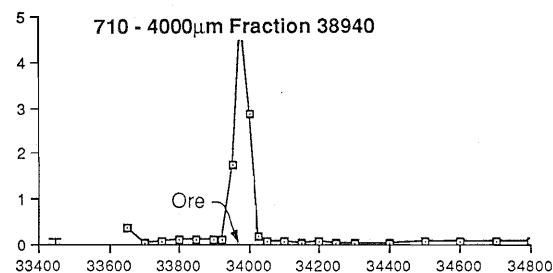
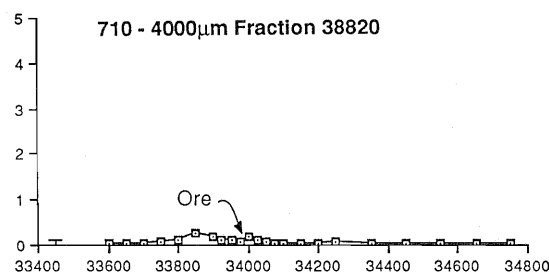
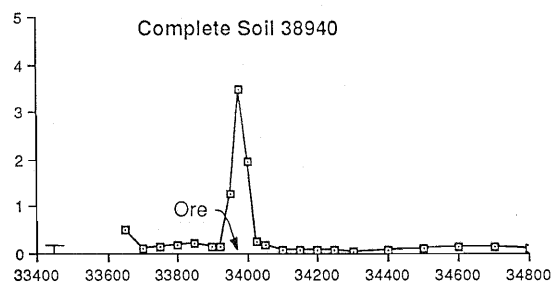
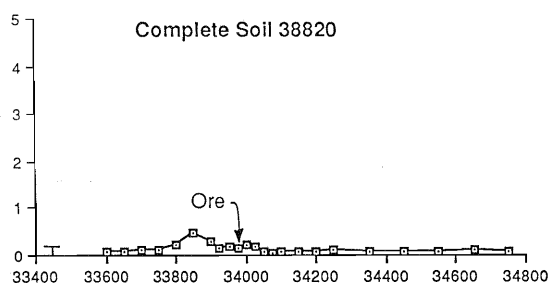




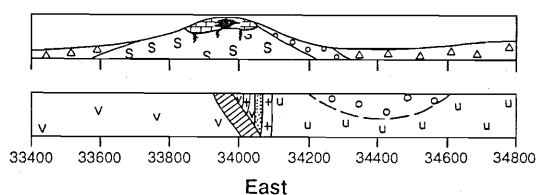
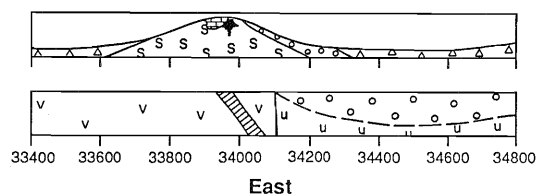
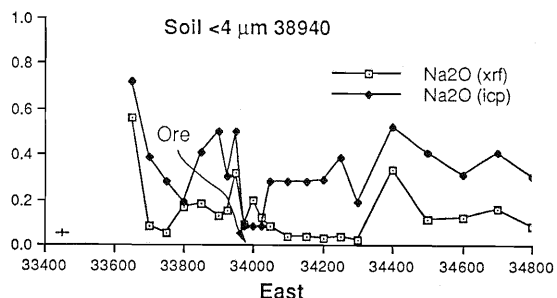
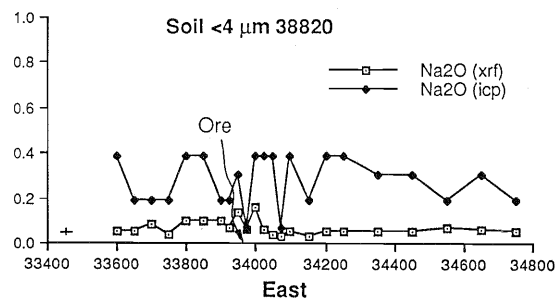
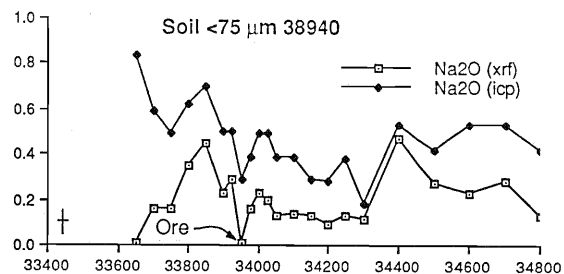
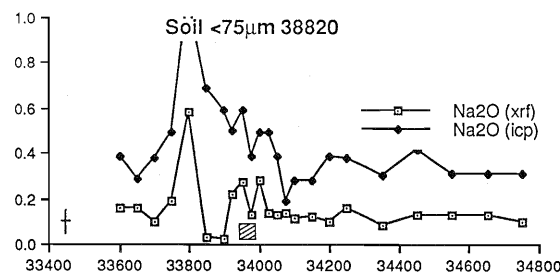
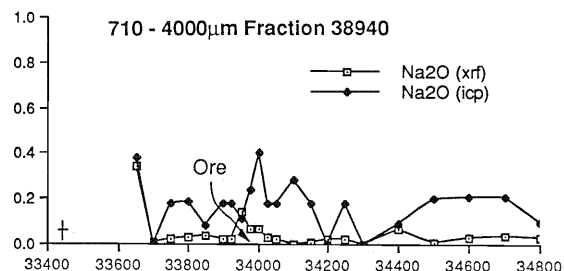
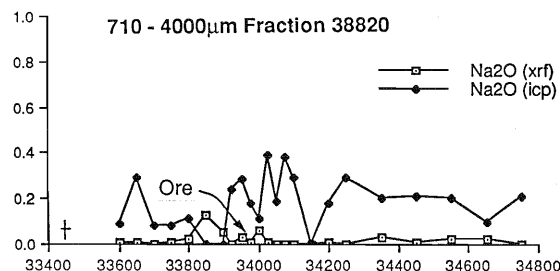
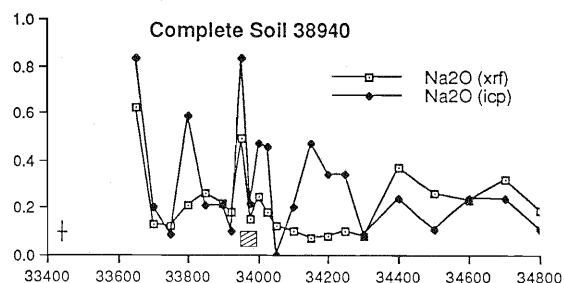
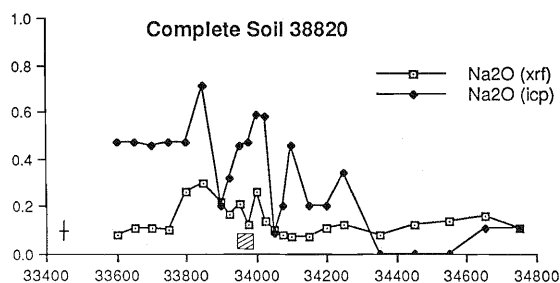
## MgO (%)



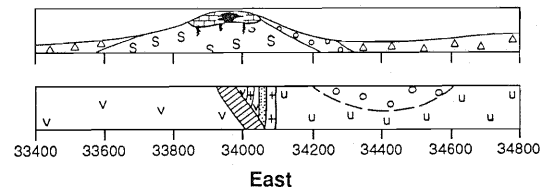
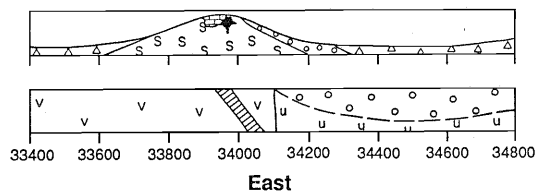
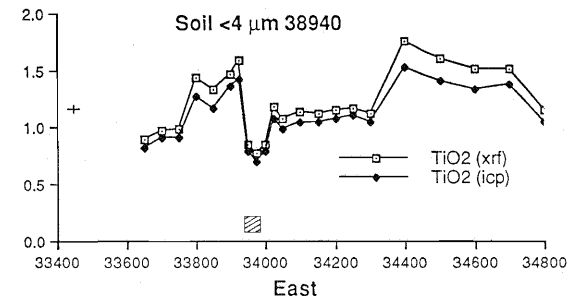
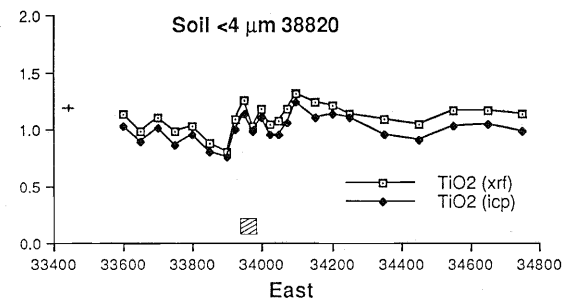
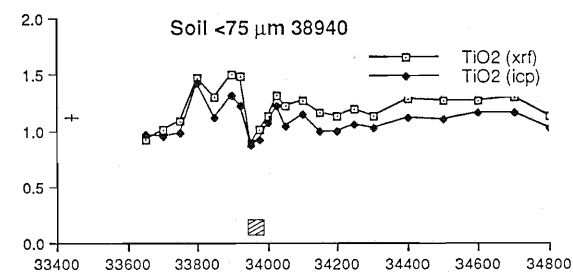
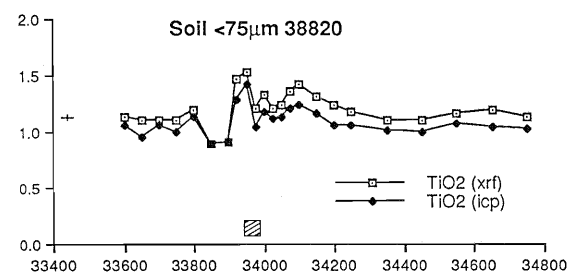
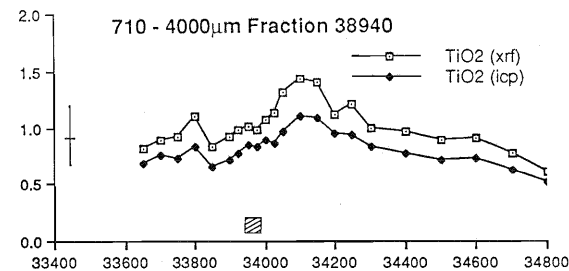
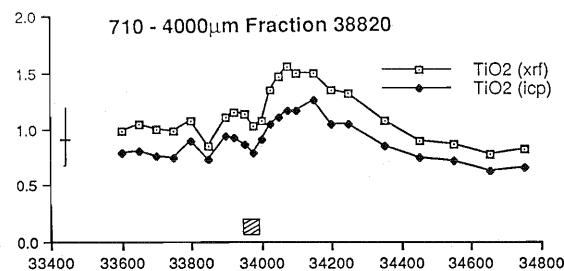
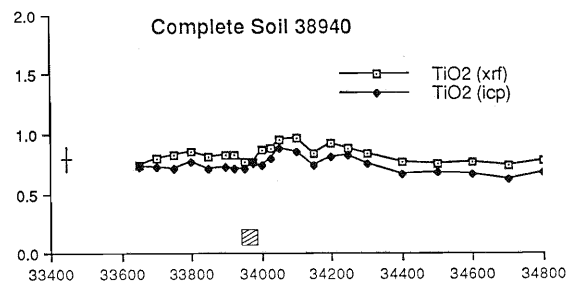
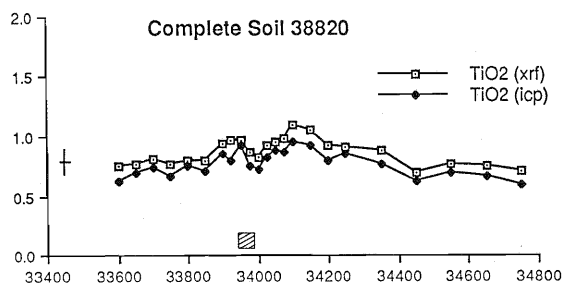
CaO (%)



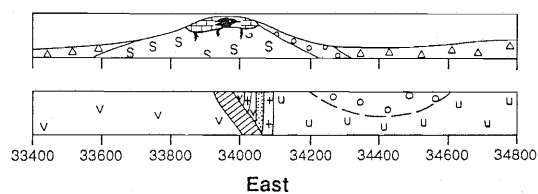
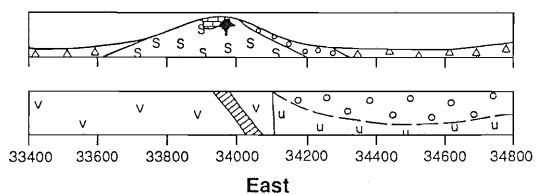
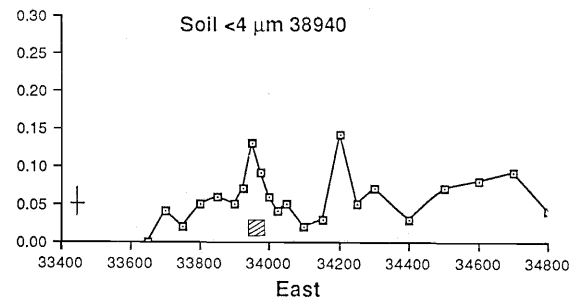
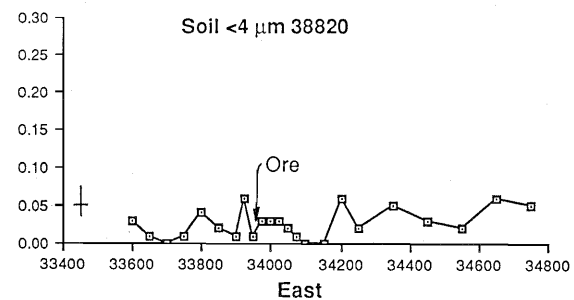
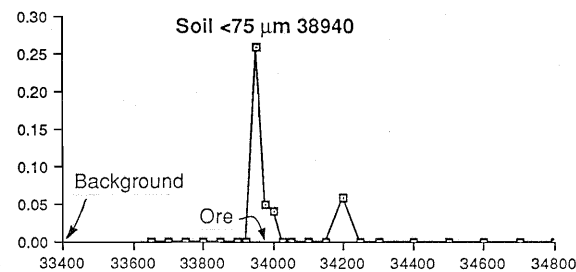
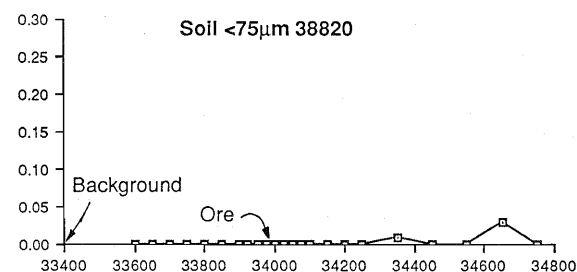
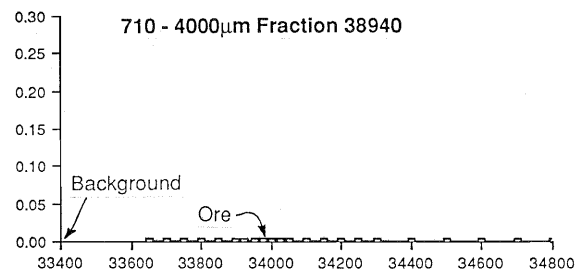
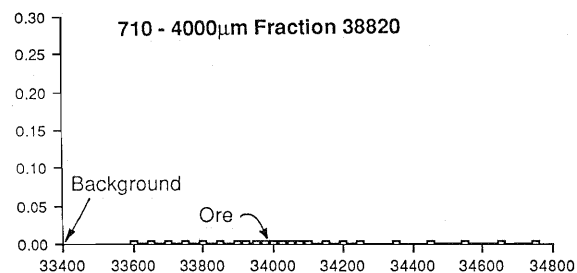
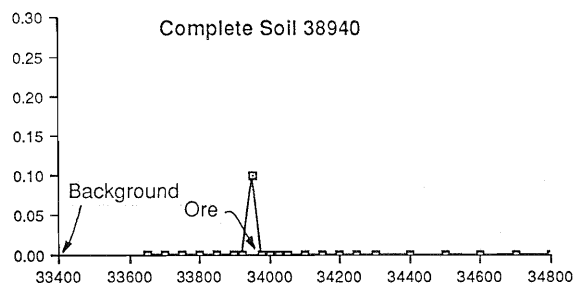
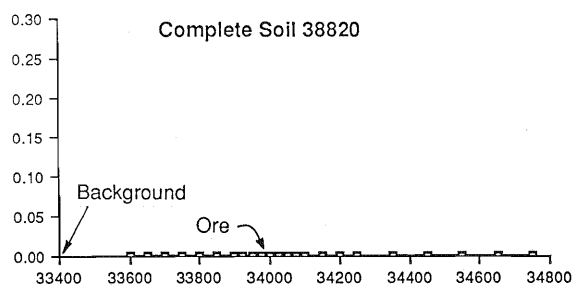
## Na<sub>2</sub>O (%)



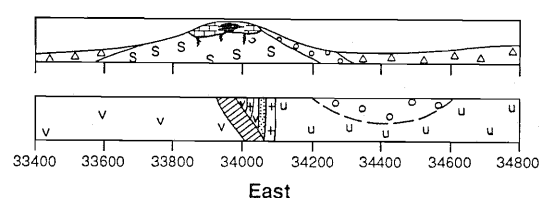
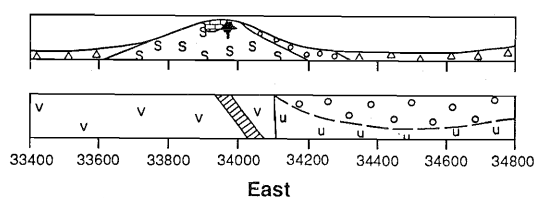
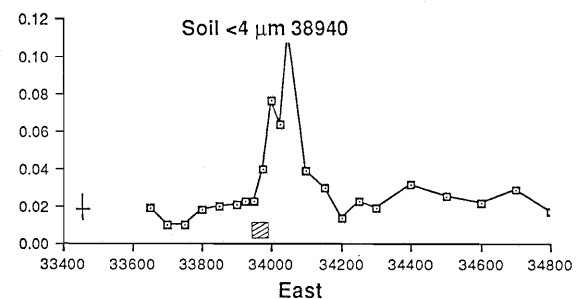
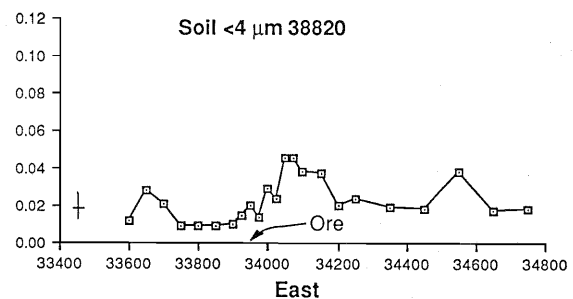
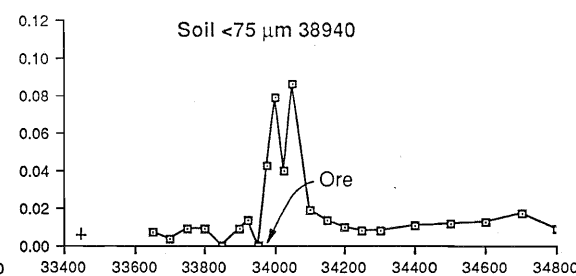
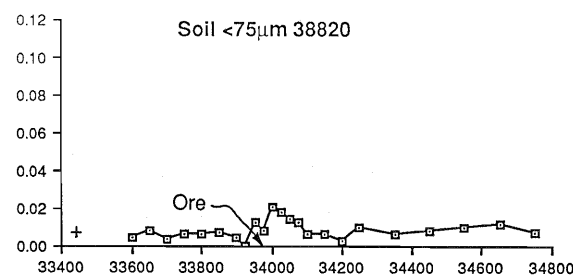
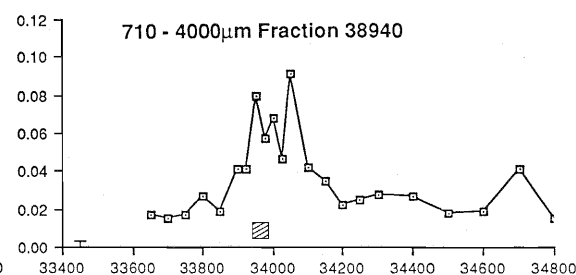
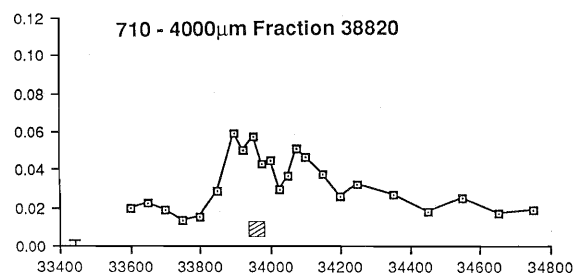
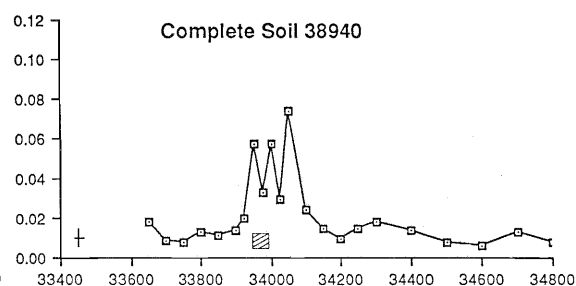
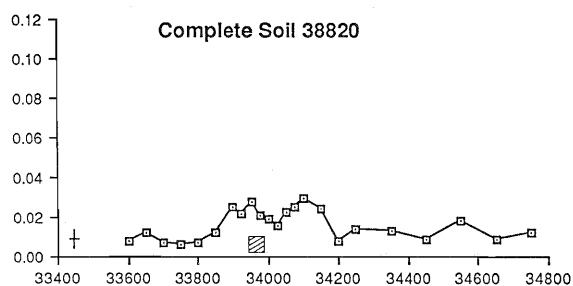
# $\text{TiO}_2$ (%)



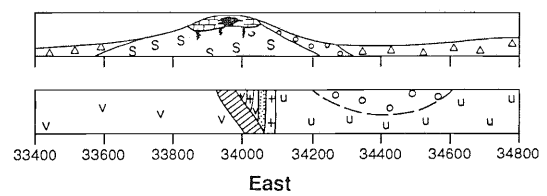
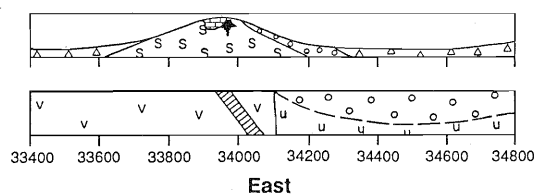
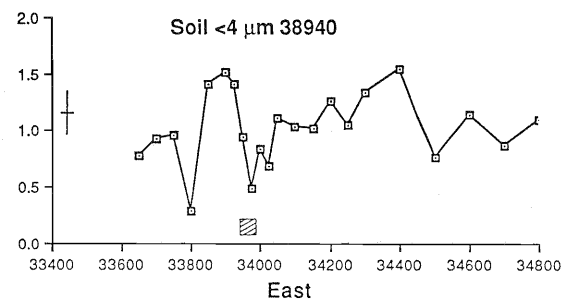
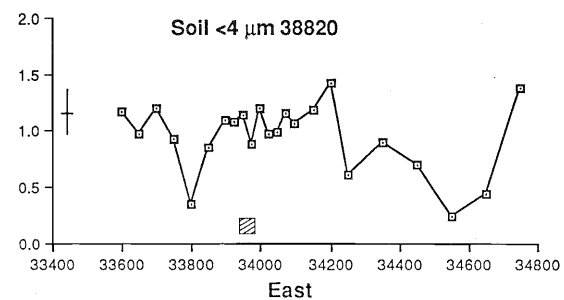
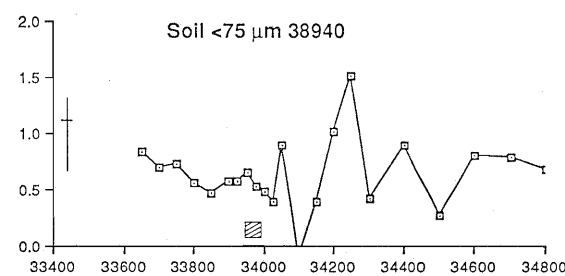
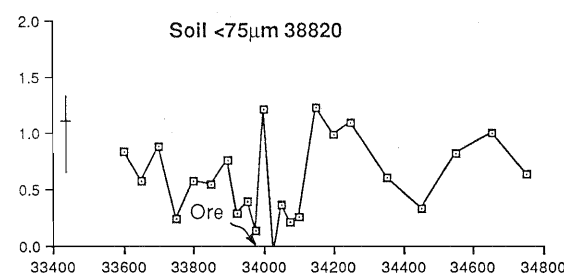
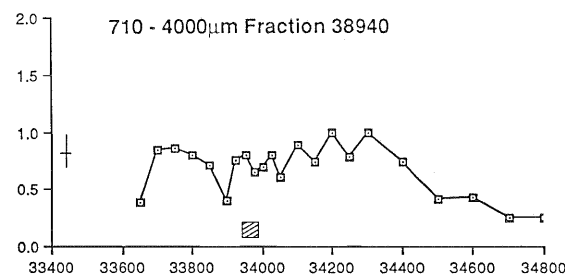
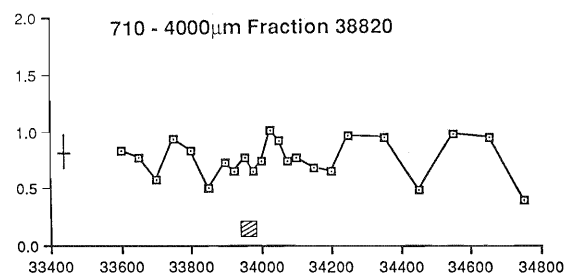
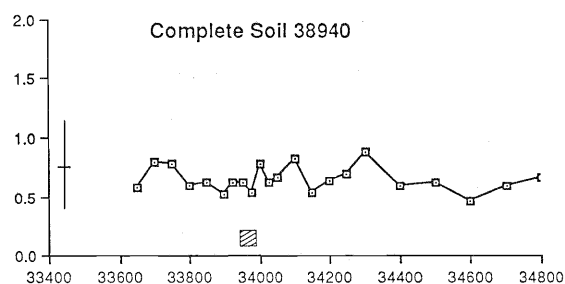
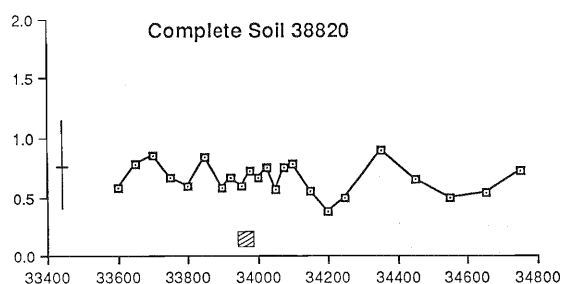
# $P_2O_5$ (%)



S (%)

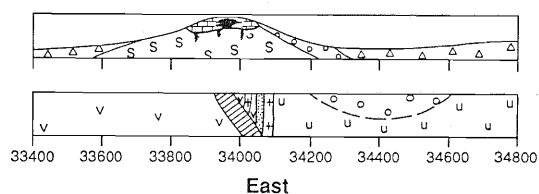
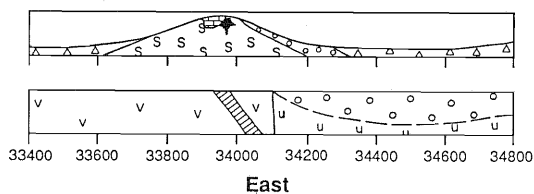
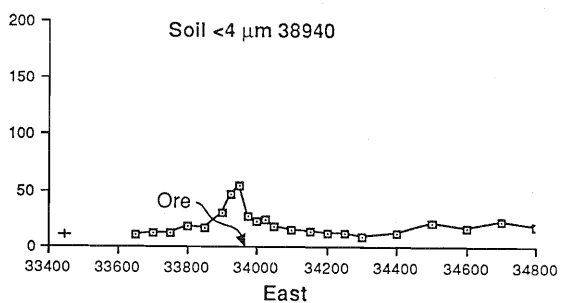
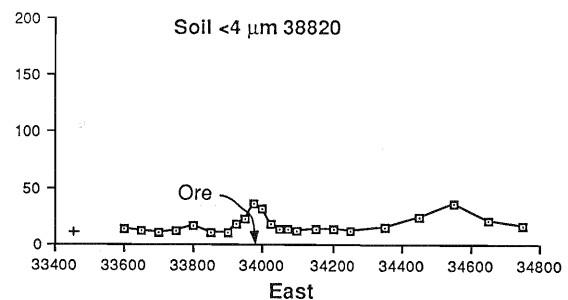
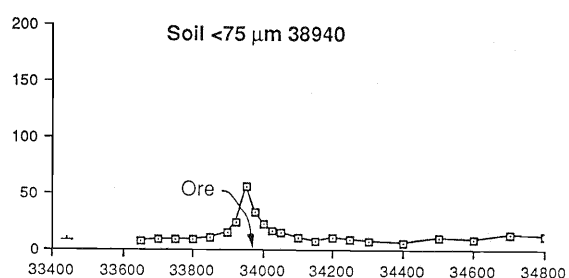
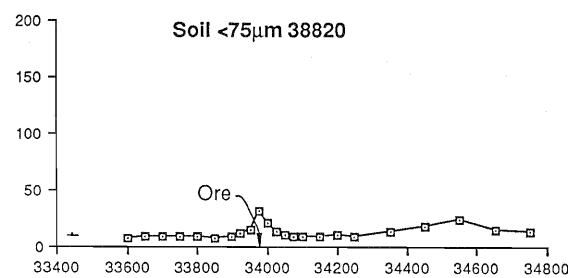
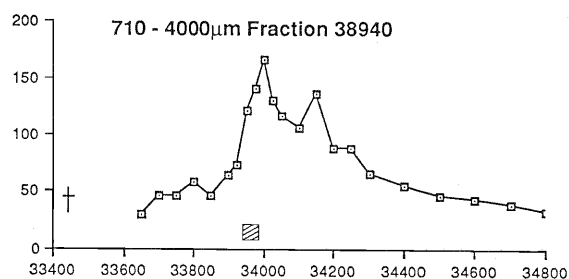
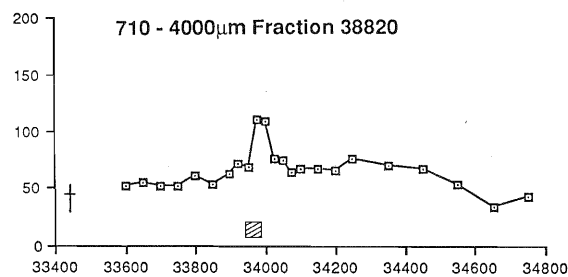
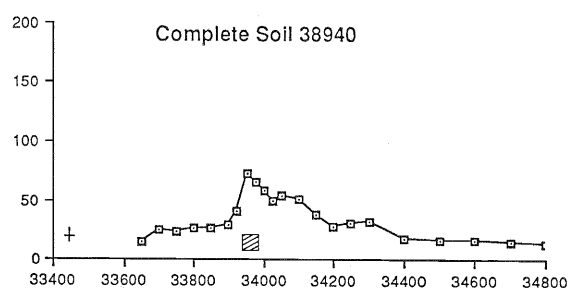
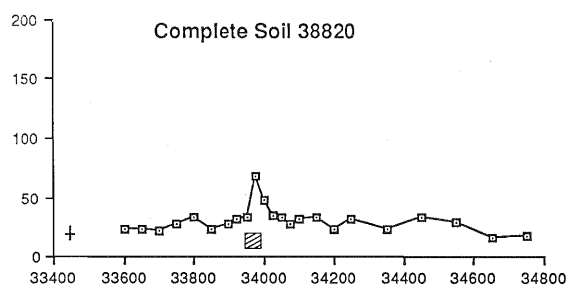


# Ag (ppm)

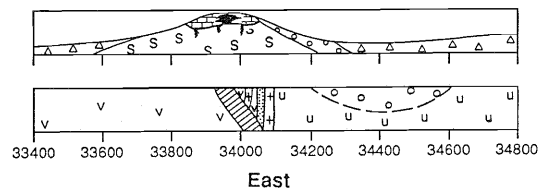
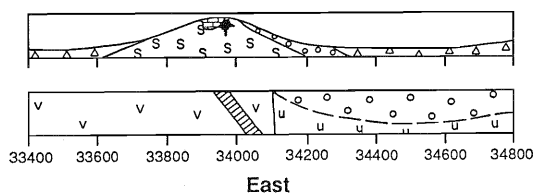
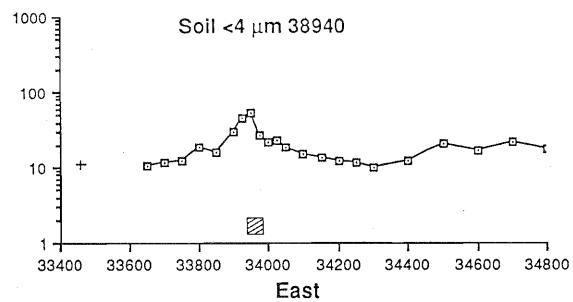
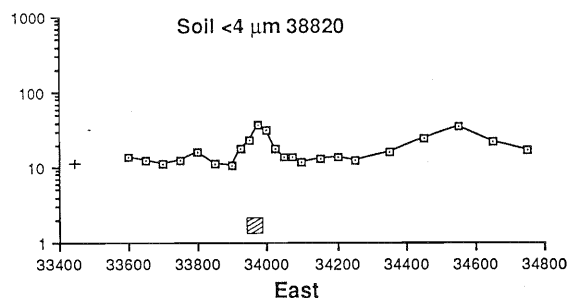
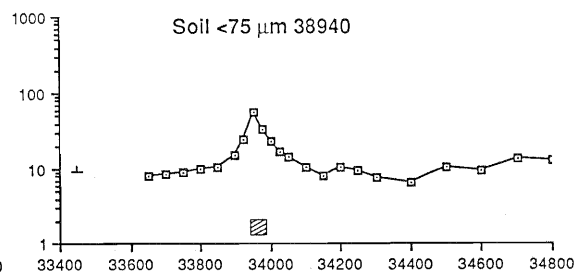
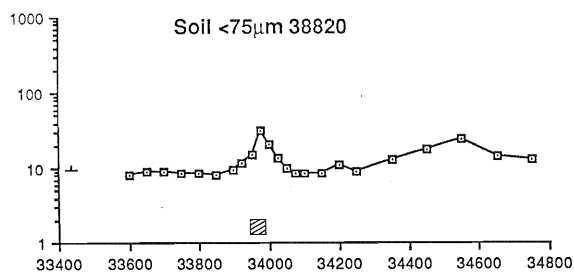
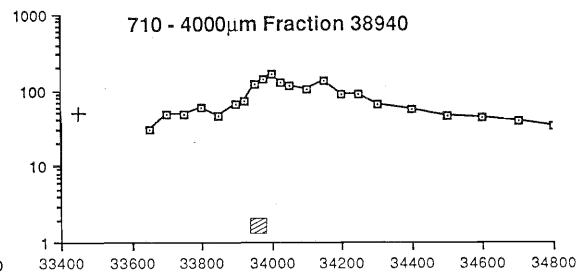
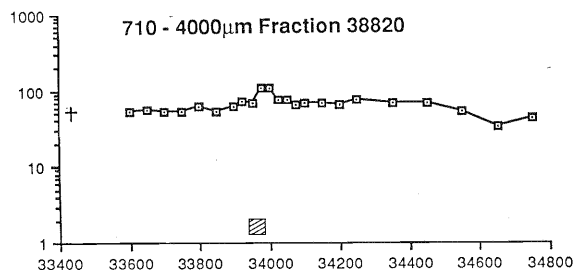
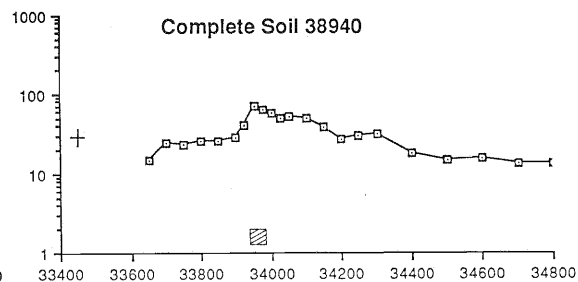
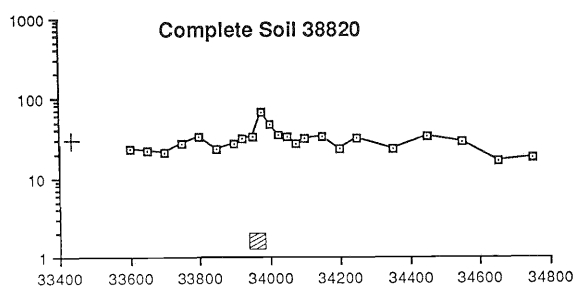




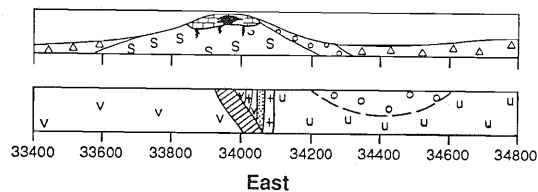
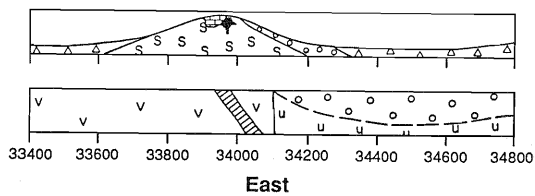
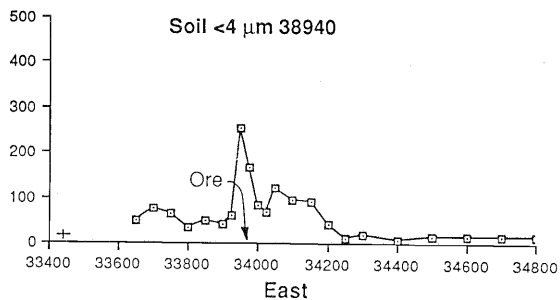
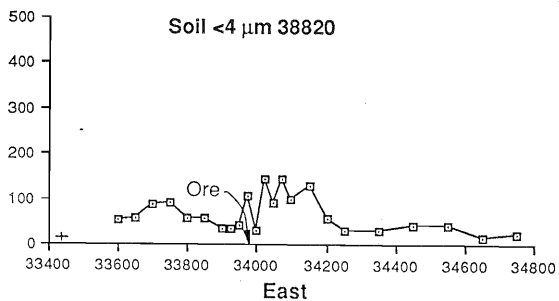
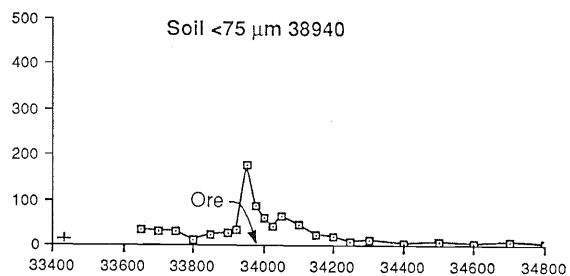
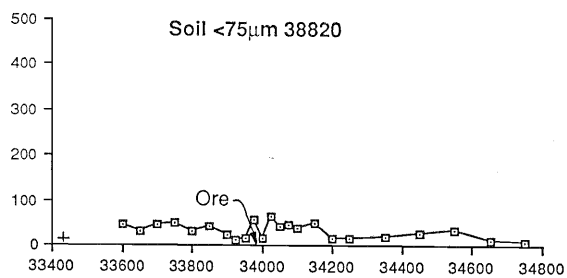
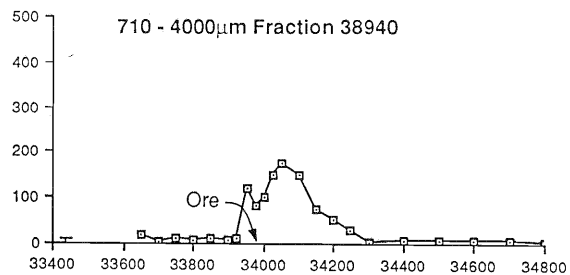
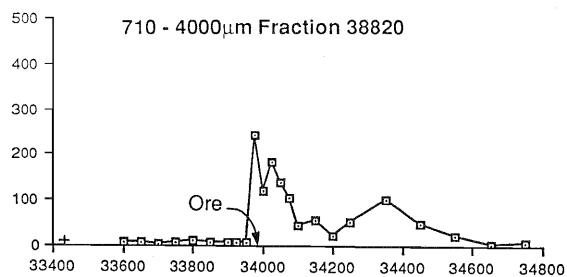
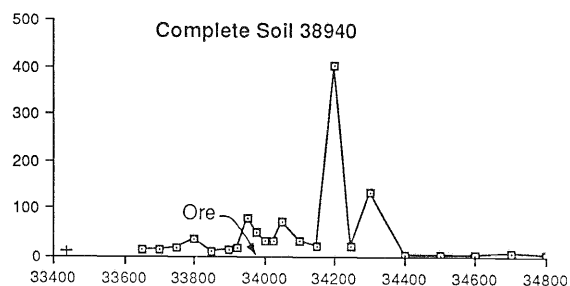
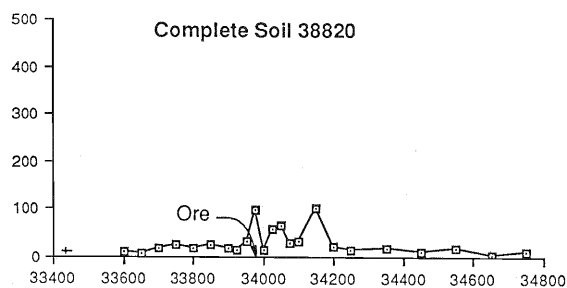
## As (ppm)



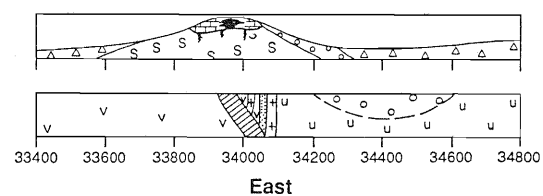
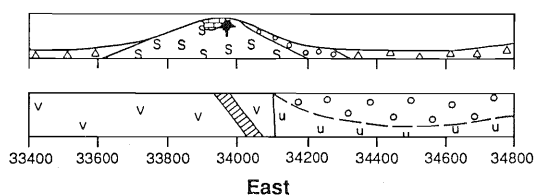
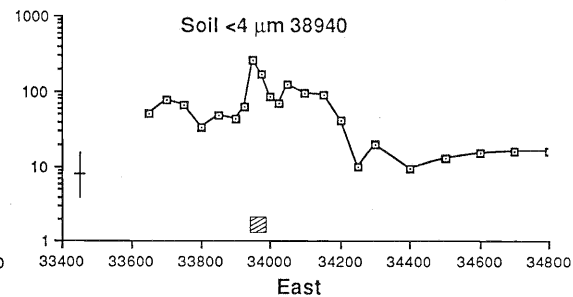
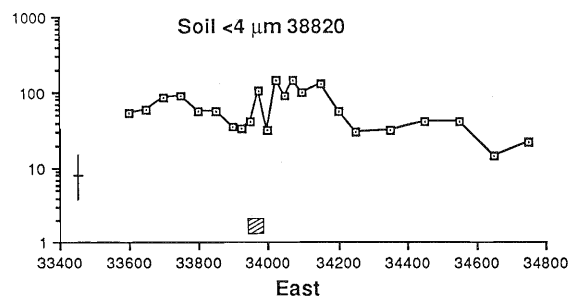
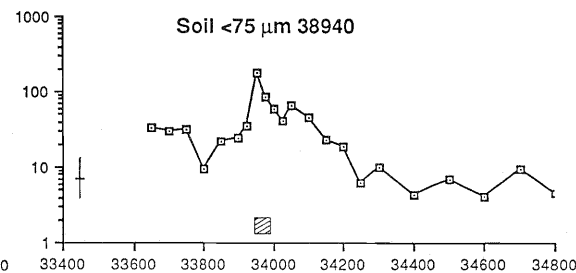
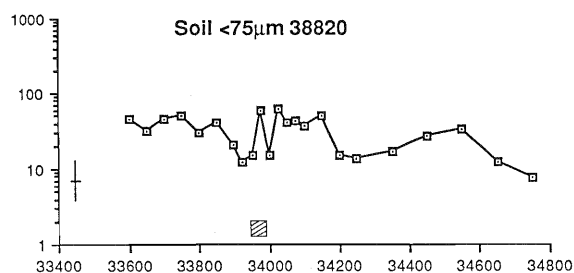
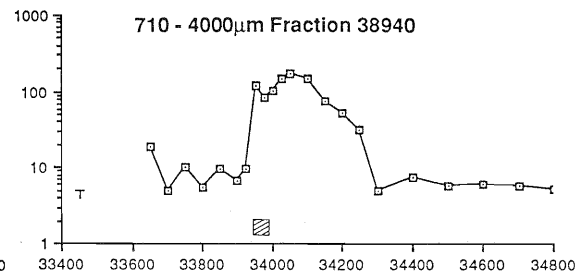
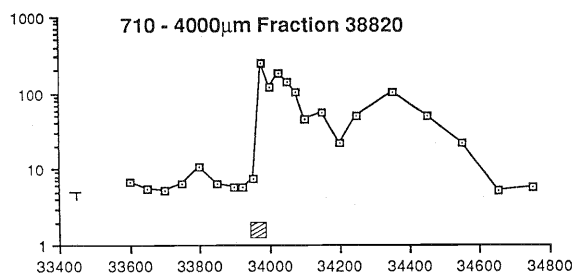
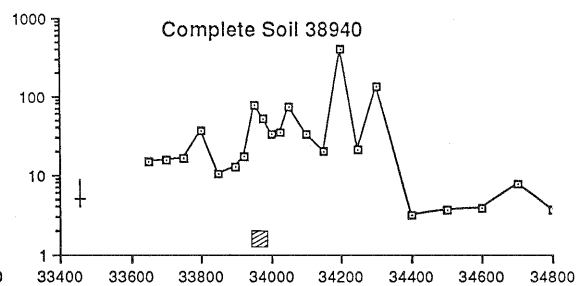
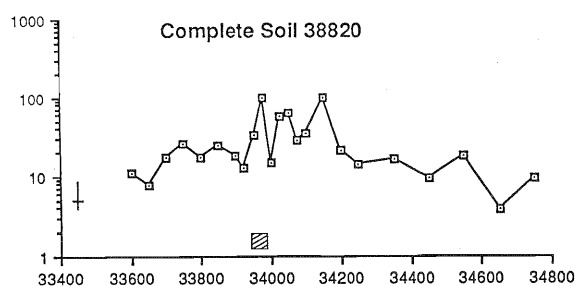
# log As (ppm)



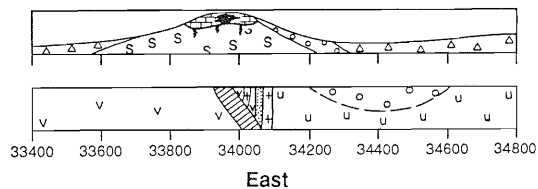
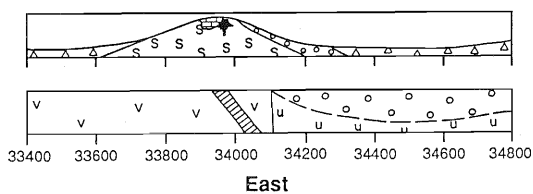
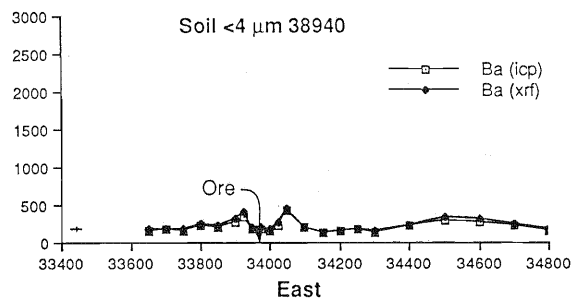
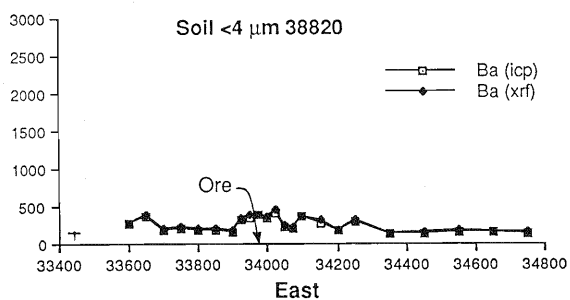
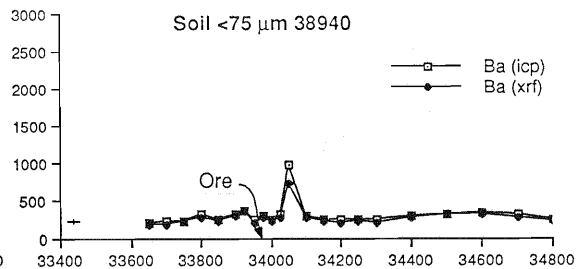
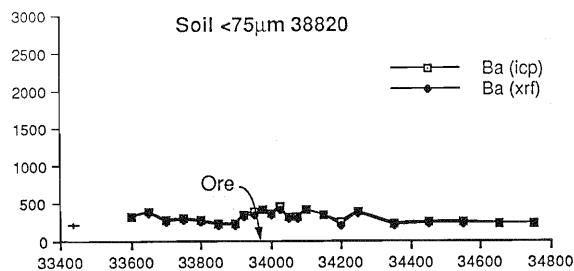
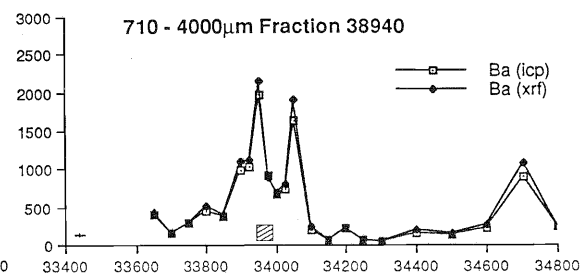
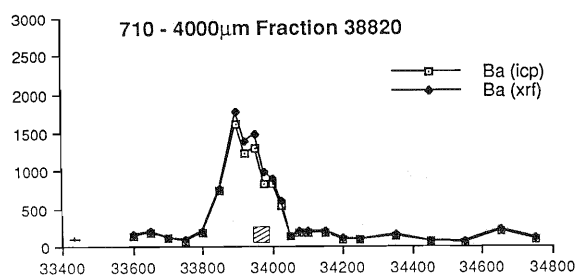
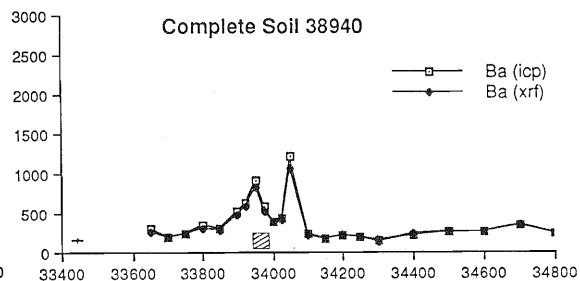
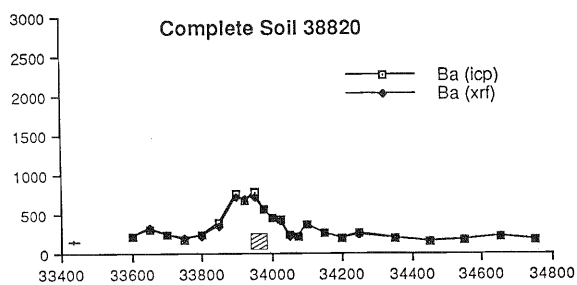
Au (ppb)



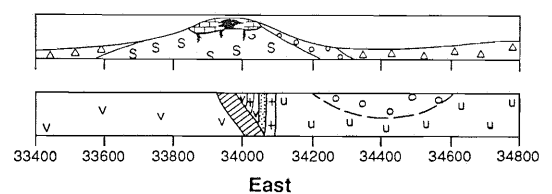
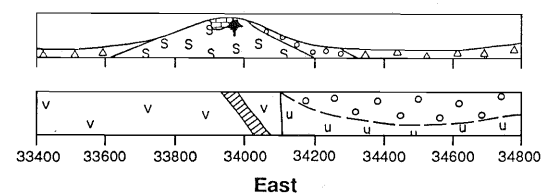
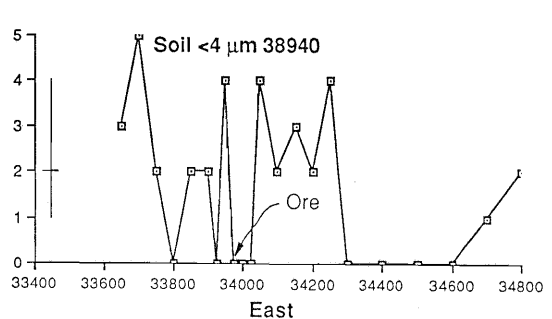
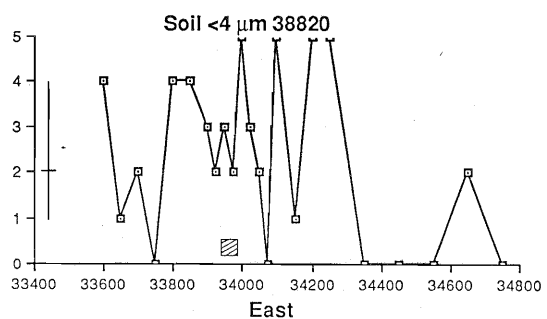
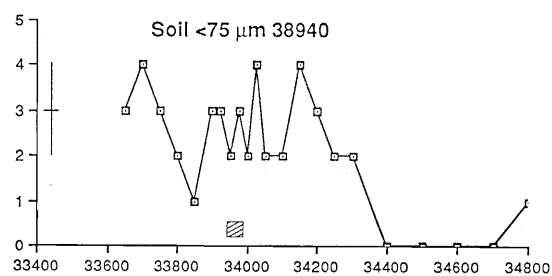
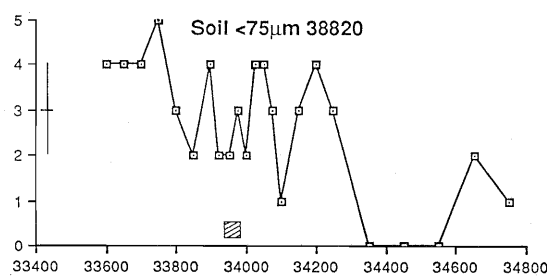
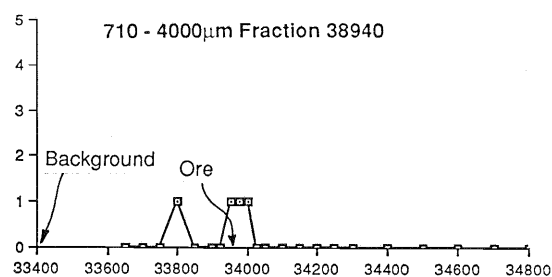
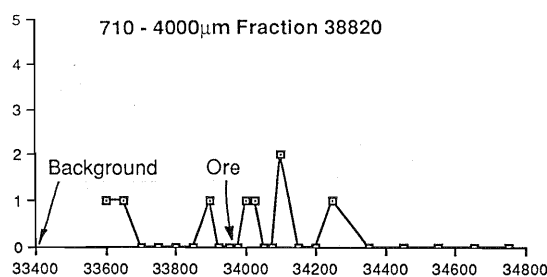
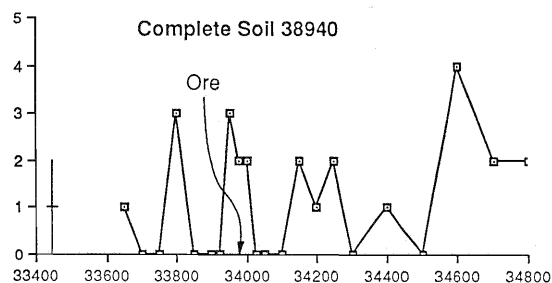
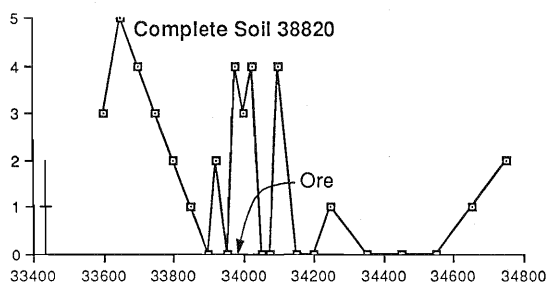
log Au (ppb)



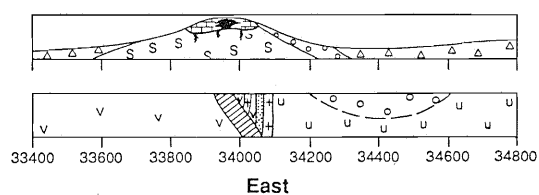
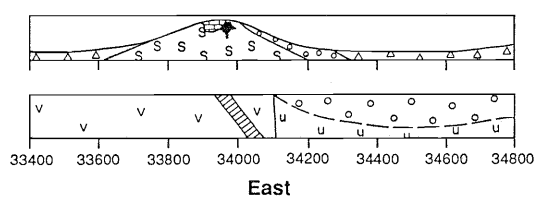
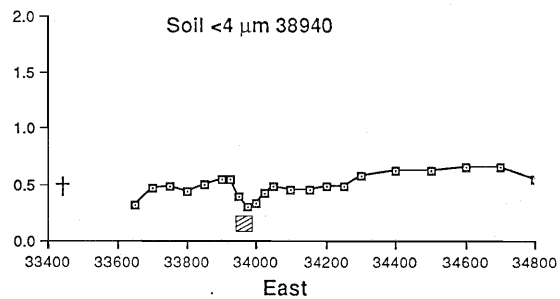
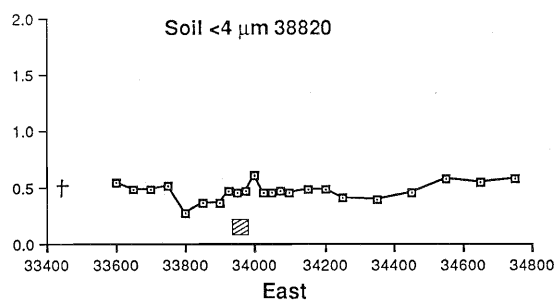
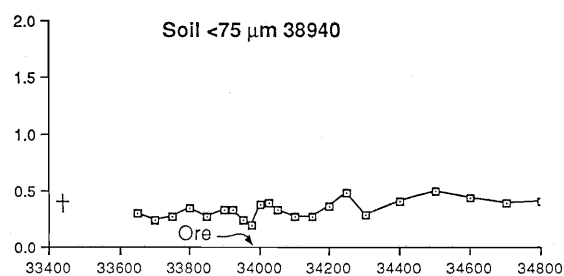
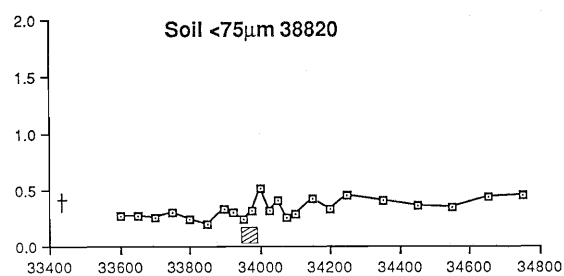
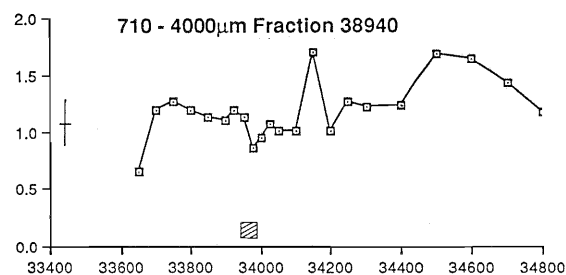
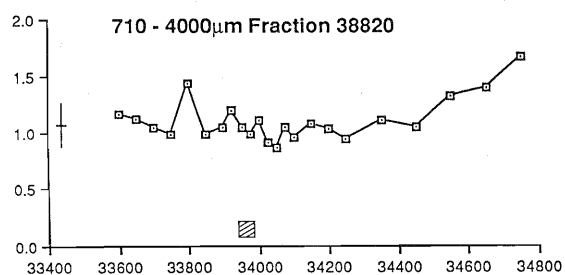
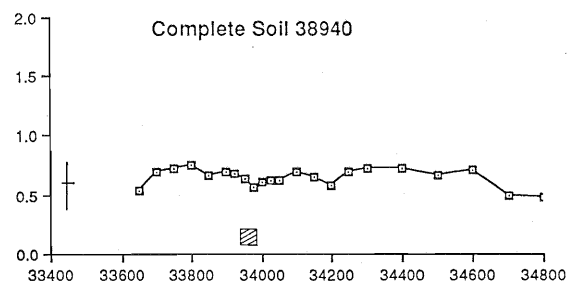
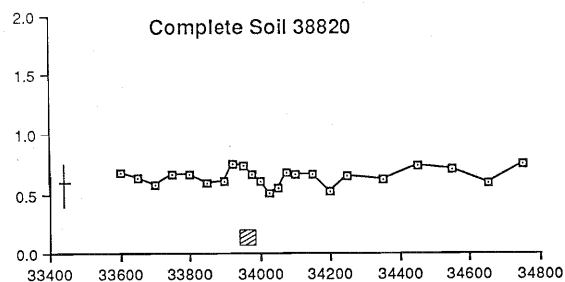
## Ba (ppm)



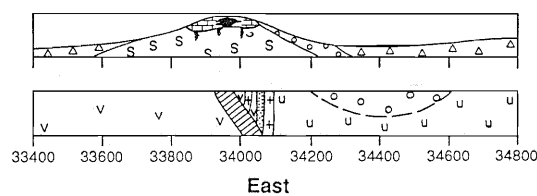
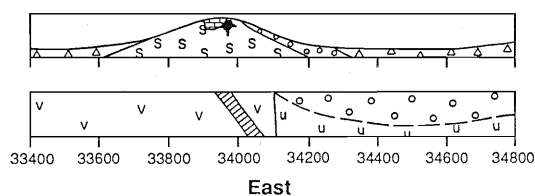
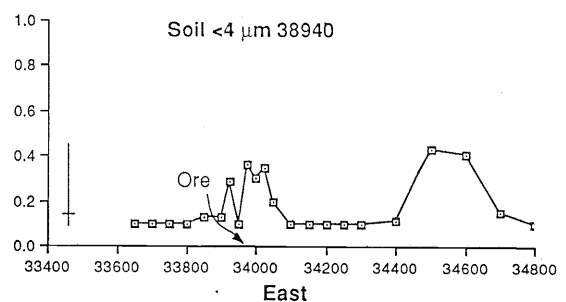
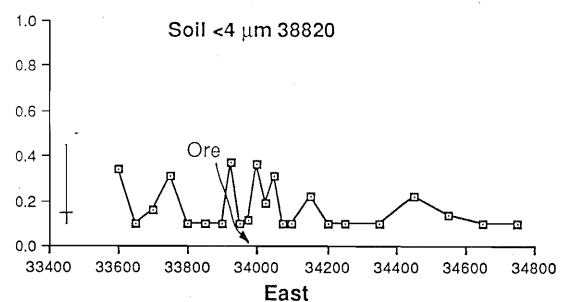
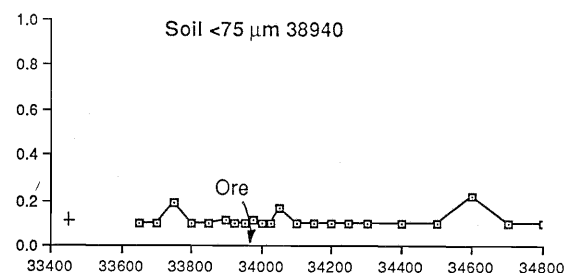
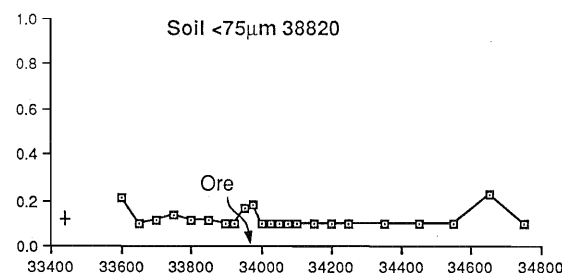
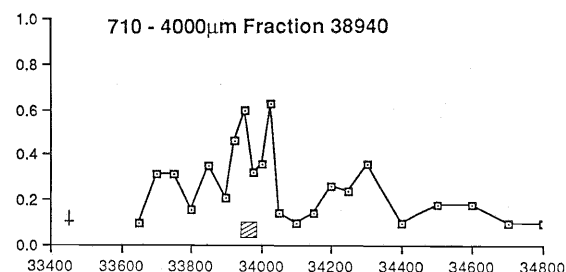
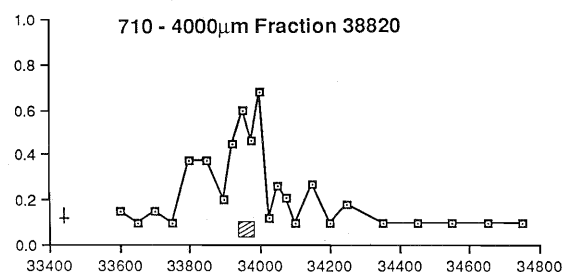
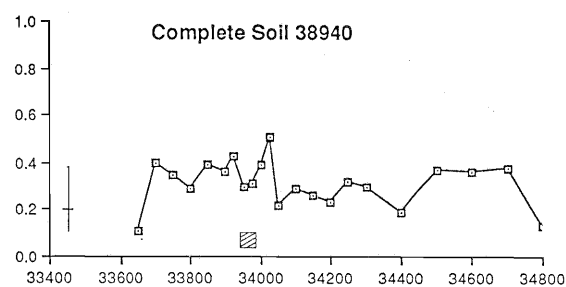
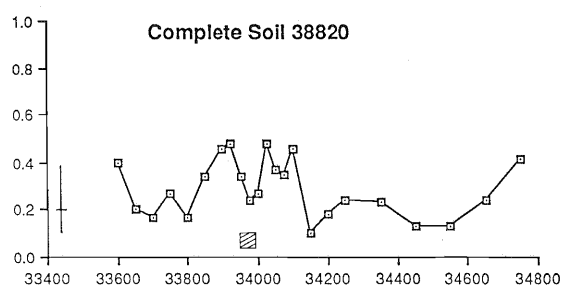
# Be (ppm)



# Bi (ppm)

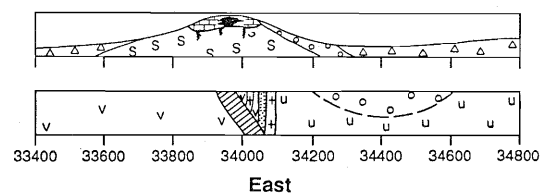
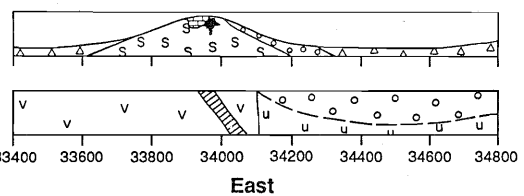
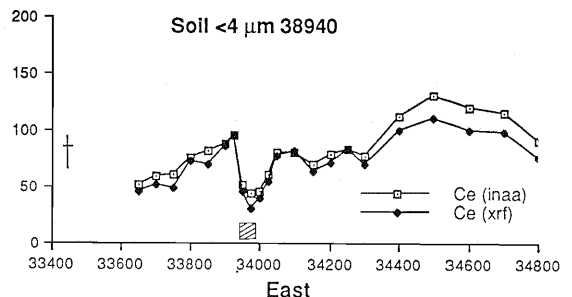
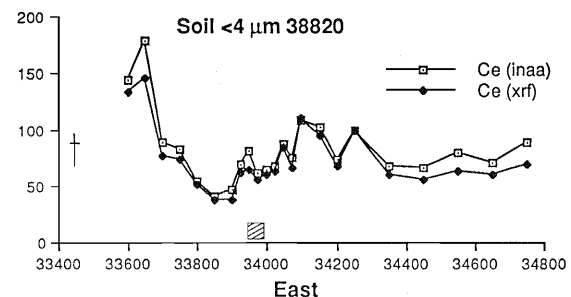
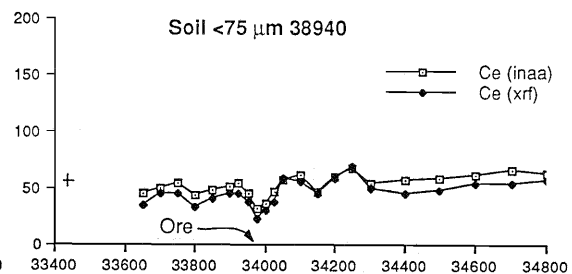
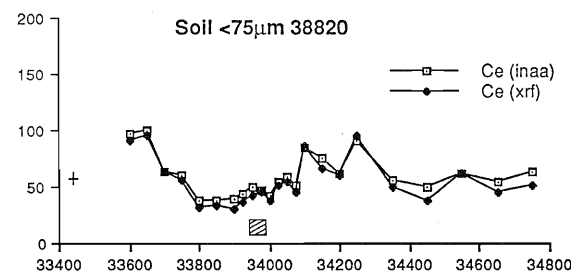
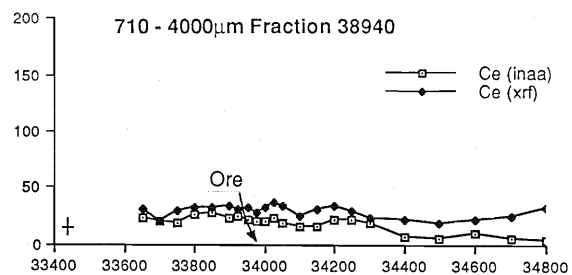
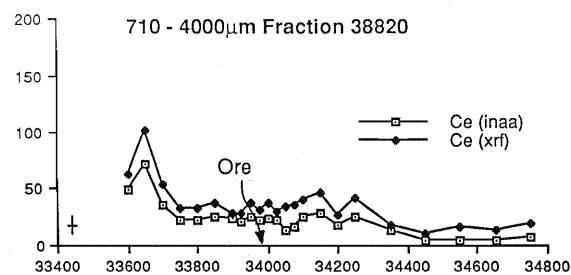
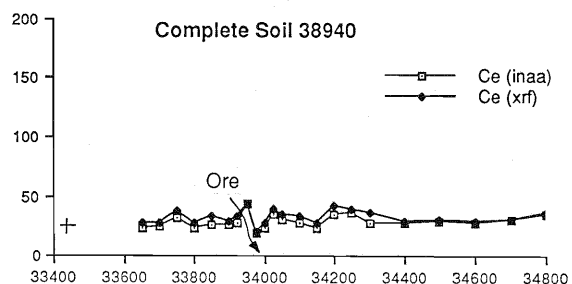
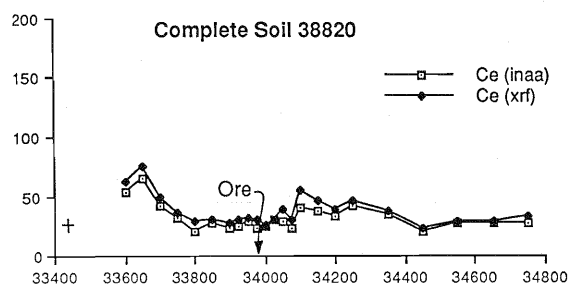


**Cd (ppm)**

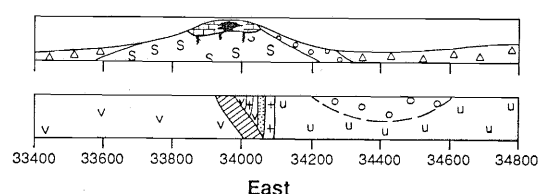
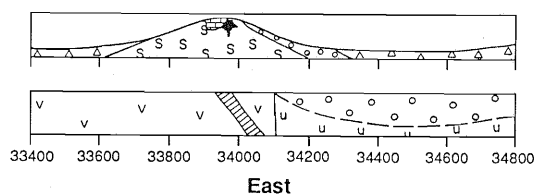
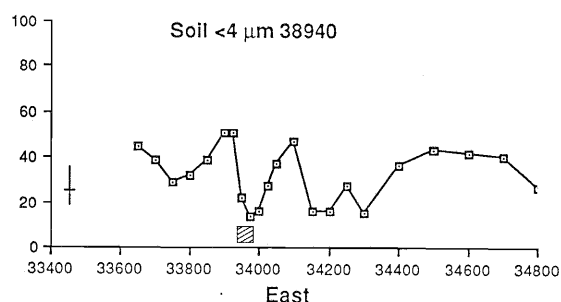
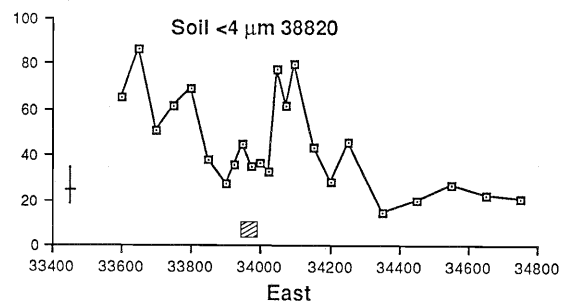
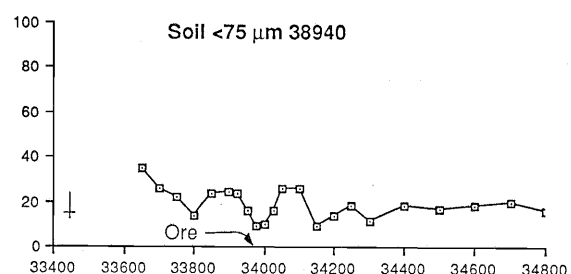
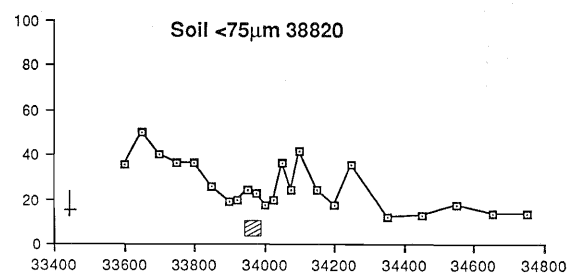
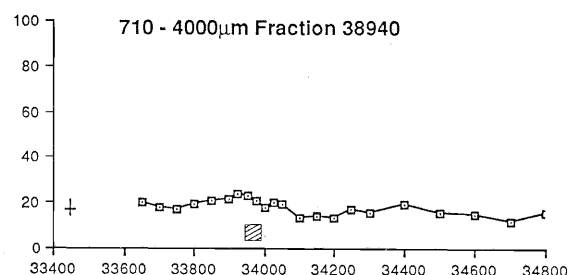
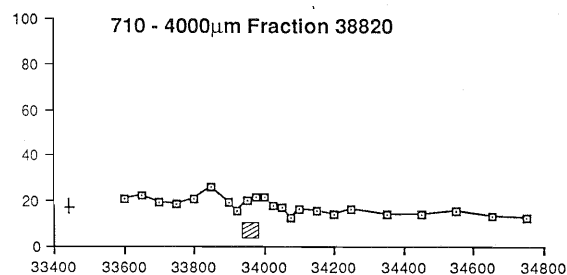
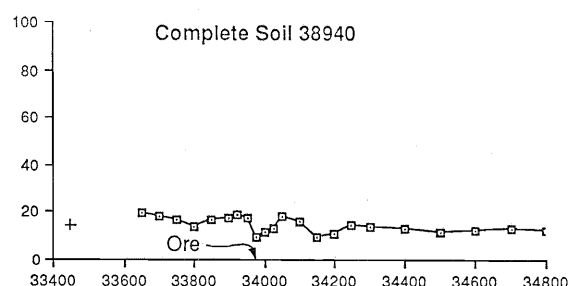
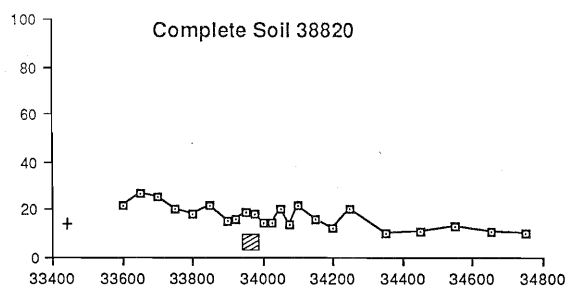




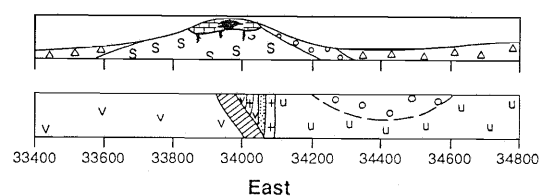
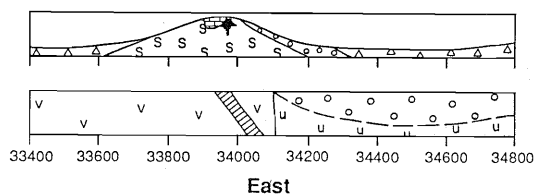
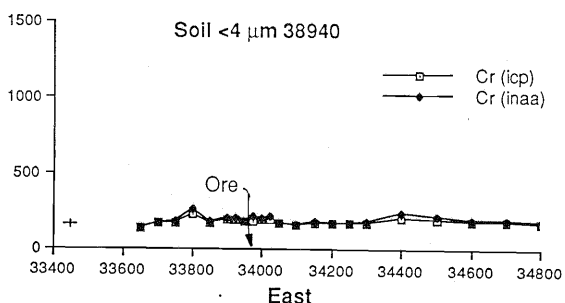
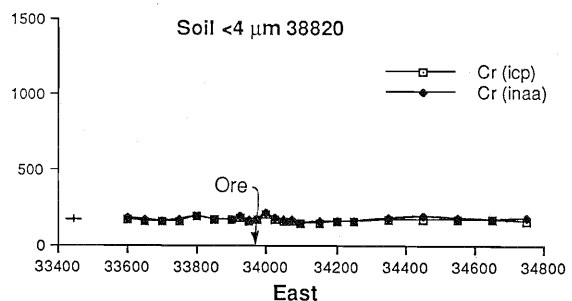
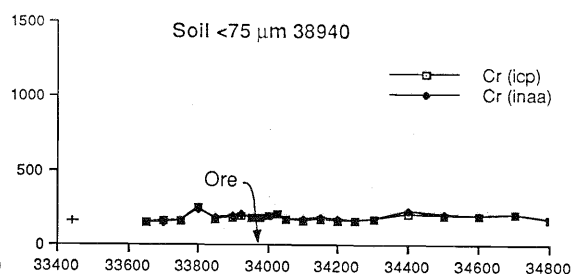
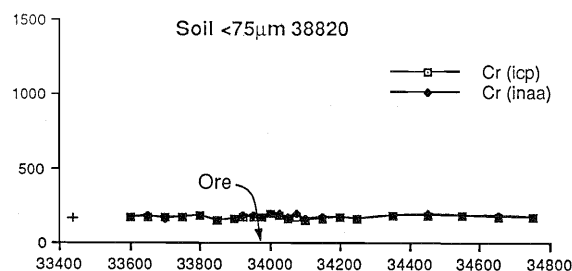
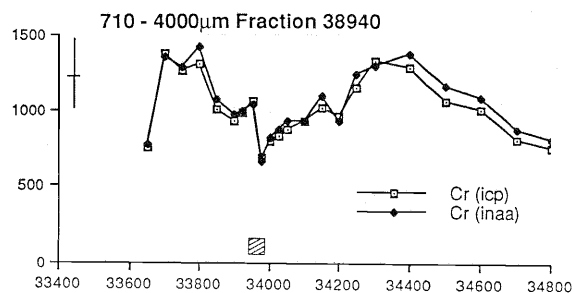
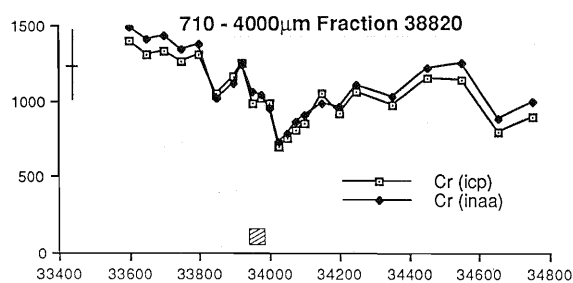
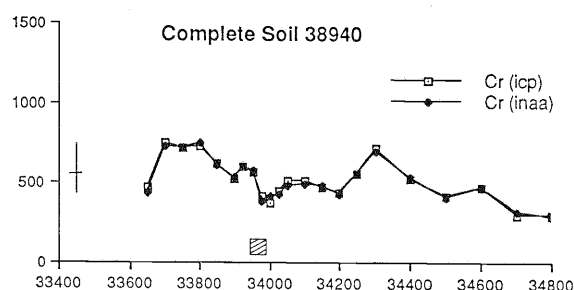
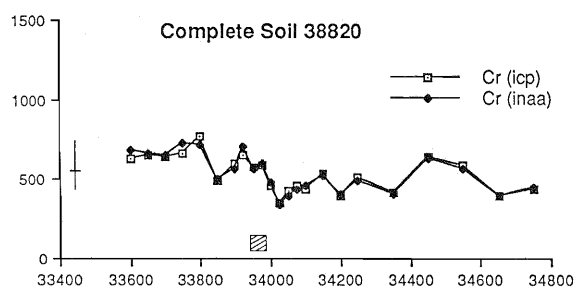
# Ce (ppm)



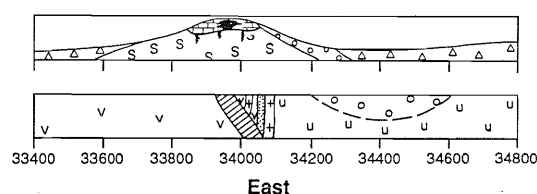
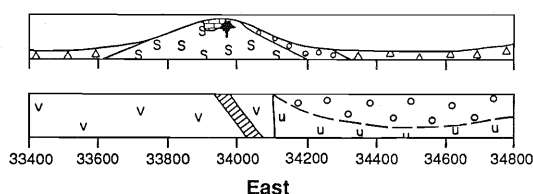
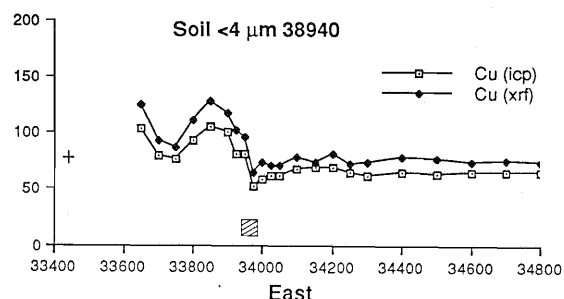
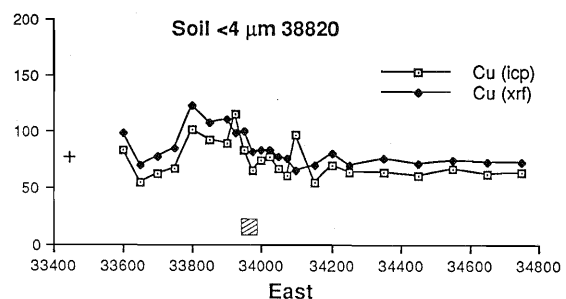
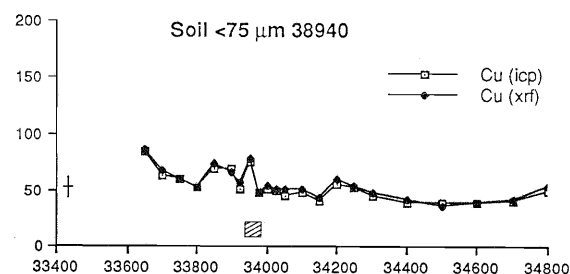
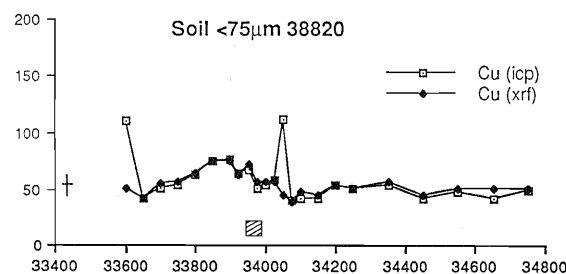
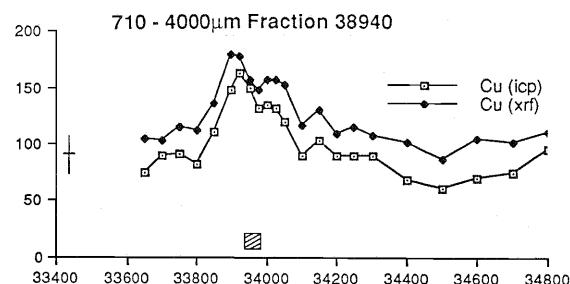
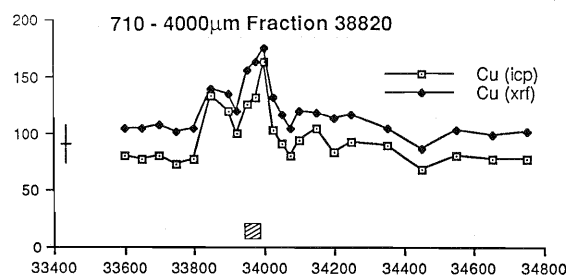
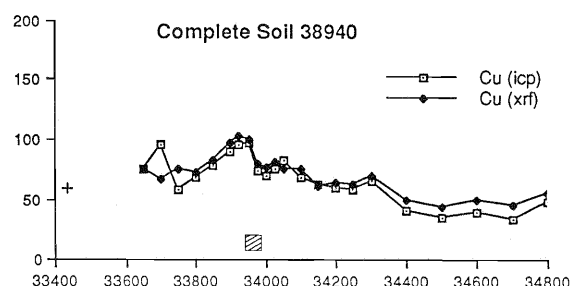
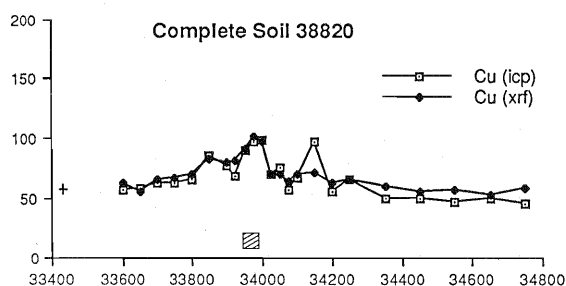
# Co (ppm)



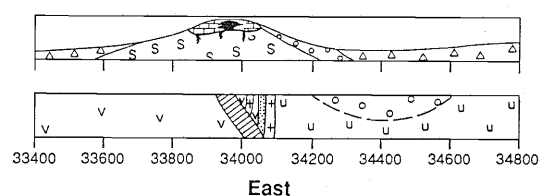
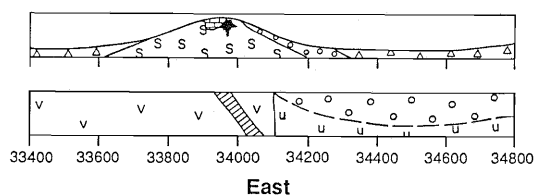
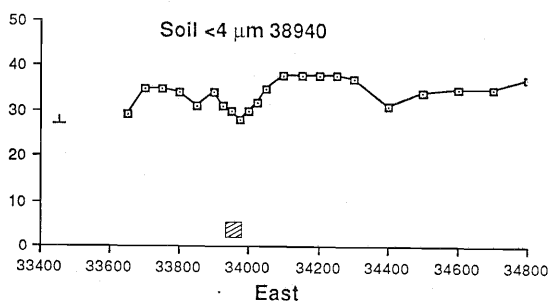
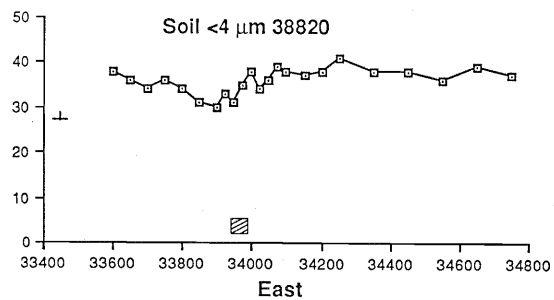
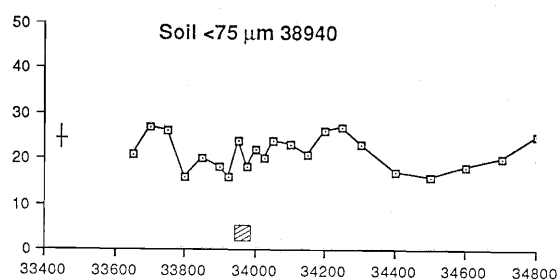
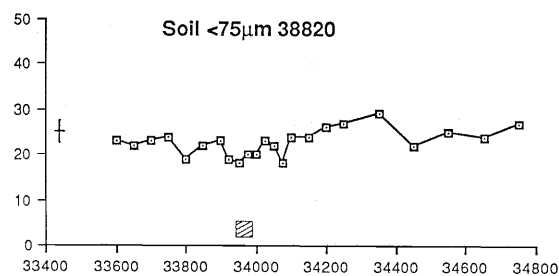
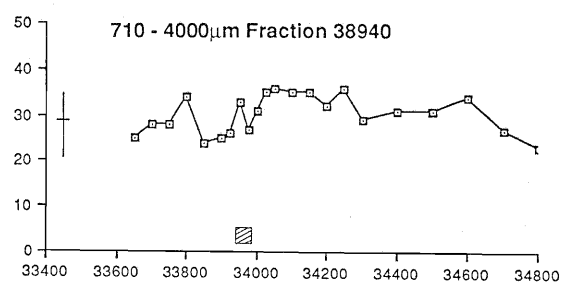
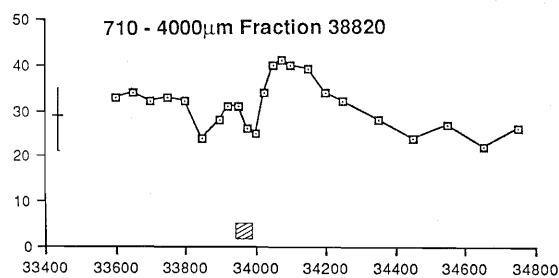
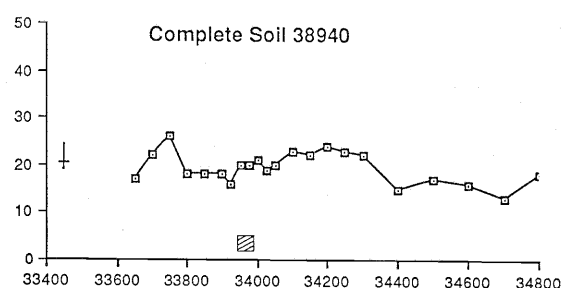
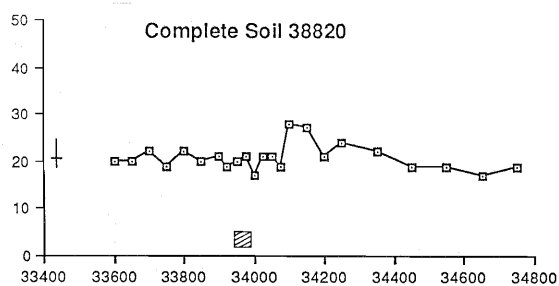
## Cr (ppm)



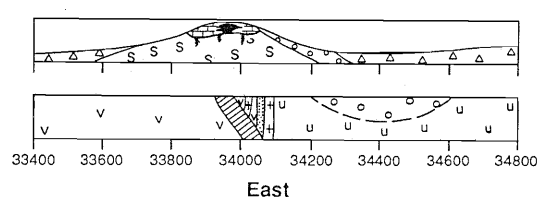
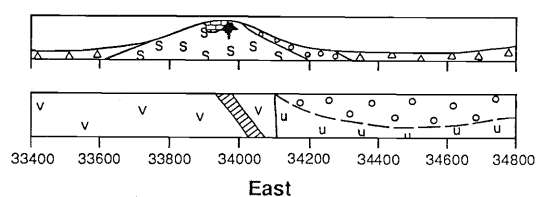
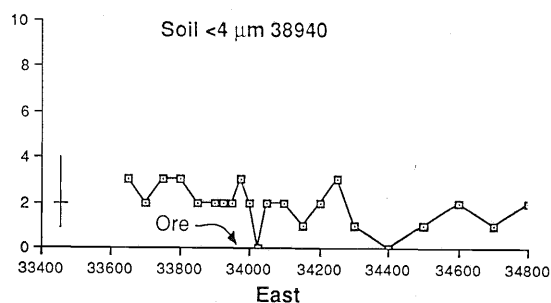
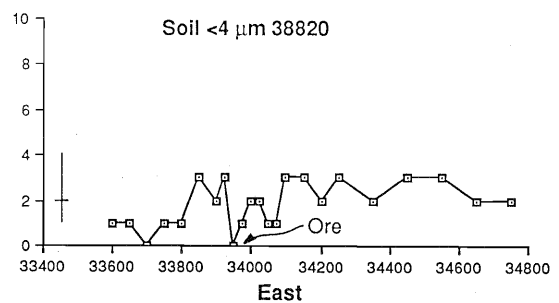
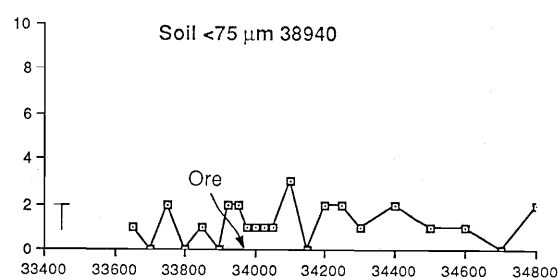
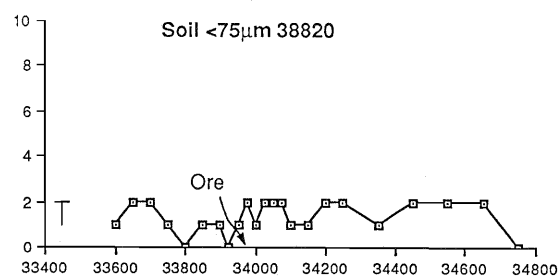
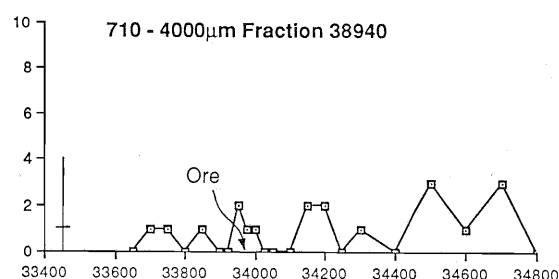
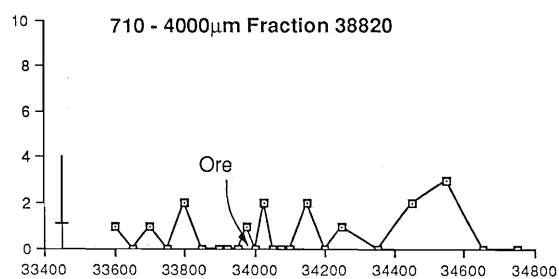
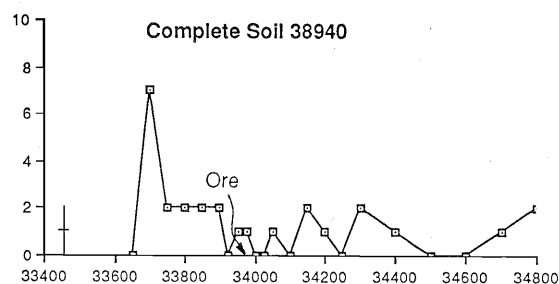
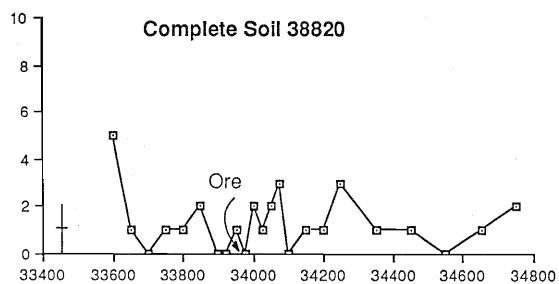
## Cu (ppm)



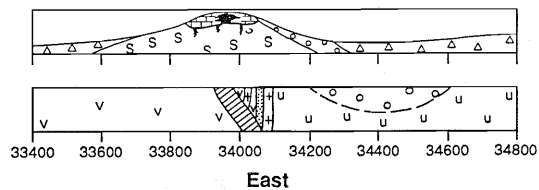
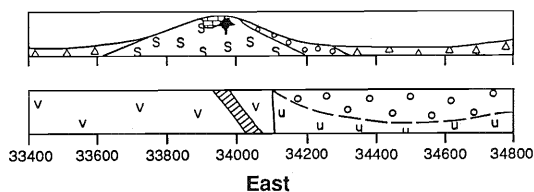
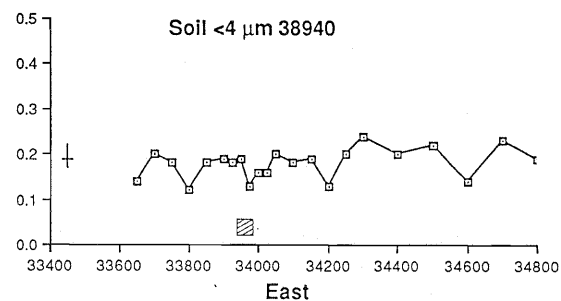
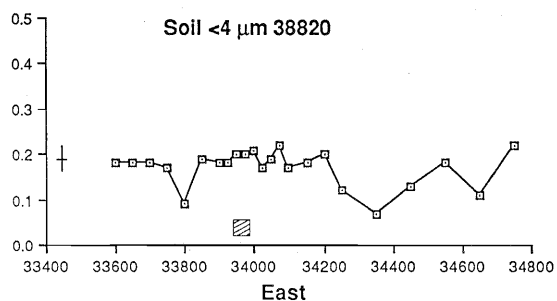
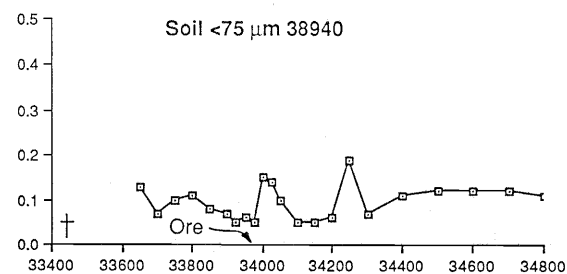
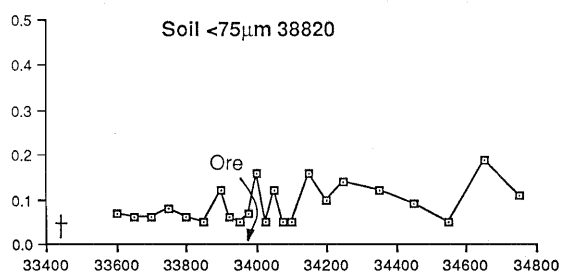
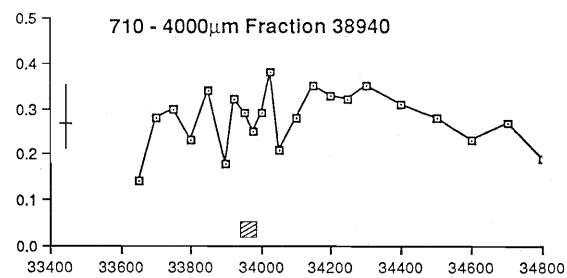
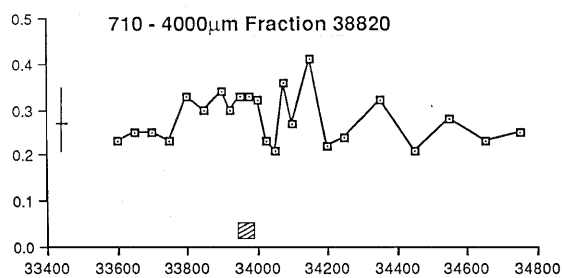
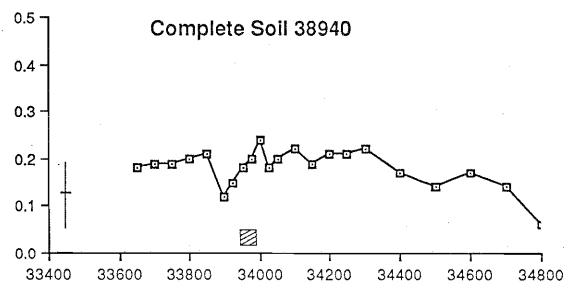
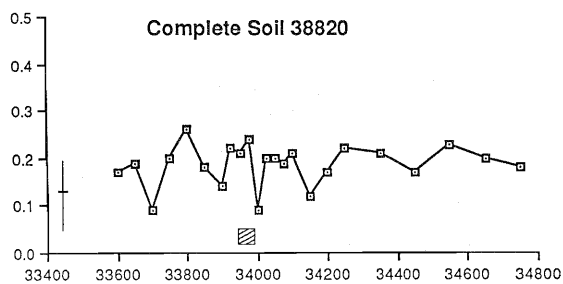
# Ga (ppm)



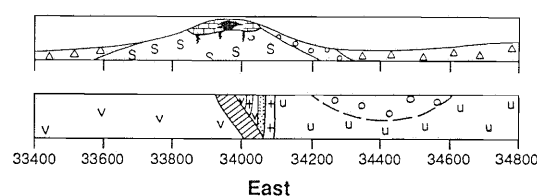
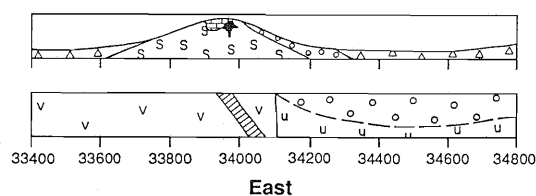
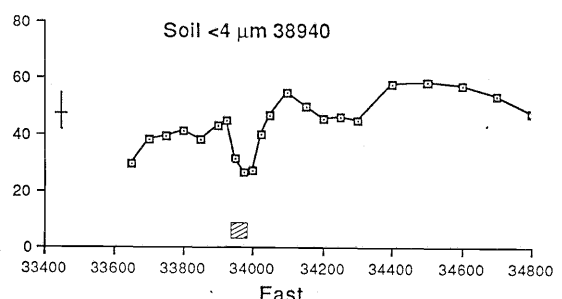
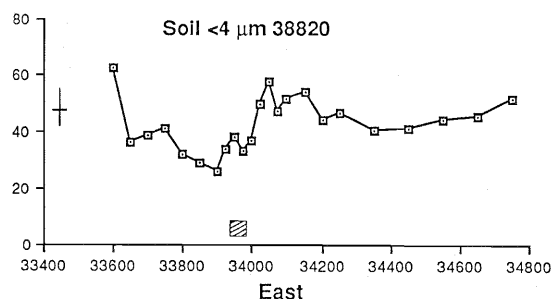
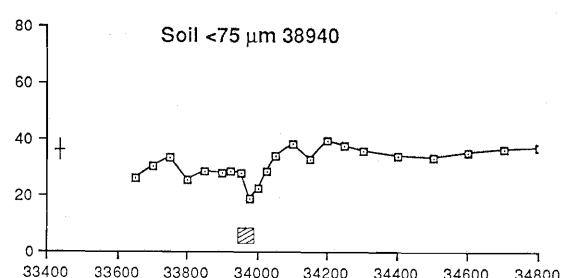
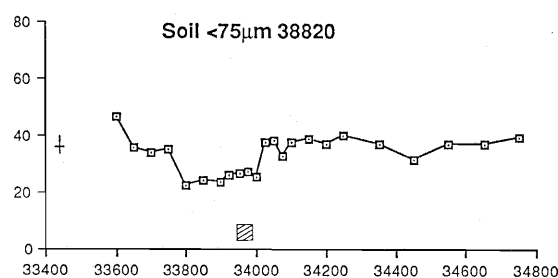
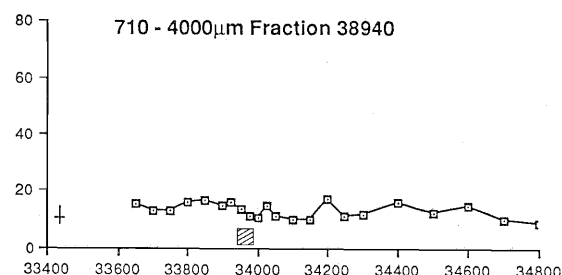
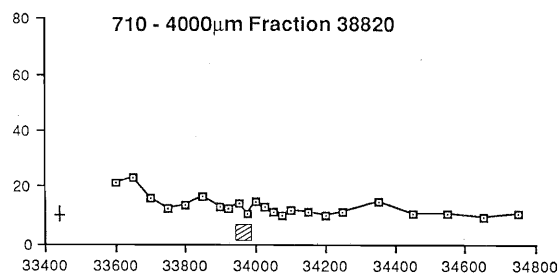
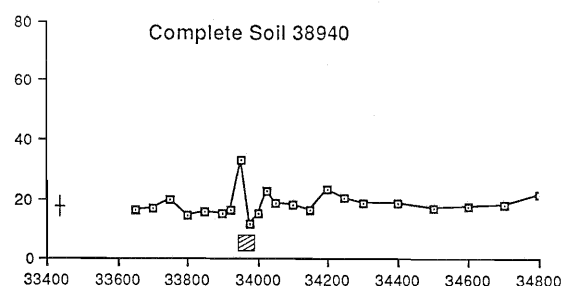
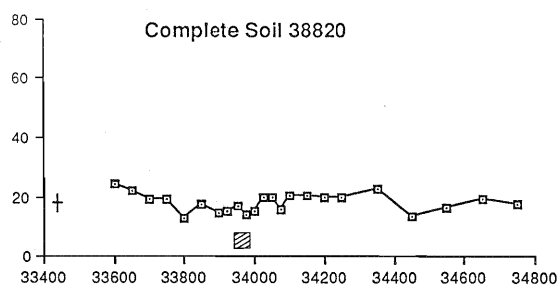
# Ge (ppm)



In (ppm)

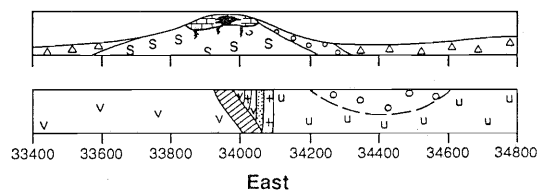
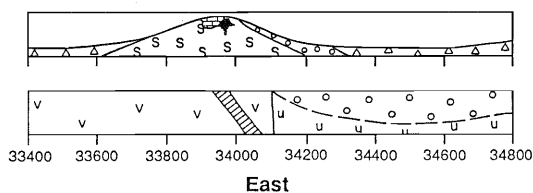
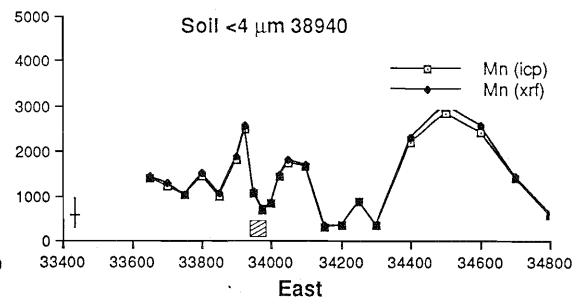
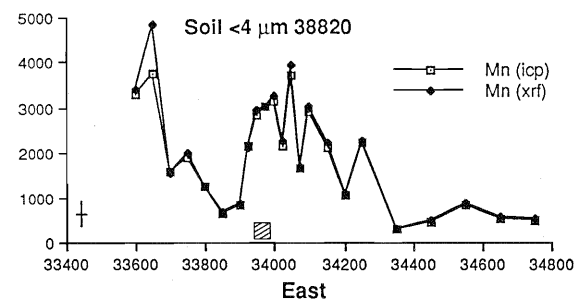
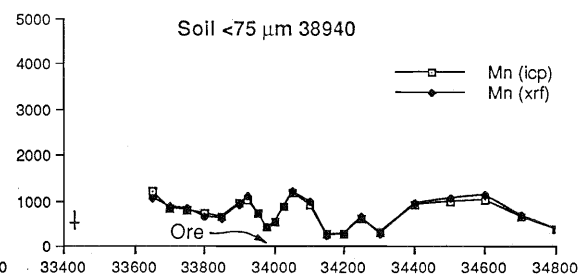
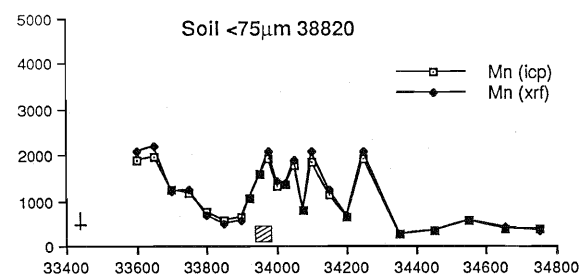
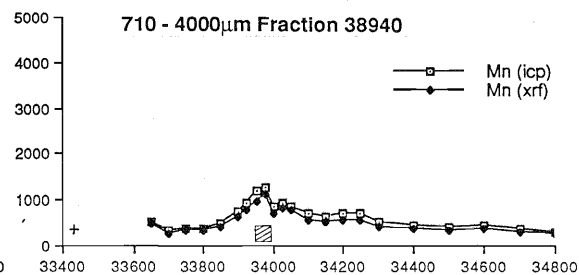
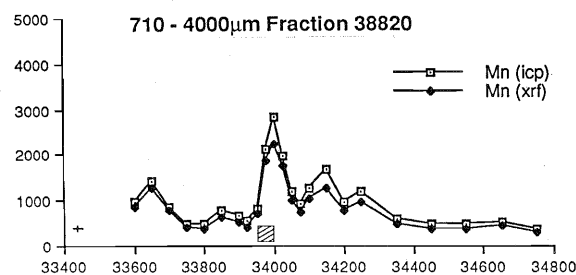
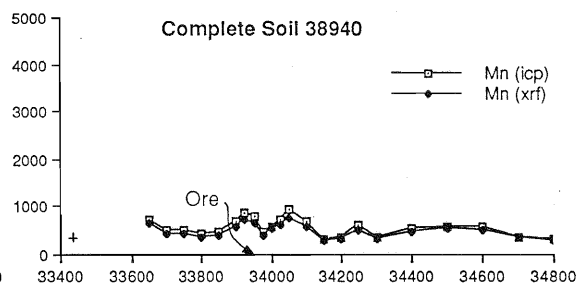
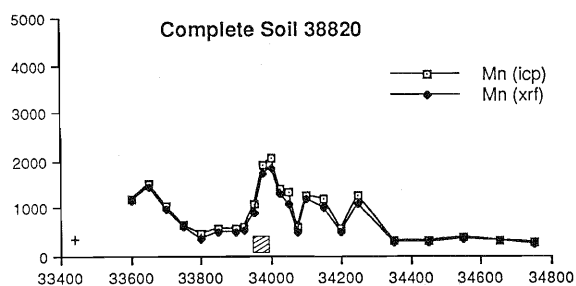


# La (ppm)

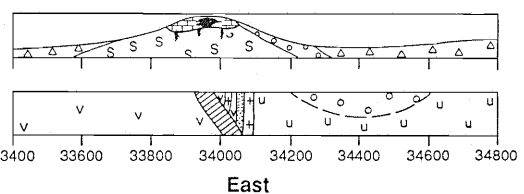
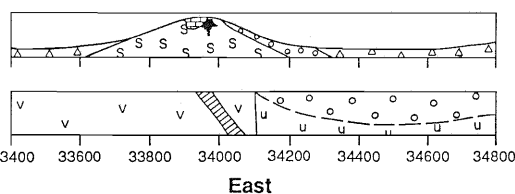
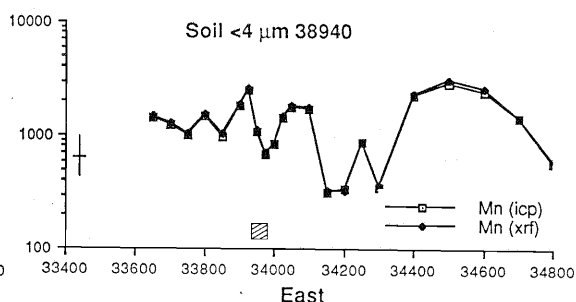
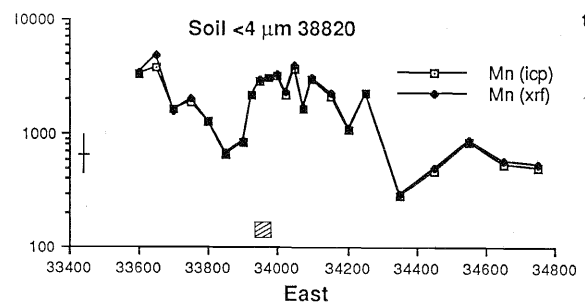
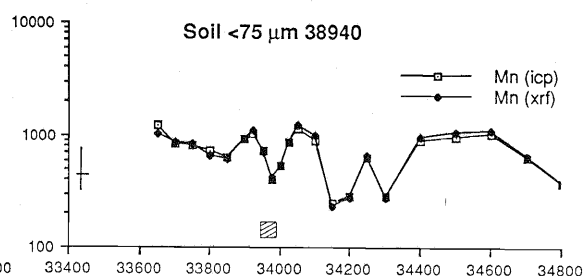
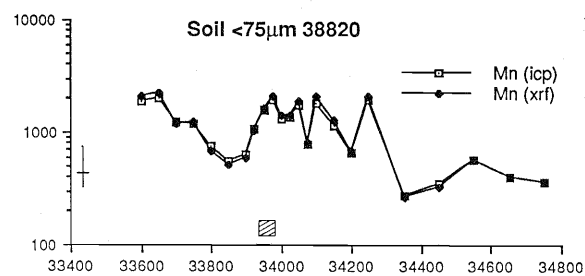
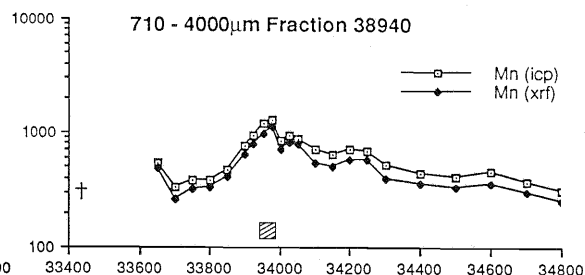
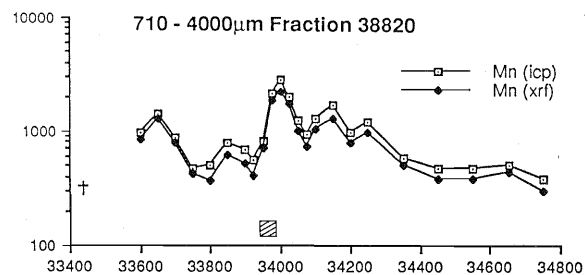
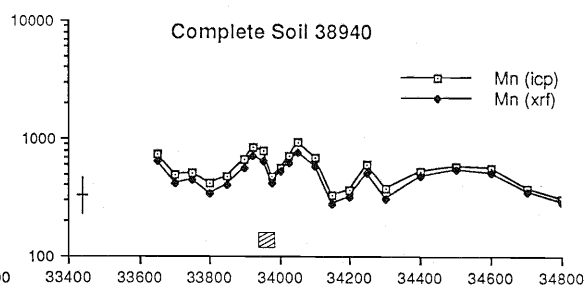
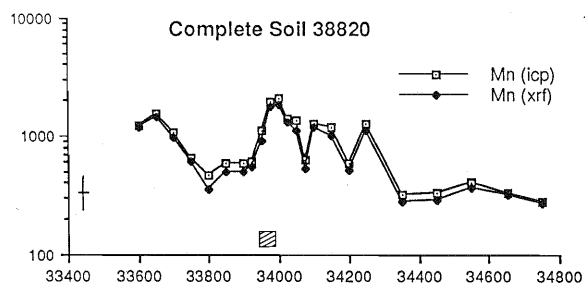




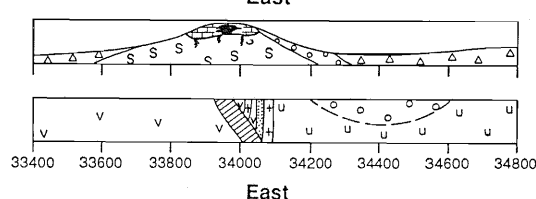
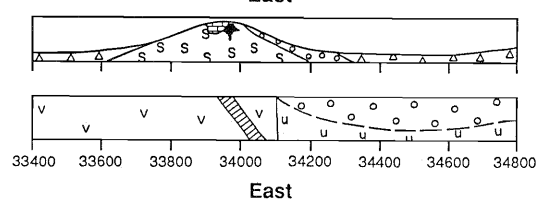
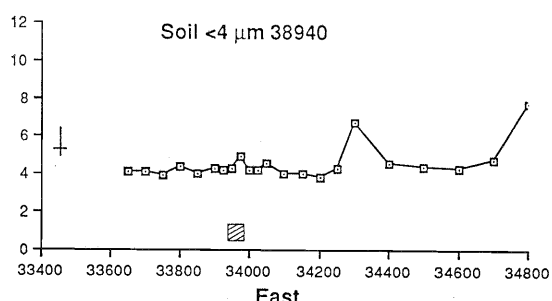
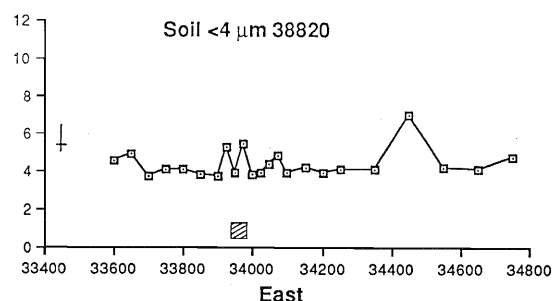
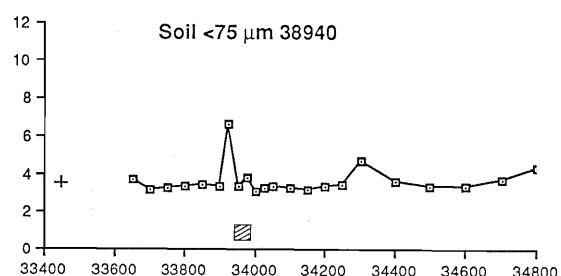
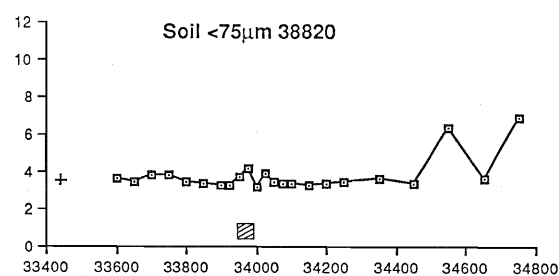
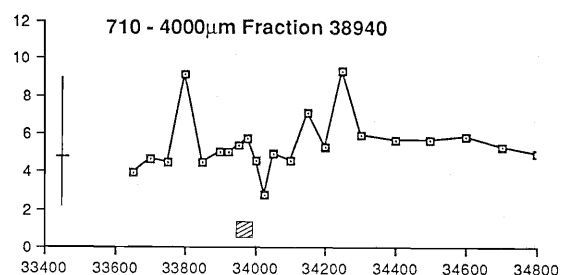
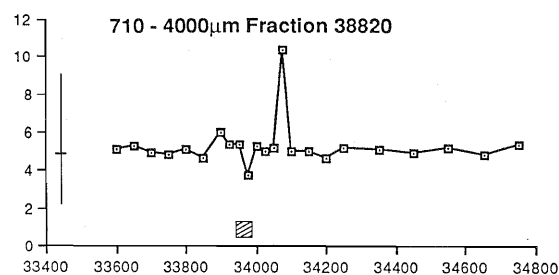
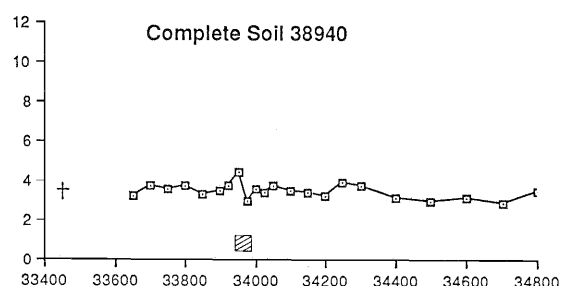
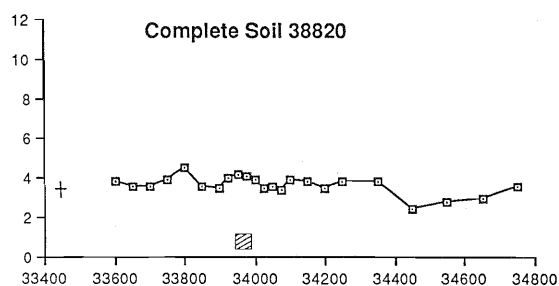
## Mn (ppm)



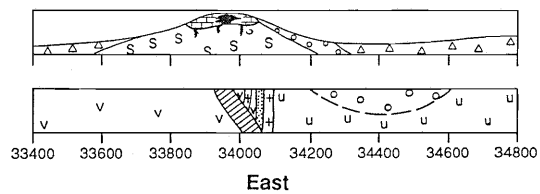
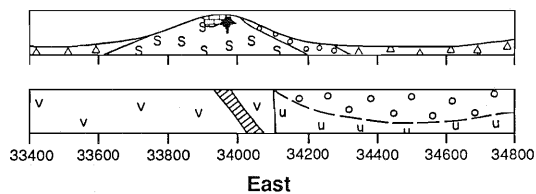
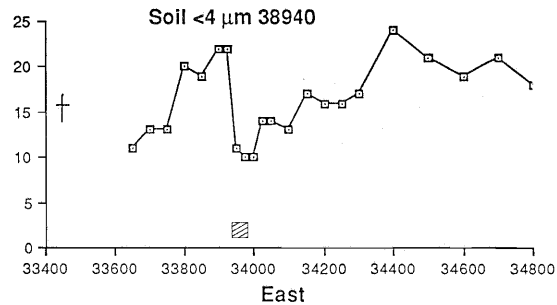
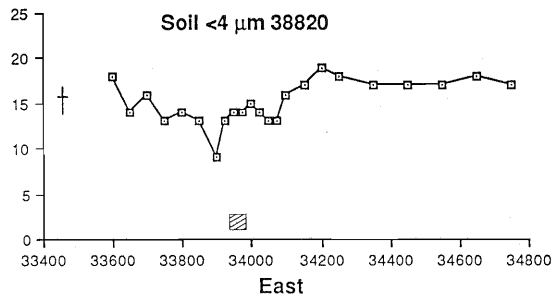
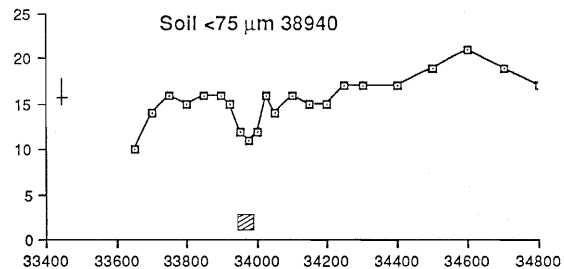
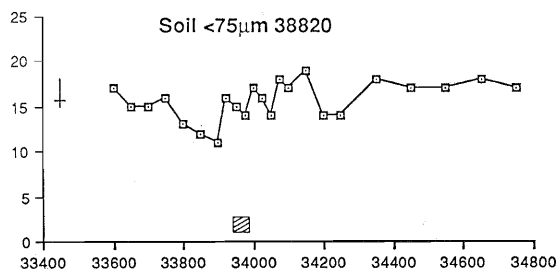
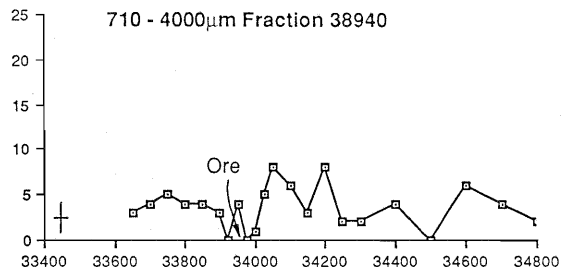
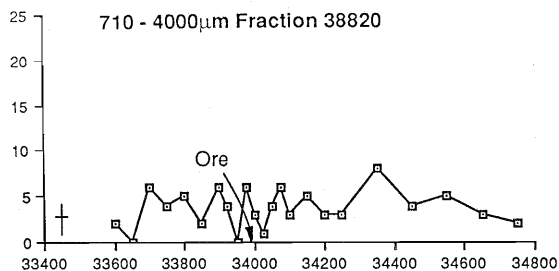
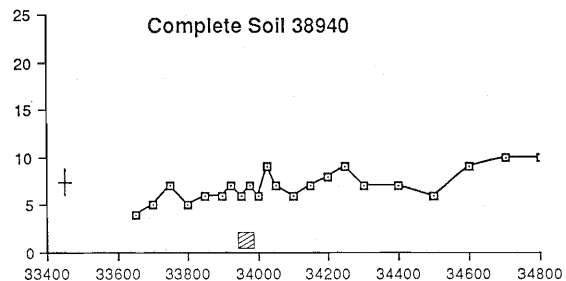
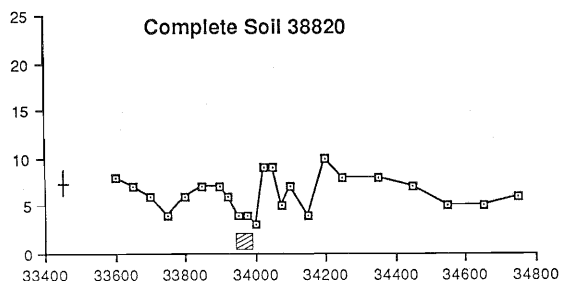
## log Mn (ppm)



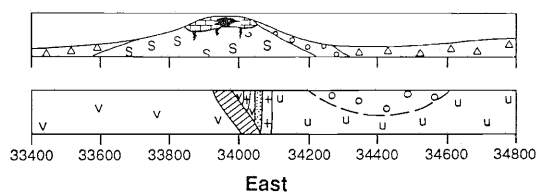
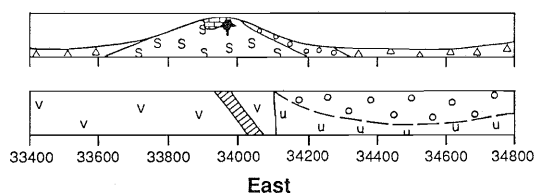
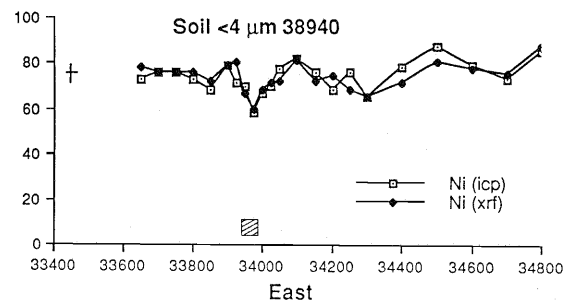
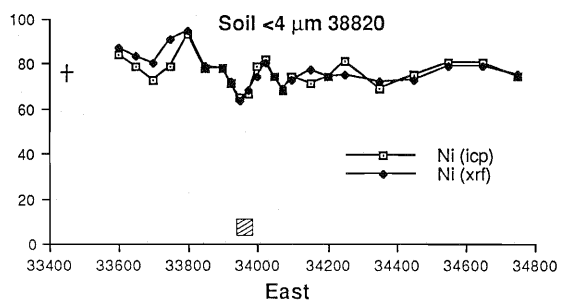
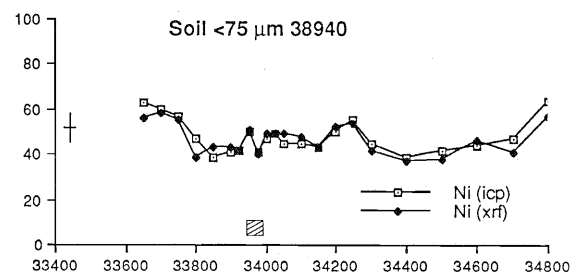
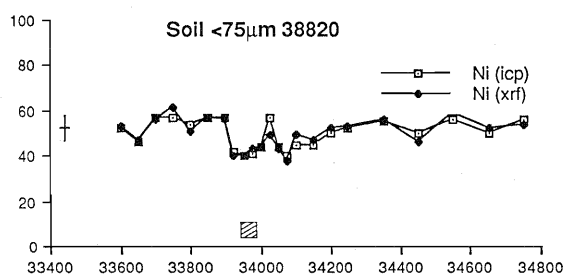
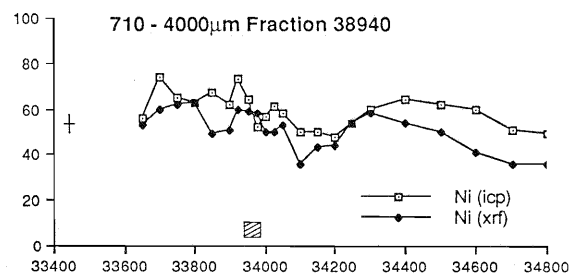
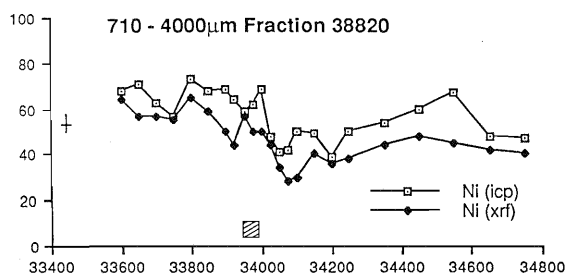
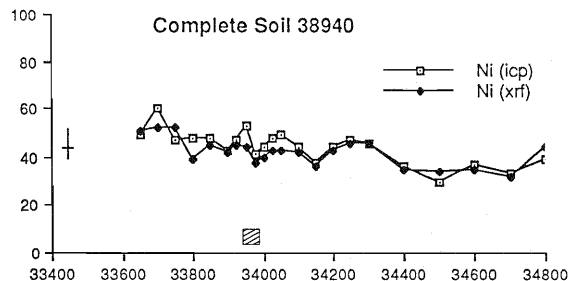
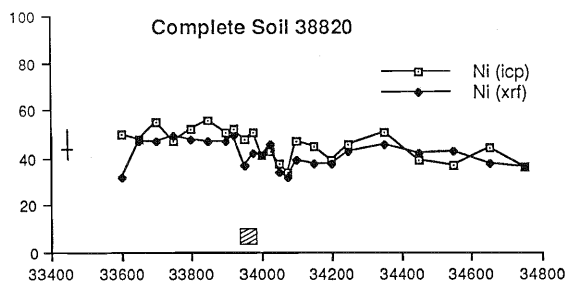
# Mo (ppm)



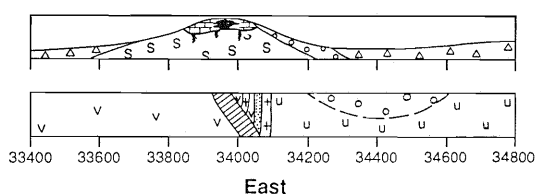
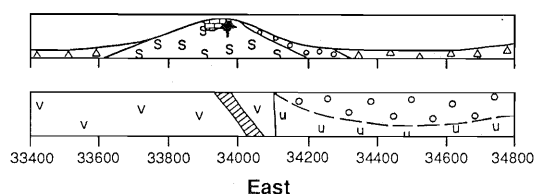
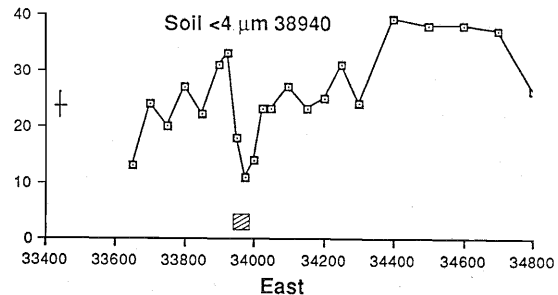
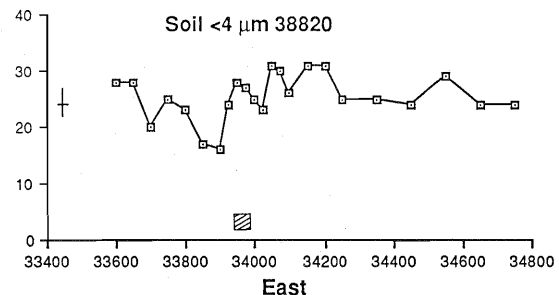
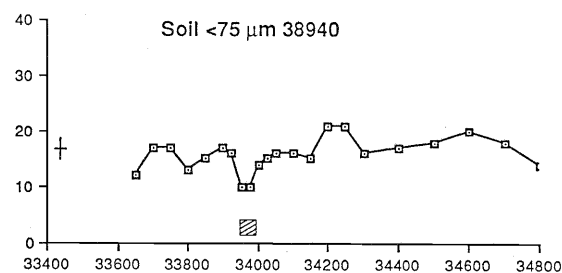
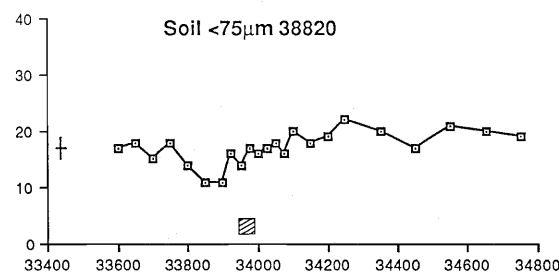
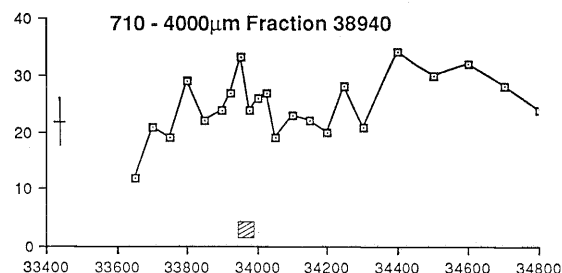
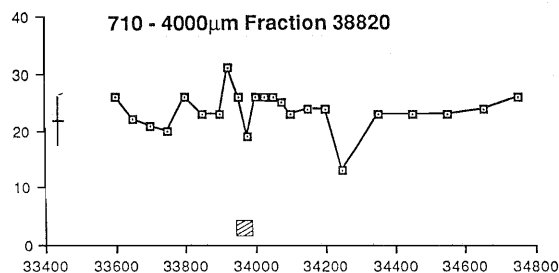
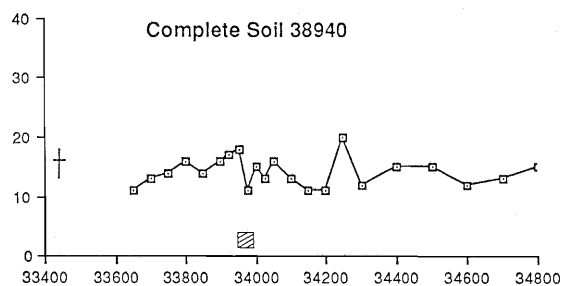
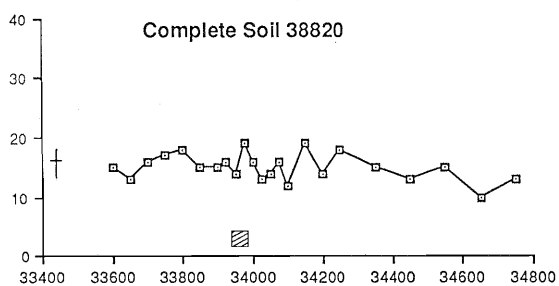
# Nb (ppm)



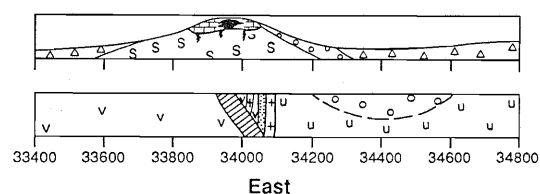
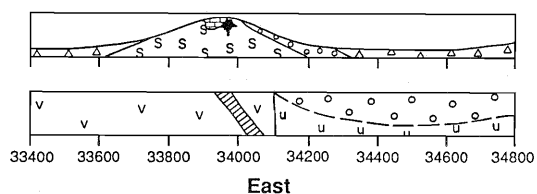
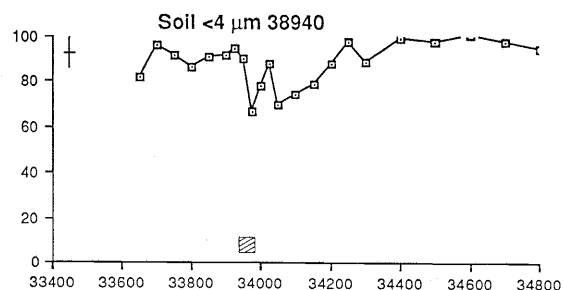
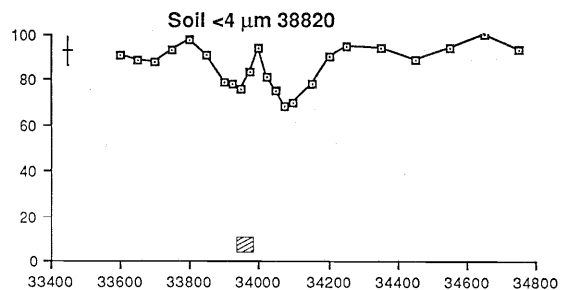
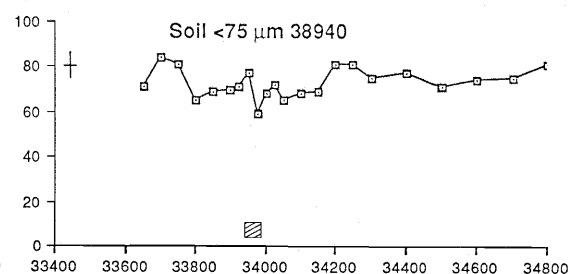
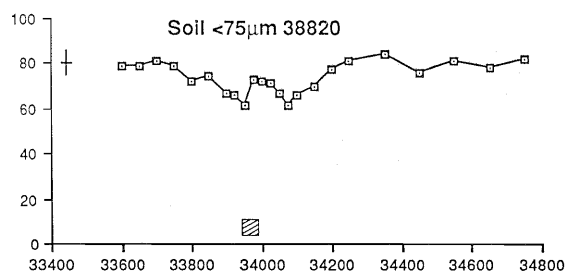
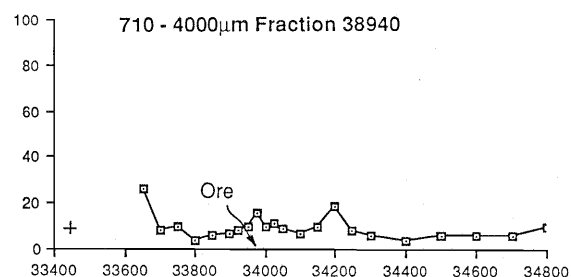
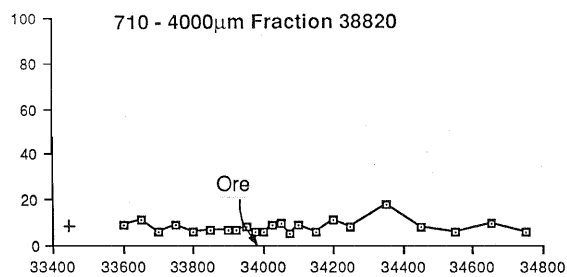
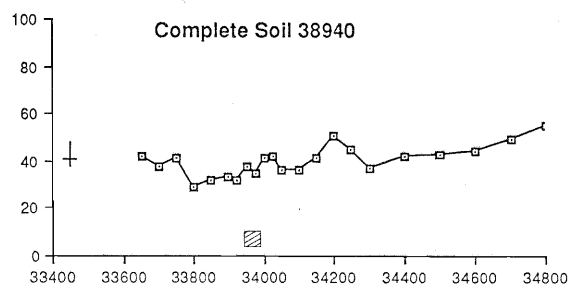
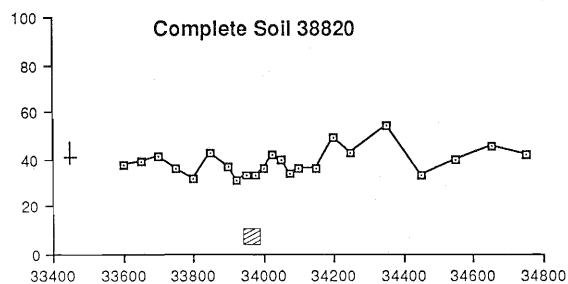
## Ni (ppm)



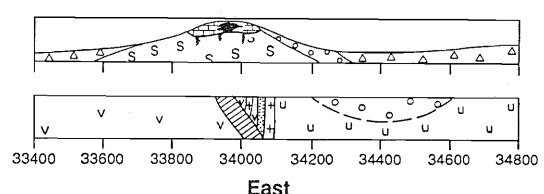
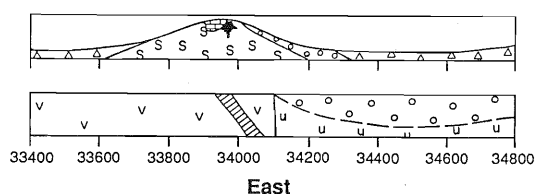
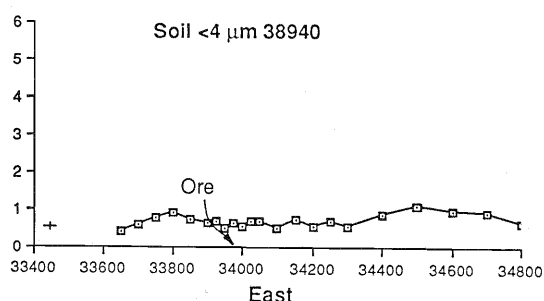
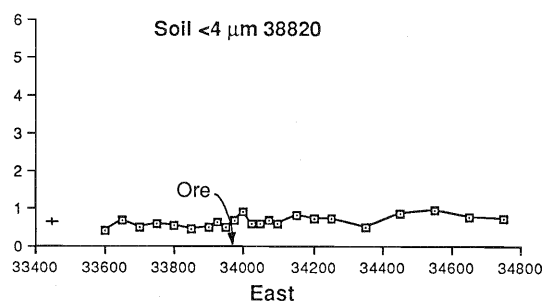
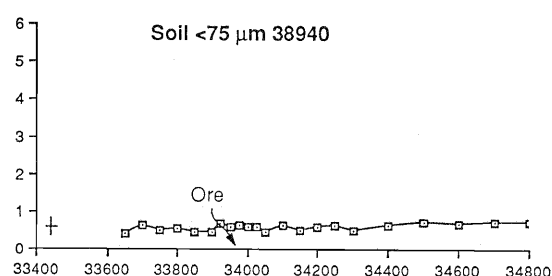
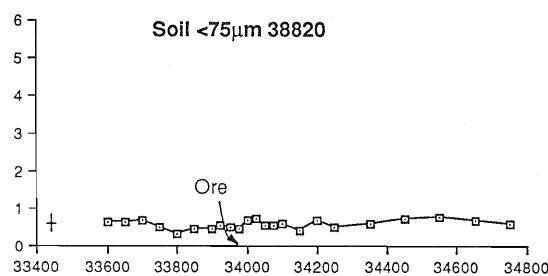
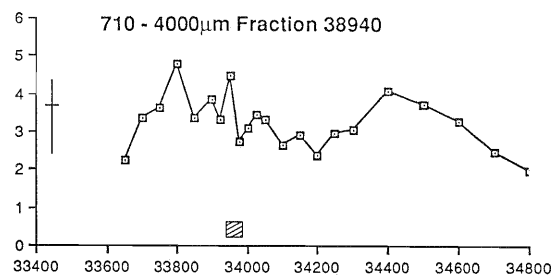
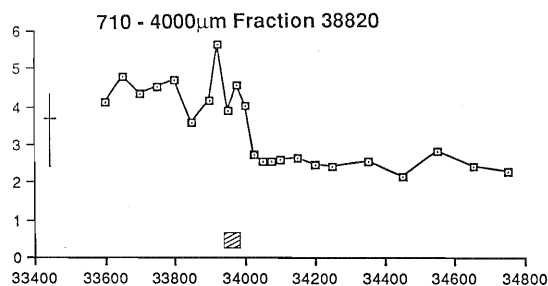
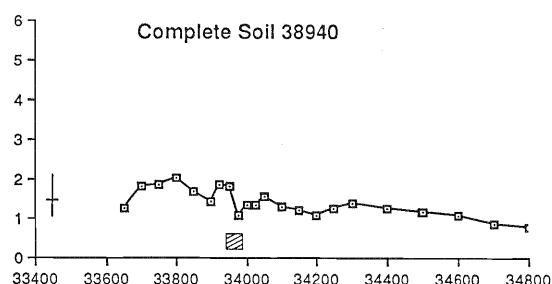
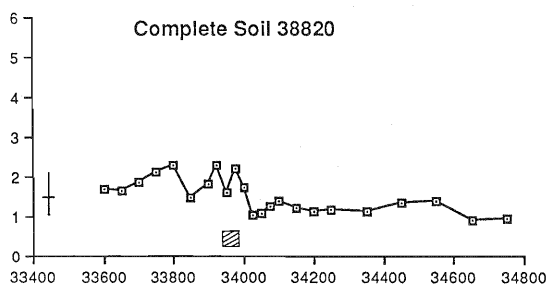
# **Pb (ppm)**



## Rb (ppm)

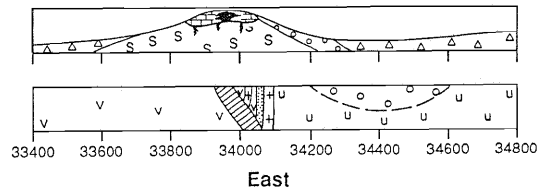
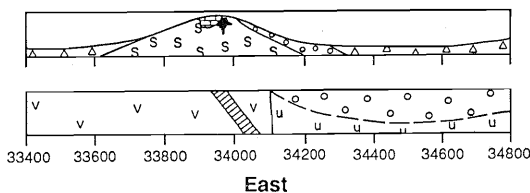
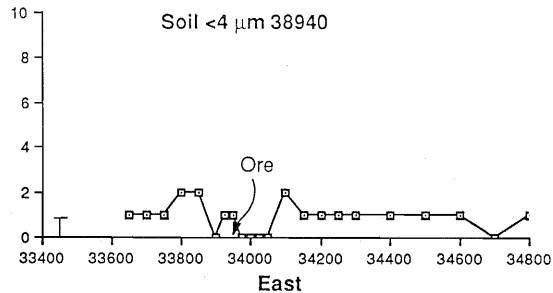
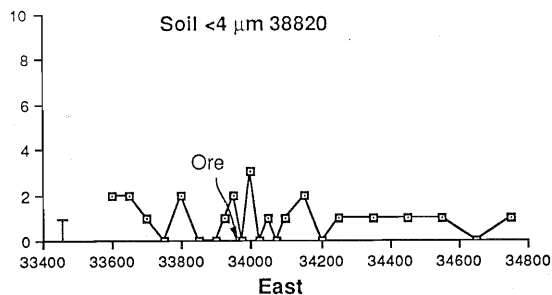
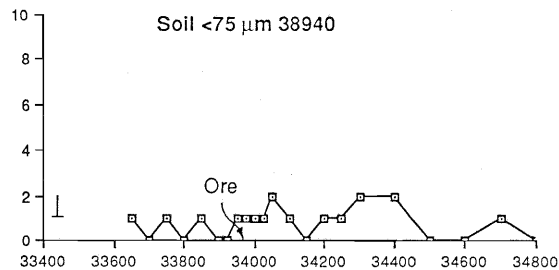
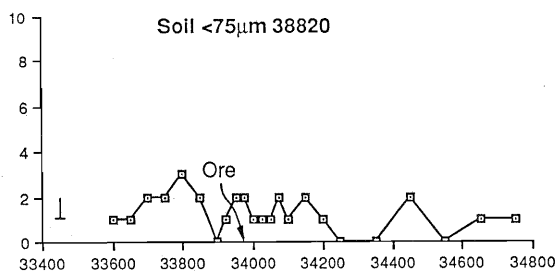
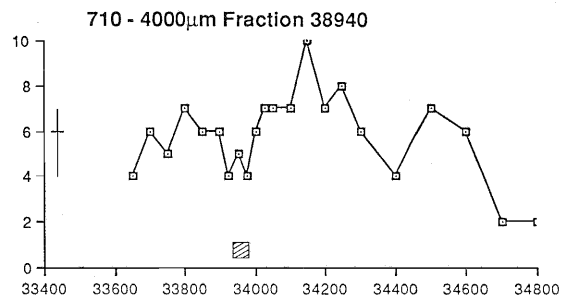
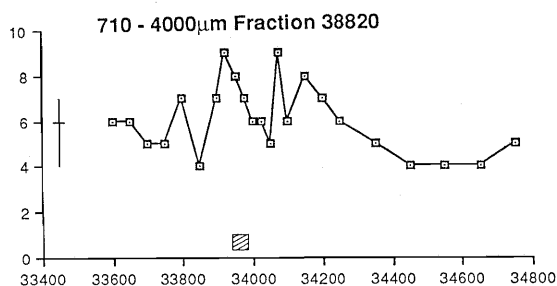
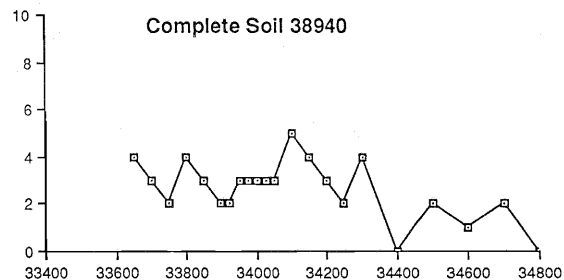
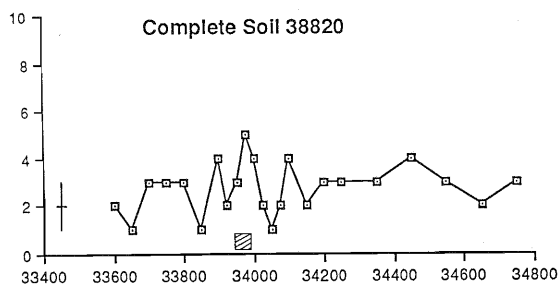


# Sb (ppm)

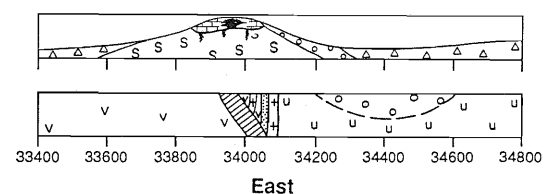
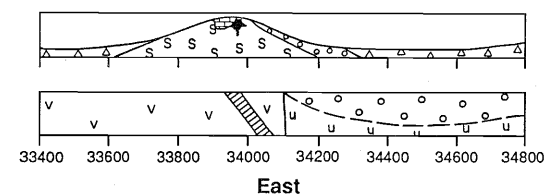
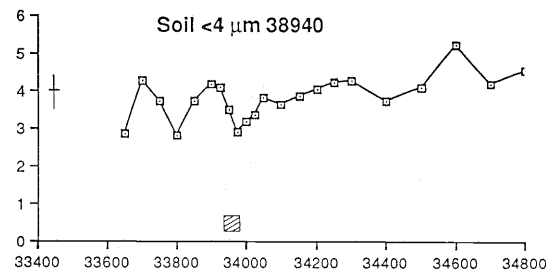
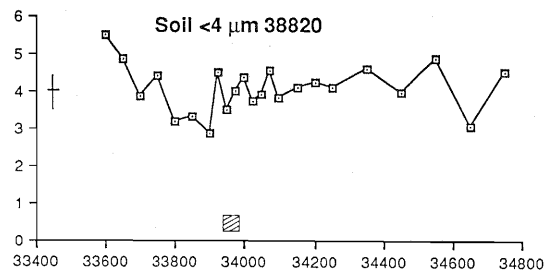
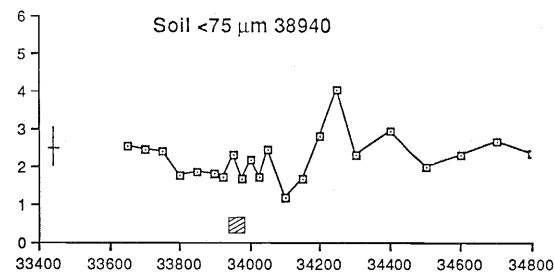
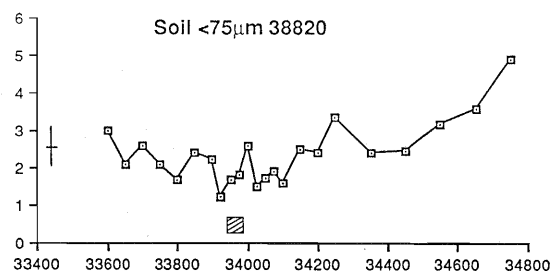
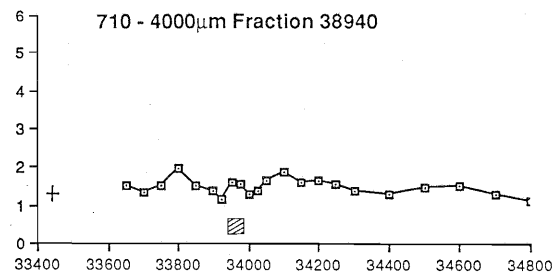
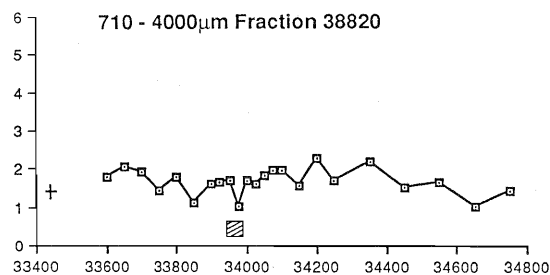
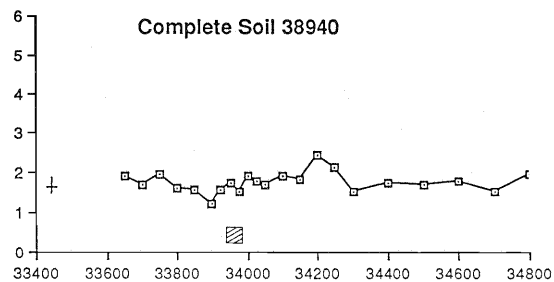
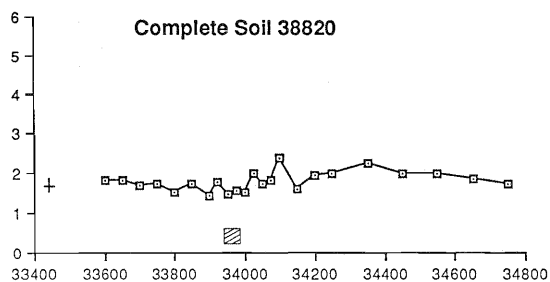




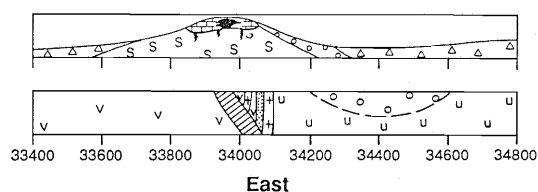
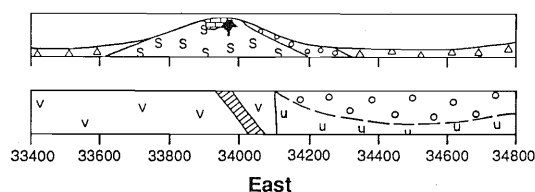
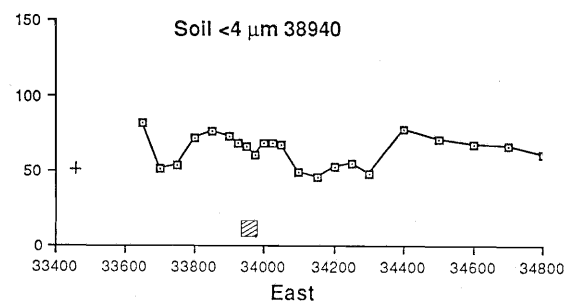
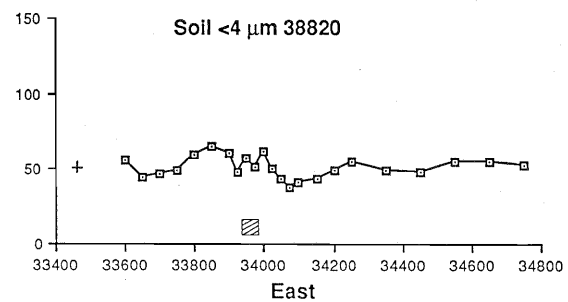
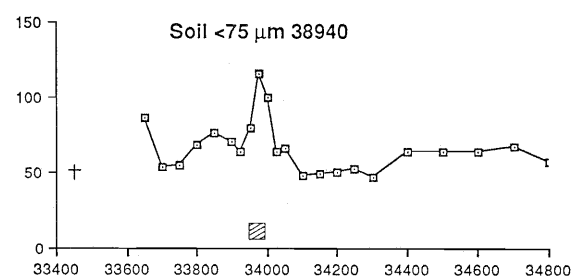
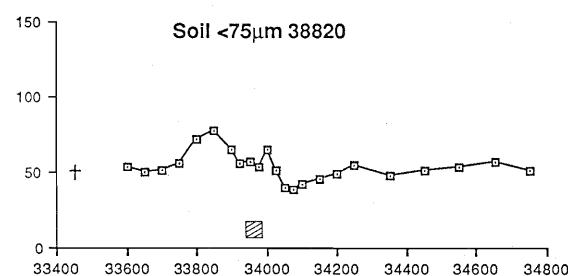
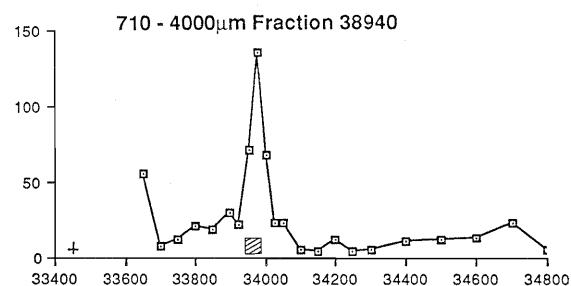
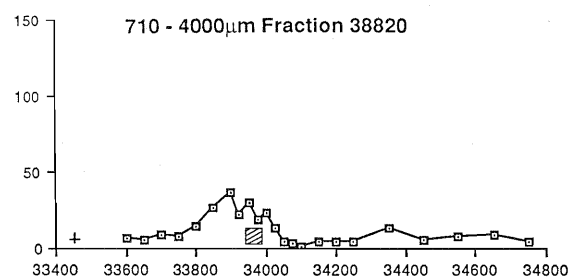
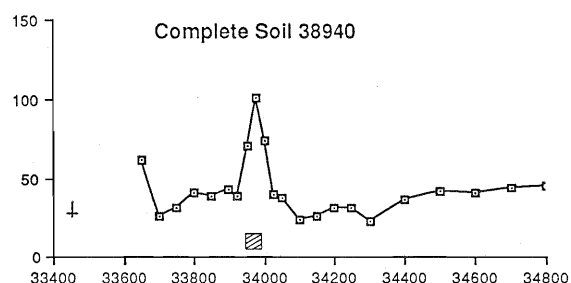
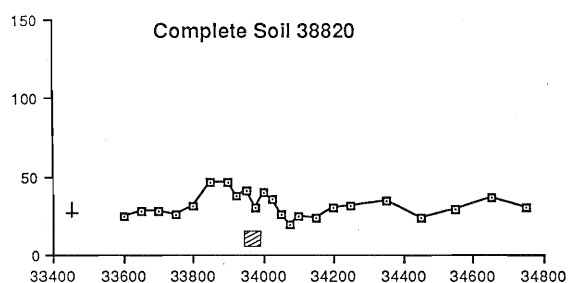
# Se (ppm)



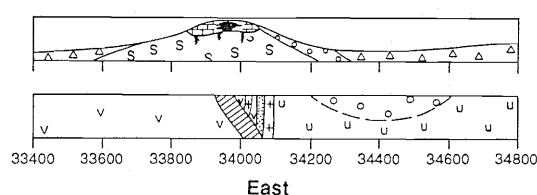
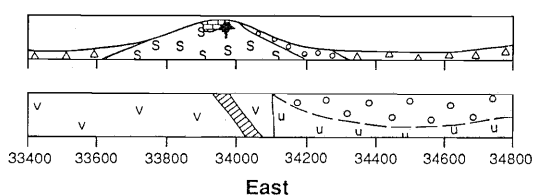
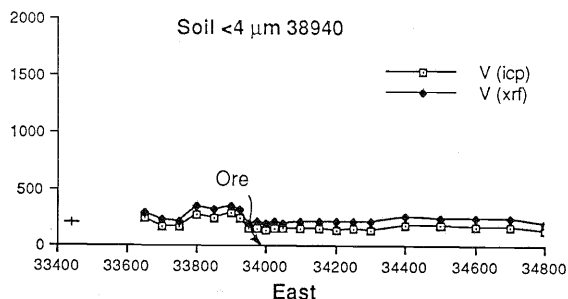
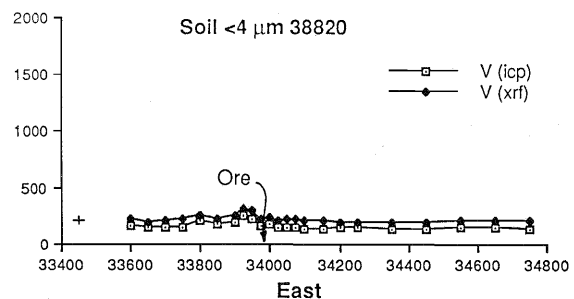
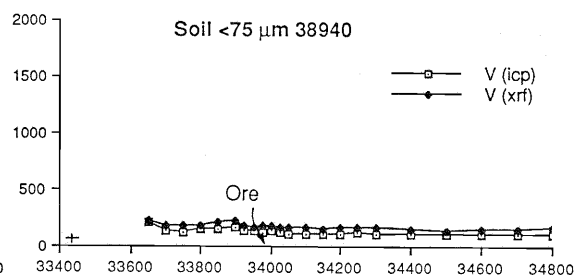
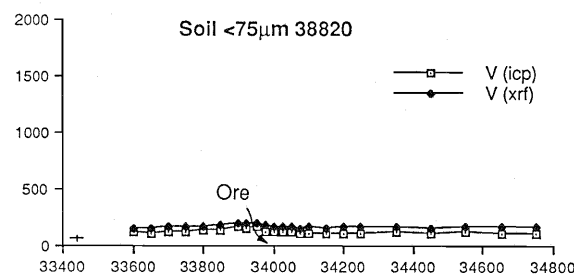
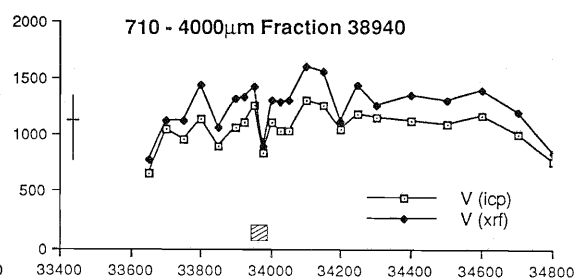
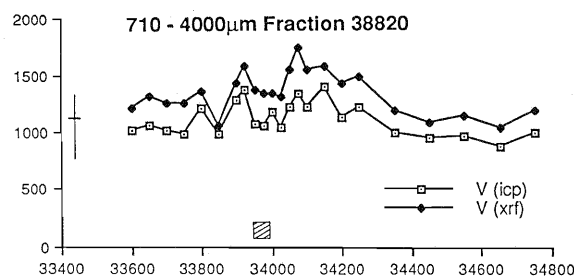
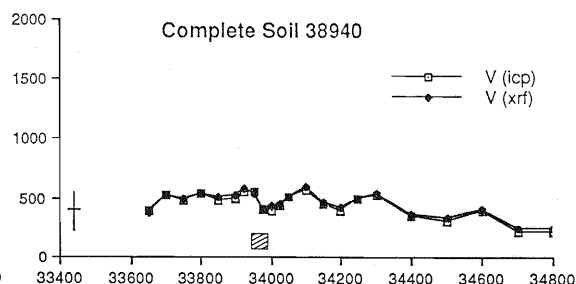
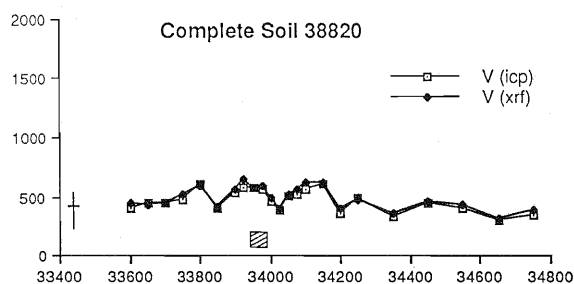
# Sn (ppm)



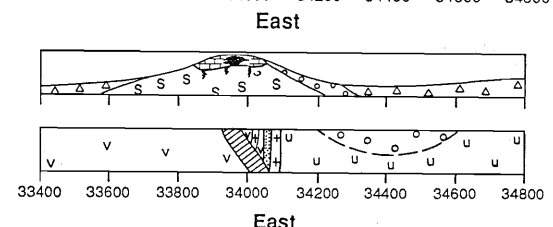
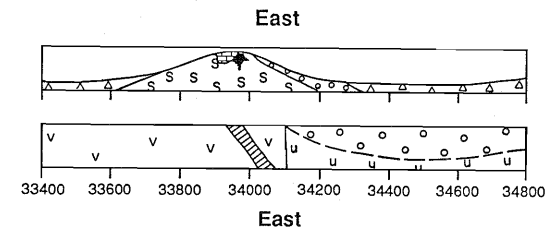
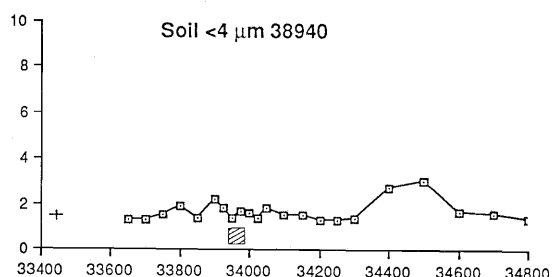
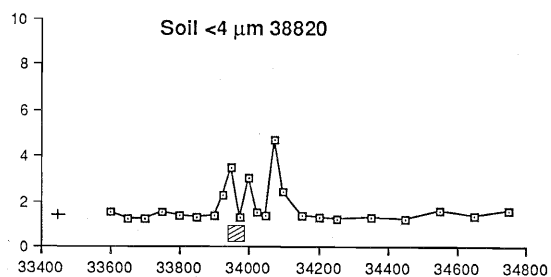
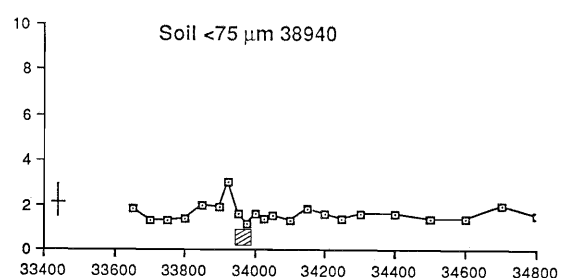
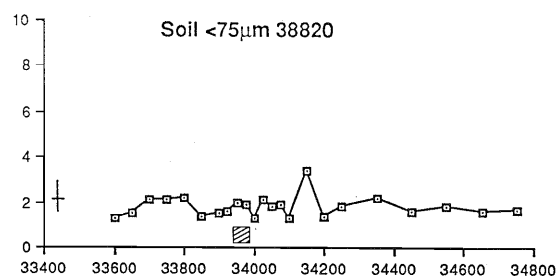
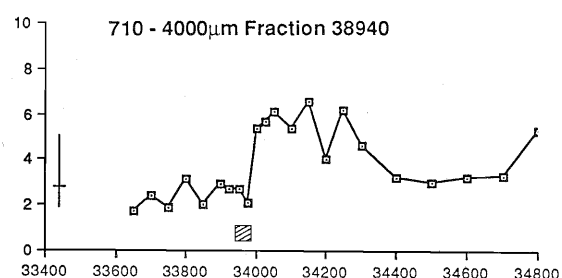
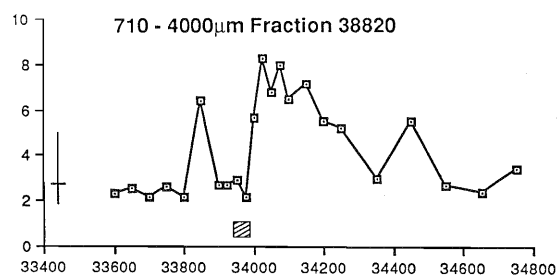
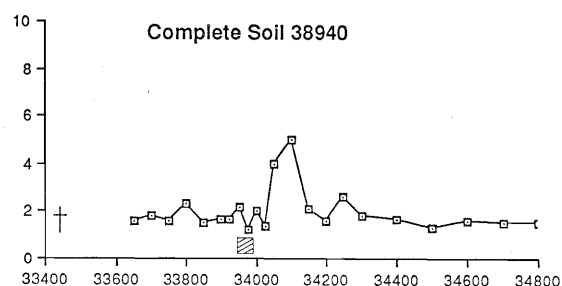
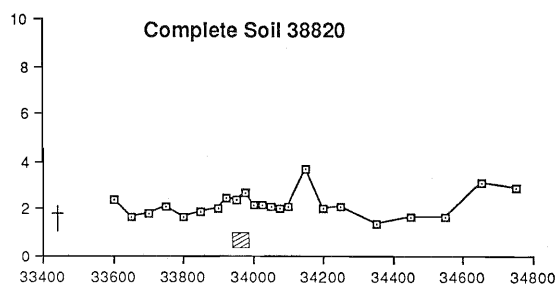
Sr (ppm)



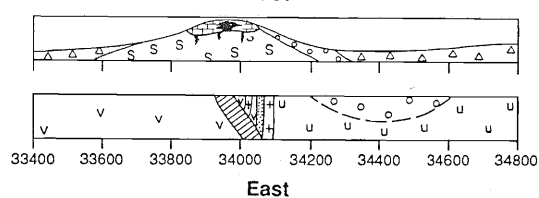
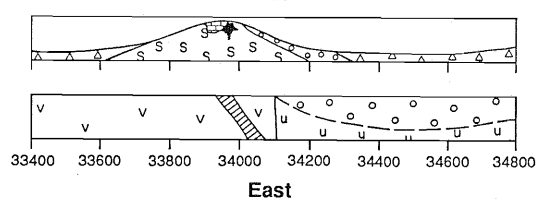
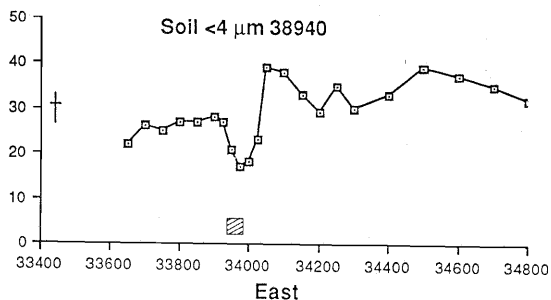
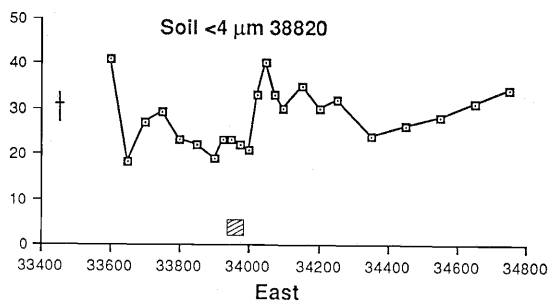
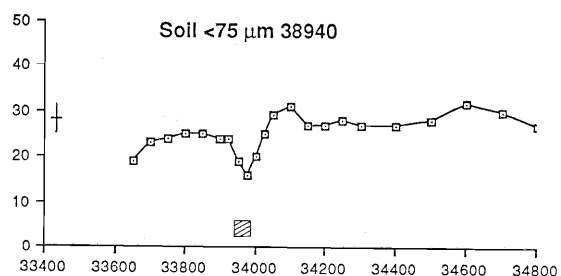
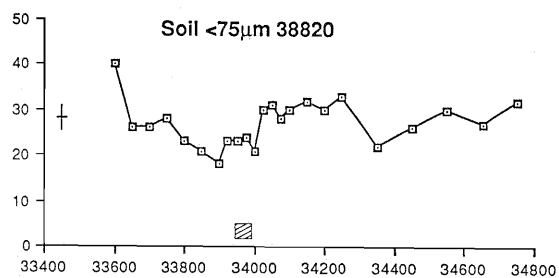
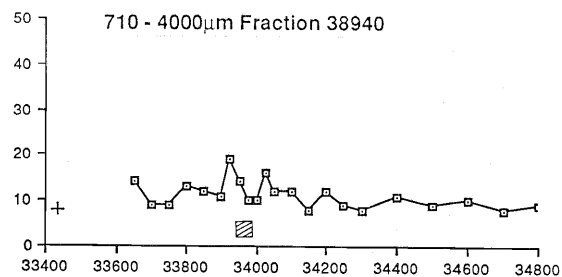
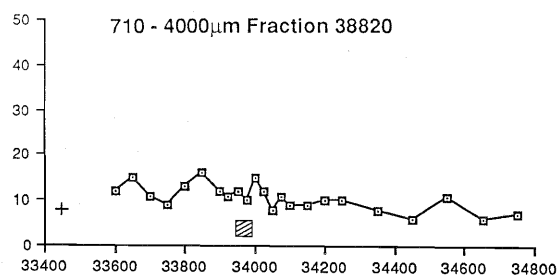
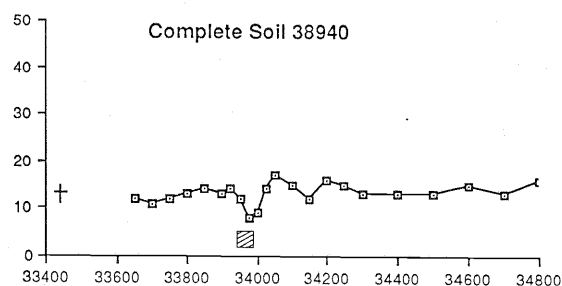
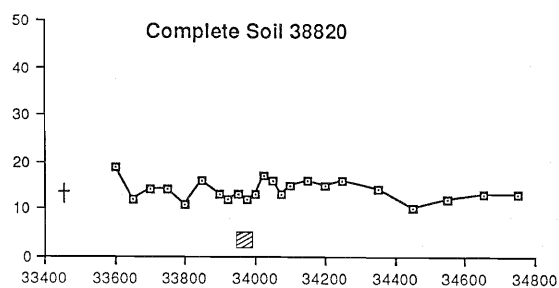
V (ppm)



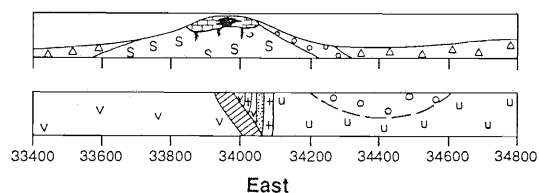
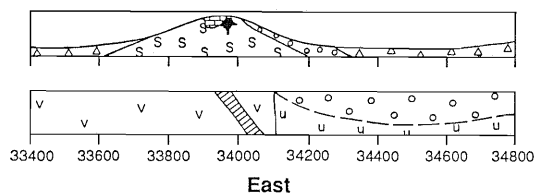
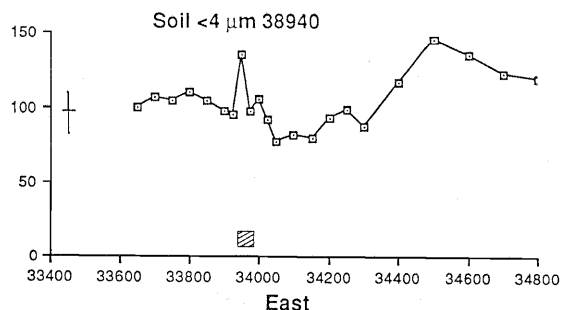
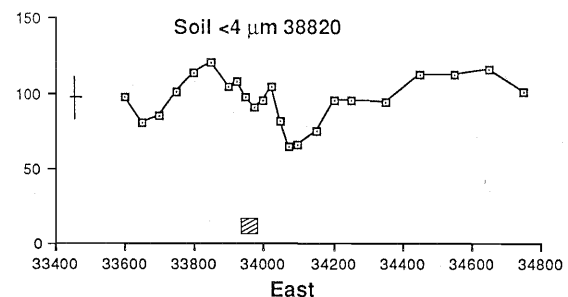
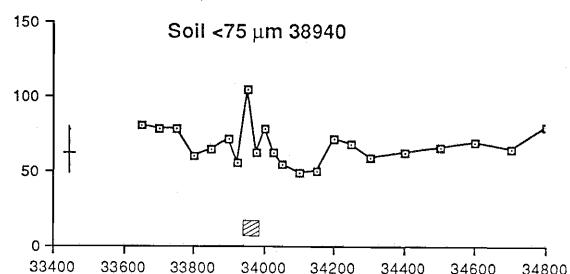
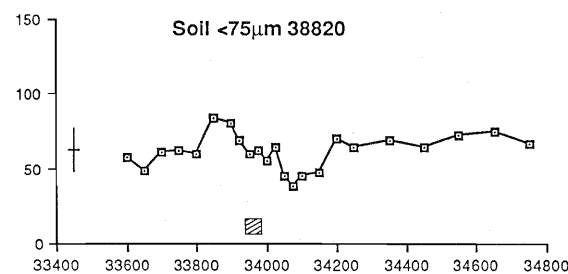
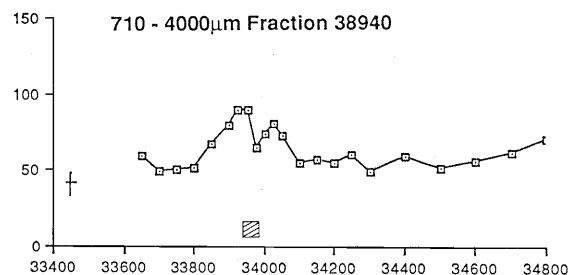
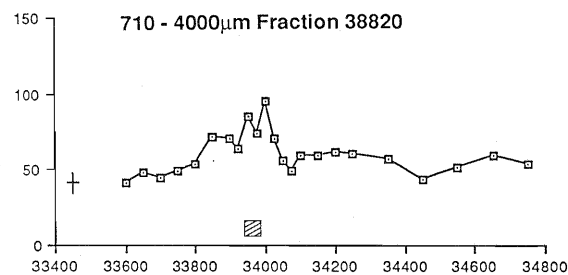
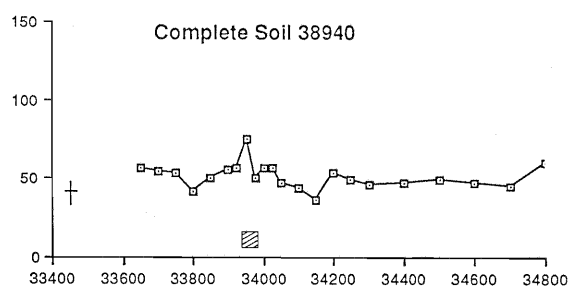
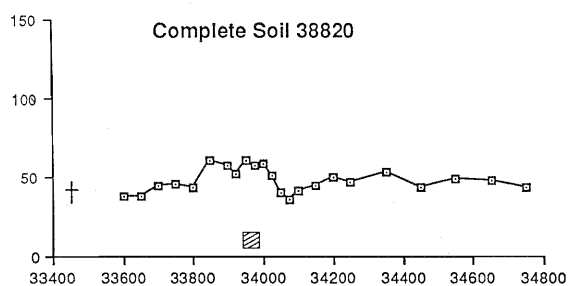
W (ppm)



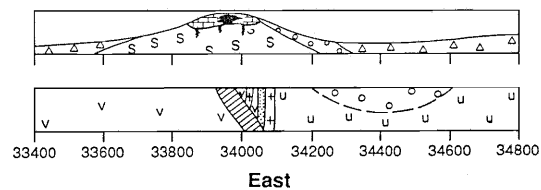
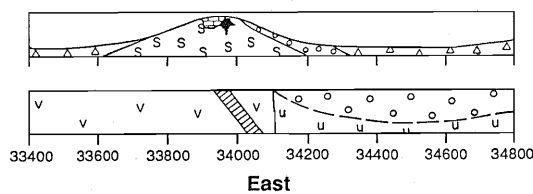
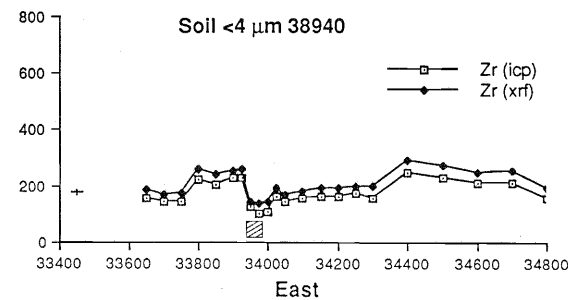
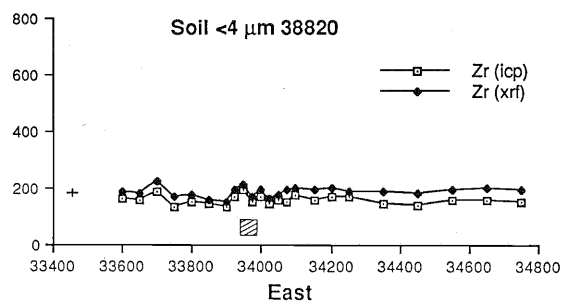
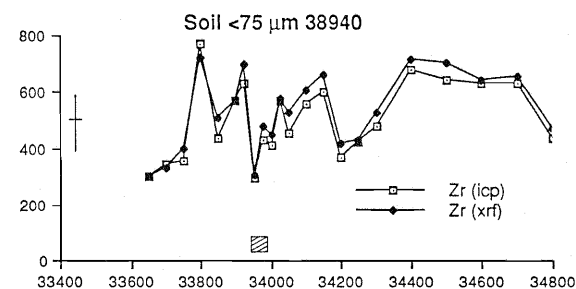
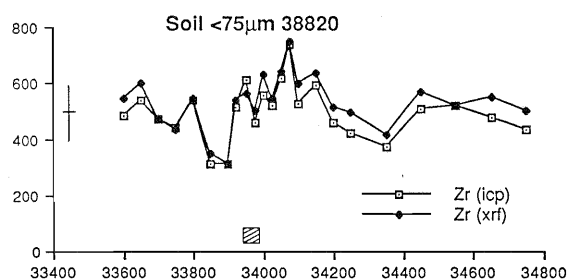
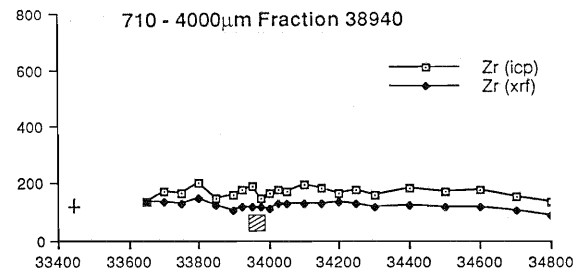
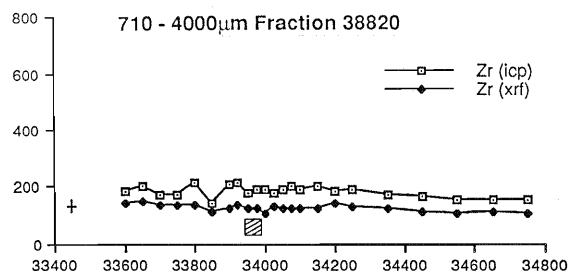
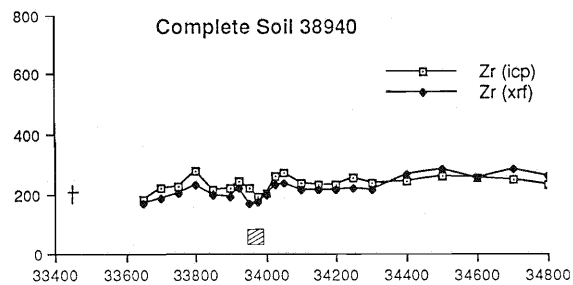
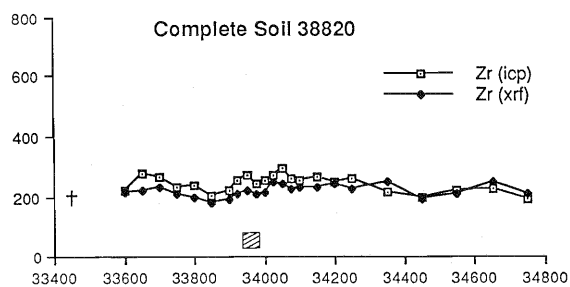
Y (ppm)



# Zn (ppm)



## Zr (ppm)





## **APPENDIX 3**

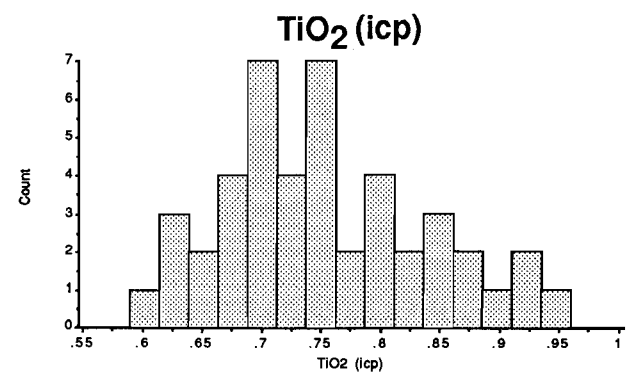
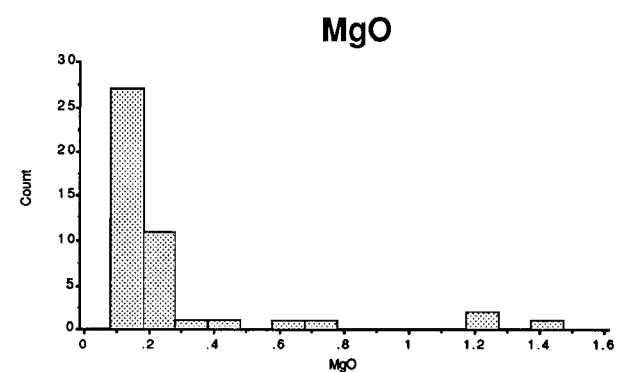
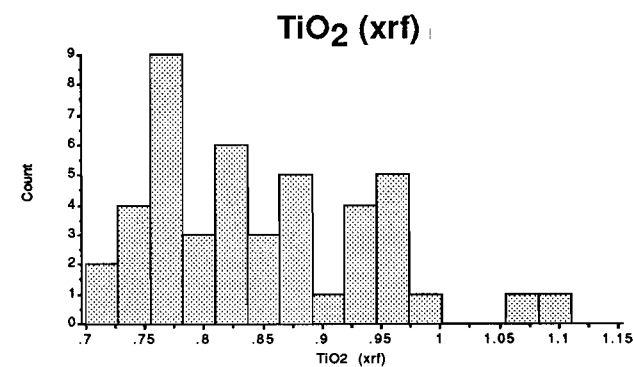
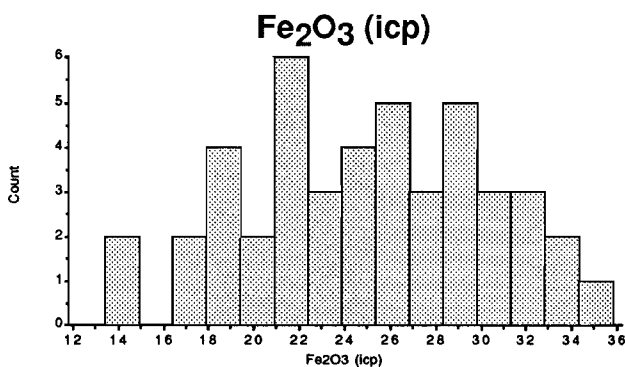
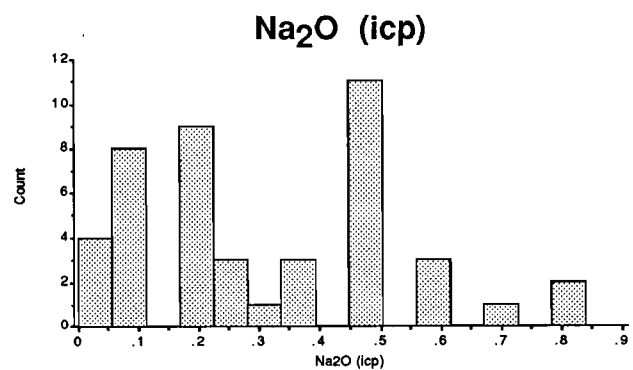
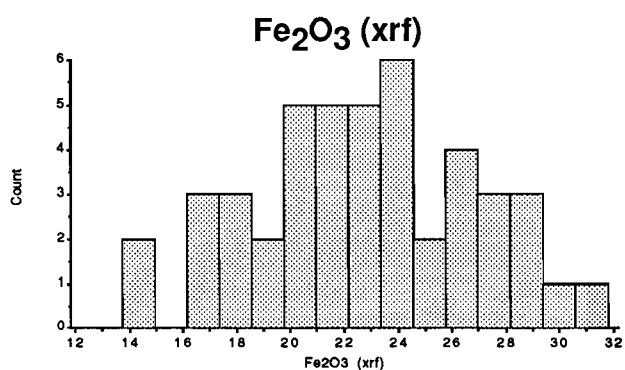
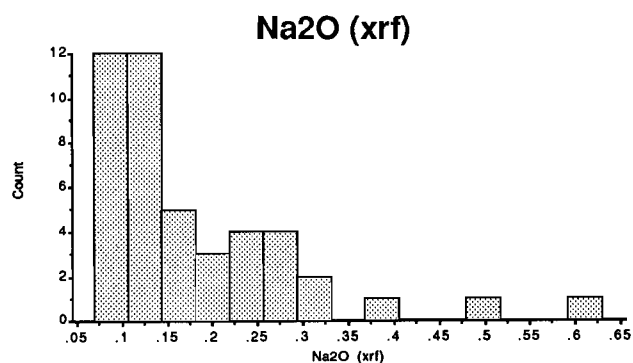
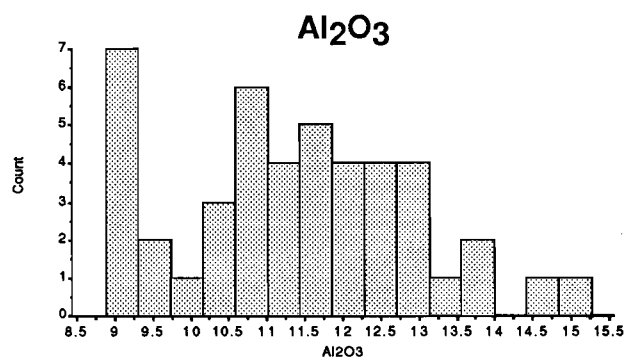
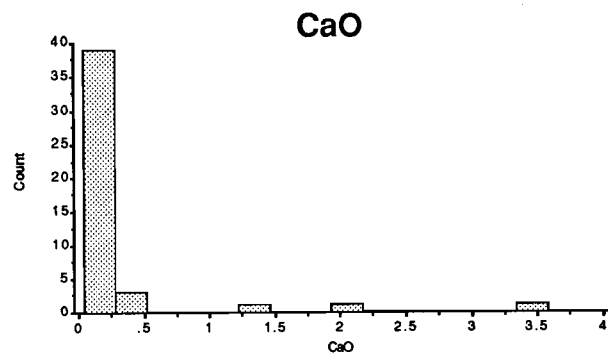
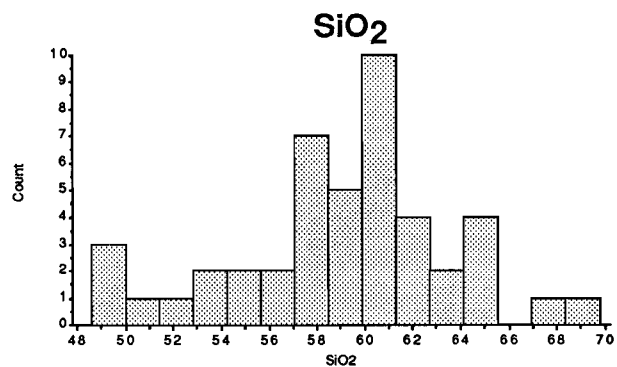
### **Frequency Distributions**

#### **Complete Soil**

Oxides in weight %

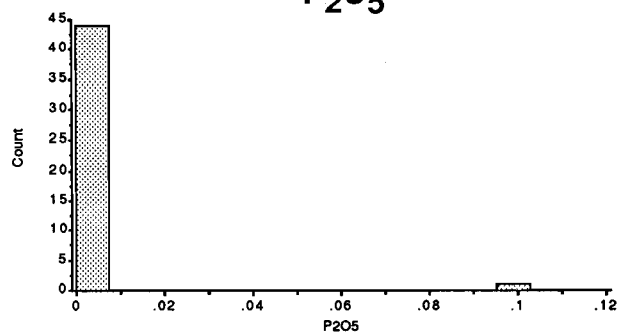
Trace elements in ppm  
except Au in ppb

# Complete Soil

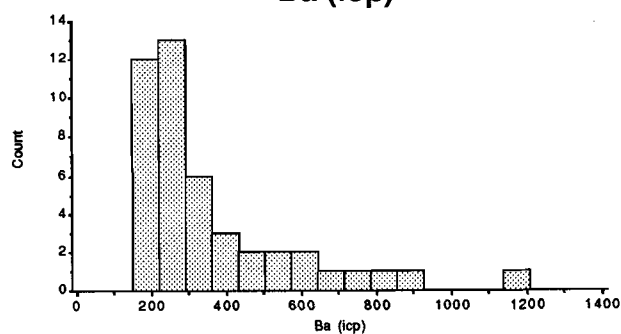


# Complete Soil

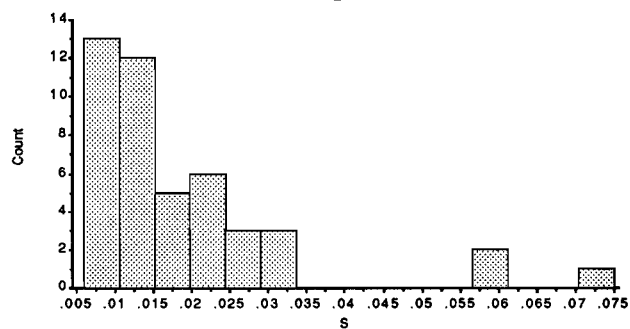
**P<sub>2</sub>O<sub>5</sub>**



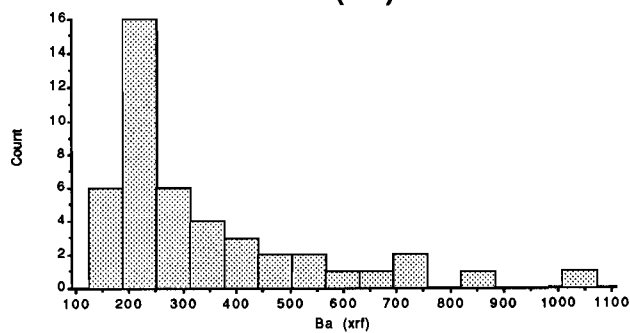
**Ba (icp)**



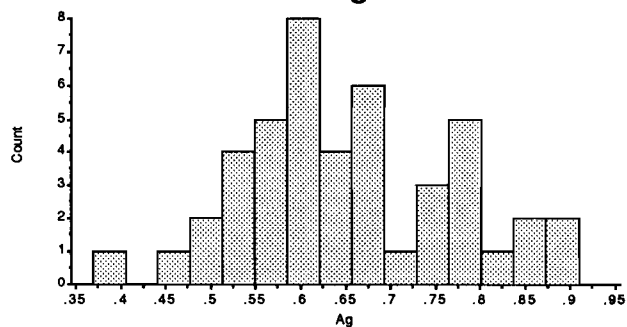
**S**



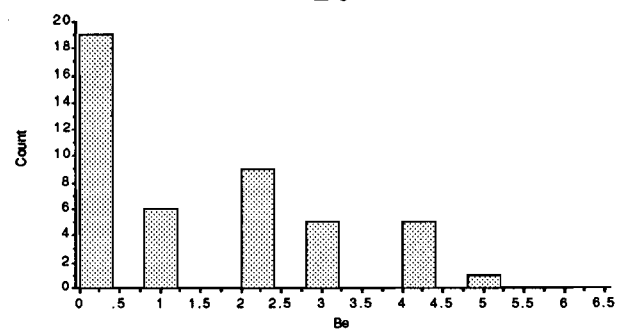
**Ba (xrf)**



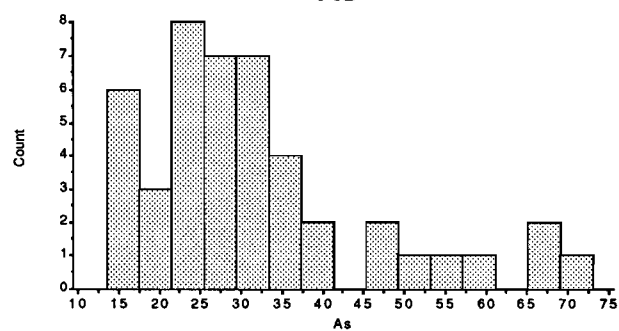
**Ag**



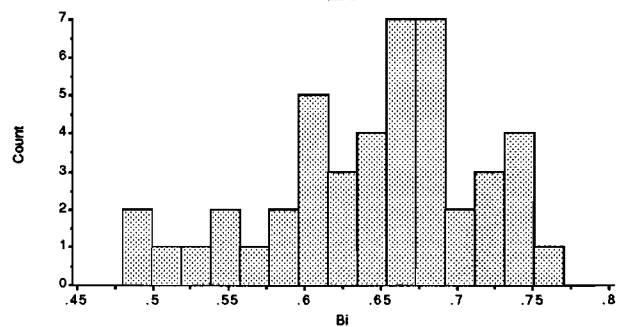
**Be**



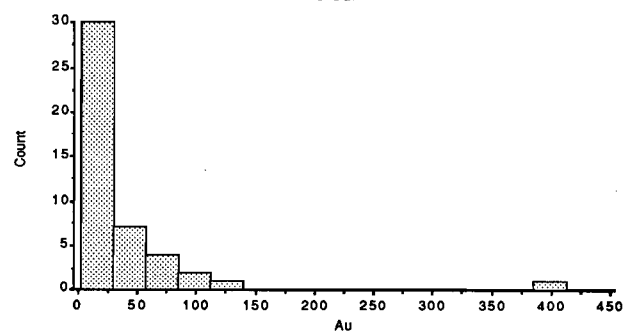
**As**



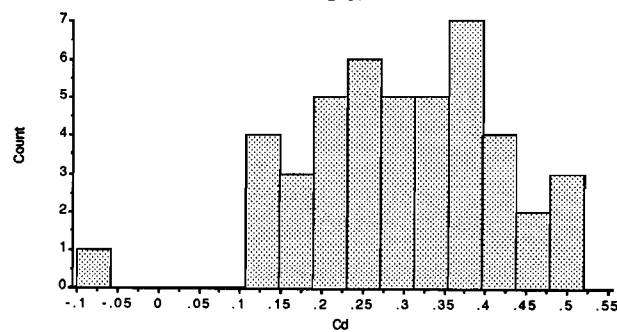
**Bi**



**Au**

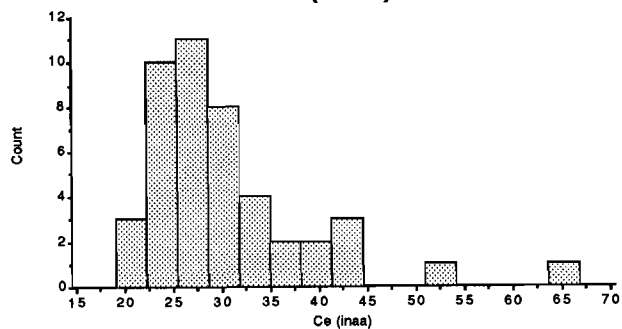


**Cd**

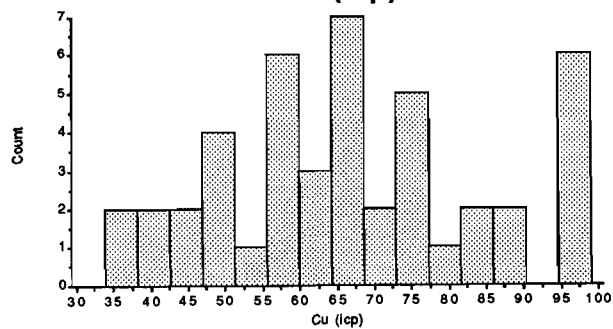


# Complete Soil

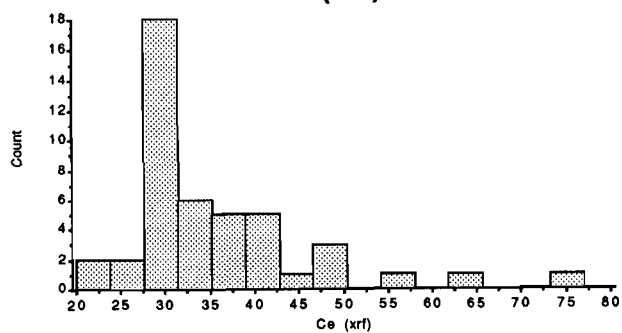
**Ce (inaa)**



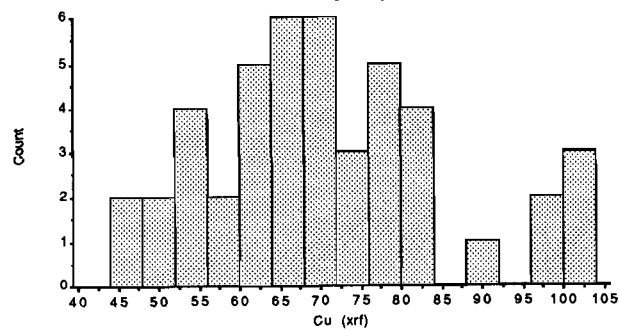
**Cu (icp)**



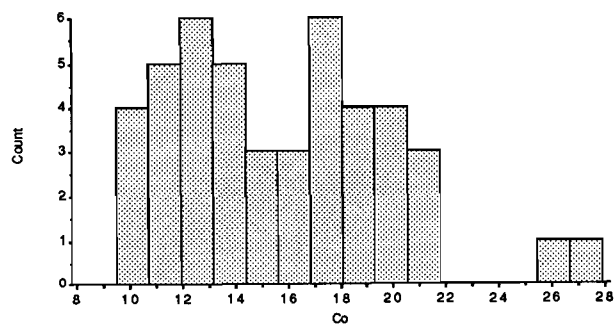
**Ce (xrf)**



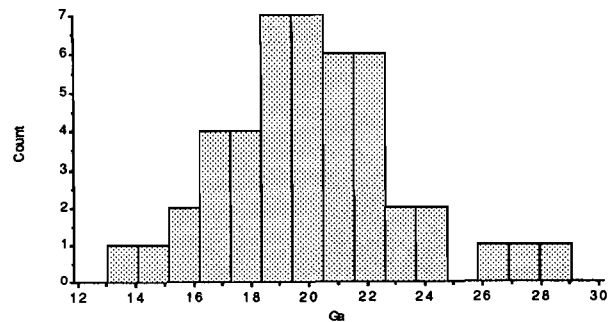
**Cu (xrf)**



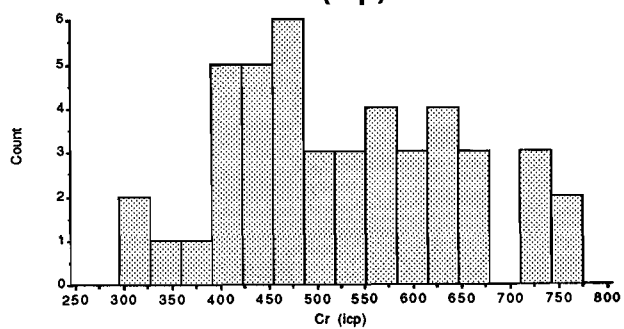
**Co**



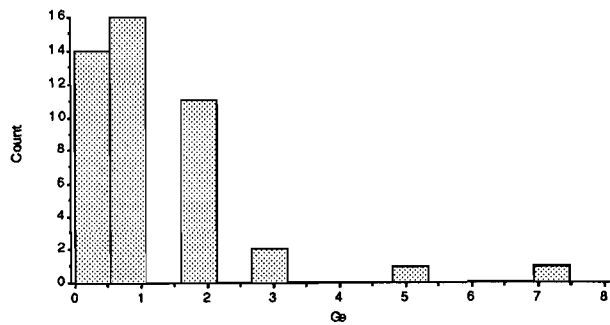
**Ga**



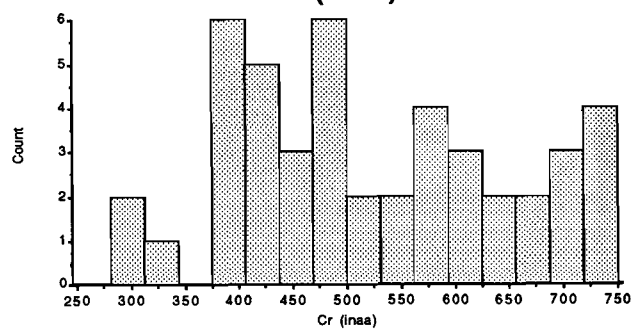
**Cr (icp)**



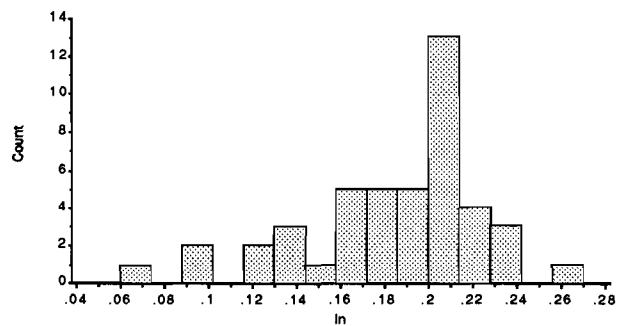
**Ge**



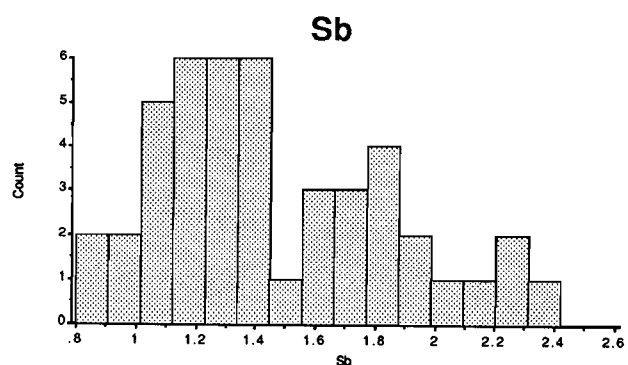
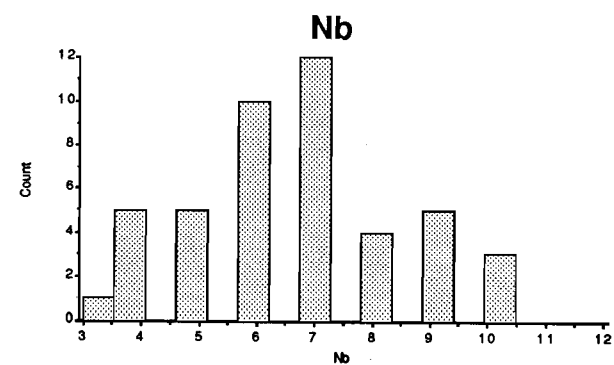
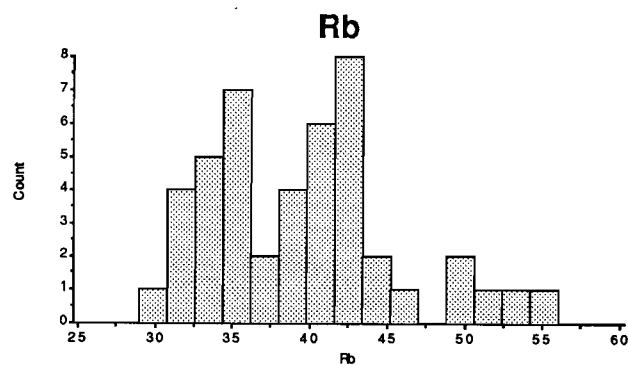
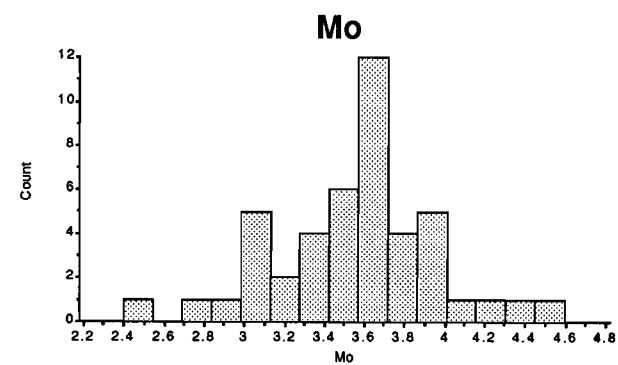
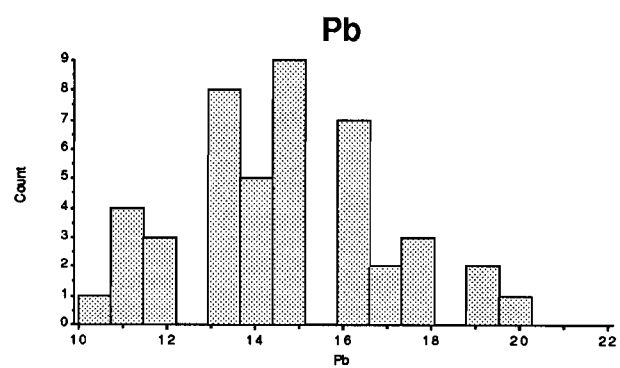
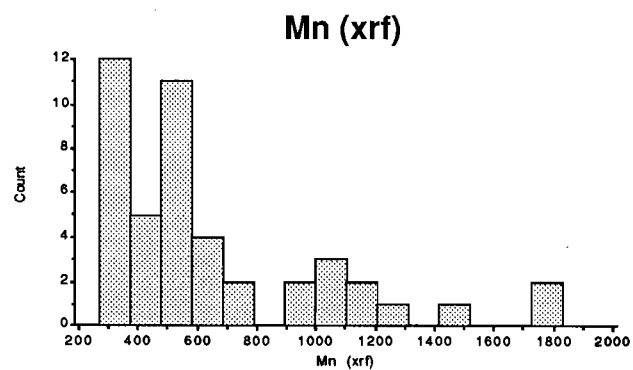
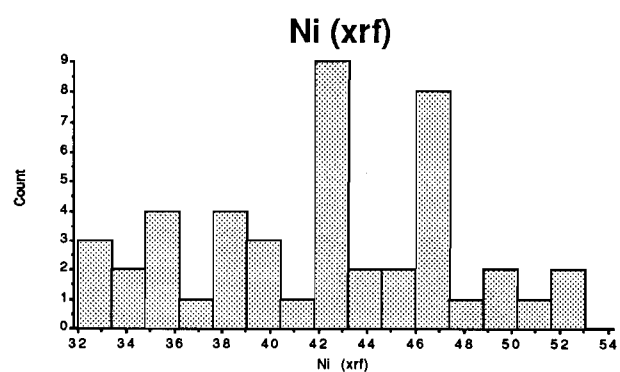
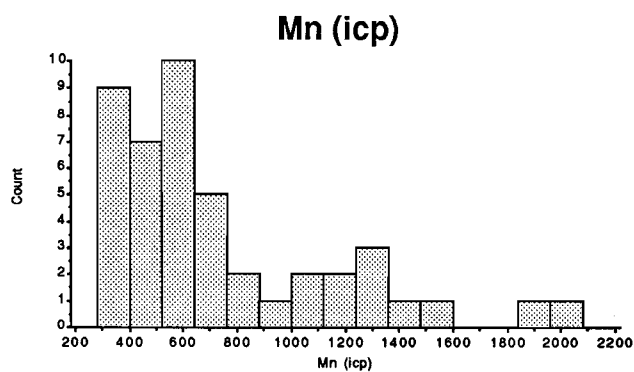
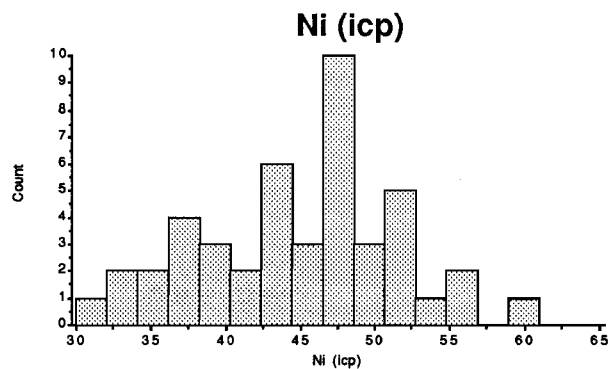
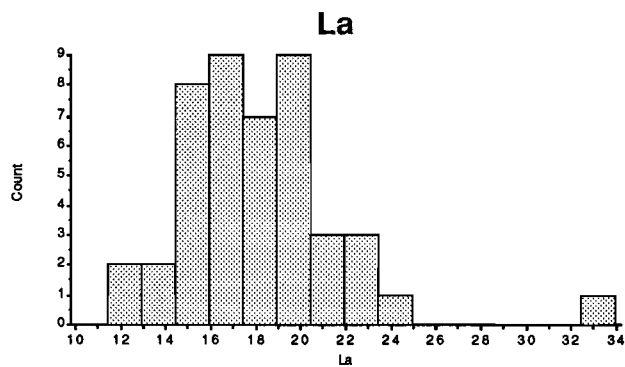
**Cr (inaa)**



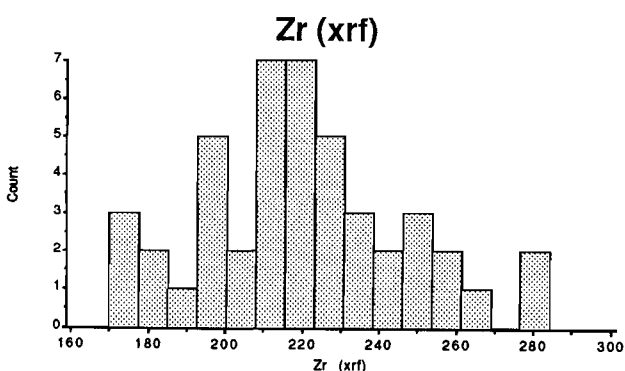
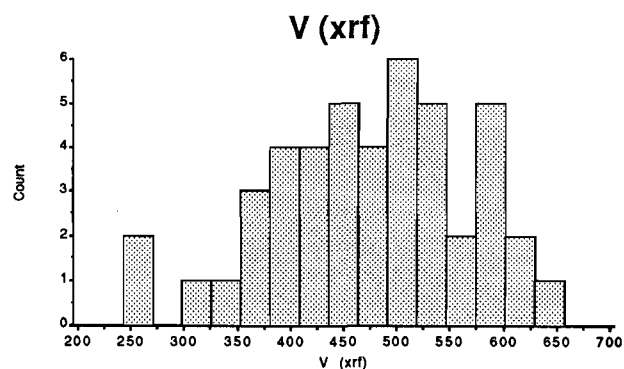
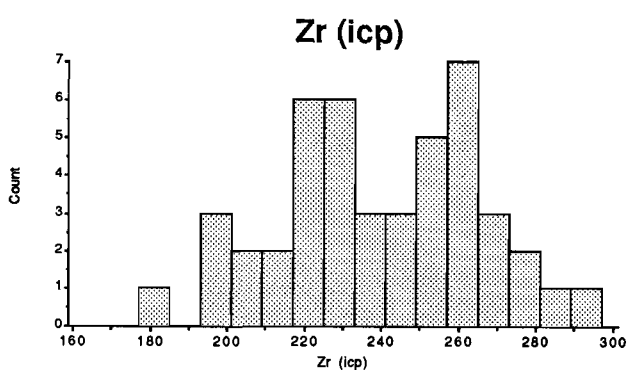
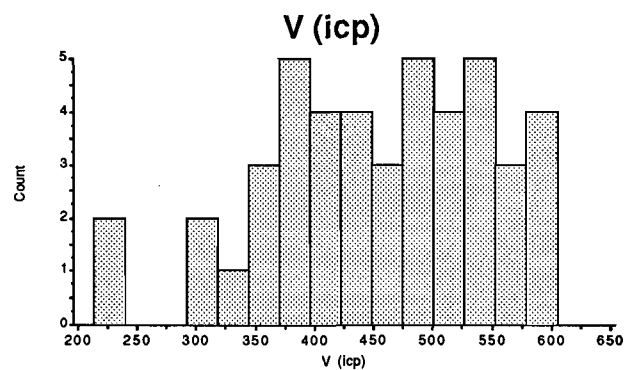
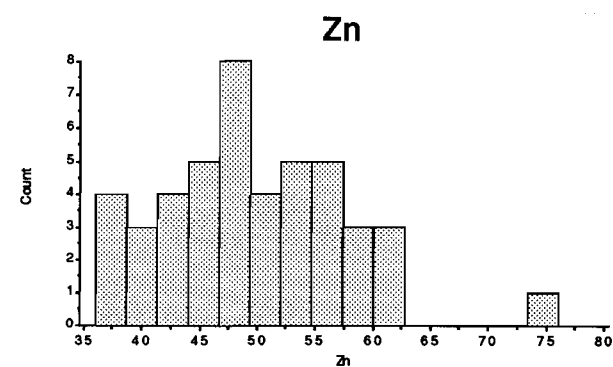
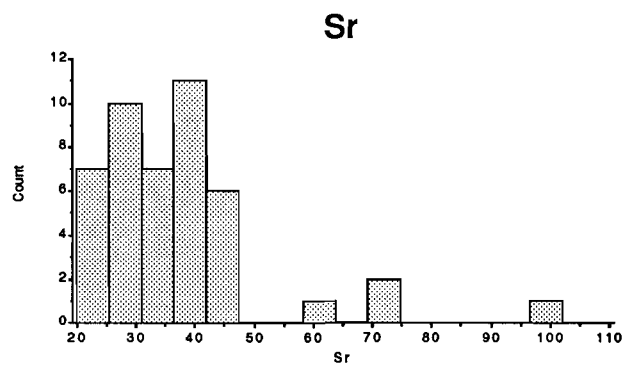
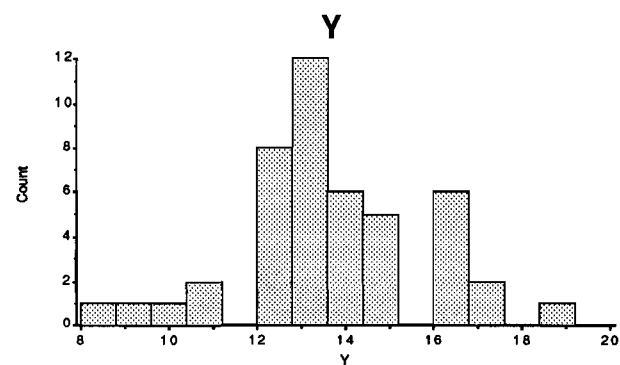
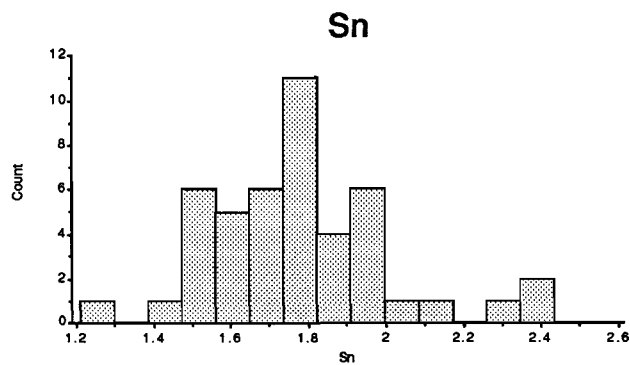
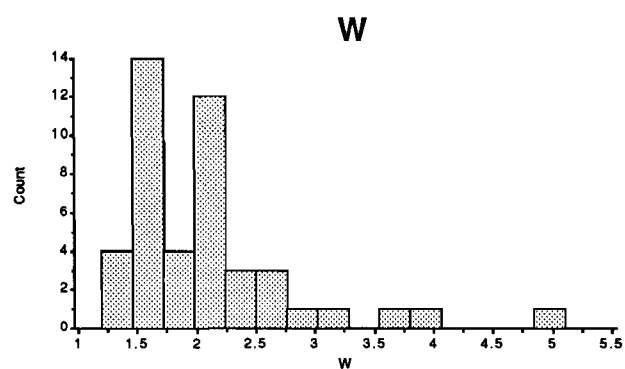
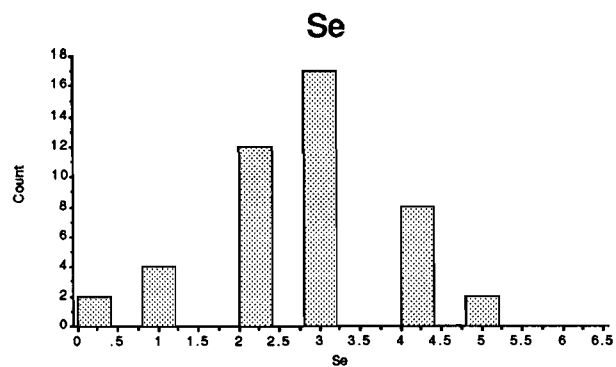
**In**



# Complete Soil



# Complete Soil



## **APPENDIX 4**

### **Frequency Distributions**

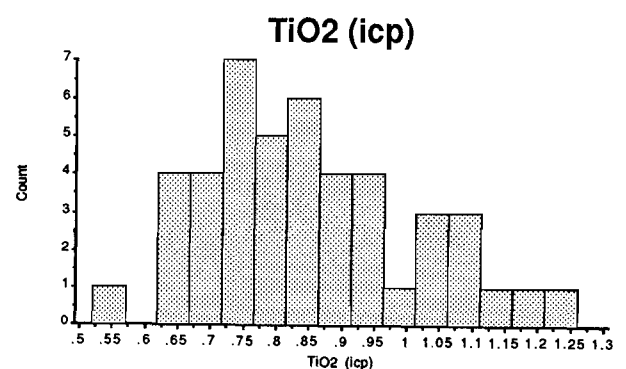
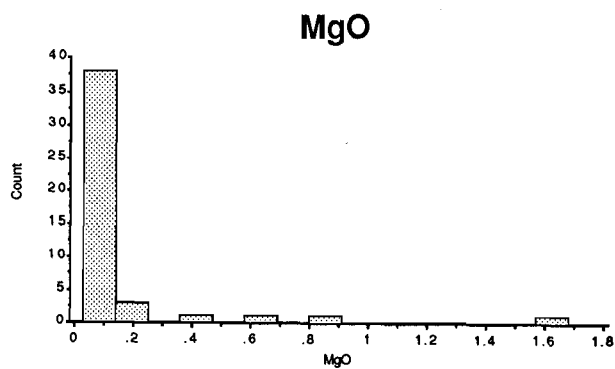
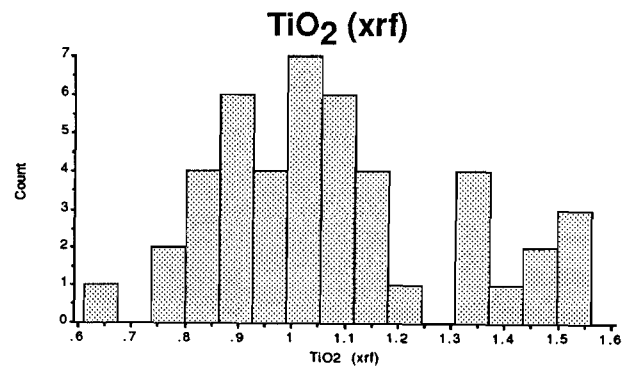
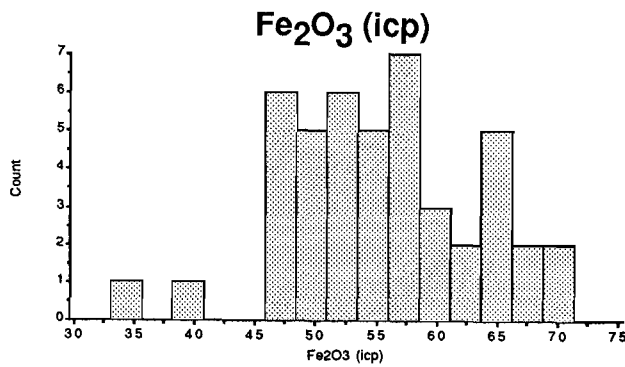
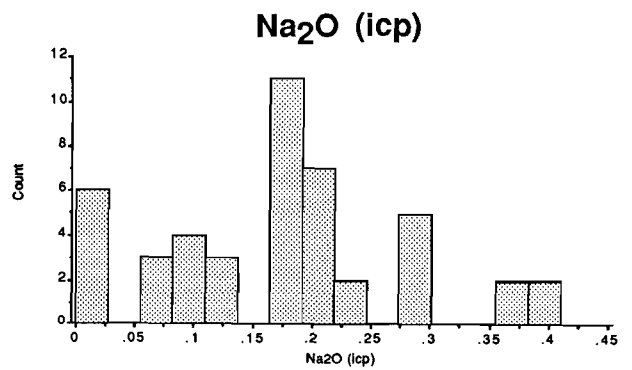
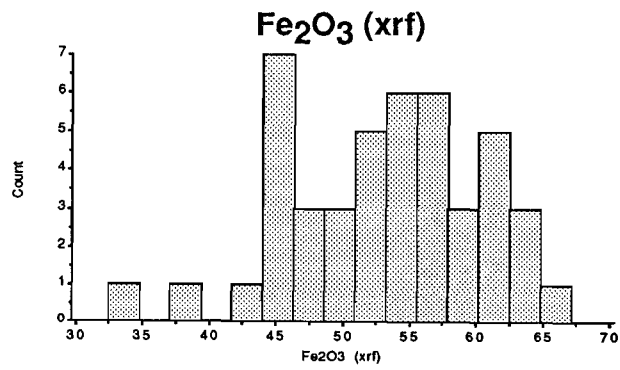
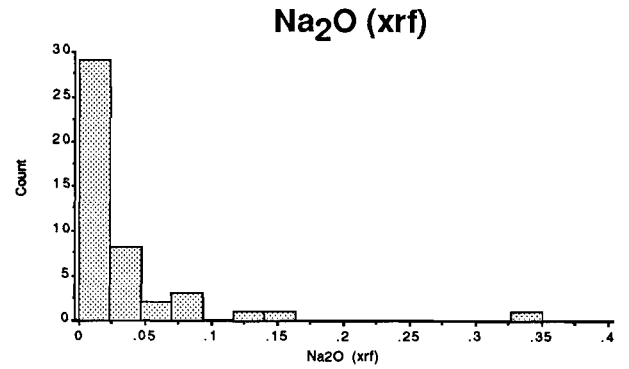
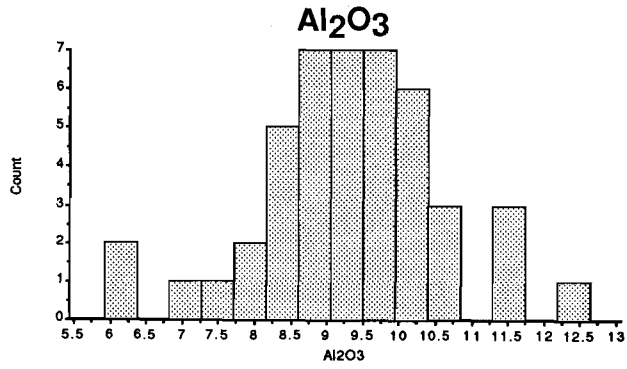
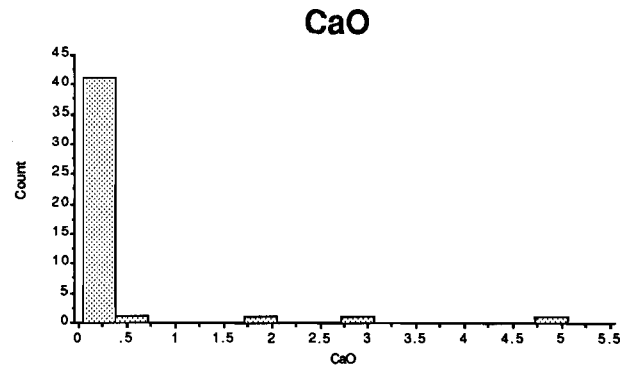
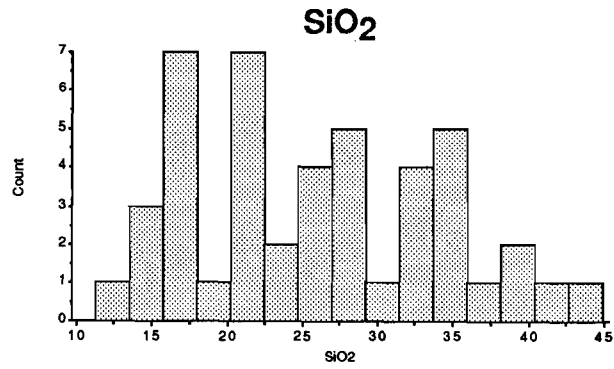
#### **710 - 4000 $\mu\text{m}$ Fraction**

Oxides in weight %

Trace elements in ppm

except Au in ppb

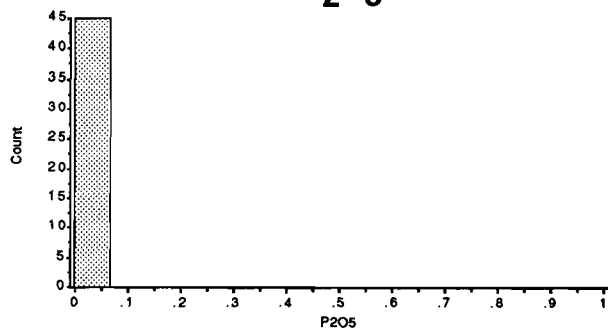
# 710 - 4000 $\mu\text{m}$ Fraction



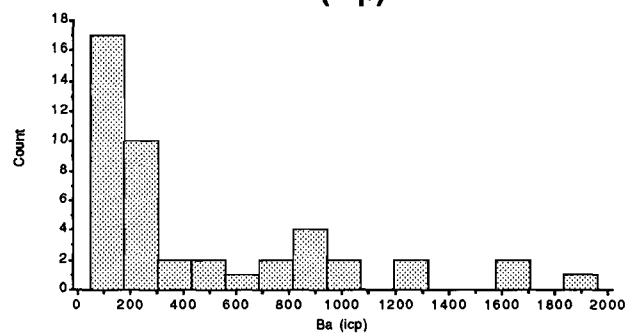


# 710 - 4000 $\mu\text{m}$ Fraction

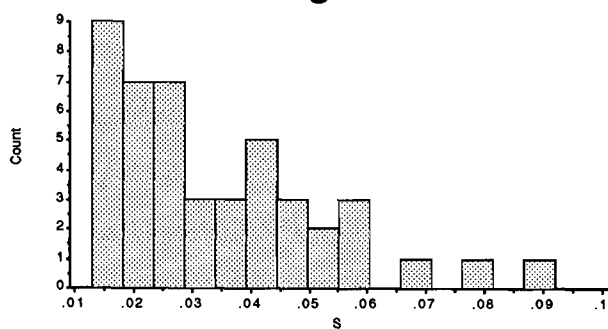
**P<sub>2</sub>O<sub>5</sub>**



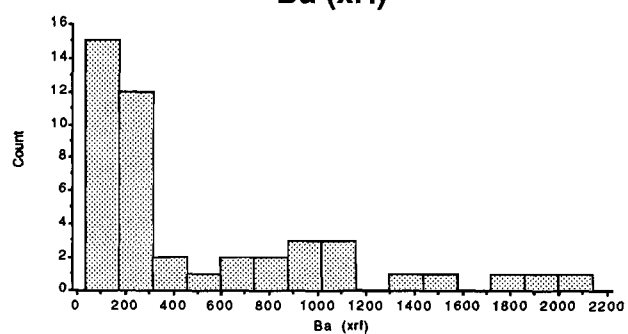
**Ba (icp)**



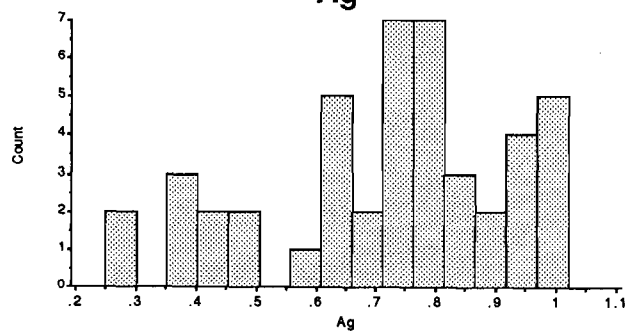
**S**



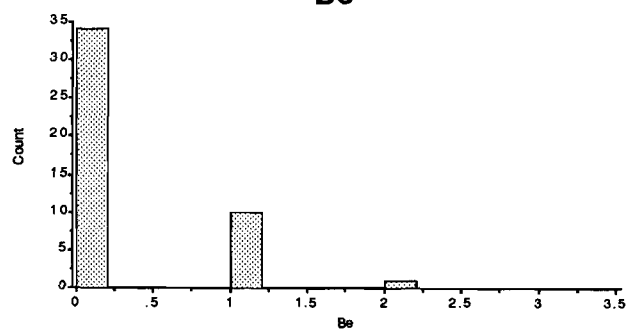
**Ba (xrf)**



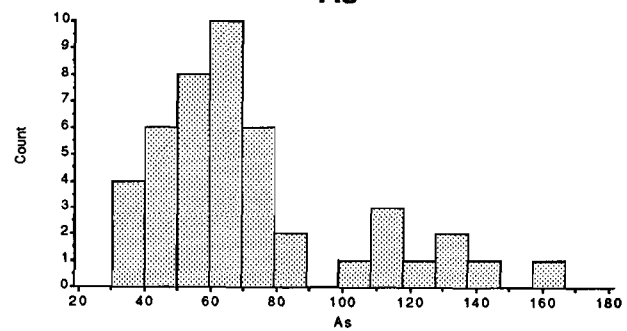
**Ag**



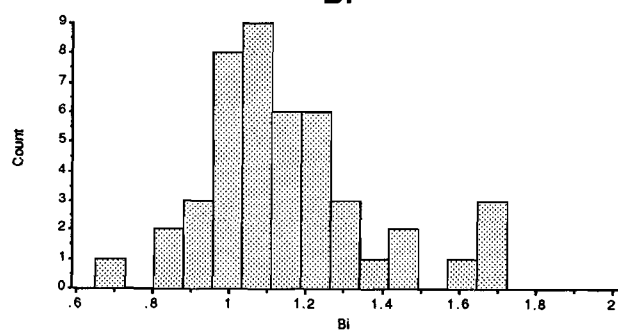
**Be**



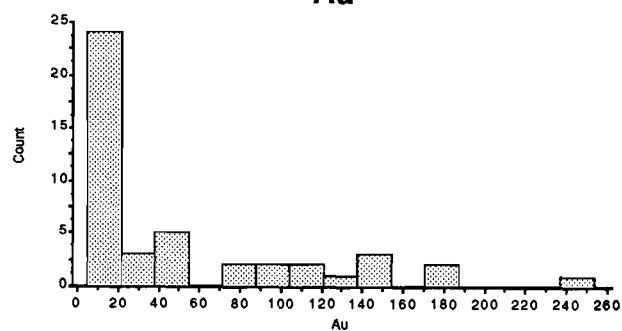
**As**



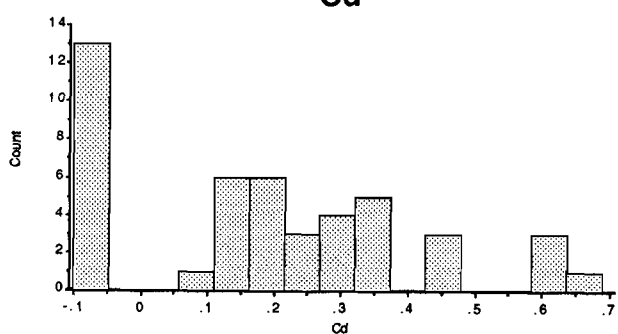
**Bi**



**Au**

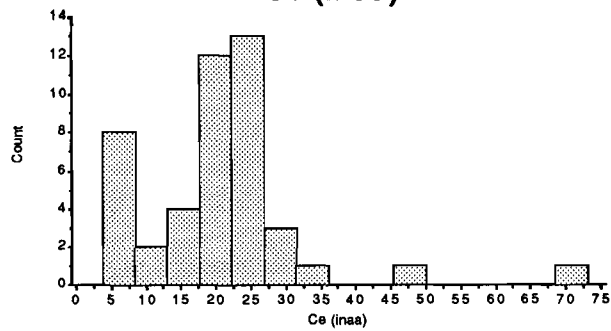


**Cd**

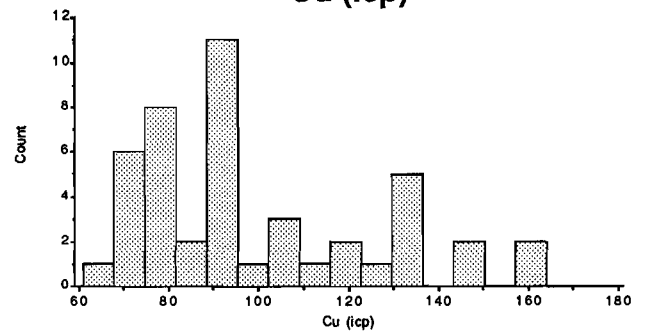


# 710 - 4000 $\mu\text{m}$ Fraction

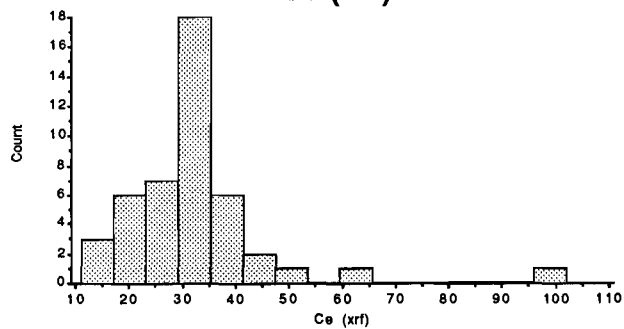
**Ce (inaa)**



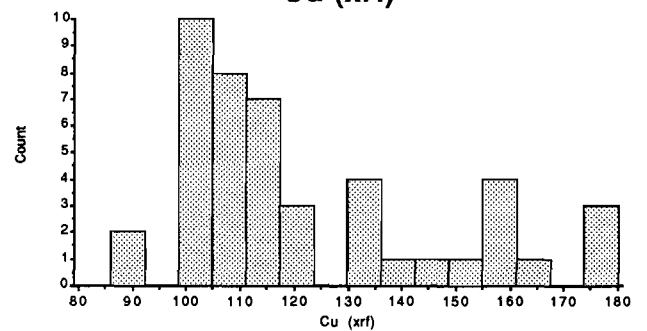
**Cu (icp)**



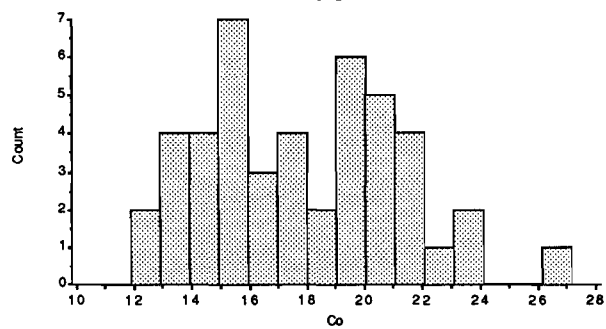
**Ce (xrf)**



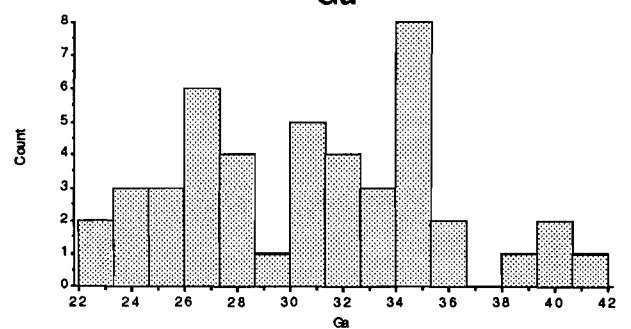
**Cu (xrf)**



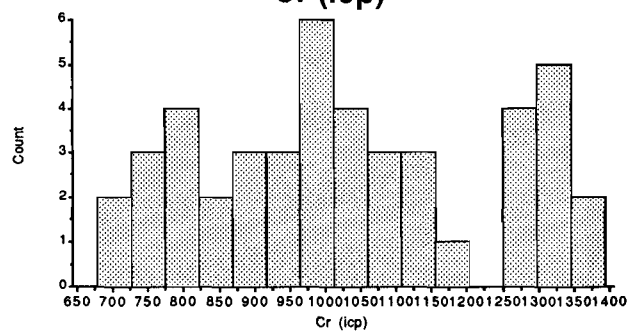
**Co**



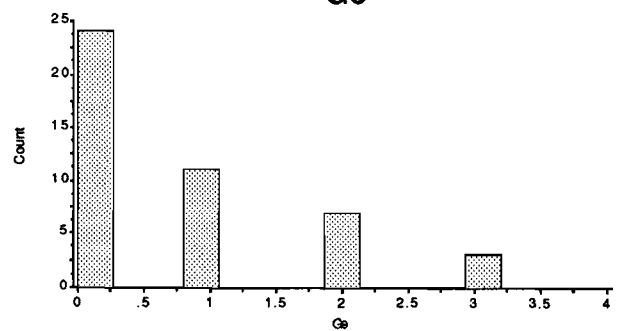
**Ga**



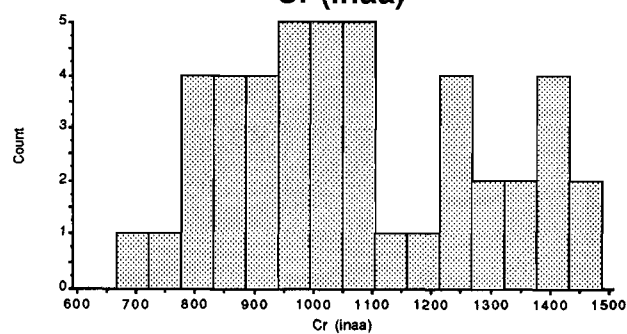
**Cr (icp)**



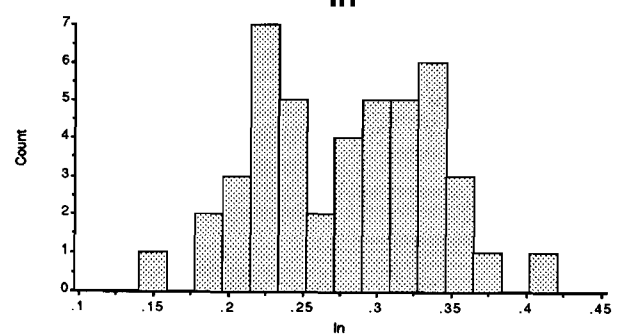
**Ge**



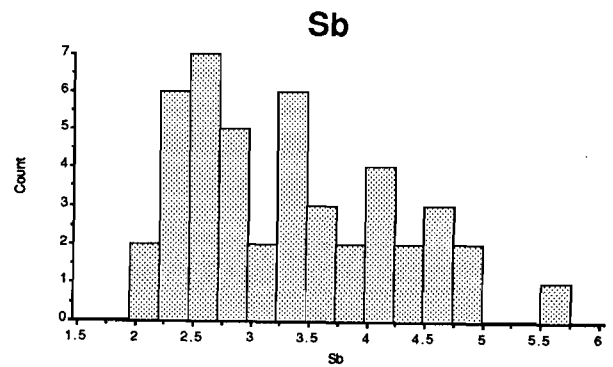
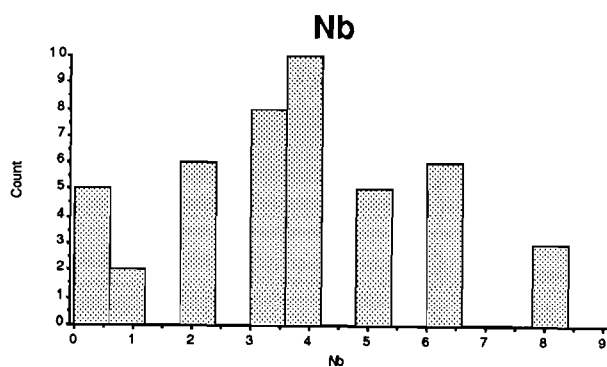
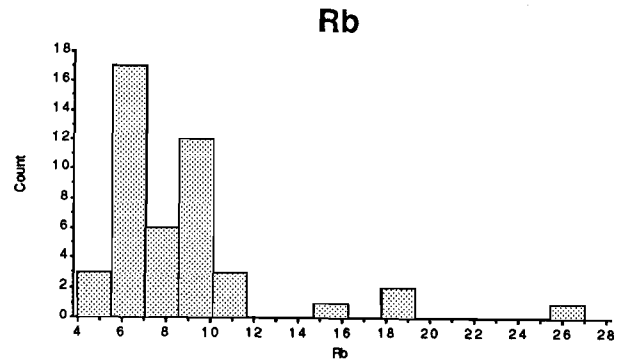
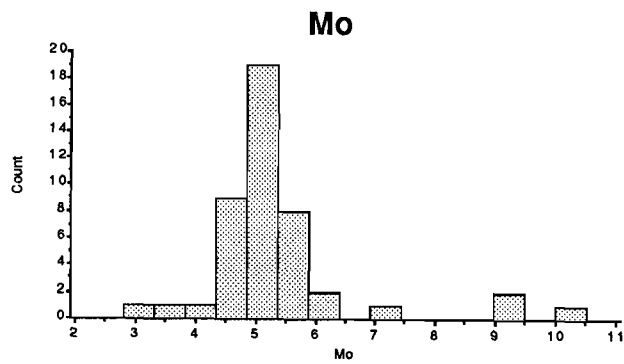
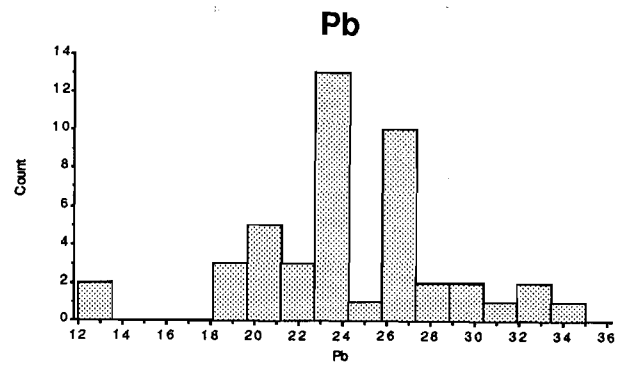
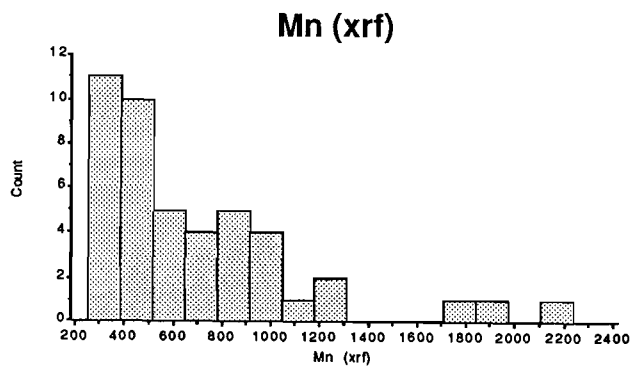
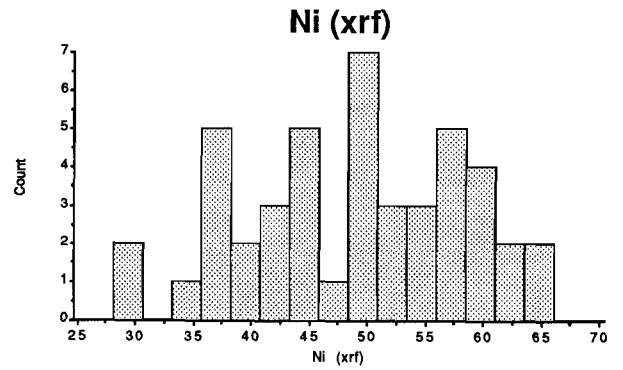
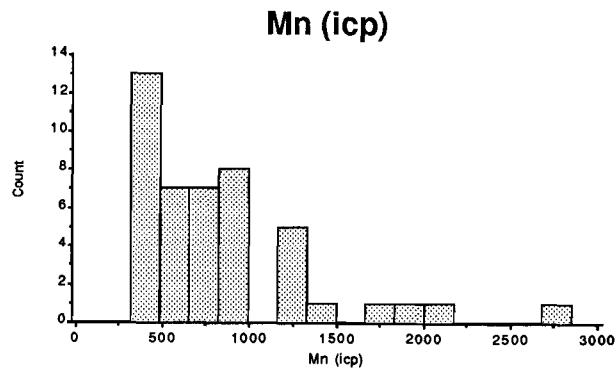
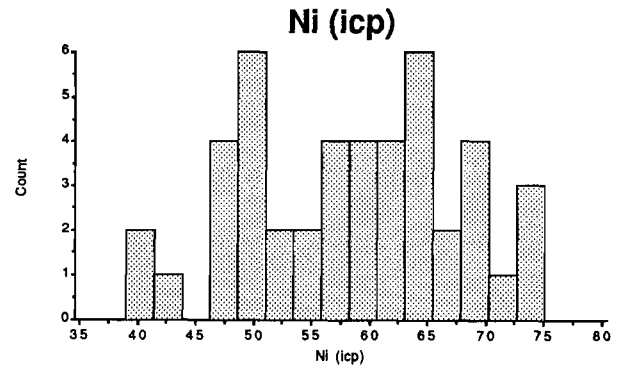
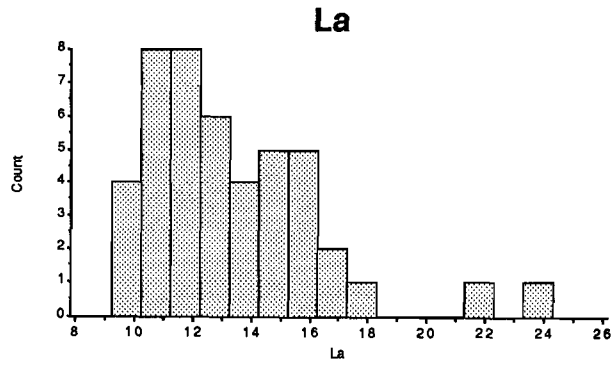
**Cr (inaa)**



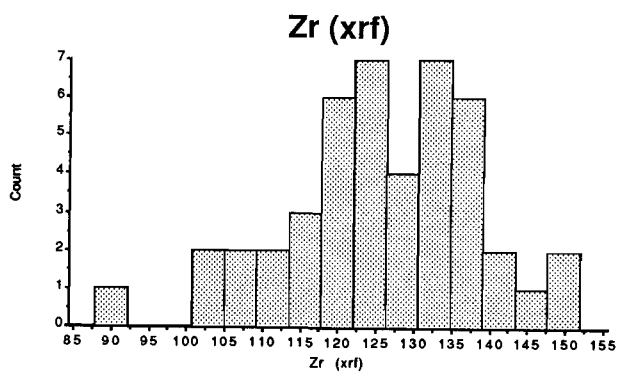
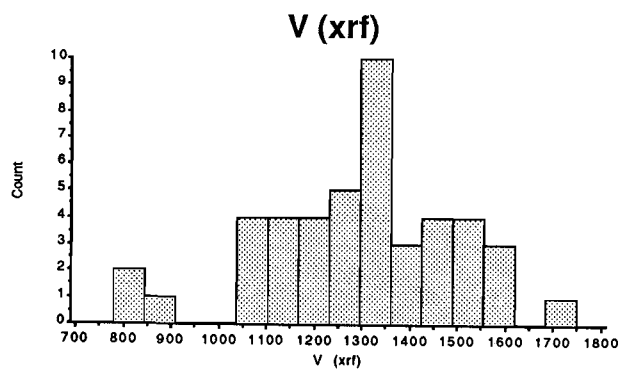
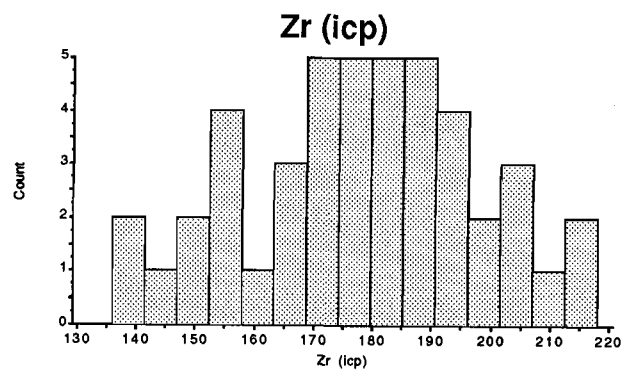
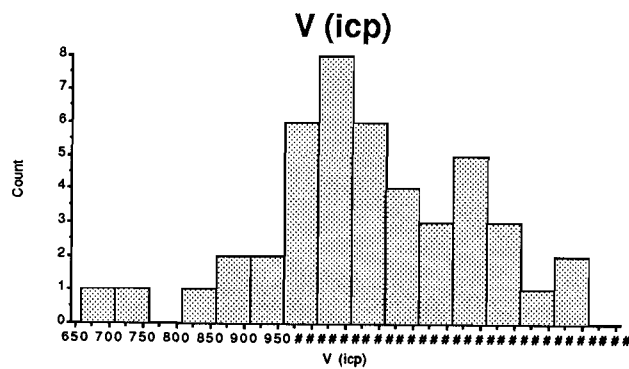
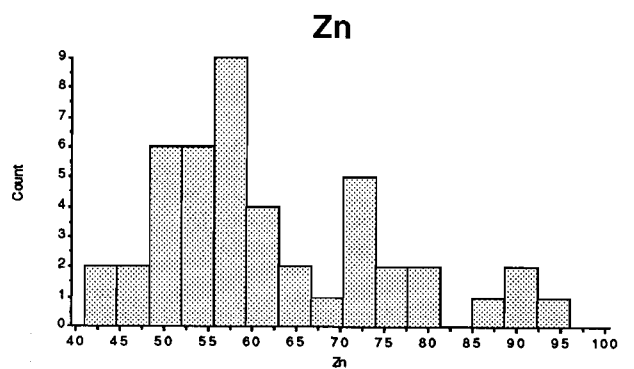
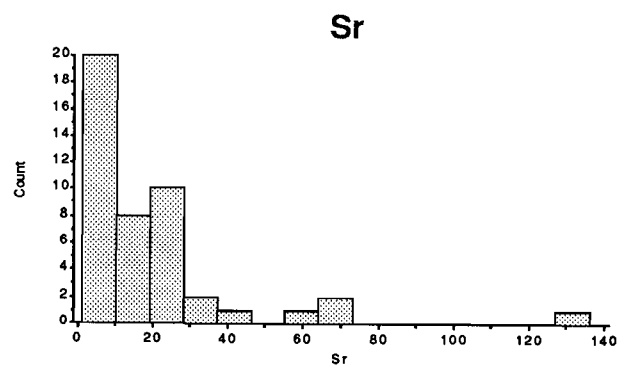
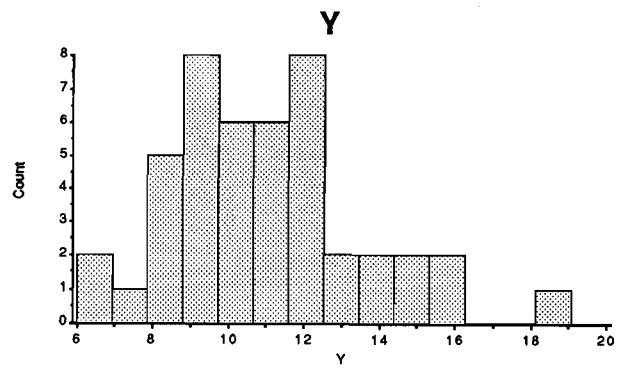
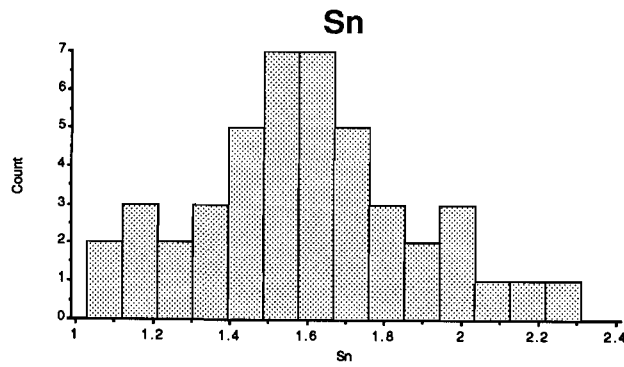
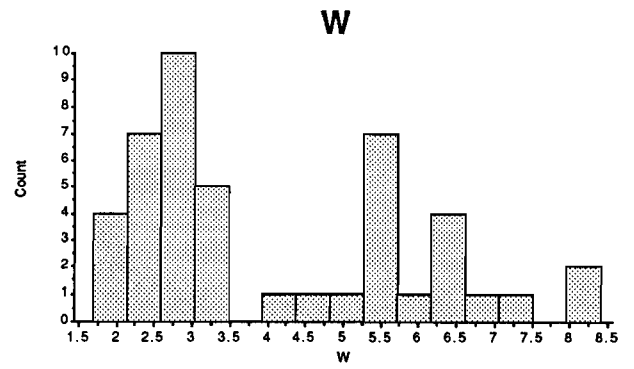
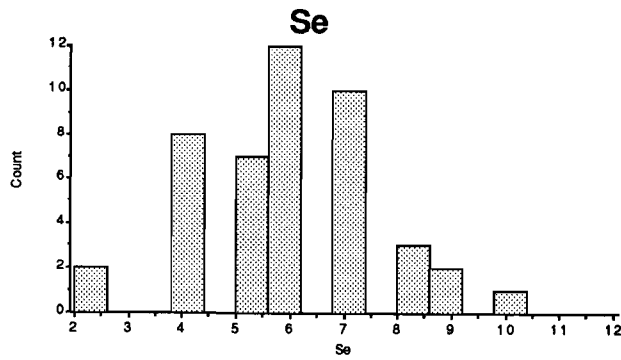
**In**



# 710 - 4000 $\mu\text{m}$ Fraction



# 710 - 4000 $\mu\text{m}$ Fraction



## **APPENDIX 5**

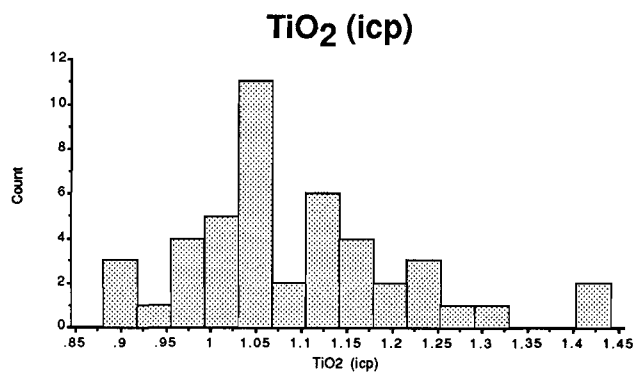
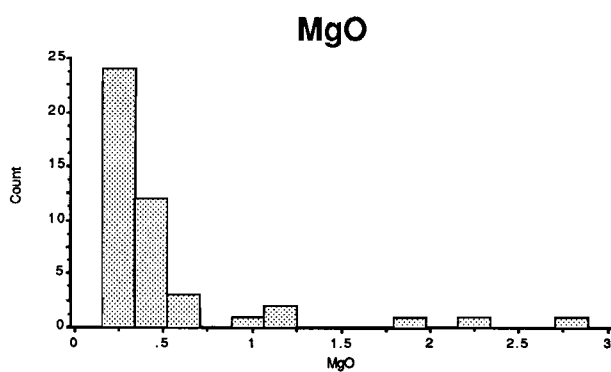
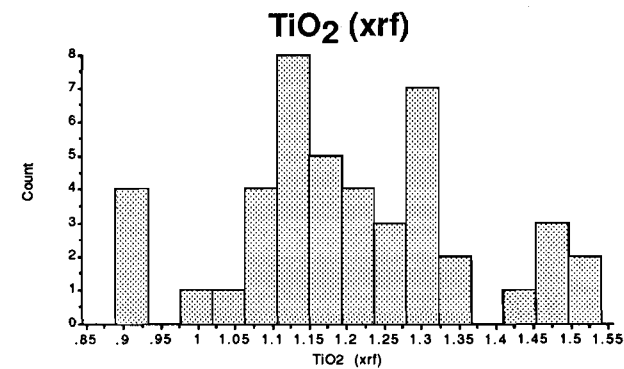
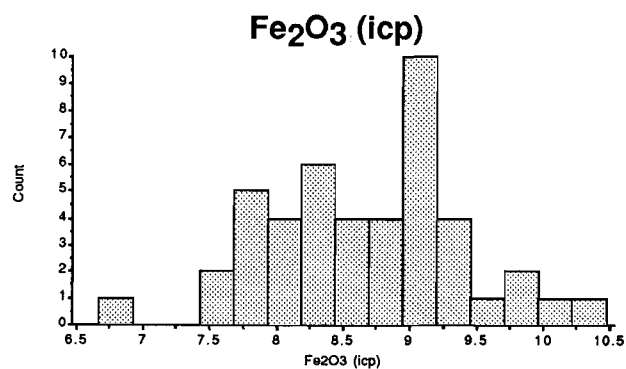
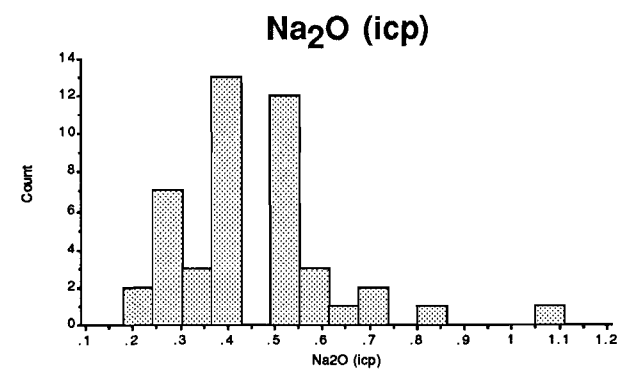
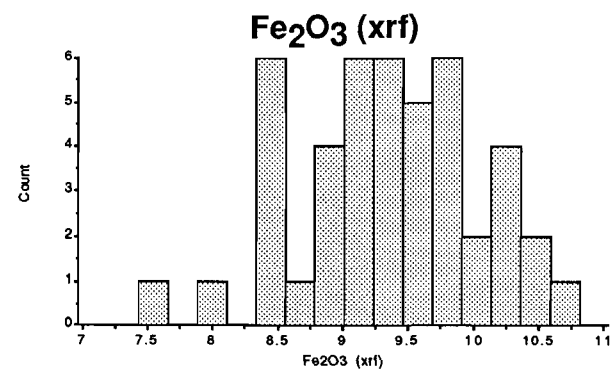
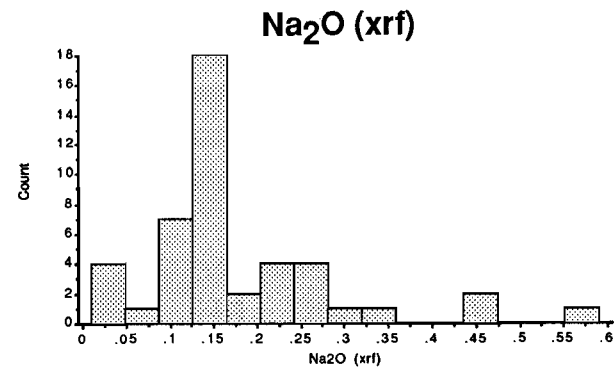
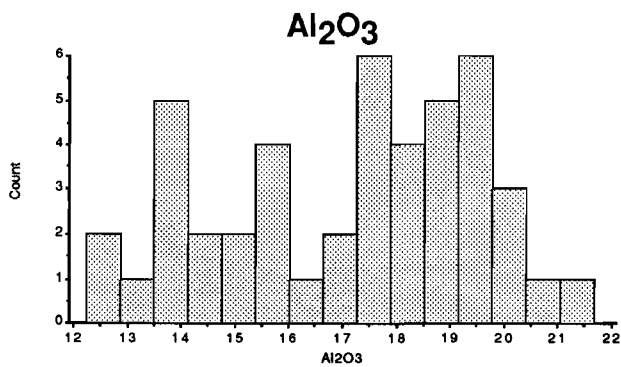
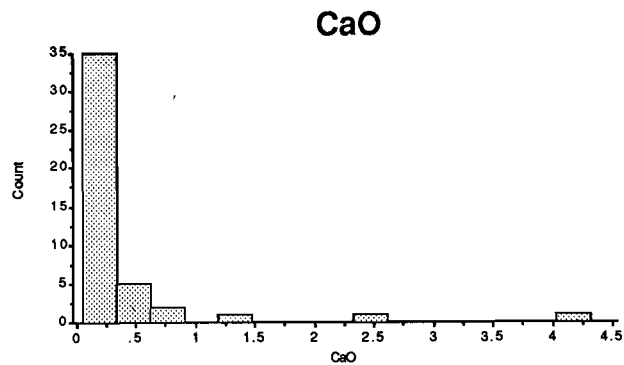
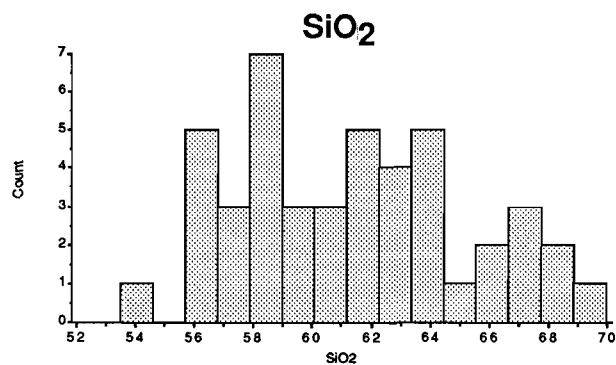
### **Frequency Distributions**

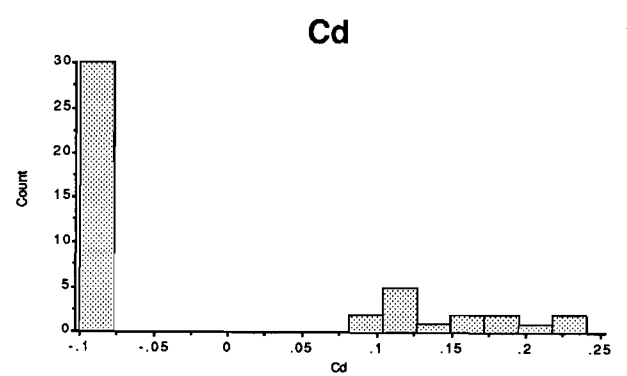
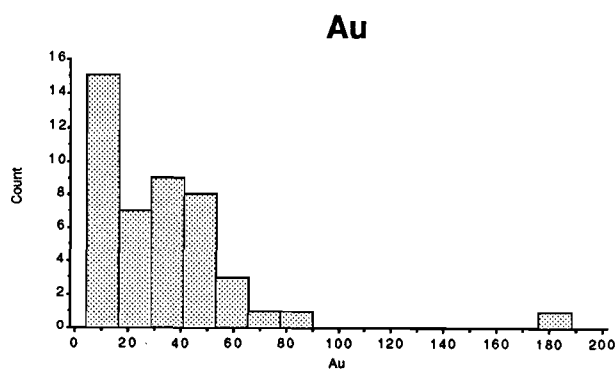
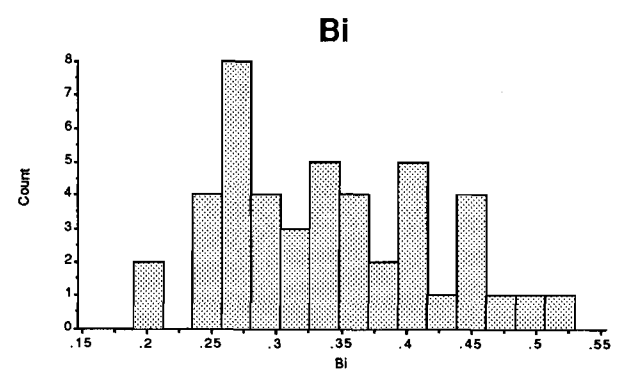
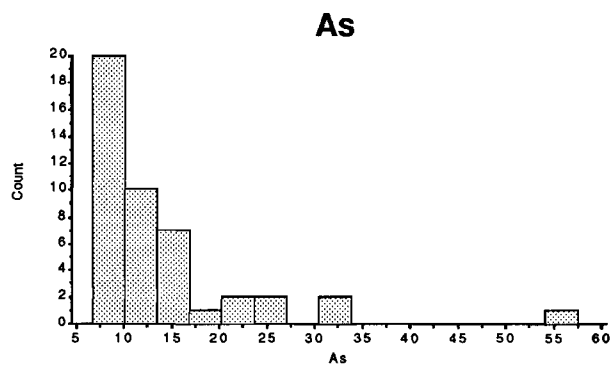
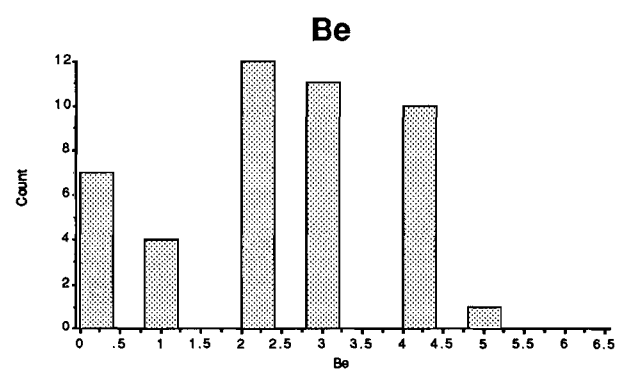
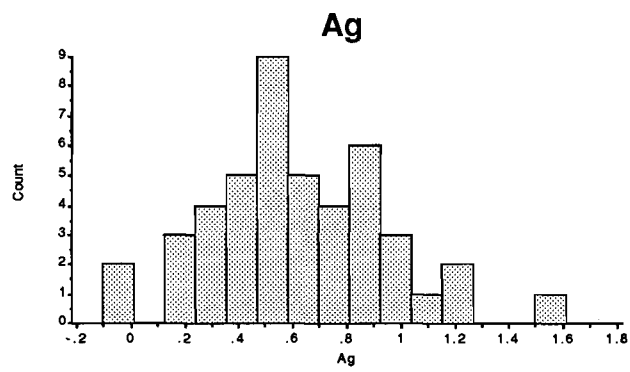
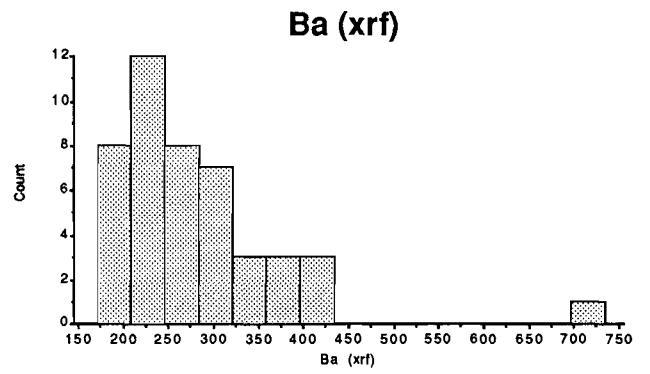
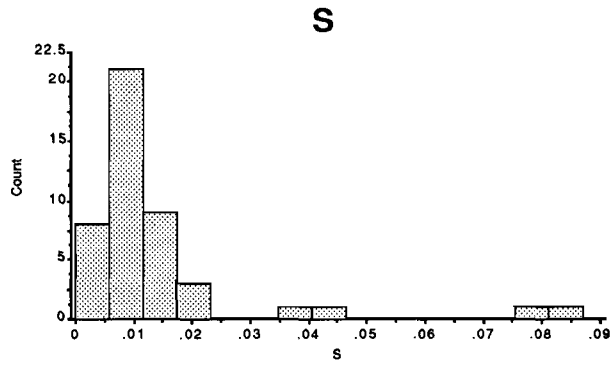
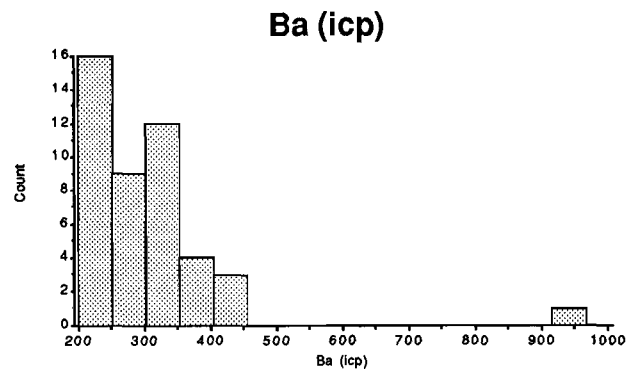
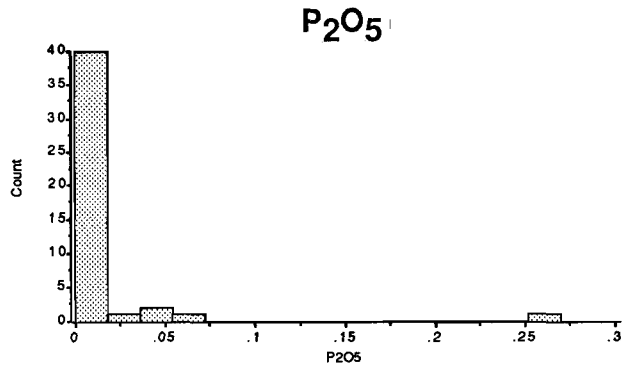
#### **< $\mu$ 75 m Fraction**

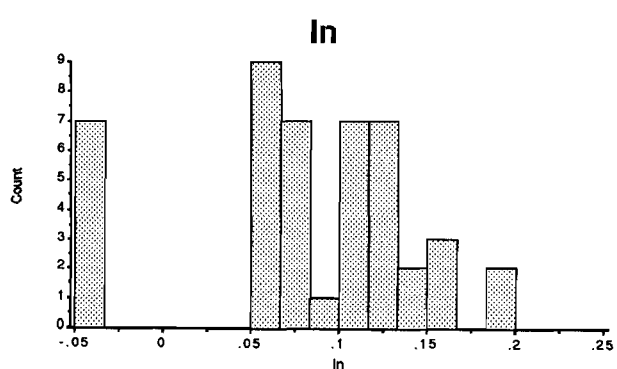
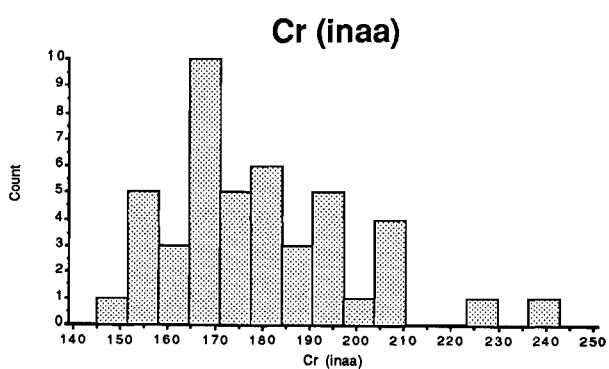
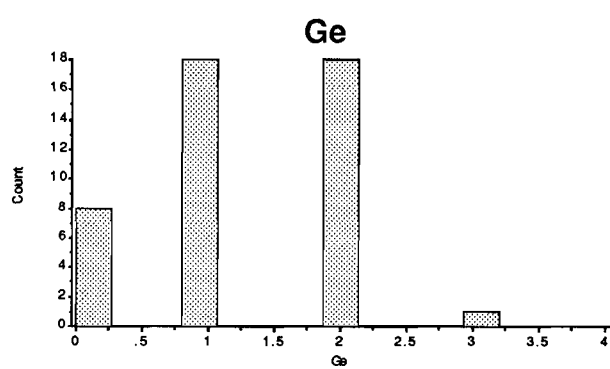
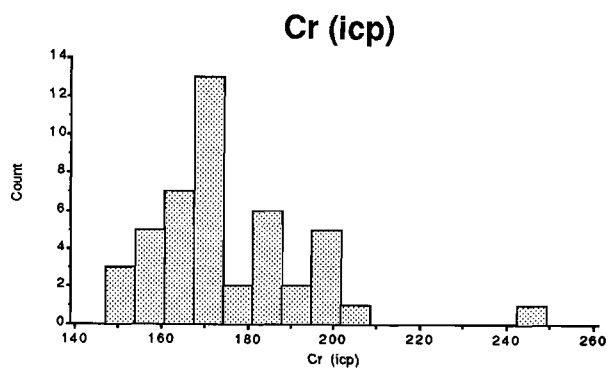
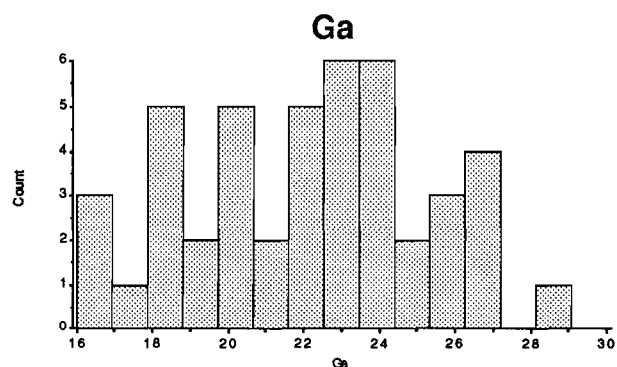
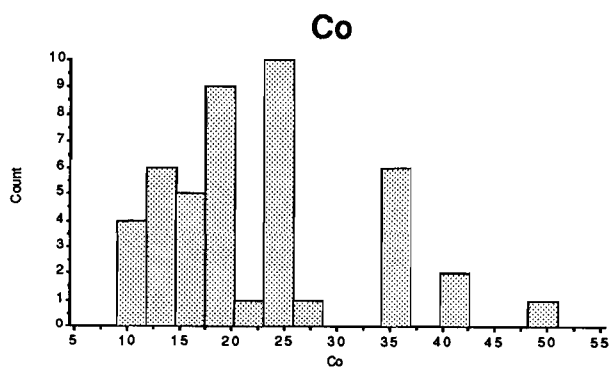
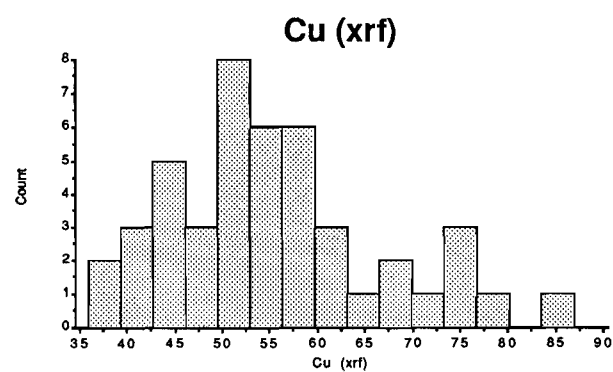
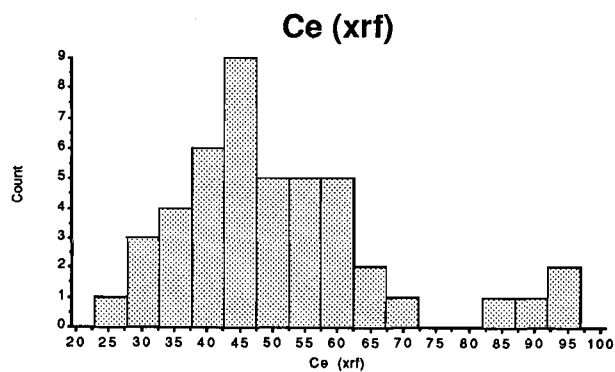
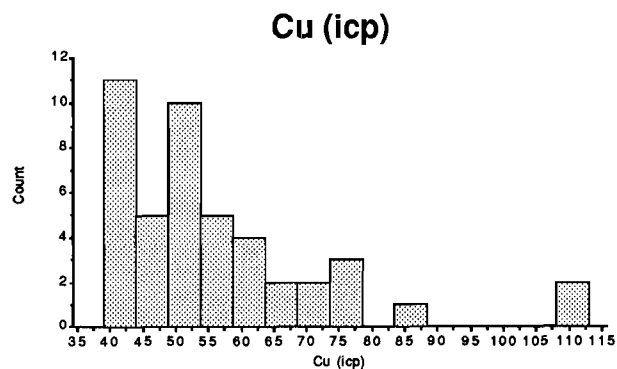
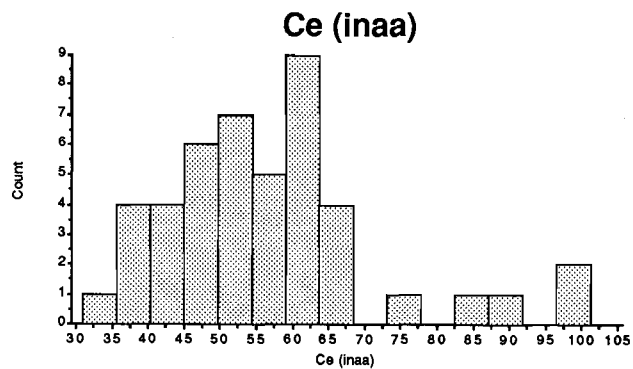
Oxides in weight %

Trace elements in ppm  
except Au in ppb

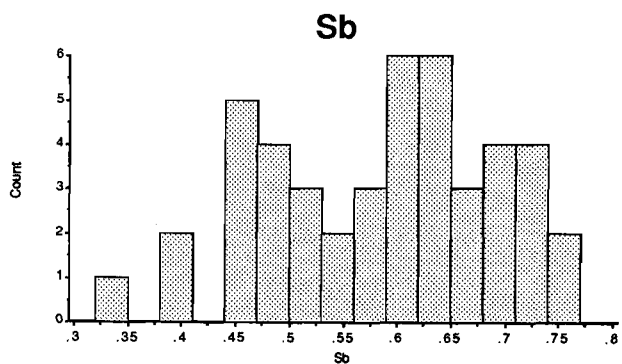
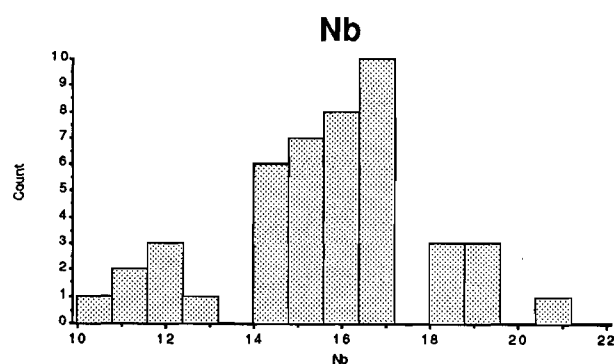
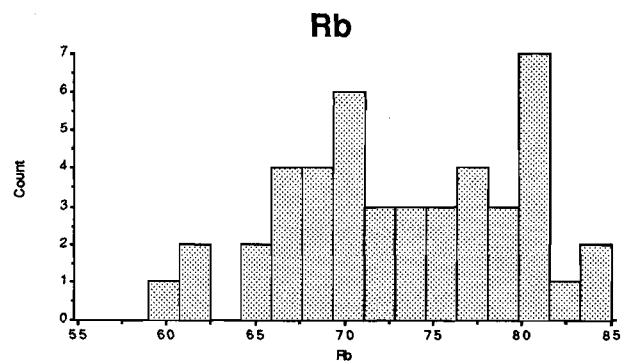
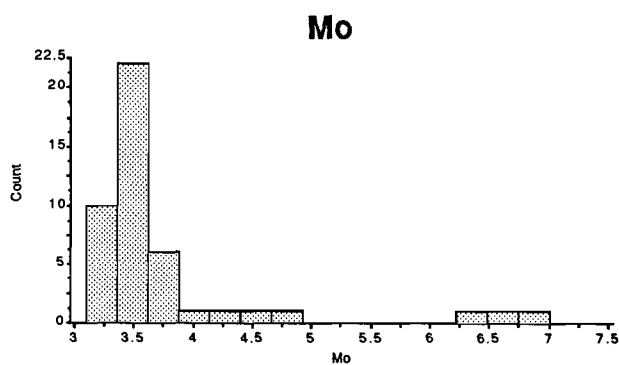
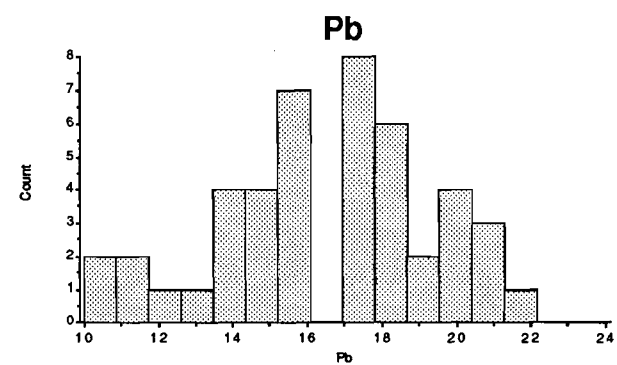
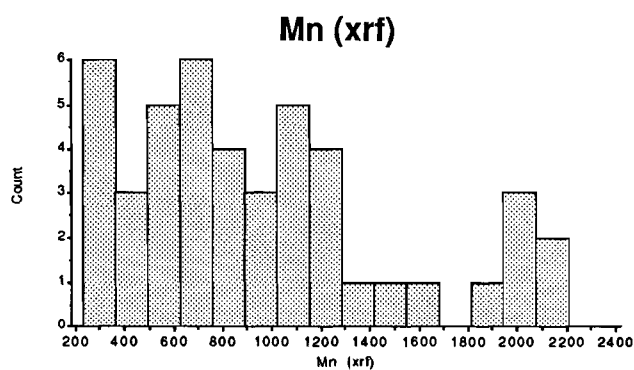
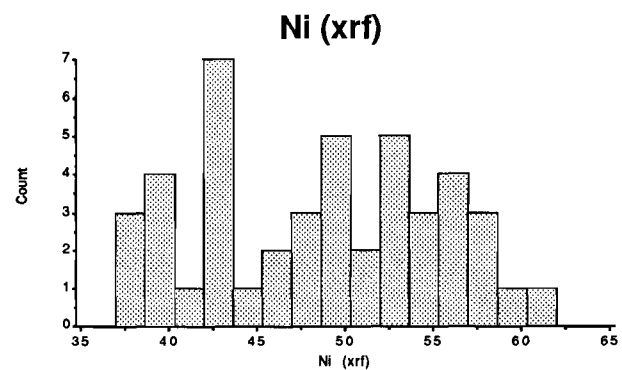
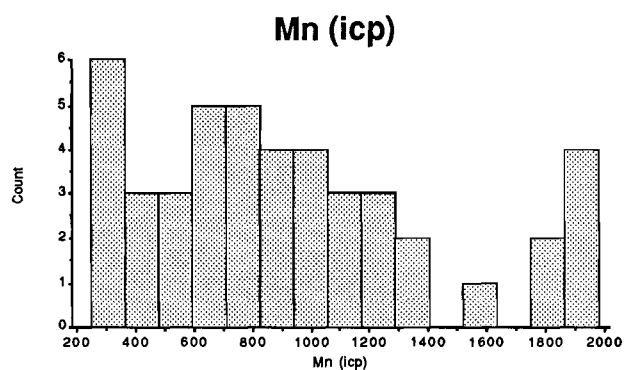
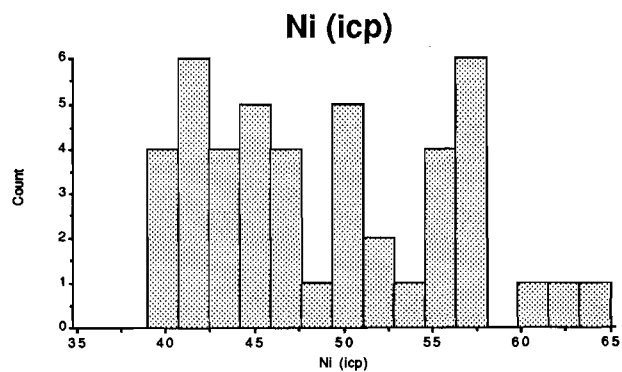
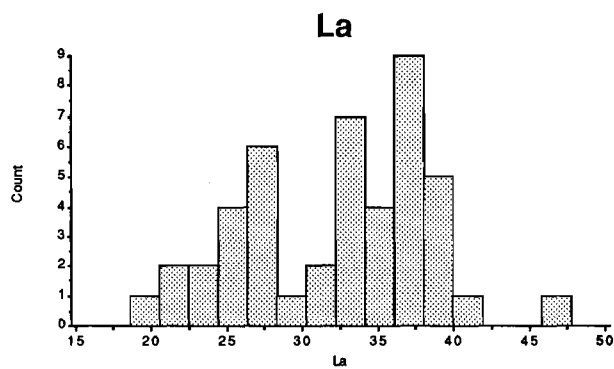
<75  $\mu$ m

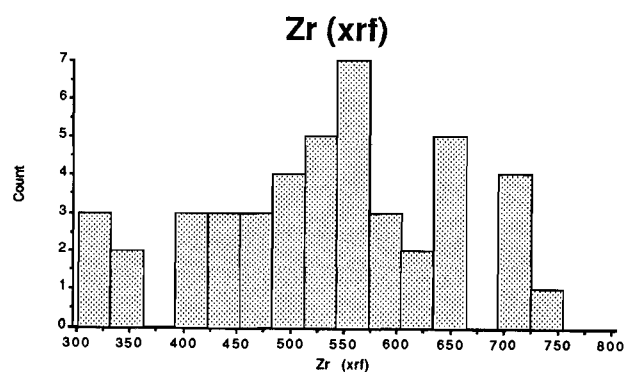
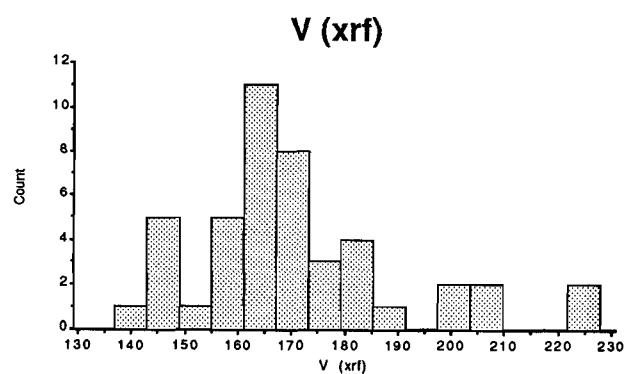
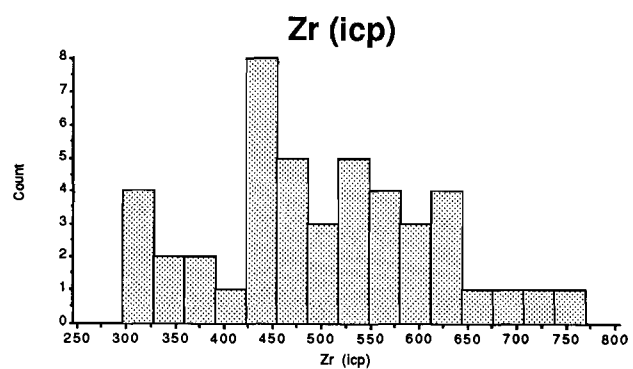
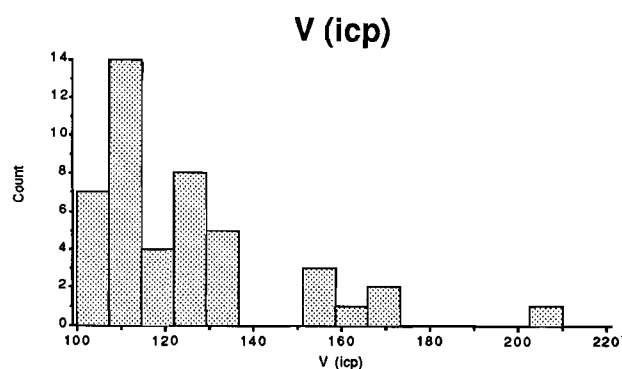
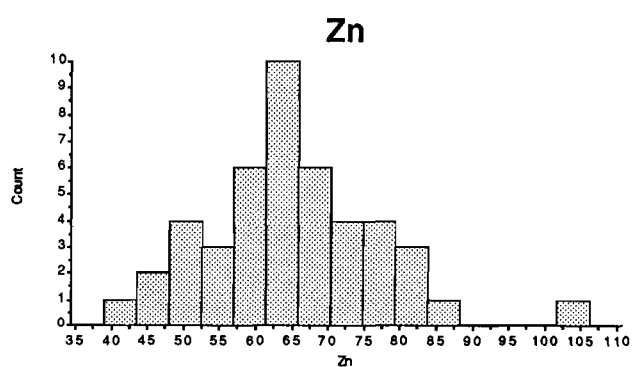
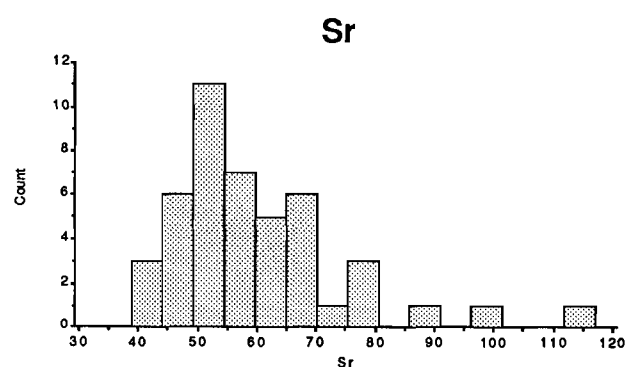
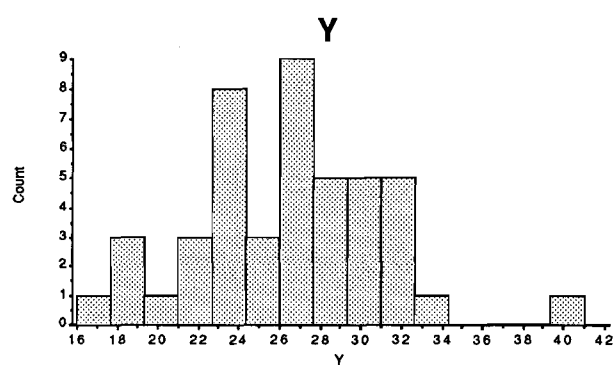
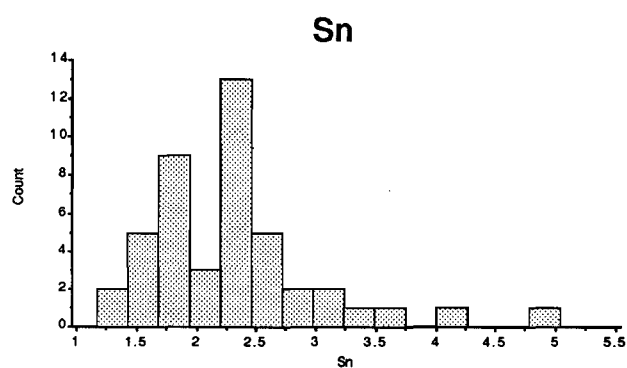
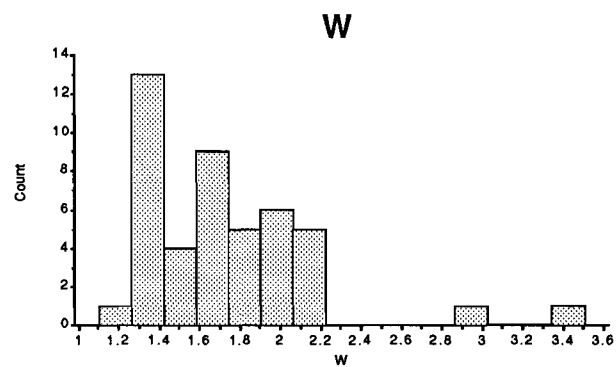
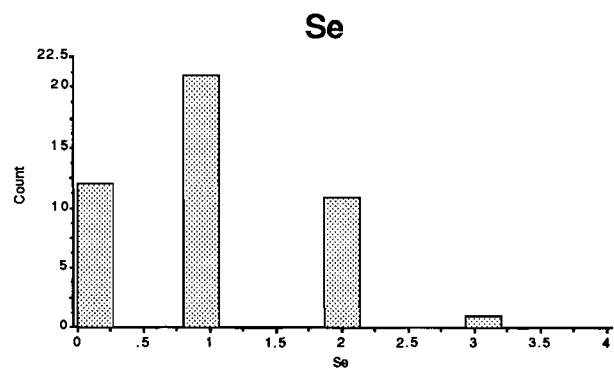










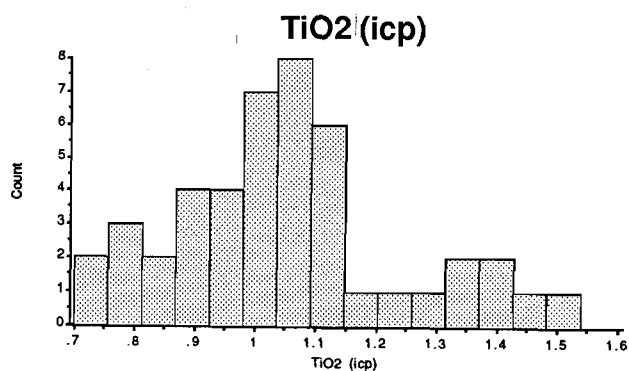
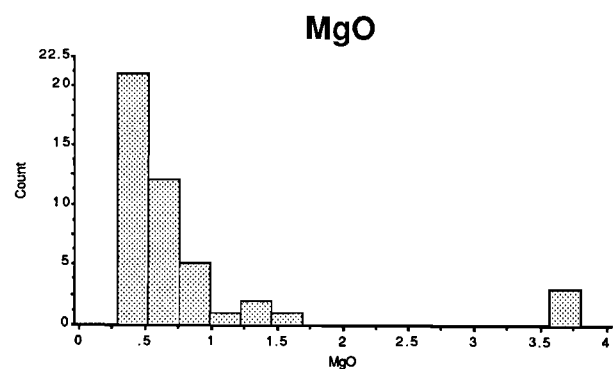
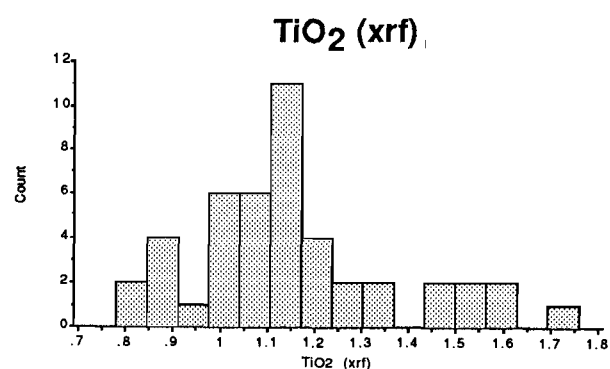
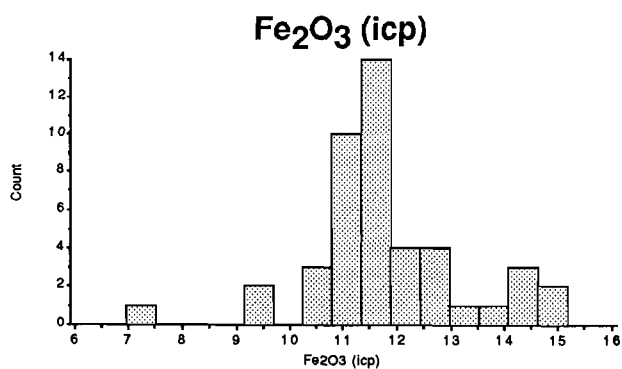
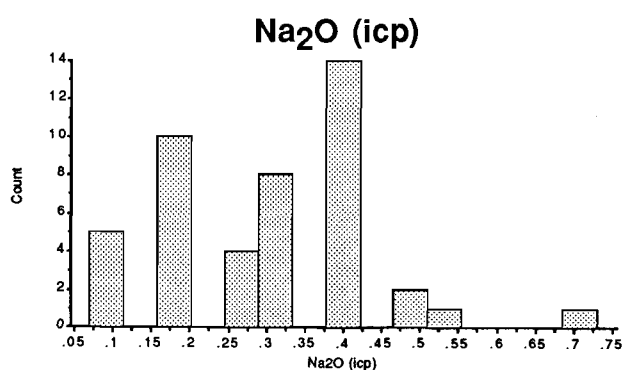
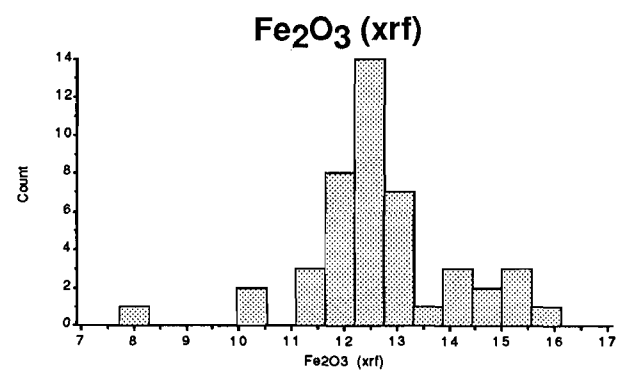
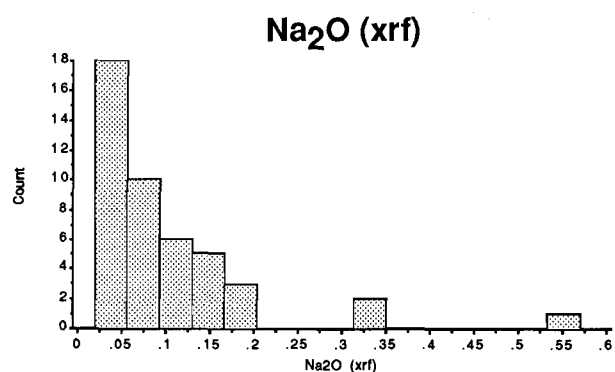
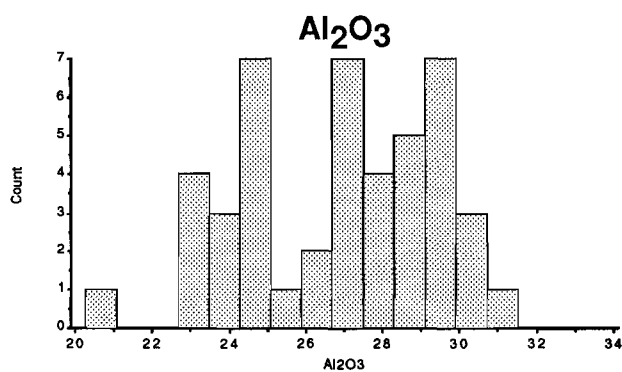
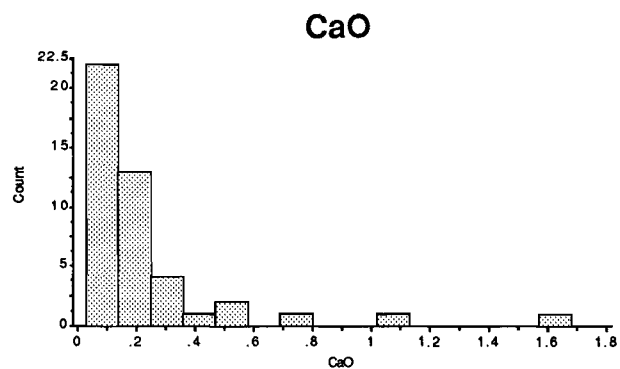
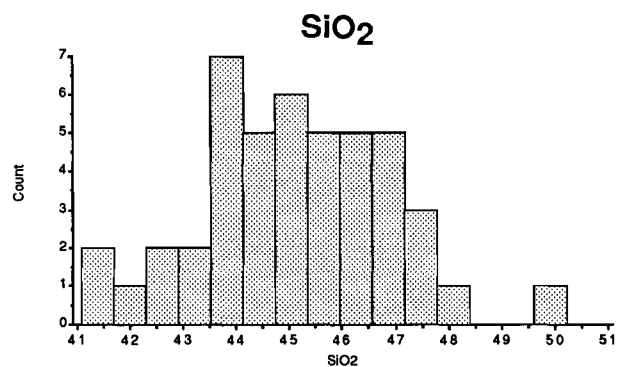


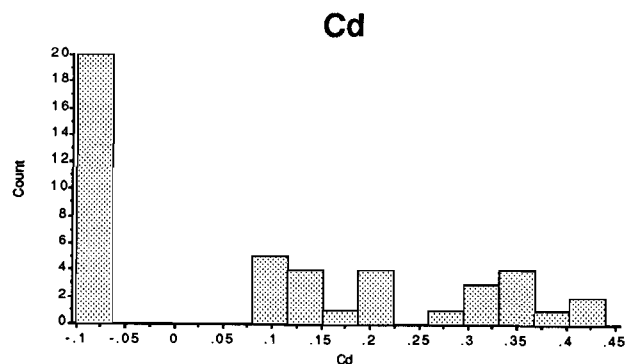
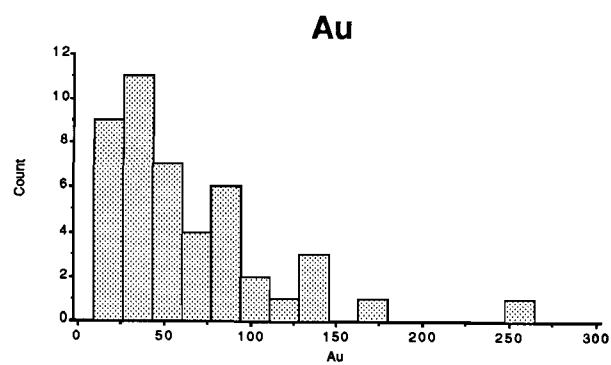
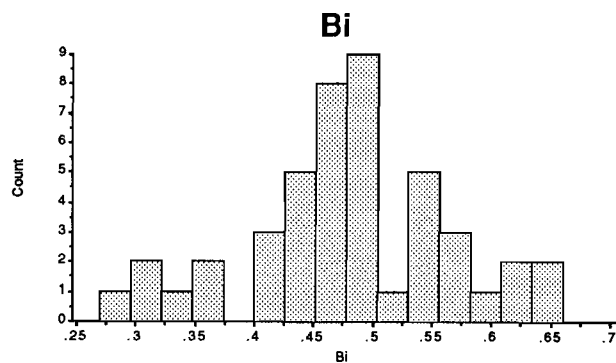
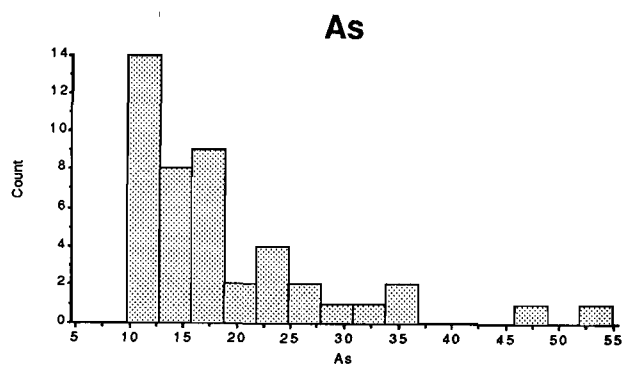
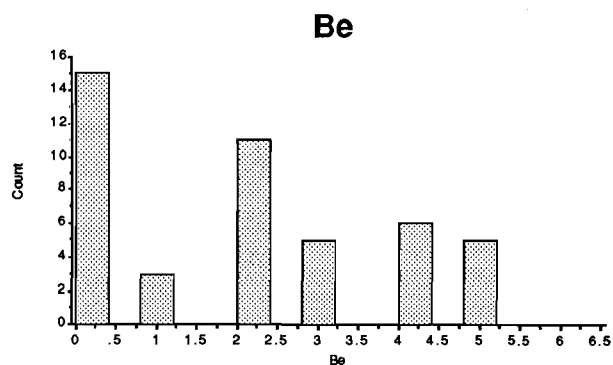
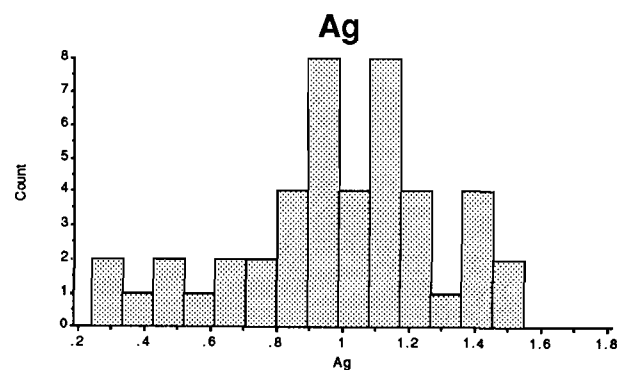
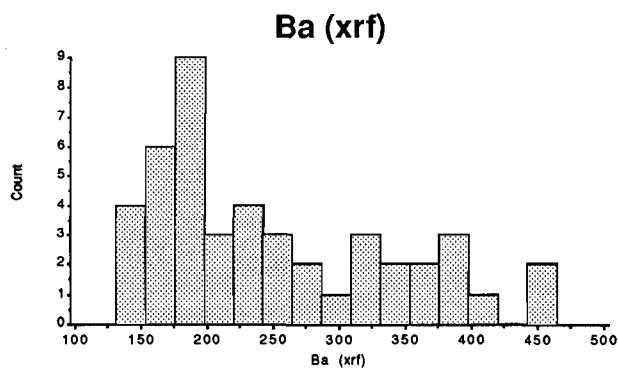
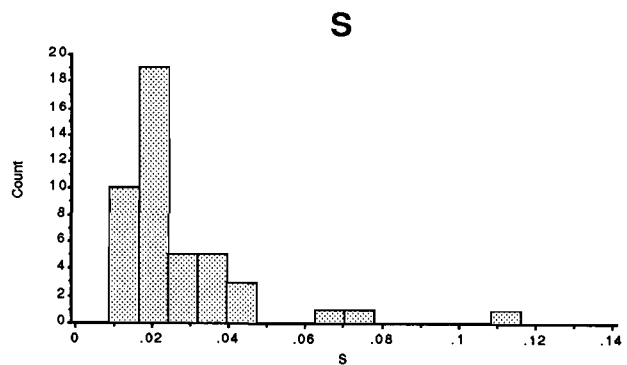
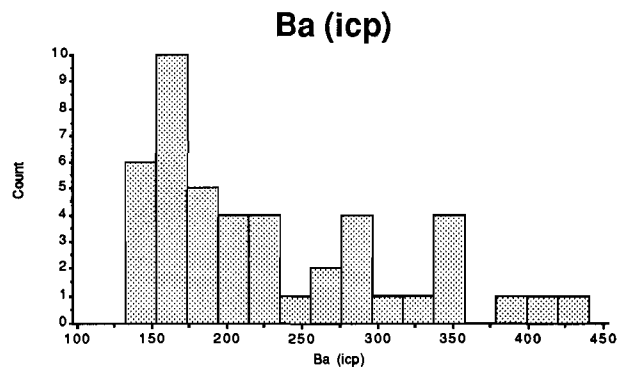
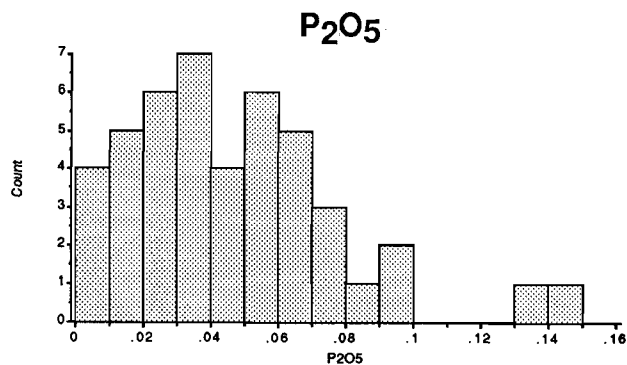
## **APPENDIX 6**

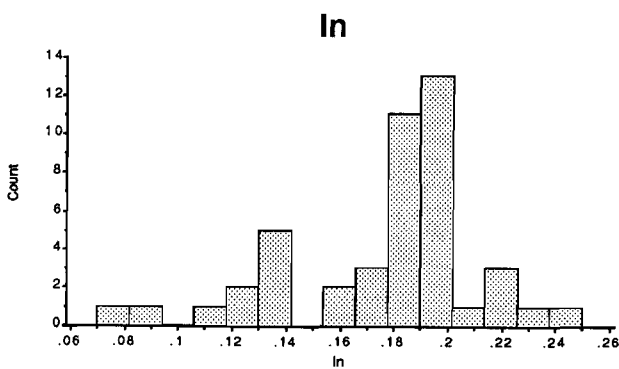
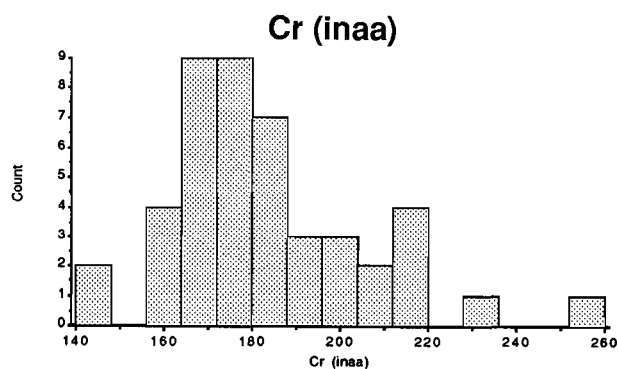
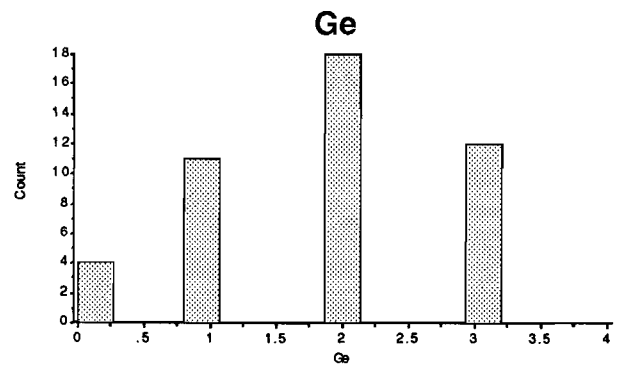
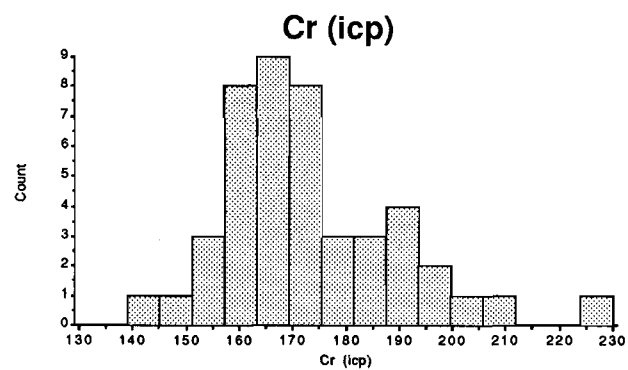
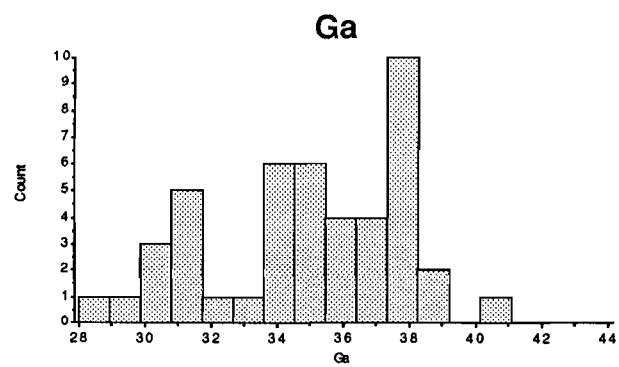
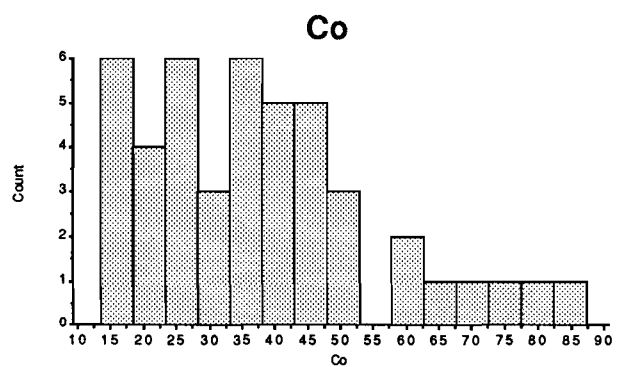
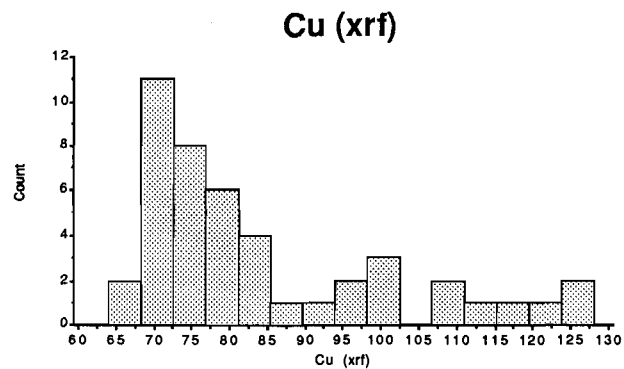
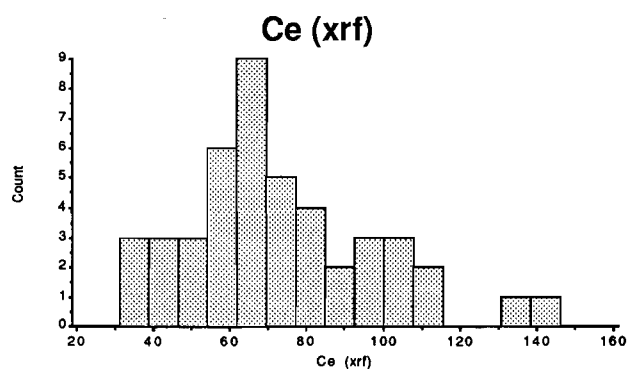
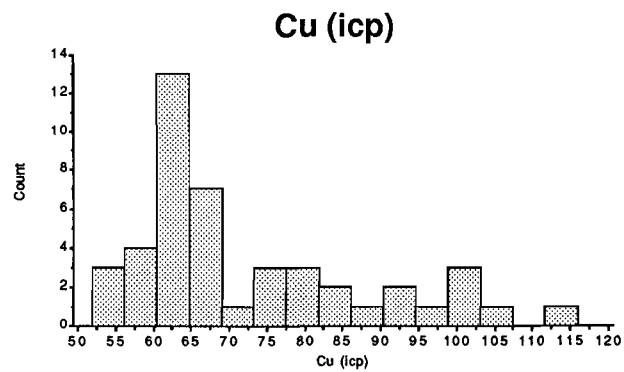
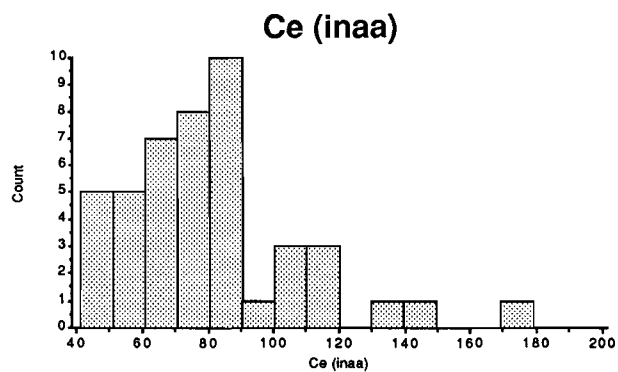
### **Frequency Distributions**

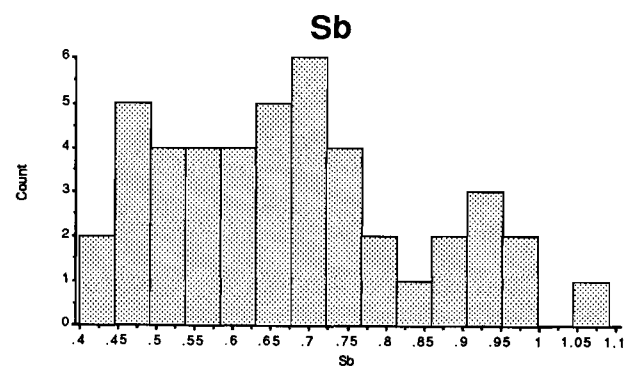
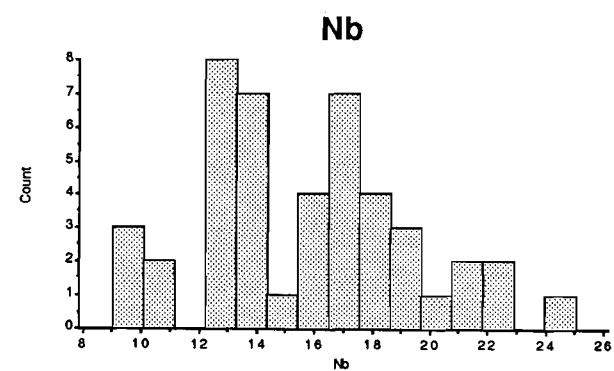
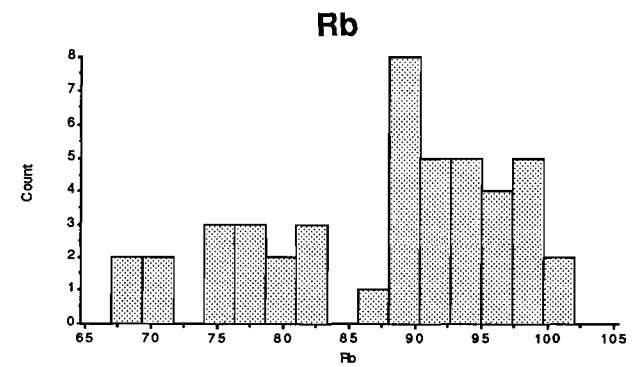
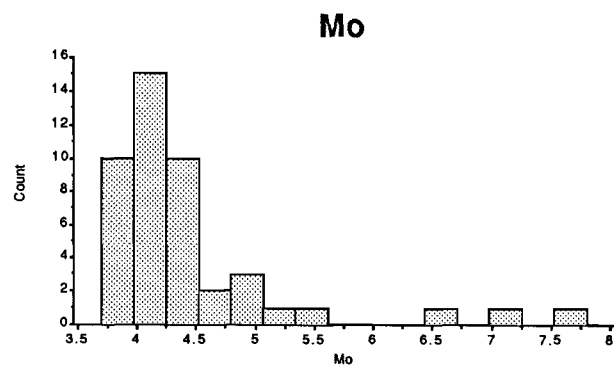
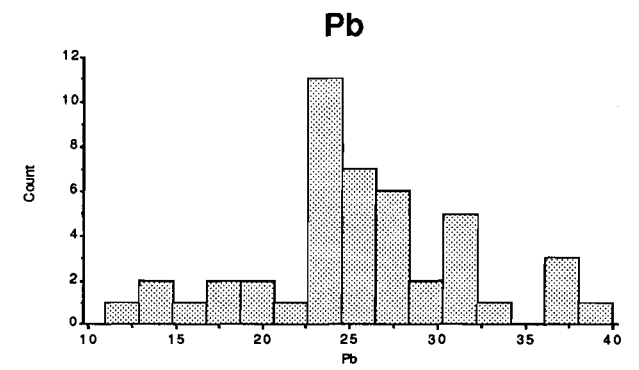
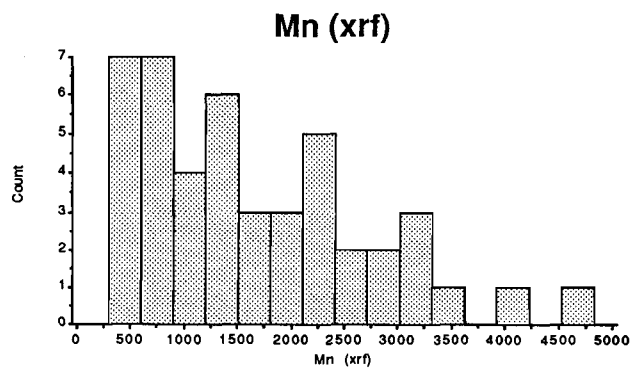
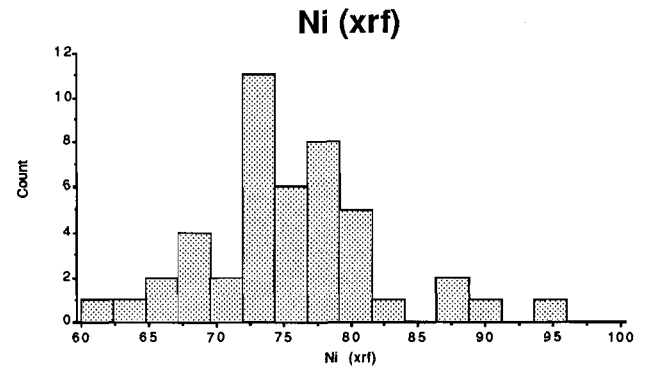
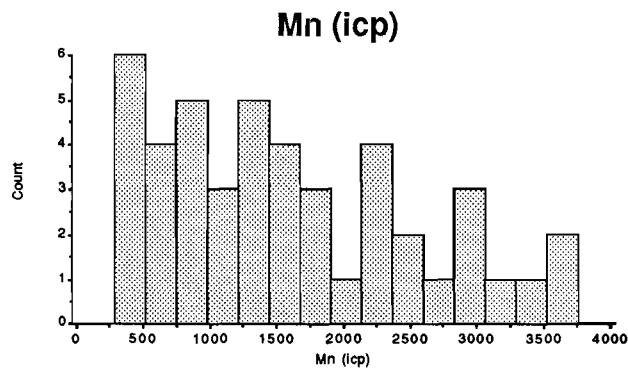
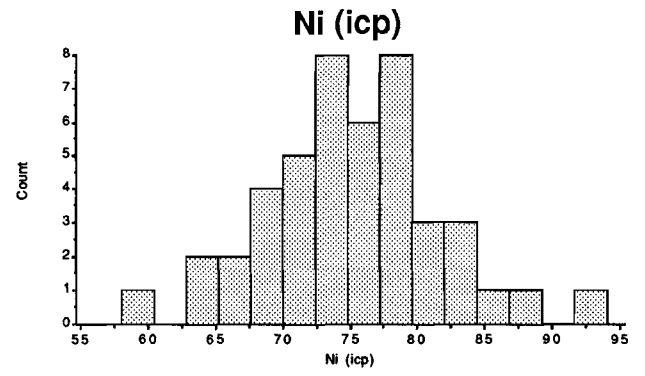
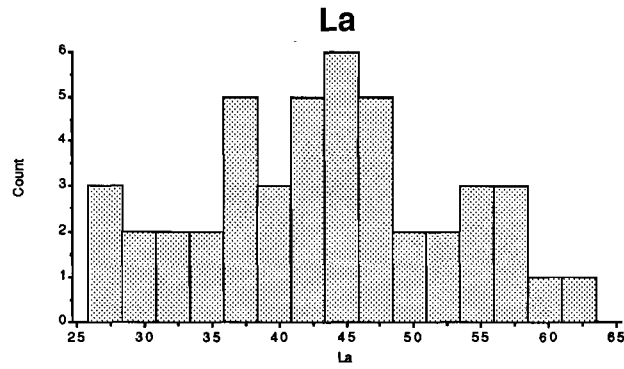
#### **< 4 $\mu\text{m}$ Fraction**

Oxides in weight %  
Trace elements in ppm  
except Au in ppb

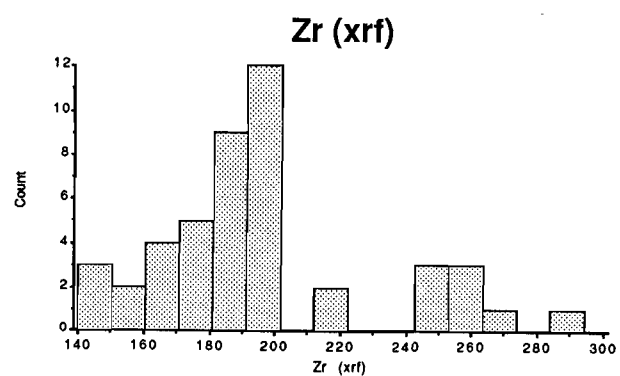
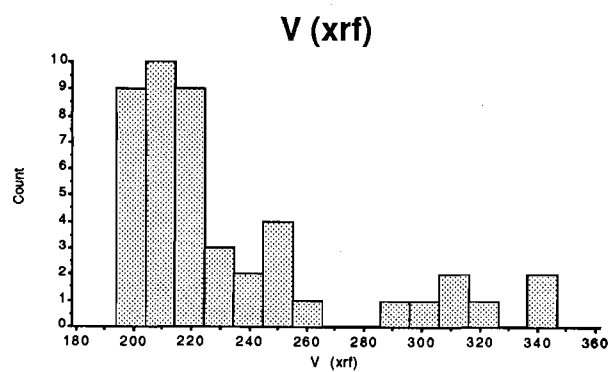
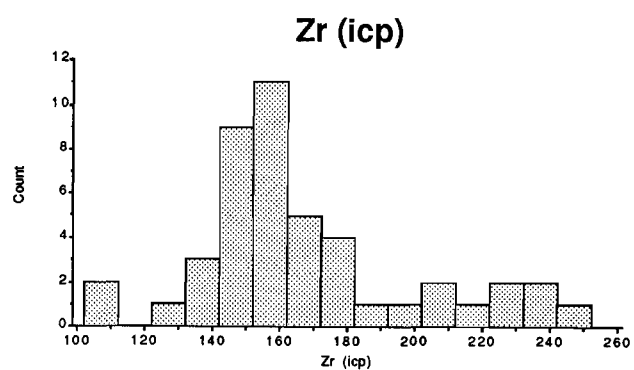
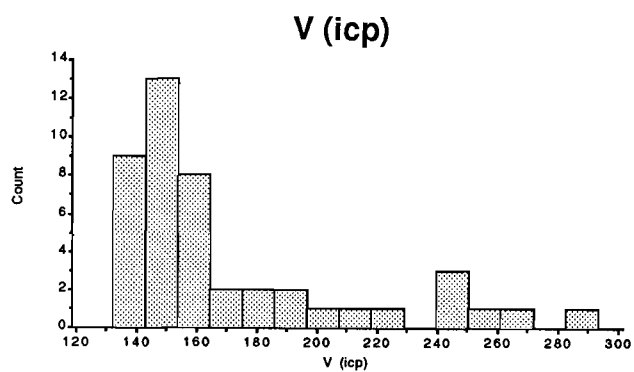
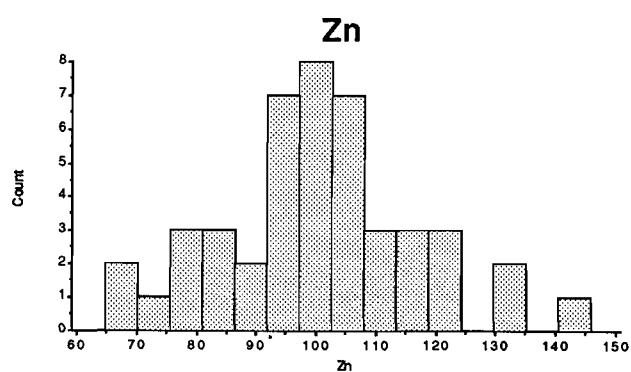
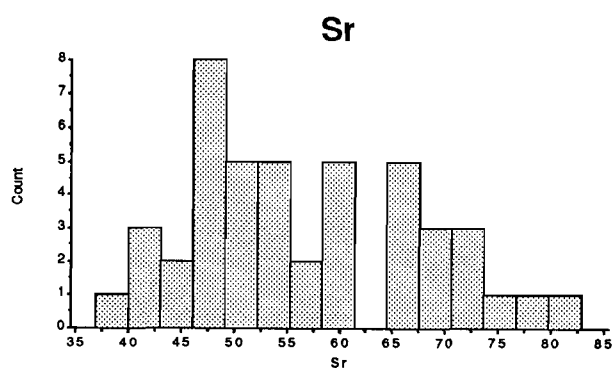
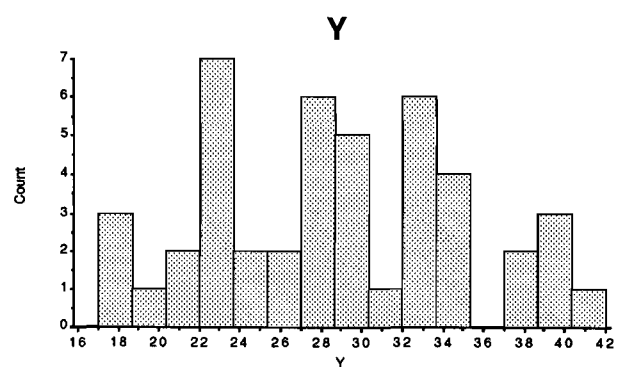
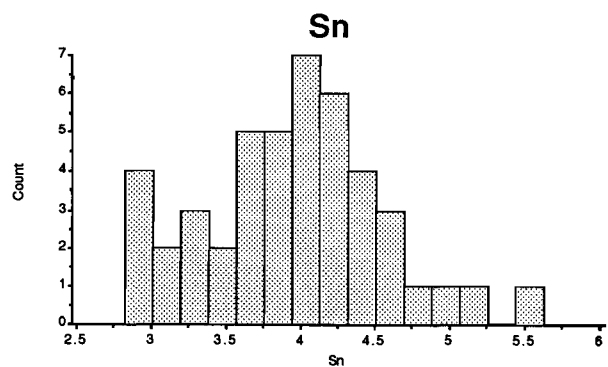
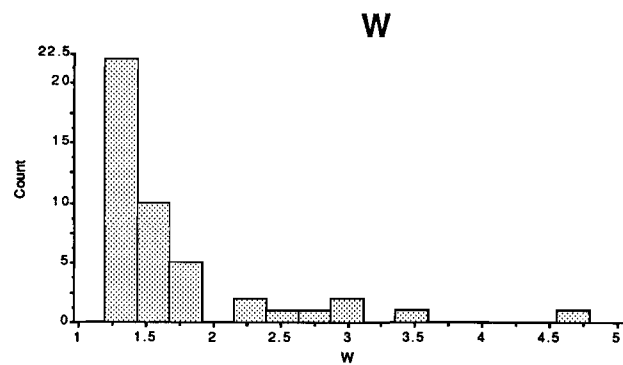
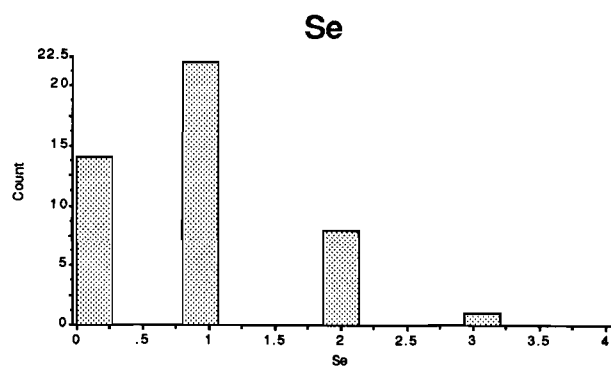








<4  $\mu$ m





## **APPENDIX 7**

### **Correlation Matrices**

Correlations of  $>\pm 0.3$   
are significant  
(95% confidence)

CORRELATION MATRIX - <4µm

	pH	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	TiO2	P2O5	S	Ag	As	Au	Ba	Be	Bi	Cd	Ce	Co	Cr	Cu	Ga	Ge	In	La	Mn	Mo	Nb	Ni	Pb	Rb	Sb	Se	Sn	Sr	V	W	Y	Zn	Zr
pH	1.000	0.085	-0.482	-0.221	0.764	0.723	0.399	0.433	0.260	-0.037	-0.235	0.518	0.334	0.056	0.027	-0.369	0.236	-0.497	-0.286	0.335	0.209	-0.583	0.164	-0.079	-0.667	-0.084	-0.042	0.437	0.227	0.561	-0.048	-0.092	-0.065	0.370	0.362	0.069	0.157	-0.652	0.572	-0.398
SiO2	0.085	1.000	-0.403	0.008	0.197	0.198	0.514	-0.118	0.084	-0.223	-0.061	0.061	-0.192	0.207	0.476	-0.334	-0.340	-0.426	-0.309	-0.192	0.414	-0.358	0.376	-0.224	-0.366	-0.395	0.357	-0.031	0.027	-0.396	0.265	-0.284	-0.166	0.486	0.522	0.176	-0.344	-0.216	0.432	0.033
Al2O3	-0.482	-0.403	1.000	-0.239	-0.599	-0.600	-0.731	0.138	-0.145	0.183	0.233	-0.266	0.057	0.195	0.247	0.459	-0.061	0.378	0.191	0.380	-0.688	0.875	-0.161	0.315	0.702	0.264	0.109	0.152	0.012	0.533	-0.115	0.201	0.045	0.587	-0.774	-0.602	0.067	0.638	-0.605	-0.120
Fe2O3	-0.221	0.008	-0.239	1.000	-0.472	-0.494	0.066	0.599	-0.240	-0.378	0.105	-0.028	-0.569	0.195	-0.053	0.268	-0.026	0.130	0.300	0.254	0.685	0.015	-0.160	-0.028	0.069	0.190	-0.034	0.499	0.377	0.447	0.354	0.159	0.350	0.085	0.233	0.811	0.229	0.047	0.134	0.693
MgO	0.764	0.197	-0.599	-0.472	1.000	0.936	0.495	-0.525	0.453	0.154	-0.372	0.472	0.461	-0.253	-0.157	-0.613	0.139	-0.507	0.406	0.339	0.112	-0.717	0.224	-0.276	-0.659	-0.341	-0.007	-0.496	-0.319	-0.709	0.131	0.232	-0.242	-0.549	0.480	-0.064	-0.108	-0.597	0.568	0.463
CaO	0.723	0.198	-0.600	-0.494	0.936	1.000	0.429	-0.524	0.344	0.200	-0.420	0.331	0.361	-0.212	-0.201	-0.649	0.228	-0.523	0.403	0.338	0.071	-0.726	0.275	-0.343	-0.640	-0.337	0.000	-0.500	-0.328	0.746	-0.239	-0.200	-0.303	-0.598	0.483	0.042	0.097	-0.564	0.442	-0.461
Na2O	0.399	0.514	-0.731	0.066	0.495	0.429	1.000	-0.154	0.094	-0.009	-0.177	0.329	0.092	-0.109	0.051	-0.378	-0.057	-0.335	-0.122	0.053	0.535	-0.619	0.187	-0.226	-0.487	-0.111	-0.166	-0.206	-0.065	0.477	0.059	-0.247	0.077	-0.484	0.739	0.374	-0.035	-0.427	0.427	0.028
TiO2	-0.433	-0.118	0.138	0.599	-0.525	-0.524	-0.154	1.000	-0.004	-0.021	0.406	0.161	-0.334	0.357	-0.103	0.592	0.085	0.389	0.224	0.234	0.127	0.314	-0.041	0.090	0.516	0.223	-0.049	0.880	0.058	0.739	0.159	0.409	0.312	0.268	0.063	0.527	0.304	0.378	-0.321	0.918
P2O5	0.260	0.084	-0.145	-0.240	0.453	0.344	0.094	-0.004	1.000	0.026	0.076	0.481	0.193	-0.198	-0.094	0.009	0.016	-0.260	-0.559	0.366	0.030	-0.201	0.144	-0.123	-0.175	-0.436	0.200	0.090	-0.357	-0.126	0.165	-0.030	-0.108	0.071	0.281	-0.013	-0.167	-0.156	0.420	-0.026
S	-0.037	-0.223	0.183	-0.378	0.154	0.200	-0.009	-0.021	0.026	1.000	-0.032	0.087	0.321	0.297	-0.155	-0.083	0.331	-0.005	-0.060	0.050	0.497	-0.020	-0.072	0.097	0.144	0.055	0.057	-0.173	-0.328	-0.067	-0.544	0.140	-0.245	-0.123	0.093	-0.310	0.157	0.222	-0.433	-0.166
Ag	-0.235	-0.061	0.233	0.105	-0.372	-0.420	-0.177	0.406	0.076	-0.032	1.000	0.057	-0.125	0.139	0.062	0.713	0.103	0.281	0.018	-0.325	0.001	0.204	-0.158	0.686	0.340	0.078	0.009	0.399	0.090	0.417	0.039	-0.048	0.001	0.526	-0.161	0.087	0.182	0.291	-0.303	0.369
As	0.518	0.061	-0.266	-0.028	0.472	0.331	0.329	0.161	0.481	0.087	0.057	1.000	0.434	0.351	-0.100	0.080	0.302	-0.192	-0.182	0.409	0.119	-0.383	-0.056	0.078	-0.245	0.131	0.086	0.085	-0.260	0.035	0.088	0.118	0.030	-0.103	0.376	0.203	0.142	-0.323	0.333	0.081
Au	0.334	-0.192	0.057	-0.569	0.461	0.361	0.092	-0.334	0.193	0.321	-0.125	0.434	1.000	0.110	-0.088	-0.234	0.122	-0.172	0.048	-0.115	-0.296	-0.198	-0.028	0.061	-0.009	0.011	0.005	-0.379	-0.208	-0.225	-0.437	-0.110	-0.278	-0.139	-0.150	-0.418	0.077	0.016	-0.006	-0.452
Ba	0.056	-0.207	0.195	0.195	-0.253	0.212	-0.109	0.357	-0.198	0.297	0.139	0.351	0.110	1.000	0.078	0.336	0.388	0.400	0.369	0.059	-0.116	0.063	-0.042	0.126	0.216	0.718	0.085	0.215	0.031	0.389	0.191	0.255	0.071	0.265	-0.026	0.158	0.284	0.110	-0.255	0.189
Be	0.027	0.476	0.247	-0.053	-0.157	-0.201	0.051	-0.103	-0.094	-0.155	0.062	-0.100	-0.088	0.078	1.000	-0.029	-0.312	-0.022	0.099	-0.426	0.123	0.267	0.215	0.049	0.087	0.070	-0.406	0.014	0.124	0.013	0.235	-0.101	0.178	0.116	-0.023	-0.180	-0.101	0.160	0.174	-0.172
Bi	-0.369	-0.334	0.459	0.268	-0.613	-0.649	-0.378	0.592	0.009	-0.083	0.713	0.080	-0.234	0.336	-0.029	1.000	0.221	0.490	0.117	0.015	-0.169	0.513	0.205	0.620	0.560	0.340	0.190	0.592	0.002	0.661	0.236	0.330	0.249	0.737	-0.263	0.103	0.206	0.422	-0.342	0.511
Cd	0.236	-0.340	-0.061	-0.026	0.139	0.228	-0.057	0.085	0.016	0.331	0.103	0.302	0.122	0.388	-0.312	0.221	1.000	0.029	-0.006	0.361	-0.145	-0.216	-0.227	0.054	0.089	0.303	0.068	0.012	-0.045	0.010	-0.179	0.113	0.054	0.176	0.091	0.109	0.092	0.035	-0.076	0.021
Ce	-0.497	-0.426	0.378	0.130	-0.507	-0.523	-0.335	0.389	-0.260	-0.005	0.281	-0.192	-0.172	0.400	-0.022	0.490	0.029	1.000	0.643	-0.166	-0.243	0.488	-0.191	0.093	0.568	0.681	0.125	0.453	0.310	0.580	0.083	0.093	0.401	0.681	-0.357	-0.056	0.013	0.375	-0.483	0.353
Co	-0.288	-0.309	0.191	0.300	-0.406	-0.403	-0.122	0.224	-0.559	-0.060	0.018	-0.182	-0.048	0.369	0.099	0.117	-0.006	0.643	1.000	-0.286	0.084	0.271	-0.226	-0.056	0.343	0.750	-0.087	0.132	0.572	0.437	-0.005	-0.140	0.287	0.380	-0.290	0.102	0.187	0.244	-0.361	0.186
Cr	0.335	-0.192	-0.380	0.254	0.339	0.338	0.053	0.234	0.366	0.050	-0.325	0.409	-0.115	0.059	-0.426	0.015	0.361	-0.166	-0.286	1.000	0.180	-0.292	0.042	0.269	-0.239	-0.093	0.153	0.213	-0.064	-0.047	0.171	0.425	0.093	-0.214	0.431	0.441	0.102	-0.324	0.363	0.265
Cu	0.209	0.414	-0.688	0.665	0.112	0.071	0.535	0.127	0.030	-0.497	0.001	0.119	-0.296	0.116	0.123	-0.169	-0.145	-0.243	0.084	0.180	1.000	0.479	0.099	0.219	-0.348	-0.123	-0.209	0.130	0.370	-0.139	0.353	-0.243	0.194	-0.277	0.618	0.773	-0.010	-0.263	0.591	0.318
Ga	-0.583	-0.358	0.875	0.015	-0.717	-0.726	-0.619	0.314	-0.201	-0.020	0.204	-0.383	-0.198	0.063	0.267	0.513	-0.216	0.488	0.271	-0.292	-0.479	1.000	-0.055	0.194	0.721	0.231	0.065	0.389	0.176	0.633	0.115	0.316	0.236	0.655	-0.649	-0.367	0.105	0.653	-0.547	0.137
Ge	0.164	0.376	0.161	-0.160	0.224	0.275	0.187	-0.041	0.144	-0.072	-0.158	-0.056	-0.028	-0.042	0.215	-0.205	-0.227	-0.191	-0.226	0.042	0.099	0.055	1.000	-0.253	-0.123	-0.233	-0.116	0.004	-0.106	-0.199	-0.026	0.240	-0.011	-0.229	0.222	0.109	-0.140	-0.043	0.227	-0.064
In	-0.079	-0.224	0.315	-0.028	-0.276	-0.343	-0.226	0.090	-0.123	0.097	0.686	0.078	0.061	0.126	0.049	0.620	0.054	0.093	-0.056	-0.269	-0.219	0.194	-0.253	1.000	0.215	0.122	0.309	0.044	-0.348	0.314	0.094	0.042	-0.100	0.467	-0.308	-0.129	0.302	0.217	-0.268	0.032
La	-0.667	-0.366	0.702	0.069	-0.659	-0.640	-0.487	0.516	-0.175	0.144	0.340	-0.245	-0.009	0.216	0.087	0.560	0.089	0.568	0.343	-0.239	-0.348	0.721	-0.123	0.215	1.000	0.326	-0.007	0.506	0.180	0.694	-0.097	0.111	0.231	0.562	-0.464	-0.187	0.066	0.922	-0.573	0.321
Mn	-0.084	-0.395	0.264	0.190	-0.341	-0.337	-0.111	0.223	-0.436	0.055	0.078	0.131	-0.011	0.718	0.070	0.340	0.303	0.681	0.750	-0.093	-0.123	0.231	-0.233	0.122	0.326	1.000	0.069	0.113	0.243	0.484	-0.083	0.115	0.350	0.468	-0.260	0.065	0.209	0.134	-0.338	0.129
Mo	-0.042	-0.357	0.109	-0.034	-0.007	0.000	-0.166	-0.049	0.200	0.057	0.009	0.086	0.005	0.085	-0.406	0.190	0.068	0.125	-0.087	0.153	-0.209	0.065	-0.116	0.309	-0.007	0.069	1.000	0.008	-0.348	0.097	0.136	0.015	-0.095	0.277	-0.185	0.010	0.051	-0.013	-0.150	-0.040
Nb	-0.437	-0.031	0.152	0.499	-0.498	-0.500	-0.208	0.880	0.090	-0.173	0.399	0.085	-0.379	0.215	0.014	0.592	0.012	0.453	0.132	0.213	0.130	0.389	0.004	0.044	0.506	0.113	0.008	1.000	0.165	0.860	0.402	0.391	0.262	0.377	0.078	0.398	0.010	0.395	-0.185	0.856
Ni	-0.227	-0.027	0.012	0.377	-0.319	-0.328	-0.065	0.058	-0.357	-0.328	-0.090	-0.260	-0.208	0.031	0.124	0.002	-0.045	0.310	0.572	-0.064	0.370	0.176	-0.106	0.348	0.180	0.243	-0.348	0.165	1.000	0.169	0.426	-0.191	0.214	0.198	0.021	0.128	-0.277	0.170	0.101	0.093
Pb	-0.561	-0.396	0.533</																																					

CORRELATION MATRIX - 75µm

	pH	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	TiO2	P2O5	S	Ag	As	Au	Ba	Be	Bi	Cd	Ce	Co	Cr	Cu	Ga	Ge	In	La	Mn	Mo	Nb	Ni	Pb	Rb	Sb	Se	Sn	Sr	V	W	Y	Zn	Zr
pH	1.000	-0.261	-0.260	-0.120	0.733	0.667	0.080	-0.236	0.459	0.190	-0.102	0.633	0.474	-0.122	-0.284	-0.169	0.158	-0.576	-0.303	0.197	0.404	-0.334	-0.110	-0.181	-0.685	-0.164	-0.067	-0.450	-0.125	-0.628	-0.262	0.057	0.133	-0.165	0.700	0.267	-0.131	-0.677	0.457	0.267
SiO2	-0.261	1.000	-0.607	-0.042	-0.569	-0.405	0.612	0.708	-0.494	-0.173	-0.265	-0.323	-0.430	0.206	0.133	0.086	0.089	0.044	0.207	0.588	-0.276	0.629	0.257	-0.151	-0.004	0.246	0.254	0.434	-0.505	0.092	-0.302	-0.073	0.048	-0.417	-0.326	0.042	0.397	0.254	-0.618	0.765
Al2O3	-0.260	-0.607	1.000	0.252	-0.007	-0.200	-0.576	-0.545	0.157	-0.031	0.305	0.148	0.151	-0.100	0.206	0.148	-0.097	0.316	0.126	-0.686	0.029	0.922	0.386	0.371	0.535	0.033	-0.300	-0.012	0.746	0.365	0.608	0.133	0.124	0.576	-0.309	-0.334	-0.207	0.298	0.284	-0.560
Fe2O3	-0.120	-0.042	0.252	1.000	0.154	-0.409	-0.060	-0.007	-0.201	-0.297	0.141	-0.208	0.336	0.142	-0.062	0.117	0.187	0.091	0.104	-0.307	0.663	0.184	0.092	0.253	-0.061	0.072	0.003	-0.074	0.389	0.109	0.323	-0.269	0.015	0.257	-0.120	0.591	0.052	-0.122	0.439	-0.481
MgO	0.733	-0.569	-0.007	-0.154	1.000	0.783	-0.154	-0.511	0.735	0.296	-0.004	0.711	0.698	0.317	-0.197	-0.240	0.036	0.480	-0.332	0.025	0.436	-0.074	-0.055	-0.024	0.571	-0.349	-0.112	0.675	0.120	0.683	-0.132	0.004	-0.052	-0.010	0.809	0.242	-0.191	0.649	0.680	-0.522
CaO	0.667	-0.405	-0.200	-0.409	0.783	1.000	0.028	-0.318	0.358	0.471	-0.058	0.527	0.449	-0.172	-0.136	-0.254	0.108	-0.466	-0.371	0.118	0.094	-0.234	-0.124	-0.173	-0.586	0.323	0.042	-0.567	0.116	-0.562	-0.350	0.073	-0.020	-0.127	0.863	0.149	-0.230	-0.573	0.304	-0.261
Na2O	0.080	0.612	-0.576	-0.060	-0.154	0.028	1.000	0.516	-0.253	0.028	-0.107	-0.098	-0.298	0.074	-0.213	0.034	0.129	-0.191	0.027	0.563	-0.007	-0.503	-0.390	-0.022	-0.319	0.038	0.103	0.186	-0.357	0.007	-0.197	-0.169	0.118	-0.304	0.173	0.159	0.221	-0.050	-0.257	0.416
TiO2	-0.236	0.708	-0.545	-0.007	-0.511	-0.318	0.516	1.000	-0.366	0.016	-0.184	-0.143	-0.397	0.392	-0.301	0.275	-0.007	0.100	-0.026	0.547	0.320	0.498	-0.145	-0.103	0.060	0.238	0.177	0.609	-0.664	0.343	-0.433	0.110	-0.065	-0.393	-0.308	0.135	0.291	0.285	-0.568	0.782
P2O5	0.459	-0.494	0.157	-0.201	0.735	0.358	-0.253	-0.366	1.000	-0.003	0.050	0.799	0.810	-0.204	-0.174	-0.177	-0.128	-0.166	-0.267	0.013	0.292	0.120	0.178	-0.058	-0.148	-0.217	-0.078	-0.324	0.054	-0.354	0.099	0.143	-0.040	0.060	0.341	-0.039	0.102	-0.317	0.570	0.362
S	0.190	-0.173	-0.031	-0.297	0.296	0.471	0.028	0.016	-0.003	1.000	-0.028	0.210	0.223	0.467	-0.140	0.153	0.082	-0.224	-0.284	0.206	0.265	0.073	-0.031	0.093	-0.210	-0.099	-0.093	-0.213	-0.123	-0.151	0.365	0.054	0.079	-0.061	0.427	-0.154	0.175	-0.121	-0.094	0.076
Ag	-0.102	-0.265	0.305	0.141	-0.004	-0.058	-0.107	-0.184	0.050	-0.028	1.000	-0.087	-0.189	-0.072	-0.023	0.513	-0.089	0.238	-0.021	-0.264	0.077	0.405	0.011	0.559	0.144	-0.081	0.132	-0.006	0.336	0.230	0.431	0.035	-0.101	0.845	0.061	-0.043	0.022	0.037	0.217	-0.254
As	0.633	-0.323	-0.148	-0.208	0.711	0.527	-0.098	-0.143	0.799	0.210	-0.087	1.000	0.793	0.047	-0.190	-0.104	0.042	-0.338	0.362	0.236	0.210	-0.202	0.178	-0.143	-0.397	-0.052	0.194	0.348	-0.215	-0.425	-0.131	0.201	-0.045	0.139	0.497	0.081	-0.026	0.456	0.419	-0.176
Au	0.474	-0.430	0.151	-0.336	0.698	0.449	0.298	-0.397	0.810	0.223	-0.189	0.793	1.000	0.092	-0.004	-0.317	0.089	-0.140	-0.069	-0.022	0.123	0.042	0.239	-0.180	-0.128	0.008	-0.004	-0.314	0.083	-0.435	-0.058	0.131	0.160	0.126	0.366	0.144	0.023	-0.208	0.350	-0.261
Ba	-0.122	0.206	-0.100	-0.142	-0.317	-0.172	0.074	0.392	-0.204	0.467	-0.072	0.047	0.092	1.000	-0.140	0.168	0.270	0.303	0.246	0.127	-0.353	-0.078	0.066	-0.023	0.203	0.557	0.132	0.231	-0.252	0.266	-0.289	0.010	0.176	-0.126	0.176	0.204	0.145	0.334	-0.457	0.389
Be	-0.284	0.133	0.206	-0.062	-0.197	-0.136	-0.213	-0.301	-0.174	-0.140	-0.023	-0.190	-0.004	-0.140	1.000	0.027	0.075	0.181	0.231	-0.077	-0.193	0.175	0.068	0.090	0.247	0.141	0.044	-0.078	0.366	0.130	0.359	0.119	-0.105	0.052	-0.241	-0.290	0.143	0.198	-0.060	-0.063
Bi	-0.169	0.086	0.148	0.117	-0.240	-0.254	0.034	0.275	-0.177	0.153	0.513	-0.104	-0.317	0.168	-0.027	1.000	-0.406	0.214	-0.103	0.135	-0.248	0.201	0.135	0.743	0.244	0.204	-0.079	0.298	0.012	0.515	0.152	0.075	-0.229	0.445	-0.200	-0.109	0.133	0.252	-0.159	0.205
Cd	0.158	0.089	-0.097	0.187	-0.036	0.108	0.129	-0.007	-0.128	0.082	-0.089	0.042	0.089	0.270	0.075	-0.406	1.000	0.068	0.196	-0.137	0.148	-0.142	-0.187	-0.259	-0.127	0.191	0.012	-0.055	0.091	-0.146	-0.012	-0.268	0.443	-0.057	0.146	0.136	-0.051	-0.015	0.065	-0.152
Ce	-0.576	0.044	0.316	-0.091	-0.480	-0.466	-0.191	0.100	-0.166	-0.224	0.238	-0.338	-0.140	0.303	0.181	0.214	-0.068	1.000	0.622	-0.290	-0.456	0.459	0.355	0.164	0.836	0.655	0.007	0.460	0.202	0.691	0.428	0.232	-0.057	0.376	0.570	0.430	0.066	0.776	-0.394	0.205
Co	0.303	0.207	0.126	0.104	-0.332	0.371	0.027	-0.026	-0.267	-0.284	-0.021	-0.362	-0.069	0.246	0.231	-0.103	0.196	0.622	1.000	-0.368	0.052	0.142	0.169	-0.024	0.353	0.715	0.018	0.067	0.332	0.298	0.253	-0.087	0.228	0.069	0.327	0.047	0.158	0.363	-0.297	0.038
Cr	0.197	0.588	-0.686	-0.307	0.025	0.118	0.553	0.547	0.013	0.206	-0.264	0.236	-0.022	0.127	-0.077	0.135	-0.137	-0.290	-0.368	1.000	-0.240	-0.708	-0.248	-0.054	-0.344	-0.137	0.186	0.186	-0.645	-0.213	-0.391	0.187	-0.203	-0.457	0.185	0.024	0.110	-0.135	-0.217	0.621
Cu	0.404	-0.276	0.029	0.663	0.436	0.094	-0.007	-0.320	0.292	-0.265	0.077	0.210	0.123	-0.353	-0.193	-0.248	0.148	-0.456	-0.052	-0.240	1.000	-0.025	-0.205	-0.022	-0.478	-0.242	0.018	0.534	0.358	-0.468	0.111	0.281	-0.049	0.054	0.432	0.752	0.020	-0.566	0.784	0.700
Ga	-0.334	-0.629	0.922	0.184	-0.074	-0.234	-0.503	-0.498	0.120	-0.073	0.405	-0.202	0.042	-0.078	0.175	0.201	-0.142	0.459	0.142	-0.708	0.025	1.000	0.347	0.413	0.607	0.063	-0.327	0.045	0.719	0.503	0.684	0.126	-0.024	0.623	0.337	-0.375	-0.225	0.366	0.263	-0.528
Ge	0.110	0.257	0.386	0.092	0.055	0.124	-0.390	-0.145	0.178	-0.031	-0.011	0.178	0.239	0.066	0.068	0.135	-0.187	0.355	0.169	-0.248	0.205	0.347	1.000	-0.136	0.454	0.261	0.226	0.078	0.133	0.301	0.245	0.397	0.098	0.187	-0.292	0.325	0.026	0.276	-0.079	0.021
In	0.181	-0.151	0.371	0.253	-0.024	-0.173	-0.022	-0.103	-0.058	0.093	0.559	-0.143	-0.180	-0.023	0.090	0.743	-0.259	0.164	-0.024	-0.054	0.022	0.413	-0.136	1.000	0.161	0.083	-0.356	0.068	0.302	0.316	0.351	-0.152	-0.164	0.525	-0.049	0.018	-0.036	0.121	0.161	0.190
La	-0.685	-0.004	0.535	-0.061	-0.571	-0.586	-0.319	0.060	-0.148	-0.210	0.144	-0.397	-0.128	0.203	0.247	0.244	-0.127	0.836	0.353	-0.344	-0.478	0.607	0.454	0.161	1.000	0.409	-0.019	0.570	0.233	0.749	0.448	0.267	-0.010	0.363	-0.742	-0.544	0.066	0.910	-0.372	0.184
Mn	-0.164	0.246	0.033	0.072	-0.349	-0.323	-0.038	0.238	-0.217	-0.099	0.081	0.052	0.008	0.557	0.141	0.204	0.191	0.655	0.715	-0.137	-0.242	0.063	0.261	0.083	0.409	1.000	0.075	0.223	-0.005	0.419	0.083	0.130	0.062	0.012	-0.379	-0.115	0.108	0.465	0.391	0.245
Mo	-0.067	0.254	0.300	0.003	-0.112	-0.042	0.103	0.177	-0.078	-0.093	-0.132	0.194	-0.004	0.132	0.044	-0.079	0.012	0.007	0.018	0.186	-0.018	-0.327	0.226	-0.356	-0.019	0.075	1.000	0.028	-0.215	0.003	0.011	0.168	-0.018	-0.115	0.012	0.068	0.469	-0.016	0.136	0.196
Nb	0.450	0.434	0.012	0.074	0.675	0.567	0.186	0.609	-0.324	-0.213	-0.006	-0.348	-0.314	0.231	-0.078	0.298	-0.055	0.460	0.067	0.186	0.534	0.045	0.078	0.068	0.570	0.223	0.028	1.000	-0.272	0.599	0.083	0.196	0.123	0.017	0.673	-0.347	0.243	0.629	-0.594	0.600
Ni	0.125	-0.505	0.746	0.389	0.120	-0.116	-0.357	-0.664	0.054	-0.123	0.336	-0.215	0.083	-0.252	0.366	-0.012	0.091	0.202	0.332	-0.645	0.358	0.719	0.133	0.302	0.233	-0.005	0.215	-0.272	1.000	0.113	0.693	0.019	0.048	0.533	-0.013	-0.066	0.142	0.062	0.480	-0.727
Pb	-0.628	0.092	0.365																																					

710 4000 μm FRACTION

	pH	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	TiO2	S	Ag	As	Au	Ba	Be	Bi	Cd	Ce	Co	Cr	Cu	Ga	Ge	In	La	Mn	Mo	Nb	Ni	Pb	Rb	Sb	Se	Sn	Sr	V	W	Y	Zn	Zr
pH	1.000	-0.071	-0.024	-0.076	0.601	0.624	0.428	-0.366	0.370	-0.263	0.363	0.187	0.509	0.309	-0.196	0.487	-0.061	0.552	-0.301	0.524	-0.474	0.126	0.006	0.034	0.376	-0.109	-0.336	0.278	0.325	0.033	0.271	-0.325	-0.294	0.710	-0.282	-0.127	0.318	0.576	-0.533
SiO2	-0.071	1.000	0.051	-0.927	0.170	0.026	0.439	-0.749	-0.565	-0.143	-0.453	-0.486	-0.253	-0.208	-0.100	-0.180	0.241	0.273	0.260	-0.284	-0.567	0.071	-0.276	0.492	-0.410	-0.263	-0.109	0.551	-0.493	0.454	-0.070	-0.530	-0.308	0.126	-0.875	-0.500	0.088	-0.325	0.179
Al2O3	-0.024	0.051	1.000	-0.287	0.410	0.372	0.004	0.296	-0.055	0.243	0.194	0.133	-0.275	0.302	-0.244	-0.172	0.042	-0.308	-0.321	-0.269	0.287	0.391	-0.039	-0.066	0.263	-0.083	-0.123	-0.166	-0.153	0.482	-0.473	-0.016	0.210	0.221	-0.185	0.266	-0.223	-0.226	0.206
Fe2O3	-0.076	-0.927	-0.287	1.000	-0.485	-0.338	-0.518	0.674	0.402	0.192	0.225	0.351	0.200	0.086	0.257	0.189	-0.175	-0.250	-0.025	0.198	0.515	-0.122	0.350	-0.379	0.310	0.279	0.197	-0.491	0.483	-0.626	0.205	0.575	0.274	-0.400	0.937	0.452	-0.057	0.254	-0.119
MgO	0.601	0.170	0.410	-0.485	1.000	0.958	0.485	-0.272	0.327	-0.273	0.464	0.116	0.241	0.281	-0.380	0.121	-0.105	0.241	-0.469	0.263	-0.280	0.105	-0.180	-0.106	0.080	-0.100	-0.349	0.187	0.020	0.501	-0.178	-0.406	-0.207	0.946	-0.492	-0.206	0.036	0.207	-0.294
CaO	0.624	0.026	0.372	-0.338	0.958	1.000	0.277	-0.190	0.409	-0.150	0.575	0.160	0.254	0.342	-0.262	0.183	-0.099	0.197	-0.398	0.294	-0.182	0.182	-0.091	-0.164	0.110	-0.034	-0.346	0.171	0.167	0.317	-0.106	-0.331	-0.163	0.912	-0.342	-0.155	-0.048	0.207	-0.314
Na2O	0.428	0.439	0.004	-0.518	0.485	0.277	1.000	-0.450	0.045	-0.498	-0.060	-0.064	0.244	0.031	-0.410	-0.001	-0.035	0.390	-0.305	0.098	-0.422	-0.079	-0.322	0.175	-0.068	-0.189	-0.143	0.238	-0.228	0.654	-0.122	-0.443	-0.242	0.532	-0.578	-0.238	0.368	0.244	-0.161
TiO2	-0.366	-0.749	0.296	0.674	-0.272	-0.190	-0.450	1.000	0.288	0.283	0.243	0.420	-0.189	0.125	0.009	-0.276	-0.261	-0.671	-0.336	-0.176	0.844	0.012	0.162	-0.547	0.234	0.337	0.219	-0.798	0.133	-0.200	-0.428	0.571	0.522	-0.381	0.804	0.772	-0.351	-0.120	0.084
S	0.370	-0.565	-0.055	0.402	0.327	0.409	0.045	0.288	1.000	-0.192	0.656	0.505	0.781	0.251	-0.165	0.341	-0.250	0.097	-0.483	0.617	0.160	-0.126	0.110	-0.368	0.238	0.034	0.079	-0.182	0.331	-0.089	0.011	0.165	-0.072	0.464	0.304	0.240	0.111	0.612	-0.486
Ag	-0.263	-0.143	0.243	0.192	-0.273	-0.150	-0.498	0.283	-0.192	1.000	0.046	0.128	-0.316	0.166	0.191	0.038	-0.077	-0.410	0.182	-0.337	0.360	0.323	0.251	-0.083	0.010	0.121	0.028	-0.091	0.096	-0.161	-0.110	0.108	0.143	-0.345	0.257	0.182	-0.225	-0.259	0.251
As	0.363	-0.453	0.194	0.225	0.464	0.575	-0.060	0.243	0.656	0.046	1.000	0.653	0.326	0.178	0.065	0.347	-0.282	-0.051	-0.465	0.538	0.127	0.200	0.234	-0.394	0.313	-0.044	-0.019	-0.134	0.268	0.058	-0.125	0.197	-0.192	0.457	0.158	0.294	-0.028	0.454	-0.373
Au	0.187	-0.486	0.133	0.351	0.116	0.160	-0.064	0.420	0.505	0.128	0.653	1.000	0.243	0.066	-0.263	0.176	-0.317	-0.080	-0.582	0.379	0.260	0.142	0.067	-0.411	0.604	-0.143	0.277	-0.378	0.052	0.001	-0.219	0.131	-0.130	0.112	0.236	0.457	-0.021	0.349	-0.260
Ba	0.509	-0.253	-0.275	0.200	0.241	0.254	-0.189	0.781	-0.316	0.326	0.243	1.000	0.122	-0.120	0.487	-0.109	0.478	-0.240	0.699	-0.281	-0.150	0.023	-0.022	0.143	-0.139	0.046	0.224	0.343	-0.050	0.379	-0.035	-0.280	0.509	-0.008	-0.193	0.411	0.746	-0.419	
Be	0.309	-0.208	0.302	0.086	0.281	0.342	0.031	0.125	0.251	0.166	0.178	0.066	0.122	1.000	-0.195	-0.131	0.332	0.159	-0.080	0.078	0.128	0.032	-0.195	0.151	0.392	0.075	-0.329	-0.059	0.160	0.000	0.046	-0.192	0.274	0.267	0.079	0.066	0.060	0.096	-0.005
Bi	-0.196	-0.100	-0.244	0.257	-0.380	-0.262	-0.410	0.009	-0.165	0.191	0.065	-0.263	-0.120	-0.195	1.000	0.217	0.024	-0.099	0.559	-0.053	0.056	0.313	0.464	0.023	-0.305	0.325	0.021	0.278	0.318	-0.436	0.336	0.496	0.029	-0.334	0.288	-0.062	-0.096	-0.132	0.184
Cd	0.487	-0.180	-0.172	0.189	0.121	0.183	-0.001	-0.276	0.341	0.038	0.347	0.176	0.487	-0.131	0.217	1.000	-0.210	0.359	-0.068	0.594	-0.338	0.174	0.553	0.005	0.192	-0.084	-0.061	0.311	0.445	-0.260	0.286	0.044	-0.486	0.277	-0.032	-0.095	0.286	0.622	-0.499
Ce	-0.061	0.241	0.042	-0.175	-0.105	-0.099	-0.035	-0.261	-0.250	-0.077	-0.282	-0.317	-0.109	0.332	0.024	-0.210	1.000	0.405	0.462	-0.162	-0.029	-0.055	-0.132	0.820	0.196	-0.088	-0.306	0.332	-0.020	0.015	0.385	-0.151	0.225	-0.107	-0.168	-0.319	0.341	-0.221	0.413
Co	0.552	0.273	-0.308	-0.250	0.241	0.197	0.390	-0.671	0.097	-0.410	-0.051	-0.080	0.478	0.159	-0.099	0.359	0.405	1.000	0.107	0.522	-0.585	-0.149	-0.168	0.552	0.224	-0.299	-0.359	0.664	0.149	-0.049	0.483	-0.572	-0.425	0.403	-0.477	-0.437	0.644	0.480	-0.265
Cr	-0.301	0.260	-0.321	-0.025	-0.469	-0.398	-0.305	-0.336	-0.483	0.182	-0.465	-0.582	-0.240	-0.080	0.559	-0.068	0.462	0.107	1.000	-0.452	-0.056	0.046	0.060	0.403	-0.376	0.165	0.051	0.547	0.036	-0.407	0.646	0.109	0.126	-0.419	0.025	-0.487	-0.070	-0.497	0.565
Cu	0.524	-0.284	-0.269	0.198	0.263	0.294	0.098	-0.176	0.617	-0.337	0.538	0.379	0.699	0.078	-0.053	0.594	-0.162	0.522	-0.452	1.000	-0.409	-0.117	0.132	-0.057	0.413	-0.251	-0.204	0.110	0.282	-0.127	0.105	-0.125	-0.484	0.435	-0.046	0.010	0.409	0.916	-0.737
Ga	-0.474	-0.567	0.287	0.515	-0.280	-0.182	-0.422	0.844	0.160	0.360	0.127	0.260	-0.281	0.128	0.056	-0.338	-0.029	-0.585	-0.056	-0.409	1.000	0.029	0.076	-0.298	0.030	0.377	0.227	-0.539	0.237	-0.130	-0.245	0.470	0.594	-0.394	0.685	0.601	-0.341	-0.361	0.379
Ge	0.126	0.071	0.391	-0.122	0.105	0.182	-0.079	0.012	-0.126	0.323	0.200	0.142	-0.150	0.032	0.313	0.174	-0.055	-0.149	0.046	-0.117	0.029	1.000	0.293	-0.053	0.090	-0.099	0.115	0.112	-0.018	0.064	-0.101	0.091	-0.133	0.073	-0.090	-0.007	-0.241	-0.130	0.058
In	0.006	-0.276	-0.039	0.350	-0.180	-0.091	-0.322	0.162	0.110	0.251	0.234	0.067	0.023	-0.195	0.464	0.553	-0.132	-0.168	0.060	0.132	0.076	0.293	1.000	-0.162	0.020	0.153	0.161	-0.069	0.278	-0.390	0.042	0.479	-0.249	-0.162	0.310	0.195	0.023	0.162	-0.222
La	0.034	0.492	-0.066	-0.379	-0.106	-0.164	0.175	-0.547	-0.368	-0.083	-0.394	-0.411	-0.022	0.151	0.023	0.005	0.820	0.552	0.403	-0.057	-0.298	-0.053	-0.162	1.000	0.011	-0.162	-0.236	0.519	0.037	0.156	0.383	-0.332	0.038	-0.046	-0.440	-0.443	0.590	-0.085	0.300
Mn	0.376	-0.410	0.263	0.310	0.080	0.110	-0.068	0.234	0.238	0.010	0.313	0.604	0.143	0.392	-0.305	0.192	0.196	0.224	-0.376	0.413	0.030	0.090	0.020	0.011	1.000	-0.168	-0.168	-0.231	0.069	-0.069	-0.034	-0.085	0.003	0.074	0.128	0.307	0.151	0.416	-0.294
Mo	-0.109	-0.263	-0.083	0.279	-0.100	-0.034	-0.189	0.337	0.034	0.121	-0.044	-0.143	-0.139	0.075	0.325	-0.084	-0.088	-0.299	0.165	-0.251	0.377	-0.099	0.153	-0.162	-0.168	1.000	-0.020	-0.118	0.303	-0.286	-0.029	0.454	0.346	-0.118	0.434	0.276	-0.193	-0.257	0.141
Nb	-0.336	-0.109	-0.123	0.197	-0.349	-0.346	-0.143	0.219	0.079	0.028	-0.019	0.277	0.046	-0.329	0.021	-0.061	-0.306	0.359	0.051	-0.204	0.227	0.115	0.161	-0.236	-0.168	-0.020	1.000	-0.249	-0.213	-0.080	0.023	0.295	0.108	-0.295	0.202	0.045	-0.156	-0.203	0.160
Ni	0.278	0.551	-0.166	-0.491	0.187	0.171	0.238	-0.798	-0.182	-0.091	-0.134	-0.378	0.224	-0.059	0.278	0.311	0.332	0.664	0.547	0.110	-0.539	0.112	-0.069	0.519	-0.231	-0.118	-0.249	1.000	0.096	-0.001	0.552	-0.394	-0.375	0.305	-0.591	-0.663	0.341	0.040	0.132
Pb	0.325	-0.493	-0.153	0.483	0.020	0.167	-0.228	0.133	0.331	0.096	0.268	0.052	0.343	0.160	0.318	0.445	-0.020	0.149	0.036	0.282	0.237	-0.018	0.278	0.037	0.069	0.303	-0.213	0.096	1.000	-0.400	0.383	0.234	0.131	0.136	0.404	0.129	0.220	0.326	-0.095
Rb	0.033	0.454	0.482	-0.626	0.501	0.317	0.654	-0.200	-0.089	-0.161	0.058	0.001	-0.050	0.000	-0.436	-0.260	0.015	-0.049	-0.407	-0.127	-0.130	0.064	-0.390	0.156	-0.069	-0.286	-0.080	-0.001	-0.400	1.000	-0.410	0.000	-0.410	-0.32					

CORRELATION MATRIX - COMPLETE SOIL

	pH	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	TiO2	P2O5	S	Ag	As	Au	Ba	Be	Bi	Cd	Ce	Co	Cr	Cu	Ga	Ge	In	La	Mn	Mo	Nb	Ni	Pb	Rb	Sb	Se	Sn	Sr	V	W	Y	Zn	Zr
pH	1.000	-0.228	0.266	-0.005	0.721	0.656	0.554	-0.325	0.384	0.304	0.062	0.493	-0.114	0.403	0.293	-0.217	0.122	-0.287	-0.143	-0.182	0.556	0.354	0.164	-0.047	-0.168	0.141	0.157	-0.308	0.070	0.087	-0.172	0.152	-0.009	-0.300	0.738	-0.166	-0.213	-0.469	0.606	-0.526
SiO2	0.228	1.000	0.137	-0.684	-0.103	-0.062	0.054	-0.415	-0.342	-0.363	-0.149	-0.473	-0.121	-0.392	-0.165	-0.251	0.137	0.022	0.024	0.115	-0.391	-0.285	0.284	-0.132	-0.139	-0.240	-0.503	0.275	0.029	-0.363	0.297	-0.382	-0.223	-0.059	-0.017	-0.639	-0.348	0.079	-0.304	0.080
Al2O3	0.266	0.137	1.000	-0.414	0.019	0.023	-0.263	0.302	-0.033	0.116	0.112	-0.045	0.433	-0.198	-0.018	-0.457	-0.261	0.330	-0.002	0.428	-0.507	0.623	0.005	0.119	0.399	0.084	-0.162	0.417	-0.008	-0.216	0.753	-0.604	-0.036	0.637	-0.100	-0.382	0.104	0.334	-0.065	0.297
Fe2O3	0.005	-0.684	-0.414	1.000	-0.336	-0.333	-0.111	0.417	0.154	0.128	0.099	0.253	-0.078	0.328	-0.032	0.818	0.091	0.149	0.131	0.382	0.445	0.093	-0.104	0.098	-0.100	0.235	0.699	-0.436	-0.047	0.521	-0.665	0.561	0.177	-0.300	-0.323	0.950	0.383	-0.028	0.086	0.070
MgO	0.721	-0.103	0.019	-0.336	1.000	0.918	0.578	-0.355	0.462	0.504	0.063	0.520	-0.017	0.306	0.091	-0.328	0.053	-0.180	-0.250	0.299	0.297	-0.190	-0.194	0.096	0.011	-0.210	-0.145	-0.065	0.036	-0.134	0.063	-0.139	0.045	-0.087	0.946	-0.359	-0.263	-0.553	0.512	-0.627
CaO	0.656	-0.062	0.023	-0.333	0.918	1.000	0.284	-0.281	0.251	0.438	-0.101	0.560	-0.009	0.251	0.105	-0.274	0.062	-0.228	-0.343	-0.307	0.208	-0.128	-0.146	0.126	-0.166	-0.186	-0.238	-0.018	-0.108	-0.181	-0.037	-0.188	0.036	-0.141	0.907	-0.319	-0.241	-0.581	0.291	-0.492
Na2O	0.554	0.054	-0.263	-0.111	0.578	0.284	1.000	-0.438	0.474	0.215	-0.138	0.100	-0.179	0.290	-0.008	-0.203	-0.058	-0.206	0.078	-0.068	0.476	-0.481	-0.177	-0.075	0.031	-0.105	0.086	-0.324	0.326	0.004	-0.072	0.157	0.117	-0.208	0.599	-0.196	-0.234	-0.317	0.636	-0.644
TiO2	-0.325	-0.415	0.302	0.417	-0.355	-0.281	-0.438	1.000	-0.200	0.260	-0.031	0.027	0.216	0.134	-0.223	0.057	0.038	-0.048	-0.190	-0.372	-0.121	0.510	-0.260	0.099	-0.015	0.133	0.065	0.120	-0.375	0.049	-0.005	0.310	0.077	0.323	-0.349	0.497	0.490	0.341	-0.216	0.577
P2O5	0.384	-0.342	-0.033	0.154	0.462	0.251	0.474	-0.200	1.000	0.416	-0.046	0.451	0.084	0.361	0.167	-0.015	-0.011	0.230	0.030	0.038	0.339	-0.057	0.040	-0.037	0.652	-0.040	0.393	-0.047	0.035	0.220	0.002	0.118	0.019	-0.008	0.347	0.065	0.009	-0.124	0.516	-0.357
S	0.304	-0.363	0.116	0.126	0.504	0.438	0.215	0.260	0.416	1.000	0.042	0.697	0.062	0.718	0.089	0.073	0.086	-0.077	0.190	-0.364	0.328	-0.049	0.291	0.137	0.148	0.027	0.110	-0.044	-0.212	0.072	-0.133	-0.134	0.125	-0.048	0.475	0.122	0.349	-0.132	0.302	-0.058
Ag	0.062	-0.149	0.112	0.099	-0.063	-0.101	-0.138	-0.031	-0.046	0.042	1.000	-0.001	0.041	-0.112	0.240	0.202	0.205	0.093	0.287	0.246	-0.078	0.197	-0.005	0.128	0.043	0.085	0.060	-0.162	0.373	-0.104	-0.029	0.166	0.013	0.181	-0.204	0.091	0.109	-0.066	-0.023	-0.040
As	0.493	-0.473	-0.045	0.253	0.520	0.560	0.100	0.027	0.451	0.697	-0.001	1.000	0.111	0.536	0.128	-0.035	0.077	-0.196	-0.334	-0.278	0.542	-0.071	-0.292	0.200	0.044	0.181	0.213	-0.105	-0.217	0.175	-0.203	0.016	0.334	-0.178	0.494	0.154	0.271	-0.324	0.383	-0.162
Au	-0.114	-0.121	0.433	-0.078	-0.017	-0.009	-0.179	0.216	0.084	0.062	0.041	0.111	1.000	0.037	-0.066	0.159	0.211	0.030	-0.307	-0.205	-0.074	0.288	-0.095	0.159	0.271	-0.109	-0.162	0.115	-0.074	-0.208	0.372	-0.265	0.103	0.363	-0.056	-0.084	0.017	0.192	0.095	0.076
Ba	0.403	-0.392	-0.198	0.328	0.306	0.251	0.290	0.134	0.361	0.718	-0.112	0.536	-0.037	1.000	0.009	0.047	0.221	-0.096	0.010	-0.099	0.631	0.304	-0.319	-0.073	0.009	0.170	0.260	-0.139	0.022	0.199	-0.358	0.269	0.052	-0.333	0.438	0.256	0.212	0.089	0.530	-0.135
Be	0.293	-0.165	-0.018	-0.032	0.091	0.105	-0.008	-0.223	0.167	-0.089	0.240	0.128	-0.066	-0.009	1.000	-0.114	0.038	0.407	0.323	0.156	-0.116	0.020	-0.172	0.033	0.152	0.523	0.285	-0.107	0.039	0.106	-0.038	0.283	0.072	0.214	0.053	-0.136	-0.094	-0.079	-0.126	0.081
Bi	-0.217	-0.251	-0.457	0.618	-0.328	-0.274	-0.203	0.057	-0.015	0.073	0.202	-0.035	-0.159	0.047	-0.114	1.000	0.146	-0.042	0.050	0.711	0.153	0.051	0.200	0.224	-0.110	0.193	0.450	-0.369	0.054	0.306	-0.609	0.512	0.097	-0.255	-0.297	0.682	0.212	-0.151	-0.116	0.089
Cd	0.122	-0.137	-0.261	0.091	0.053	0.062	-0.058	0.038	-0.011	0.086	0.205	0.077	-0.211	0.221	-0.038	0.146	1.000	-0.156	-0.104	-0.026	0.216	-0.232	0.090	0.179	-0.034	-0.099	-0.071	0.330	0.024	-0.221	-0.143	0.088	-0.106	0.043	0.101	0.059	-0.273	-0.027	0.166	0.016
Ce	-0.287	0.022	0.330	-0.149	-0.180	-0.228	-0.206	-0.048	0.230	-0.077	0.093	-0.196	0.030	-0.096	0.407	-0.042	-0.156	1.000	0.580	0.152	-0.366	0.277	0.055	-0.168	0.735	0.404	0.158	0.302	-0.035	0.074	0.314	-0.074	-0.364	0.353	-0.271	-0.178	0.032	0.415	-0.190	0.290
Co	-0.143	0.024	0.002	0.131	-0.250	-0.343	0.078	-0.190	0.030	-0.190	0.287	-0.334	-0.307	0.010	0.323	0.050	-0.104	0.580	1.000	0.369	-0.045	0.013	0.064	-0.150	0.249	0.464	0.334	-0.116	0.269	0.225	-0.111	0.349	-0.312	-0.024	-0.288	0.084	0.011	0.282	-0.085	0.015
Cr	0.182	-0.115	-0.428	0.382	-0.299	-0.307	-0.068	-0.372	0.038	-0.364	0.246	-0.278	-0.205	-0.099	0.156	0.711	-0.026	0.152	0.369	1.000	-0.021	-0.039	0.273	0.056	-0.009	-0.133	0.477	-0.335	0.427	0.315	-0.450	0.802	0.009	-0.308	-0.308	0.407	-0.051	-0.163	0.089	-0.188
Cu	0.556	-0.391	-0.507	0.445	0.297	0.208	0.476	-0.121	0.339	0.328	-0.076	0.542	-0.074	0.631	-0.116	0.153	0.216	-0.366	-0.045	-0.021	1.000	-0.444	0.254	-0.186	-0.144	0.187	0.268	-0.393	0.077	0.280	-0.457	0.338	0.184	-0.525	0.416	0.301	0.005	-0.246	0.740	-0.395
Ga	-0.354	-0.285	0.623	0.093	-0.190	-0.128	0.481	0.510	-0.057	-0.049	0.197	-0.071	0.288	-0.304	0.020	0.051	-0.232	0.277	0.013	-0.039	-0.444	1.000	-0.005	0.186	0.252	0.012	0.116	0.223	-0.019	-0.029	0.341	-0.262	0.059	0.531	-0.334	0.200	0.250	0.189	-0.261	0.236
Ge	0.164	0.284	0.005	0.104	0.194	-0.146	-0.177	-0.260	-0.040	-0.291	-0.005	-0.292	-0.095	-0.319	0.172	0.200	0.090	0.055	0.064	0.273	-0.254	-0.005	1.000	-0.050	0.064	-0.059	-0.026	-0.040	-0.128	-0.093	-0.021	-0.012	-0.205	-0.109	-0.250	-0.119	-0.147	0.116	-0.201	-0.118
In	0.047	-0.132	0.119	0.098	0.096	0.126	-0.075	0.099	-0.037	0.137	0.128	0.200	0.159	-0.073	0.033	0.224	0.179	-0.168	-0.150	0.056	-0.186	0.186	-0.050	1.000	-0.103	-0.251	0.186	0.159	0.047	-0.098	-0.046	0.037	0.143	0.313	0.024	0.147	0.065	-0.177	-0.145	-0.044
La	-0.168	-0.139	0.399	-0.100	0.011	-0.166	0.031	-0.015	0.652	0.148	0.043	0.044	0.271	0.009	0.152	-0.110	-0.034	0.735	0.249	-0.009	-0.144	0.252	0.064	-0.103	1.000	0.126	0.207	0.350	-0.034	0.056	0.452	-0.173	-0.240	0.437	-0.140	-0.162	0.079	0.448	0.166	0.139
Mn	0.141	-0.240	0.084	0.235	-0.210	-0.186	-0.105	0.133	-0.040	0.027	0.085	0.181	-0.109	0.170	0.523	-0.193	-0.099	0.404	0.464	-0.133	0.187	0.012	-0.059	-0.251	0.126	1.000	0.285	-0.178	-0.186	0.233	-0.069	0.068	-0.010	-0.001	-0.190	0.048	0.187	0.270	0.003	0.342
Mo	0.157	-0.503	0.162	0.699	0.145	0.238	0.086	0.065	0.393	0.110	0.060	0.213	-0.162	0.260	0.285	0.450	-0.071	0.158	0.334	0.477	0.268	0.116	-0.026	0.186	0.207	0.285	1.000	-0.282	0.091	0.647	-0.350	0.595	0.037	-0.153	-0.199	0.586	0.234	0.004	0.206	0.014
Nb	0.308	0.275	0.417	-0.436	-0.065	-0.018	0.324	0.120	-0.047	-0.044	-0.162	-0.105	0.115	0.139	-0.107	-0.369	0.330	0.302	-0.116	-0.335	-0.393	0.223	-0.040	0.159	0.350	-0.178	-0.282	1.000	-0.105	-0.219	0.583	-0.467	-0.357	0.435	-0.076	-0.386	-0.165	0.394	-0.184	0.393
Ni	0.070	0.029	-0.006	-0.047	0.036	-0.108	0.326	-0.375	0.035	-0.212	0.373	-0.217	-0.074	0.022	0.039	0.054	0.024	-0.035	0.269	0.427	0.077	-0.019	-0.128	0.047	-0.034	-0.186	0.091	-0.105	1.000	0.033	0.077	0.426	0.004	0.005	0.043	-0.038	-0.197	-0.229	0.372	-0.367
Pb	0.087	-0.363	-0.216																																					

## **APPENDIX 8**

### **Mineralogy - Smaller Data Set**

Mine co-ordinates in metres  
Semi-quantitative mineralogy in arbitrary units

**Complete Soil**

Sample	East	North	Quartz	Kaolin	Sericite	Calcite	F'spar	Essential	Trace
BC 401	33600	38820	4623	74	12	0	0	Qtz, Hem, Goe, Kao, Rut	Ser
BC 410	33975	38820	4180	83	24	0	0	Qtz, Hem, Goe, Kao, Ser, Rut	
BC 412	34025	38820	4081	83	7	47	213	Qtz, Hem, Goe, Kao, Ser, Rut?, Cc	Fsp
BC 416	34150	38820	4542	84	9	0	0	Qtz, Hem, Goe, Kao, Rut?	Ser
BC 610	34750	38820	5684	61	11	0	0	Qtz, Hem, Goe, Kao, Rut, Ser	
BC 423	33750	38940	3215	102	8	0	58	Qtz, Kao, Hem	Goe, Fsp
BC 428	33950	38940	4039	75	26	73	195	Qtz, Goe, Hem, Kao, Ser, Rut, Cc	
BC 430	34000	38940	2212	73	0	123	130	Qtz, Hem, Goe, Kao, Rut, Cc	Fsp
BC 433	34100	38940	4086	109	10	0	0	Qtz, Kao, Hem, Goe	Ser, Rut?
BC 604	34700	38940	5415	43	6	0	133	Qtz, Hem, Kao, Goe, Fsp, Rut	Ser
BC 442	34172	39314	4356	94	0	0	0	Qtz, Kao, Hem, Goe, Rut?	
BC 443	33545	38146	3850	80	0	6	0	Qtz, Kao, Hem	Goe, Fsp, Cc
BC 444	34290	38110	5455	88	0	10	160	Qtz, Hem, Goe, Kao, Rut?, Fsp	Cc?

**710-4000  $\mu$ m Fraction**

Sample	East	North	Quartz	Kaolin	Sericite	Calcite	F'spar	Essential	Trace
BC 451	33600	38820	2576	100	0	0	0	Qtz, Hem, Goe, Kao	
BC 460	33975	38820	830	92	14	0	0	Hem, Goe, Qtz, Kao	
BC 462	34025	38820	961	97	0	0	0	Hem, Goe, Qtz, Kao	Rut
BC 466	34150	38820	401	119	14	0	0	Hem, Goe, Kao, Qtz	Ser
BC 610	34750	38820	3209	81	0	0	0	Qtz, Hem, Goe, Kao	
BC 473	33750	38940	3666	108	0	0	0	Hem, Qtz, Goe, Kao	
BC 478	33950	38940	755	55	14	72	0	Hem, Goe, Qtz	Kao, Cc
BC 480	34000	38940	830	128	0	133	0	Hem, Qtz, Goe, Kao, Cc	
BC 483	34100	38940	944	83	0	0	0	Hem, Qtz, Goe	Kao
BC 604	34700	38940	2762	69	0	0	0	Hem, Qtz, Goe, Kao	
BC 492	34172	39314	1769	132	0	0	0	Hem, Qtz, Kao, Goe	Rut
BC 493	33545	38146	5308	59	9	0	0	Qtz, Hem, Kao, Goe	
BC 494	34290	38110	1895	95	0	0	0	Hem, Qtz, Kao, Goe	Rut

**<75  $\mu$ m Fraction**

Sample	East	North	Quartz	Kaolin	Sericite	Calcite	F'spar	Essential	Trace
BC 201	33600	38820	3006	142	8	0	72	Qtz, Kao, Hem	Fsp, Ser
BC 210	33975	38820	4140	226	46	0	976	Qtz, Kao, Fsp, Hem, Ser	Goe
BC 212	34025	38820	3017	123	0	5	51	Qtz, Kao, Hem, Fsp	Goe
BC 216	34150	38820	3182	135	5	0	54	Qtz, Kao, Fsp, Hem	Ser, Goe
BC 620	34750	38820	2961	138	15	0	575	Qtz, Kao, Fsp, Hem	Ser
BC 223	33750	38940	3076	158	9	0	114	Qtz, Kao, Fsp	Hem, Goe, Ser
BC 228	33950	38940	1773	234	82	30	69	Qtz, Kao, Fsp, Hem, Ser	Cc
BC 230	34000	38940	1922	183	5	155	102	Qtz, Kao, Cc, Hem, Goe	Fsp, Ser
BC 233	34100	38940	2907	100	5	39	58	Qtz, Kao, Hem,	Fsp, Rut, Ser, Cc
BC 614	34700	38940	3836	112	9	0	109	Qtz, Fsp, Kao	Hem, Goe, Ser
BC 242	34172	39314	4499	171	17	0	91	Qtz, Kao, Hem	Ser
BC 243	33545	38146	2604	138	5	5	49	Qtz, Kao, Fsp, Hem	Ser
BC 244	34290	38110	2572	169	9	0	216	Qtz, Fsp, Kao, Hem	Ser

**<4  $\mu$ m Fraction**

Sample	East	North	Quartz	Kaolin	Sericite	Calcite	F'spar	Essential	Trace
BC 251	33600	38820	425	260	5	0	0	Kao, Qtz, Hem, Ser	Talc?
BC 260	33975	38820	370	248	21	0	0	Kao, Qtz, Hem, Ser, Goe	
BC 262	34025	38820	361	210	13	0	0	Kao, Qtz, Hem, Ser	Goe
BC 266	34150	38820	423	194	20	0	0	Kao, Qtz, Ser, Hem	
BC 630	34750	38820	527	196	12	0	0	Kao, Qtz, Hem, Ser	
BC 273	33750	38940	357	190	12	0	0	Kao, Qtz, Hem, Ser	Goe
BC 278	33950	38940	309	233	24	0	0	Kao, Ser, Hem, Qtz	
BC 280	34000	38940	259	259	13	0	0	Kao, Qtz, Hem, Ser	Goe, Fsp
BC 283	34100	38940	414	246	7	0	0	Kao, Qtz, Hem, Ser	
BC 624	34700	38940	927	259	23	0	0	Qtz, Kao, Hem, Ser,	Rut?
BC 292	34172	39314	404	145	0	0	0	Kao, Qtz, Hem, Goe	
BC 293	33545	38146	588	187	6	0	0	Kao, Qtz, Hem	Ser, Goe
BC 294	34290	38110	528	218	7	0	0	Qtz, Kao, Hem	Ser, Trem, Fsp?

## **APPENDIX 9**

### **Mineralogy - Larger Data Set**

Mine co-ordinates in metres  
Semi-quantitative mineralogy in arbitrary units



**COMPLETE SOIL**

Sample	East	North	Sericite	Kaolinite	Quartz
BC 401	33600	38820	0	14	329
BC 402	33650	38820	0	19	363
BC 403	33700	38820	0	18	379
BC 404	33750	38820	2	18	318
BC 405	33800	38820	0	10	190
BC 406	33850	38820	1	22	401
BC 407	33900	38820	2	16	279
BC 408	33925	38820	0	16	301
BC 409	33950	38820	0	15	296
BC 410	33975	38820	7	20	273
BC 411	34000	38820	2	12	302
BC 412	34025	38820	0	17	331
BC 413	34050	38820	6	21	326
BC 414	34075	38820	4	19	363
BC 415	34100	38820	5	23	249
BC 416	34150	38820	0	24	354
BC 417	34200	38820	5	36	319
BC 418	34250	38820	4	17	360
BC 606	34350	38820	6	16	328
BC 607	34450	38820	4	13	318
BC 608	34550	38820	1	12	320
BC 609	34650	38820	3	10	316
BC 610	34750	38820	0	12	313
BC 421	33650	38940	0	12	293
BC 422	33700	38940	0	20	330
BC 423	33750	38940	0	19	371
BC 424	33800	38940	0	13	409
BC 425	33850	38940	0	12	440
BC 426	33900	38940	0	17	391
BC 427	33925	38940	7	14	326
BC 428	33950	38940	7	21	228
BC 429	33975	38940	6	26	325
BC 430	34000	38940	4	21	269
BC 431	34025	38940	5	17	302
BC 432	34050	38940	2	25	260
BC 433	34100	38940	7	18	291
BC 434	34150	38940	0	12	366
BC 435	34200	38940	0	12	249
BC 436	34250	38940	2	14	343
BC 437	34300	38940	2	17	351
BC 601	34400	38940	0	8	497
BC 602	34500	38940	0	11	495
BC 603	34600	38940	1	10	377
BC 604	34700	38940	0	8	337
BC 605	34800	38940	1	11	348
BC 441	33747	39311	2	13	326
BC 442	34172	39314	2	19	362
BC 443	33545	38146	2	19	411
BC 444	34290	38110	2	16	298

**<4 µm FRACTION**

Sample	East	North	Sericite	Kaolinite	Quartz
BC 251	33600	38820	7	62	38
BC 252	33650	38820	3	29	37
BC 253	33700	38820	6	42	62
BC 254	33750	38820	6	43	30
BC 255	33800	38820	8	47	41
BC 256	33850	38820	7	43	35
BC 257	33900	38820	6	55	35
BC 258	33925	38820	8	70	44
BC 259	33950	38820	13	86	59
BC 260	33975	38820	9	65	39
BC 261	34000	38820	9	88	39
BC 262	34025	38820	6	61	39
BC 263	34050	38820	5	54	35
BC 264	34075	38820	5	54	34
BC 265	34100	38820	5	55	35
BC 266	34150	38820	5	50	37
BC 267	34200	38820	7	50	45
BC 268	34250	38820	7	58	46
BC 626	34350	38820	6	53	44
BC 627	34450	38820	5	42	33
BC 628	34550	38820	6	53	45
BC 629	34650	38820	7	49	46
BC 630	34750	38820	8	51	42
BC 271	33650	38940	9	42	62
BC 272	33700	38940	5	43	34
BC 273	33750	38940	6	56	33
BC 274	33800	38940	12	79	79
BC 275	33850	38940	12	65	85
BC 276	33900	38940	14	79	81
BC 277	33925	38940	17	71	84
BC 278	33950	38940	10	70	29
BC 279	33975	38940	8	71	25
BC 280	34000	38940	6	73	27
BC 281	34025	38940	9	73	55
BC 282	34050	38940	8	73	37
BC 283	34100	38940	6	56	34
BC 284	34150	38940	6	53	43
BC 285	34200	38940	6	53	52
BC 286	34250	38940	9	50	47
BC 287	34300	38940	7	53	46
BC 621	34400	38940	17	59	100
BC 622	34500	38940	10	52	89
BC 623	34600	38940	12	54	75
BC 624	34700	38940	11	56	98
BC 625	34800	38940	7	45	49
BC 291	33747	39311	6	59	42
BC 292	34172	39314	4	54	44
BC 293	33545	38146	8	54	49
BC 294	34290	38110	8	52	47

## **APPENDIX 10**

### **Geochemical Data Disc**

This DOS formatted 360 kb disc contains four ASCII files:

REP105R.TAB	A tab- (ASCII 9) delimited file which can be read by Microsoft Excel and similar spreadsheets.
REP105R.QRT	A comma-delimited file which can be read by Borland's Quattro.
REP105RA.DAT	A fixed field formatted file which contains Field No., Lab Sequence No., Sample No., Type, Map Ref., Date, Easting and Northing in the format A6, 3X, A8, 3X, A7, 3X, A10, 3X, A8, 3X, A7, 3X, I5, 3X, I5. Data begins on line 4.
REP105RB.DAT	A fixed field formatted file which contains the sample No. and 50 analytes in the format A7, 50(F10.3, 1X). Data begins on line 7. A list of the analytes, together with methods, units and detection limits, are given in the header.